

SECTION 2

NATIONAL COMPETENCY STANDARDS

➤ HORTICULTURE ◀

SECTION 2 – Competency Standards – Horticulture

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RUH HRT303 A

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RUH HRT313 A

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RUH HRT342 A

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408.3 Assess and modify a protection program	

RUH HRT409 A

Supervise sales	4-18
409.1 Supervise point of sale and cash handling procedures	
409.2 Resolve customer complaints	

RUH HRT410 A

Implement a soil preparation program	4-20
410.1 Determine the texture and structure of soil	

- 410.2 Prepare a soil nutrition plan
- 410.3 Prepare a soil preparation program
- 410.4 Monitor the preparation of field soils

RUH HRT411 A

- Supervise crop harvesting4-23
 - 411.1 Assess a crop for special requirements
 - 411.2 Supervise harvesting operations
 - 411.3 Supervise grading of crop
 - 411.4 Coordinate storage facilities

RUH HRT412 A

- Develop an integrated pest management program4-26
 - 412.1 Assess weed, pest and disease infestations
 - 412.2 Plan appropriate integrated treatments for weeds, pests and diseases
 - 412.3 Implement weed, pest and disease control measures

RUH HRT413 A

- Supervise nursery plant production4-28
 - 413.1 Supervise growing-on of plants
 - 413.2 Oversee and monitor plant maintenance
 - 413.3 Prepare plants for dispatch

RUH HRT414 A

- Implement a promotional program4-31
 - 414.1 Plan sales strategy and presentation
 - 414.2 Present and maintain enterprise image
 - 414.3 Organise and evaluate merchandise presentation
 - 414.4 Implement client service standards policy

RUH HRT415 A

- Develop a mowing program4-34
 - 415.1 Determine mowing requirements
 - 415.2 Implement mowing operations
 - 415.3 Monitor a mowing program

RUH HRT416 A

- Recommend plants, products and treatments4-36
 - 416.1 Recommend plants for specific situations
 - 416.2 Recommend products for specific situations
 - 416.3 Recommend treatments for specific situations

RUH HRT417 A

- Deliver on-the-job training4-39
 - 417.1 Prepare for training
 - 417.2 Deliver training
 - 417.3 Review training

RUH HRT418 A

- Supervise staff4-41
 - 418.1 Contribute to the planning of work activities
 - 418.2 Organise work and assist in the evaluation of work
 - 418.3 Provide feedback on work performance

RUH HRT419 A

- Supervise machinery maintenance4-43
 - 419.1 Determine maintenance requirements
 - 419.2 Schedule resources
 - 419.3 Monitor maintenance procedures

RUH HRT420 A

Implement a media preparation program	4-45
420.1 Determine the characteristics and properties of growing media	
420.2 Prepare a media nutrition plan	
420.3 Prepare a media preparation program	
420.4 Monitor the preparation of media	

RUH HRT421 A

Supervise supplies and services	4-47
421.1 Monitor availability of consumables and equipment	
421.2 Obtain consumables and equipment	
421.3 Acquire contractor services	

RUH HRT422 A

Operate within a budget framework	4-49
422.1 Participate in formulation of a budget	
422.2 Supervise financial transactions	

RUH HRT423 A

Supervise landscape planting works	4-51
423.1 Establish scope of works	
423.2 Coordinate the supply of materials/equipment	
423.3 Monitor landscape works	
423.4 Identify items not covered by project brief	
423.5 Prepare site for completion	

RUH HRT424 A

Manage irrigation, drainage and treatment systems	4-54
424.1 Oversee system construction, installation and modifications	
424.2 Oversee system operation	
424.3 Oversee system maintenance	
424.4 Oversee system monitoring	

RUH HRT425 A

Maintain systems of communication	4-58
425.1 Determine methods of communication	
425.2 Communicate with individuals and groups	
425.3 Apply written skills	

RUH HRT426 A

Develop teamwork	4-60
426.1 Plan and lead workplace group activities	
426.2 Operate within an organisational structure	
426.3 Motivate staff	
426.4 Interact with groups	

RUH HRT427 A

Prepare a landscape design	4-62
427.1 Develop a design brief	
427.2 Undertake a site analysis	
427.3 Develop a concept design	
427.4 Produce a final plan	

RUH HRT428 A

Plan cable and bracing	4-65
428.1 Undertake assessment of tree	
428.2 Prepare for cable and bracing	
428.3 Supervise cable and bracing installation	

RUH HRT429 A

Plan turf establishment	4-68
429.1 Determine project brief	
429.2 Conduct site analysis	
429.3 Prepare a planting program	
429.4 Plan juvenile turf maintenance program	

RUH HRT430 A

Plan garden restoration works	4-71
430.1 Analyse site	
430.2 Design planting and hardscape components	
430.3 Prepare a maintenance plan	

RUH HRT431 A

Promote plant health	4-74
431.1 Monitor factors that influence plant health	
431.2 Diagnose plant health problems	
431.3 Remedy plant health problems	

RUH HRT432 A

Manage and notify a chemical spillage and/or leakage	4-77
432.1 Implement correct procedures following a chemical spillage or leakage	
432.2 Use personal protective equipment	
432.3 Notify authorities of chemical spill	

RUH HRT433 A

Implement a propagation plan	4-79
433.1 Develop schedule of propagation activities	
433.2 Implement propagation works	
433.3 Monitor performance and success of propagation activities	

RUH HRT434 A

Supervise landscape construction works	4-81
434.1 Establish scope of works	
434.2 Coordinate the supply of materials/equipment	
434.3 Monitor landscape construction works	
434.4 Identify items not covered by project brief	
434.5 Prepare site for completion	

RUH HRT435 A

Cost a project	4-84
435.1 Obtain and calculate costs for material, equipment and labour	
435.2 Summarise costing	

RUH HRT436 A

Conduct comprehensive inspection of park facilities	4-86
436.1 Prepare for comprehensive inspection	
436.2 Undertake comprehensive inspection	
436.3 Submit report and recommendations	
436.4 Assess age and project effective lifespan of existing park facilities	

RUH HRT437 A

Establish and maintain the enterprise occupational health and safety program	4-89
437.1 Establish and maintain procedures for identifying occupational health and safety hazards, assessing the risk and maintaining the most appropriate control measures	
437.2 Establish and maintain an occupational health and safety induction and training program	
437.3 Establish and maintain arrangements to ensure the involvement of all workers the management of OHS	
437.4 Establish and maintain a system for occupational health and safety records	
437.5 Establish and maintain a health and safety plan and program	
437.6 Establish maintain procedures for dealing with occupational health and safety emergencies in the workplace	

RUH HRT438 A

Develop a plant nutrition program	4-92
438.1 Determine additives required by performing soil and plant testing	
438.2 Plan a plant nutrition program	
438.3 Monitor the plant nutrition program	

RUH HRT439 A

Develop canopy management and crop regulation programs	4-95
439.1 Assess canopy management and crop regulation methods	
439.2 Develop a canopy management program	
439.3 Develop a crop regulation program	

LEVEL 5**RUH HRT501 A**

Manage parks and reserves	5-1
501.1 Implement business, marketing, personnel and financial plans	
501.2 Monitor, review and report on changing conditions to management	
501.3 Make recommendations for improvement in operations	
501.4 Implement and monitor a purchasing plan	
501.5 Schedule park operations	
501.6 Determine office functions and implement relevant office procedures	

RUH HRT502 A

Manage landscape projects	5-4
502.1 Program work schedule	
502.2 Maintain effective client liaison	
502.3 Manage contractors	
502.4 Submit works for hand over	

RUH HRT503 A

Prepare estimates, quotes and tenders	5-6
503.1 Plan for estimating and quoting	

- 503.2 Estimate material requirements
- 503.3 Estimate labour requirements
- 503.4 Cost material, equipment and labour
- 503.5 Summarise quotation
- 503.6 Quote and submit tender

RUH HRT504 A

Plant sports turf establishment5-10
504.1 Establish scope of works	
504.2 Conduct site analysis	
504.3 Design a soil profile	
505.4 Plan a planting program	
505.5 Plan juvenile plant management program	

RUH HRT505 A

Develop turf surface preparation standards5-13
505.1 Define presentation standards	
505.2 Monitor and review presentation standards	

RUH HRT506 A

Negotiate with clients and others5-15
506.1 Establish agreements with sources external to the enterprise	
506.2 Monitor the performance of contracts	

RUH HRT507 A

Assess trees5-17
507.1 Determine tree survey program requirements	
507.2 Inspect and assess trees	
507.3 Compile a tree inspection report	

RUH HRT508 A

Plan tree reduction and removal5-19
508.1 Undertake a site assessment	
508.2 Develop removal program	

RUH HRT509 A

Develop a plant sales program5-21
509.1 Determine the sales requirements of the marketing program	
509.2 Develop a sales program	
509.3 Review the sales program	

RUH HRT510 A

Plan growing media preparation5-23
510.1 Research the media requirements of a species	
510.2 Determine the requirements for a soil analysis	
510.3 Interpret the results of comprehensive media analysis	
510.4 Interpret the results of plant tissue analysis	

RUH HRT511 A

Develop a planting program	5-225
511.1 Determine the propagation methods	
511.2 Receive plant materials	
511.3 Plant growing-on of plants	
511.4 Establish monitoring procedures	
511.5 Plan dispatching of plants	

RUH HRT512 A

Prepare and monitor budgets and financial reports	5-28
512.1 Prepare a budget	
512.2 Implement and monitor a budget	
512.3 Prepare financial reports	

RUH HRT513 A

Manage business operations	5-30
513.1 Implement the business, marketing, personnel and financial plans	
513.2 Monitor changing conditions in the business environment	
513.3 Make recommendations for improvement to operations	
513.4 Implement a purchasing plan	

RUH HRT514 A

Administer the business	5-32
514.1 Determine the information needs of management	
514.2 Determine office functions and implement relevant office procedures	
514.3 Communicate with various audiences in a business context	

RUH HRT515 A

Design irrigation, drainage and water treatment systems	5-34
515.1 Determine design requirements	
515.2 Define pumping and power systems	
515.3 Design a distribution system	
515.4 Design a drainage, storage and treatment system	
515.5 Determine capital expense budget	

RUH HRT516 A

Design sports turf playing surfaces	5-38
516.1 Develop a design brief	
516.2 Undertake a site analysis	
516.3 Develop a concept design	
516.4 Produce a final plan	
516.5 Prepare bill of quantities and estimates	

RUH HRT517 A

Manage plant health	5-40
517.1 Develop a plant health and management program	
517.2 Develop a plant maintenance program	
517.3 Develop a plant nutrition program	

RUH HRT518 A

Conserve natural resources areas	5-43
518.1 Assess the area to identify the need for a conservation or reinstatement program	
518.2 Develop site conservation management plan	
518.3 Reinststate indigenous flora	
518.4 Restore damaged land	
518.5 Institute fauna management program	
518.6 Control pedestrian traffic	

RUH HRT519 A

Manage controlled growing environments	5-46
519.1 Determine environmental requirements of plants	
519.2 Develop a production plan for a controlled environment	
519.3 Monitor environmental and cultural factors of controlled environment system	

RUH HRT520 A

Implement sustainable horticultural practices	5-48
520.1 Prepare and implement strategies	
520.2 Minimise waste	
520.3 Conserve energy resources	
520.4 Manage water use	
520.5 Undertake an environmental audit	

RUH HRT521 A

Develop a production plan	5-51
521.1 Determine the production requirements of the marketing program	
521.2 Develop a production program	
521.3 Monitor the production program	
521.4 Plan growing-on process	
521.5 Review growing-on processes	

RUH HRT522 A

Collect and manage data	5-54
522.1 Determine the type and extent of data to be collected	
522.2 Access and collate data	
522.3 Evaluate data	
522.4 Manage and retrieve data	

RUH HRT523 A

Trial plants, products and treatments	5-56
523.1 Establish criteria for trials	
523.2 Establish conditions for trial	
523.3 Determine use for trial results	

RUH HRT524 A

Provide specialist advice on plants, products and treatments	5-59
524.1 Provide specialist advice on plants	
524.2 Provide specialist advice on products	
524.3 Provide specialist advice on treatments	

RUH HRT525 A

Conserve heritage areas	5-62
525.1 Assess the area to identify the need for a conservation/ restoration program	
525.2 Develop site conservation/restoration management plan	
525.3 Restore altered site	
525.4 Control pedestrian traffic	

RUH HRT526 A

Prepare landscape documentation	5-64
526.1 Prepare specifications and bills of quantities	
526.2 Program a work schedule	
526.3 Develop a system for recording landscape projects	

RUH HRT527 A

Design landscape structures and features	5-66
527.1 Develop a design brief	
527.2 Undertake a site analysis	
527.3 Develop a concept design	
527.4 Produce a final plan	
527.5 Prepare bill of quantities and estimates	

RUH HRT528 A

Prepare reports	5-68
528.1 Research material	
528.2 Evaluate information	
528.3 Produce a document	
528.4 Deliver an oral presentation	

RUH HRT529 A

Manage weed, pest and disease infestations	5-70
529.1 Investigate weed, pest and disease infestations	
529.2 Develop a control program	
529.3 Monitor control program	

RUH HRT530 A

Manage Wetlands	5-72
530.1 Undertake a resource analysis of a wetland	
530.2 Develop a wetland management plan	
530.3 Reinstate indigenous flora	
530.4 Restore damaged areas	
530.5 Institute fauna management program	
530.6 Control pedestrian traffic	

RUH HRT531 A

Conduct vegetation surveys	5-75
531.1 Determine vegetation survey requirements	
531.2 Inspect and assess vegetation	
531.3 Compile a vegetation assessment report	

RUH HRT532 A

Maintain, monitor and evaluate irrigation systems	5-77
532.1 Design a system maintenance program	
532.2 Design a monitoring and scheduling program	
532.3 Collage all available data	

LEVEL 6**RUH HRT601 A**

Develop Staff Training Plans	6-1
601.1 Identify the need for training	
601.2 Organise training resources	
601.3 Manage training	

RUH HRT602 A

Develop a Business Plan	6-3
602.1 Review the strategic direction of the business	
602.2 Specify business objectives and targets	
602.3 Assess financial implications of the business, marketing, purchasing and personnel plans	
602.4 Evaluate alternative plans	
602.5 Identify assets to be purchases and sold during the planning period	
602.6 Develop risk management strategies	
602.7 Implement a business plan	

RUH HRT603 A

Promote the business	6-6
603.1 Determine the promotion strategy	
603.2 Implement the promotion strategy	

RUH HRT604 A

Manage human resources	6-8
604.1 Determine the staffing needs of the business	
604.2 Engage staff	
604.3 Set work objectives	
604.4 Plan work methods	
604.5 Allocate work	
604.6 Manage industrial relations issues	
604.7 Ensure the adoption of safe working practices	
604.8 Provide feedback to individuals on their performance	
604.9 Terminate employment of staff	

RUH HRT605 A

Manage physical resources	6-12
605.1 Develop plans to supply machinery and equipment services	
605.2 Select machinery and equipment	
605.3 Ensure machinery and equipment is maintained at economic operating point	
605.4 Ensure machinery and equipment is operated safely	

RUH HRT606 A

Market products and services	6-15
606.1 Evaluate relevant markets	
606.2 Develop marketing strategies and plans	
606.3 Implement the marketing strategy	
606.4 Determine requirements of import/export strategies	
606.5 Sell Products	

RUH HRT607 A

Manage business capital6-17
607.1 Determine the financing needs of the business	
607.2 Assess the alternative sources of finance	
607.3 Apply for additional finance	
607.4 Manage loans and borrowing to meet contractual obligations	
607.5 Decide on alternative investments on and off-enterprise	
607.6 Monitor and evaluate the performance of business capital and investments	

RUH HRT608 A

Establish a horticultural enterprise6-19
608.1 Define enterprise requirements	
608.2 Choose a worksite	
608.3 Develop a worksite plan	
608.4 Coordinate construction	

BACKGROUND INFORMATION

The Arboriculture Industry

The Arboriculture Industry is a specialist horticultural industry that can be found in all states and territories across Australia. Many arborists operate as private contractors while others are employed by local and state government agencies.

The work of *arborists* can comprise the following:

- maintenance and management of trees in private and public gardens, parks and streetscapes;
- removal and transplanting of large trees;
- protection and rehabilitation of trees under structural or physical threat;
- provision of advice on tree planting and maintenance; and
- evaluation and assessment of tree health and monetary value.

There are a number of associations at state and national level that represent the interests of arborists. Currently there is a move to form a national body based on International Standards for Arboriculture.

The Floriculture Industry

The Floriculture Industry is found in all states and territories across Australia. There is a wide diversity in commodity areas and enterprises across the Floriculture sector.

The work undertaken by those employed in the Floriculture sector can comprise the following:

- growing and harvesting of commercial flower, flower seed, foliage and essential oil crops;
- management and maintenance of field and controlled growing environments;
- post-harvest treatments and production of plant products; and
- wild harvesting and processing of commercial flower, flower seed, foliage and essential oil crops.

The turnover in the Floriculture industry was \$129 million in 1995/96 with exports in the order of \$30 million. Major export markets are in Germany, Holland, United States, Britain and Japan. Wildflowers are the predominant segment of the export market.

In 1995/96 there were some 968 establishments across Australia mostly concentrated in NSW, Queensland and Victoria. Western Australia is the dominant export wildflower producer.

The industry is expected to expand in the immediate future with the impact of greater mechanisation, improved marketing and advances in plant breeding.

There are a number of bodies representing commodity areas in this industry in each state and territory.

The Landscape Industry

The Landscape Industry is a diverse horticultural industry found in all states and territories across Australia. There is a wide range of landscape operations across the sector with a key division between those who focus on hardscape construction, which is often linked to the construction industry, and softscape development with a more eclectic approach to plant use and landscape development.

The work undertaken by those employed in the Landscape sector can comprise the following:

- construction and maintenance of domestic and commercial landscapes;
- design of gardens and commercial landscapes;
- rehabilitation and maintenance of urban bushland;
- construction and installation of amenity and recreational landscape structures; and
- provision of technical advice and forward estimates on landscape development proposals.

The turnover in the Landscape industry was \$737 million in 1995/96. Landscape work is associated with commercial construction, hotel and resort construction, engineering projects along transport corridors, new housing developments, and improvements to residential, commercial and industrial properties.

In 1995/96 there were some 8318 people employed in the landscape industry in 3030 enterprises. Queensland, NSW, Victoria and Western Australia are dominant areas of landscape activity associated with strong activity in the building industry.

The industry will undergo growth over the coming five years with the increase in tourism associated with the Sydney Olympics in 2000.

The industry is represented by a number of different state-based bodies.

The Nursery Industry

The Nursery Industry is a specialist horticultural industry that can be found in all states and territories across Australia. There is a wide diversity of enterprises across the Nursery Sector with the major distinction being between wholesale/production nurseries and retail nurseries. Some nurseries conduct both wholesale and retail business.

The work undertaken by those employed in the nursery sector can comprise the following:

- propagation, production and maintenance of plants for sales and/or hire;
- wholesaling and retailing of plants and associated products;
- provision of advice on plant selection and garden design; and
- marketing and promotion of plant products and services.

The turnover in nursery production was \$256 million in 1995/96 while the retailing of plants and associated products totalled \$775 million. Exports for this period were valued at \$48 million with exporting being a growth area for the industry.

In 1995/96 there were some 2285 production nurseries and 2682 retail nurseries across Australia employing over 12,000 people predominantly in retailing. Growth of the industry is closely related to the economy and steady growth is expected over the coming five years.

There are a number of associations at state and national level that represent the interests of the industry. Each state has nursery industry association with affiliations to the national Nursery Industry Association of Australia.

The Parks and Gardens Industry

The Parks and Gardens Industry is a broad horticultural industry found in all states and territories across Australia. There is a wide diversity of enterprises across the Parks and Gardens sector.

The work undertaken by those employed in the Parks and Gardens sector can comprise the following:

- management and maintenance of public and private parks, reserves and gardens;
- management and maintenance of natural bushland and community recreation areas;
- management and maintenance of historic, cultural and special use areas such as botanic gardens, cemeteries, recreation parks and institutional lands;
- design and implementation of special plant displays;
- provision of advice on plant selection and use in commercial and domestic situations; and
- contract administration and management.

The turnover in the Parks and Gardens industry was \$2794 million in 1995/96 though not all of this can be attributed to horticultural activity.

In 1995/96 there were some 2000 establishments across Australia excluding local government. Distribution of this industry is closely allied to centres of population. The industry will undergo growth over the coming five years with the increase in tourism associated with the Sydney Olympics in 2000, and greater interest in public health and outdoor recreation.

The Royal Australian Institute of Parks and Recreation (RAIPR) is the predominant national body representing the Parks and Gardens industry, the more broadly based Australian Institute of Horticulture (AIH) also represents many horticulturists from this sector.

The Production Horticulture Industry

The Production Horticulture Industry is found in all states and territories across Australia. There is a wide diversity in commodity areas and enterprises across the Production Horticulture sector.

The work undertaken by those employed in the Production Horticulture sector can comprise the following:

- growing and harvesting of commercial fruit, vegetable, nut, seed and essential oil crops;
- management and maintenance of field and controlled growing environments;
- post-harvest treatments and production of plant products; and
- wild harvesting and processing of commercial fruit, vegetable, nut, seed and essential oil crops.

The turnover in the Production Horticulture industry was \$3265 million in 1995/96 with exports in the order of \$787 million. Major export markets are in Asia and Europe.

In 1995/96 there were some 18,000 establishments across Australia with dominant production in NSW, Queensland and Victoria. South Australia, Western Australia and Tasmania are important producers of some crops.

With increasing competition from other producer countries, the Production Horticulture industry is looking to greater mechanisation, quality control and marketing as vital for continued expansion of the industry.

There are a number of bodies representing commodity areas in this industry in each state and territory.

The Turf Management Industry

The Turf Management Industry is a horticultural industry found in all states and territories across Australia.

The work undertaken by those employed in the Turf Management sector can comprise the following:

- establishment and maintenance of commercial and recreational turf;
- design and preparation of sports turf playing surfaces;
- domestic mowing and turf maintenance operations;
- commercial growing and supply of turf;
- management of recreational and sports turf facilities; and
- provision of technical advice on turf irrigation, pest and disease control and turf management practices.

Turf Management work is associated with golf courses, bowling greens, wicket and pitch preparation, racing clubs, institutional and recreational playing fields, commercial growing of turf operations, and mowing contractors.

The industry is represented by a number of different state and national bodies representing various occupational groups and sectors within the industry.

The National Industry Steering Committee

The Horticulture Industry Competency Standards have been developed in line with the Australian National Training Authority's initiatives and guidelines towards the development of the following:

- National Competency Standards
- Assessment Guidelines
- National Qualifications in Horticulture
- Learning Guides
- Industry Prospectus
- Training Guides

The standards are an updated version of the 1994 Competency Standards. The Horticulture standards are significantly expanded from the previous version and this reflects the great diversity of industry enterprises across Australia and provides for increased training and career pathway options.

The number of units of competence at each AQF level has significantly increased. The content within each unit has also been expanded and refined to better reflect industry needs. This has been done to facilitate the important new role of competency standards in future Training Programs.

Development of these competency standards has been overseen by a National Industry Steering Committee. Horticulture industry representatives on this committee were:

- Mr Wayne Cornish, Chair (South Australia, Production Horticulture)
- Mr Kees Tesselaar (Victoria, Floriculture),
- Mr Tim Keevil (Western Australia, Arboriculture),
- Mr Graeme Brown (Tasmania, Landscape),
- Mr Steve Corbett (New South Wales, Parks & Gardens),
- Ms Sheila Thompson (RTCA Council, Queensland, Nursery),

- Mr Philip Watkins (RTCA Council, Western Australia, Floriculture)
- Mr Greg McPhee (New South Wales, Nursery)
- Euan Laird (Victoria, Turf Management)
- Anne Story (Queensland, Production Horticulture)
- Kelvin Voullaire (Victoria, Production Horticulture)
- Jon Durham (Victoria, Production Horticulture)
- Laurence Ah Toy (Northern Territory, Production Horticulture)

Other members of the National Industry Steering Committee included:

- Ms Sue Frazer (SA, State Training Agency),
- Mr Graeme Beard (Australian Workers Union),
- Mr Kevin Matters (Australian National Training Authority) ,
- Mr Mike Clune (Canberra Institute of Technology),
- Ms Jacqui Jones (DEETYA),
- Mr Ian McFarlane, Executive Officer, RTCA

Industry Consultation

The standards contained in this book were developed together with standards for all seven other horticultural sectors comprising Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production Horticulture and Turf.

The process for development of the Competency Standards was conducted in five steps:

1. A focus group was convened for each sector as follows:
 - Nursery: NSW, Qld
 - Landscape: NSW
 - Parks and Gardens: SA
 - Production Horticulture: WA
 - Floriculture: WA
 - Turf Management: Victoria
 - Arboriculture: Victoria
2. Draft competency standards were then circulated to Industry Reference Group (IRG) members in all states and territories for their comments and feedback.
3. Consultation meetings were held in all states and territories and comments and feedback were collated. Amended draft competency standards were then forwarded

to the convenors of these groups in each state/territory. Accompanying these standards were details outlining comments received and actions taken in response to industry feedback.

4. IRG convenors were linked by telephone in November to validate the final draft standards and to provide direction to their representatives on the National Industry Steering Committee.
5. The National Industry Steering Committee met on 26th November 1997 and provided national endorsement for the Horticulture Competency Standards and those of the other sectors.

The considerable support and advice provided by industry representative throughout this process is most gratefully acknowledged.

Australian Qualifications Framework (AQF)

Australian industries use the Australian Qualifications Framework (AQF) as the benchmark for levels of competency of those employed in the Industry. The AQF comprises eight levels which broadly describe the range of jobs found in most industry sectors. Level one represents the base grade worker while level 8 the Chief Executive Officer.

The AQF levels do not directly reflect work structures associated with any particular industry or workplace. There is no direct linkage between the AQF and industrial classifications and conditions. Individual industries or enterprises decide.

Management is considered to commence at level 4 where supervisors implement management decisions, supervise staff and day-to-day operations and provide regular communication with those to whom they report. Managers are considered to operate at levels 5 and 6, though they may also perform routine tasks associated with lower AQF levels.

Competency Standards

Competency Standards are statements of the level of skills, knowledge and attitude expected of people in various positions and roles in the workplace. Competency Standards cover all occupations. For example, in the horticulture industry they would apply to horticultural labour, seasonal workers, supervisors, owner/operators and

managers. The standards describe what standards of performance are required for each occupation.

Competency Standards documents do not describe the levels of competence for specific occupations. They describe the progression of competence from the performance of simple tasks to the performance of more complex tasks. Simple tasks constitute the work of members of semi-skilled occupations and more complex tasks describe the work of more qualified and experienced occupations which often include managerial duties as well as responsibilities to apply advanced skills and knowledge.

Competency Standards do not invent new standards of performance or force people to work harder. They provide guidance on how people can work smarter. They express what should be best practice for those working in the industry now and for the future. Competency Standards anticipate change and contain the latest information on new technology and smarter ways of doing things. They assist in technology transfer.

Standards are developed by an industry or organisation through an extensive process that involves identifying the skills, knowledge and attitudes required in the workforce, now and in the future. Competency standards are reviewed on a regular basis to ensure that they reflect changes in technologies and work practices. Development and validation of standards involves extensive consultation with stakeholders in an industry.

In summary, standards set the benchmarks for performance. The primary purpose of the National Competency Standards is to guide the design and development of training programs. **In short, competencies describe best practice: training packages developed from competencies represent best practice.**

Terminology

Competency Standards are comprised of the following components:

Unit of Competency The Unit of Competency describes an activity, task or operation that may occur in a horticultural workplace. The requisite underpinning knowledge and skills are outlined as well as criteria concerning the performance of the activity. Details on assessment enable the Unit of Competency to be used as a training and assessment tool.

Unit Descriptor This outlines the key outcome of the Unit of Competency and

	reflects the scope and extent of the level of supervision and responsibility required.
Element of Competency	These are the building blocks for the units of competency. They describe in output terms what is done in the workplace within each unit of competency
Performance Criteria	This refers to how well and to what level a competent person should perform a specified activity in the workplace. It is the evidence required to prove that the person can undertake the specified activity to the level acceptable in the workplace
Range of Variables	This describes the context and conditions under which competent performance is expected of a person who is carrying out the specific tasks in the workplace
Evidence Guide	This outlines the type and scope of evidence that will assist judgements as to whether an individual has achieved the underpinning knowledge and skills.
OHS Issues	This defines the key Occupational Health and Safety imperatives associated with the performance of a particular Unit of Competency.
Assessment Guide	This section outlines the requirements and responsibilities governing the assessment of the Unit of Competency.
Key Competencies	This defines the relationship of the Unit of Competency to the Key Competencies and provides a summary of their application.

OCCUPATIONAL HEALTH AND SAFETY

A job performed safely and without risk to health is likely to be the most efficient way of carrying out a work task. In this way, high standards of occupational health and safety (OHS) are linked with increased productivity, efficiency and competitiveness.

Prevention of occupational injury and disease relies on the competence of the Australian workforce to identify OHS risks and control them.

(Excerpt from Worksafe Australia 1995, Occupational health and safety and competency based training)

Recent regulatory changes have shifted the emphasis for managing workplace health and safety away from government to the enterprise level.

The horticulture industry, along with rural-based industries, experiences high rates of work related injury and illness with a subsequent cost to the industry. Development of OHS skills and knowledge is needed at all levels of the horticultural workforce from employee to manager.

OHS processes

In order to provide a healthy and safe workplace, employers and workers must work together to ensure processes are in place to:

- Identify hazards: what hazards are present in the workplace?
- Assess risks: what is the likelihood and severity of injury or disease which may result from identified hazards?
- Control risk: how can the risk be eliminated or minimised?

The most effective approach to risk control involves consideration of the ***hierarchy of control***, ranging from the most effective control approaches to the least effective.

1. Eliminate the hazard altogether, looking for alternatives, eg reducing the need to spray hazardous substances.
2. Substitute the hazard for a less hazardous process, eg substituting a less toxic chemical for a more toxic chemical.
3. Design or engineering control to reduce risk.
4. Change work practice.
5. Use of personal protective clothing or equipment.

Control of risk associated with each identified hazard then must consider the range of options, their relative cost effectiveness, and the urgency of risk control requirements.

This process underpins each states' OHS legislation and accompanying regulations and/or codes of practice.

It should also be noted that others share responsibility for OHS in the horticultural sector - including machinery designers and manufacturers, and suppliers of plant and of hazardous substances.

OHS and Horticulture

There are a number of specific characteristics of horticulture work which need to be considered when working in this industry. These include:

1. Workers are required to carry out a range of different tasks under different conditions during the course of a typical working day, and also between seasons. OHS competencies attained must therefore be applicable to the range of situations confronted by the workforce.
2. A number of jobs are undertaken in physical isolation, requiring a higher level of OHS protection and competence for all workers.
3. Some features of the workplace and work processes are not amenable to control, eg the weather and physical conditions.
4. Often horticultural work involves work with mobile machinery thereby adding to OHS risk.
5. Work at some times may have to be undertaken under severe time pressures. This places a greater strain on OHS systems to be effective.
6. Seasonal or contract workers may be engaged to undertake certain jobs. The OHS needs of these workers must be taken into account.
7. The worksite may often be accessible to others who are not employed in the industry (eg children, neighbours, bystanders). The safety of other people must be assured.

ENVIRONMENTAL STATEMENT

While there is an increasing move to develop sustainable practices in the horticulture industry, previous and existing horticultural practices can have significant impacts on the environment. These are summarised below:

Site Development

- Land clearance: habitat and species loss, landscape and visual impacts, fragmentation, impacts on cultural resources, wind erosion and water erosion.
- Earthworks: landscape and visual impacts, hydrological and soil impacts.
- Installation of infrastructure: noise, hydrological impacts, chemical use, water run-off.
- Fertiliser application: eutrophication, contamination of groundwater and surface water resources.
- Planting: impact on endemic fauna and flora, introduction of exotics and weed species.
- Waste: loss of nutrient, energy costs in handling and transport, landfill, odour, weed movements.

Weed & Pest Control

- Spray drift: community health, impacts to non-target species, odour, contamination of water and land resources.
- General: occupational health, development of resistant strains, disposal issues.

Irrigation

- Water application: depletion of surface and ground water resources, impacts on downstream users or other users of aquifer.
- Nutrient loss: impacts on downstream habitats and associated species.

Production

- Harvesting: waste generation, occupational health, noise, storage and disposal issues.
- Processing: chemical use, noise, waste generation, dust generation.

TABLE OF UNITS OF COMPETENCY AGAINST SECTORS**ESSENTIAL UNITS OF COMPETENCY (ALL SECTORS)**

RUH CORE 1	Meet industry requirements
RUH CORE 2	Meet workplace health and safety requirements
RUH CORE 3	Use hazardous substances safely
RUH CORE 4	Cooperate in the workplace
RUH CORE 5	Act in an emergency
RUH CORE 6	Plan daily work routines

AQF LEVEL 1 UNITS OF COMPETENCY		F	P	N	G	L	A	T
RUH HRT101	Provide crop care	X	X					
RUH HRT102	Plant a crop by hand	X	X					
RUH HRT103	Provide work site support				X	X	X	
RUH HRT104	Provide turf care				X	X		X
RUH HRT105	Pick a crop	X	X					
RUH HRT106	Provide planted area care				X	X	X	
RUH HRT107	Provide nursery plant care			X	X			
RUH HRT108	Provide nursery support			X				
RUH HRT109	Maintain the work environment	X	X	X	X	X	X	X
RUH HRT110	Display products			X				
RUH HRT111	Provide post-harvest care	X	X					
RUH HRT112	Provide propagation support			X				
RUH HRT113	Operate ride-on vehicles	X	X	X	X	X	X	X
RUH HRT114	Carry out basic drying operations	X	X					
RUH HRT115	Carry out basic canopy maintenance	X	X					
RUH HRT116	Sow plant materials	X	X					
RUH HRT117	Carry out basic post-harvest operations	X	X					

AQF LEVEL 2 UNITS OF COMPETENCY		F	P	N	G	L	A	T
RUH HRT201	Treat weeds	X	X	X	X	X		X
RUH HRT202	Treat pests and diseases	X	X	X	X	X	X	X
RUH HRT203	Plant trees and shrubs	X	X	X	X	X	X	X
RUH HRT204	Communicate in the workplace	X	X	X	X	X	X	X
RUH HRT205	Dig a grave				X			
RUH HRT206	Operate tractors	X	X	X	X	X		X
RUH HRT207	Operate equipment & machinery	X	X	X	X	X	X	X

AQF LEVEL 2 (CONT)		F	P	N	G	L	A	T
RUH HRT208	Prune shrubs and small trees				X	X	X	
RUH HRT209	Perform above ground pruning						X	
RUH HRT210	Provide arboricultural support						X	
RUH HRT211	Treat trees for a range of problems						X	

RUH HRT212	Apply chemicals and biological agents	X	X	X	X	X	X	X
RUH HRT213	Fell small trees				X	X	X	
RUH HRT214	Transplant small trees				X	X	X	
RUH HRT215	Protect trees				X	X	X	
RUH HRT216	Maintain supplies of chemicals & biological agents	X	X	X	X	X	X	X
RUH HRT217	Maintain properties and structures	X	X	X	X	X		X
RUH HRT218	Establish crops	X	X					
RUH HRT219	Maintain a crop	X	X					
RUH HRT220	Support crop harvesting	X	X					
RUH HRT221	Carry out post-harvest treatments	X	X					
RUH HRT222	Operate and maintain chainsaws				X	X	X	
RUH HRT223	Climb small trees						X	
RUH HRT224	Undertake propagation activities	X	X	X	X			
RUH HRT225	Maintain drainage systems			X	X	X		X
RUH HRT226	Undertake irrigation systems maintenance activities	X	X	X	X	X		X
RUH HRT227	Recognise plants, products & treatments			X	X	X	X	X
RUH HRT228	Pot on plants			X				
RUH HRT229	Tend nursery plants			X				
RUH HRT230	Assist sales of products and services			X				
RUH HRT231	Operate point of sale systems			X				
RUH HRT232	Carry out canopy management	X	X					
RUH HRT233	Renovate grassed areas				X	X		X
RUH HRT234	Prepare turf surfaces for play							X
RUH HRT235	Support turf construction							X
RUH HRT236	Undertake stump removal						X	
RUH HRT237	Support revegetation works				X			
RUH HRT238	Install paving				X	X		
RUH HRT239	Install retaining walls					X		
RUH HRT240	Establish turf				X	X		X
RUH HRT241	Conduct visual inspection of park facilities				X			
AQF LEVEL 3 UNITS OF COMPETENCY		F	P	N	G	L	A	T
RUH HRT301	Prepare plant displays			X	X			
RUH HRT302	Cultivate turf				X	X		X
RUH HRT303	Maintain nursery plants			X				
RUH HRT304	Prepare specialised plants			X				
RUH HRT305	Implement a landscape maintenance program				X	X		
RUH HRT306	Establish planted areas				X	X	X	
RUH HRT307	Implement a tree pruning program						X	
RUH HRT308	Implement a tree maintenance program						X	
RUH HRT309	Remove trees in confined spaces						X	
RUH HRT310	Implement a tree transplanting program						X	

RUH HRT311	Implement a tree protection program						X	
RUH HRT312	Install drainage systems	X	X	X	X	X		X
RUH HRT313	Install irrigation systems	X	X	X	X	X		X
RUH HRT314	Set out landscape works					X		
RUH HRT315	Operate irrigation systems	X	X	X	X	X		X
RUH HRT316	Control weeds	X	X	X	X	X		X
RUH HRT317	Control pests and diseases	X	X	X	X	X	X	X
RUH HRT318	Undertake operational maintenance of machinery	X	X	X	X		X	X
RUH HRT319	Prepare field soils for planting	X	X	X				
RUH HRT320	Implement a crop planting program	X	X					
RUH HRT321	Implement a crop maintenance program	X	X					
RUH HRT322	Harvest crops	X	X					
RUH HRT323	Implement post-harvest processes	X	X					
RUH HRT324	Propagate plants	X	X	X	X			
RUH HRT325	Supervise work site activities	X	X	X	X	X	X	X
RUH HRT326	Provide information on plants, products & treatments			X	X	X	X	X
RUH HRT327	Undertake a site assessment					X		
RUH HRT328	Operate specialised machinery	X	X	X	X		X	X
RUH HRT329	Operate advanced machinery	X	X	X	X		X	X
RUH HRT330	Erect horticultural structures	X	X	X	X			
RUH HRT331	Maintain an office	X	X	X	X			X
RUH HRT332	Construct turf playing surfaces							X
AQF LEVEL 3 (CONT)		F	P	N	G	L	A	T
RUH HRT333	Monitor turf health							X
RUH HRT334	Renovate sports turf							X
RUH HRT335	Conduct operational inspection of park facilities				X			
RUH HRT336	Install cable and bracing						X	
RUH HRT337	Install hydroponic systems	X	X					
RUH HRT338	Maintain hydroponic systems	X	X					
RUH HRT339	Monitor hydroponic systems	X	X					
RUH HRT340	Install and maintain interior plant displays			X	X			
RUH HRT341	Install concrete structures and features					X		
RUH HRT342	Install timber structures and features					X		
RUH HRT343	Install brick structures and features					X		
RUH HRT344	Install masonry structures and features					X		
RUH HRT345	Install metal structures and features					X		
RUH HRT346	Install water features					X		
RUH HRT347	Fell large trees						X	
RUH HRT348	Undertake aerial rescue						X	
RUH HRT349	Receive and dispatch plants			X				

RUH HRT350	Provide product & service marketing support				X			
RUH HRT351	Sell products & services				X			
RUH HRT352	Implement an integrated pest management program	X	X	X	X			X
RUH HRT353	Select chemicals and biological agents	X	X	X	X	X	X	X
RUH HRT354	Coordinate crop harvesting	X	X					
RUH HRT355	Undertake complex tree climbing						X	
RUH HRT356	Maintain an aquatic environment				X			
RUH HRT357	Implement OHS policies and guidelines	X	X	X	X	X	X	X
RUH HRT358	Survey soil characteristics	X	X					
RUH HRT359	Implement a plant nutrition program	X	X	X	X			X
AQF LEVEL 4 UNITS OF COMPETENCY		F	P	N	G	L	A	T
RUH HRT401	Plan revegetation works				X			
RUH HRT402	Design plant displays				X			
RUH HRT403	Source information	X	X	X	X		X	X
AQF LEVEL 4 (CONT)		F	P	N	G	L	A	T
RUH HRT404	Plan a tree planting program				X		X	
RUH HRT405	Develop a tree pruning program				X		X	
RUH HRT406	Plan the removal of trees						X	
RUH HRT407	Plan a tree transplanting program						X	
RUH HRT408	Plan a tree protection program						X	
RUH HRT409	Supervise sales			X				
RUH HRT410	Implement a soil preparation program	X	X	X				
RUH HRT411	Supervise crop harvesting	X	X					
RUH HRT412	Develop an integrated pest management program	X	X	X	X			X
RUH HRT413	Supervise nursery plant production			X				
RUH HRT414	Implement a promotional program			X				
RUH HRT415	Develop a mowing program							X
RUH HRT416	Recommend plants, products and treatments			X	X	X	X	X
RUH HRT417	Deliver on-the-job training	X	X	X	X		X	X
RUH HRT418	Supervise staff	X	X	X	X	X	X	X
RUH HRT419	Supervise machinery maintenance	X	X	X	X		X	X
RUH HRT420	Implement a media preparation program	X	X	X				
RUH HRT421	Supervise supplies and services	X	X	X	X	X	X	X
RUH HRT422	Operate within a budget framework	X	X	X	X	X	X	X
RUH HRT423	Supervise landscape planting works				X	X		
RUH HRT424	Manage irrigation, drainage & treatment systems	X	X	X	X			X
RUH HRT425	Maintain systems of communication	X	X	X	X		X	X
RUH HRT426	Develop teamwork	X	X	X	X	X	X	X
RUH HRT427	Prepare a landscape design					X		

RUH HRT428	Plan cable and bracing						X	
RUH HRT429	Plan turf establishment				X			X
RUH HRT430	Plan garden restoration works				X			
RUH HRT431	Promote plant health	X	X	X	X		X	X
RUH HRT432	Manage and notify a chemical spillage and/or leakage	X	X	X	X		X	X
RUH HRT433	Implement a propagation plan			X				
RUH HRT434	Supervise landscape construction works					X		
RUH HRT435	Cost a project	X	X	X	X	X	X	X
RUH HRT436	Conduct comprehensive inspection of park facilities				X			

AQF LEVEL 4 (CONT)		F	P	N	G	L	A	T
RUH HRT437	Establish and maintain the enterprise occupational health and safety program	X	X	X	X	X	X	X
RUH HRT438	Develop a plant nutrition program	X	X	X	X			X
RUH HRT439	Develop canopy management and crop regulation programs	X	X					
AQF LEVEL 5 UNITS OF COMPETENCY		F	P	N	G	L	A	T
RUH HRT501	Manage parks and reserves				X			
RUH HRT502	Manage landscape projects				X	X		
RUH HRT503	Prepare estimates, quotes and tenders	X	X	X	X	X	X	X
RUH HRT504	Plan sports turf establishment							X
RUH HRT505	Develop turf surface preparation standards							X
RUH HRT506	Negotiate with clients and others	X	X	X	X	X	X	X
RUH HRT507	Assess trees						X	
RUH HRT508	Plan tree reduction and removal						X	
RUH HRT509	Develop a plant sales program			X				
RUH HRT510	Plan growing media preparation	X	X	X				
RUH HRT511	Develop a planting program	X	X	X				
RUH HRT512	Prepare and monitor budgets and financial reports	X	X	X	X	X	X	X
RUH HRT513	Manage business operations	X	X	X	X	X	X	X
RUH HRT514	Administer the business	X	X	X	X	X	X	X
RUH HRT515	Design irrigation, drainage and water treatment systems	X	X	X	X	X		X
RUH HRT516	Design sports turf playing surfaces							X
RUH HRT517	Manage plant health	X	X	X	X		X	X
RUH HRT518	Conserve natural resource areas				X	X		
RUH HRT519	Manage controlled growing environments	X	X	X				
RUH HRT520	Implement sustainable horticultural practices	X	X	X	X	X	X	X
RUH HRT521	Develop a production plan	X	X	X				
RUH HRT522	Collect and manage data	X	X	X	X	X	X	X
RUH HRT523	Trial plants, products and treatments	X	X	X				X
RUH HRT524	Provide specialist advice on plants, products and treatments			X	X	X	X	X
RUH HRT525	Conserve heritage areas				X			
RUH HRT526	Prepare landscape documentation				X	X		
RUH HRT527	Design landscape structures and features					X		
AQF LEVEL 5 (CONT)		F	P	N	G	L	A	T
RUH HRT528	Prepare reports	X	X	X	X	X	X	X
RUH HRT529	Manage weed, pest and disease infestations	X	X	X	X	X		X

RUH HRT530	Manage wetlands				X		
RUH HRT531	Conduct vegetation surveys				X		
RUH HRT532	Maintain, monitor and evaluate irrigation systems	X	X	X	X	X	X
AQF LEVEL 6 UNITS OF COMPETENCY		F	P	N	G	L	A
RUH HRT601	Develop staff training plans	X	X	X	X	X	X
RUH HRT602	Develop a business plan	X	X	X	X	X	X
RUH HRT603	Promote the business	X	X	X	X	X	X
RUH HRT604	Manage human resources	X	X	X	X	X	X
RUH HRT605	Manage physical resources	X	X	X	X	X	X
RUH HRT606	Market products and services	X	X	X	X	X	X
RUH HRT607	Manage business capital	X	X	X	X	X	X
RUH HRT608	Establish a horticultural enterprise	X	X	X	X	X	X

CODES

F	Floriculture
P	Production Horticulture
N	Nursery
G	Parks and Gardens
L	Landscape
A	Arboriculture
T	Turf Management

ESSENTIAL

UNITS

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
Unit of Competency RUH CORE1 A Meet industry requirements	
Unit Descriptor This unit addresses the ability of workers to meet the basic requirements for employment in horticulture. This is an essential unit for all horticultural qualifications from AQF 1 to 4. It is equivalent to the rural generic unit of competency AGCORE1 <i>Meet industry requirements</i> .	
Element of Competency	Performance Requirements
CORE1.1 Agree with employment conditions	CORE1.1.1 Employment documentation is checked for compliance with agreed terms and conditions. CORE1.1.2 Employment conditions are checked to ensure currency is maintained.
CORE1.2 Meet workplace employment requirements	CORE1.2.1 Industry developments are promoted in workplace context to improve quality, productivity and conditions. CORE1.2.2 Work practices comply with codes of practice and workplace expectations. CORE1.2.3 Faults and abnormalities in the workplace are recognised and actioned to enterprise requirements. CORE1.2.4 Dress and personal requirements comply with workplace standards and Occupational Health & Safety (OHS). CORE1.2.5 Agreed outcomes are met through completion of workplace routines and specific instructions.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Terms and conditions may include relevant awards, employment contracts, workplace requirements and etiquette. • Industry developments may include implications of technology changes on employment, industry environment, changes in market conditions. • Work practices may include care of equipment, handling of products, materials and crops, farm operations, country etiquette, maintaining time books, diaries and other records. • Actions may include reporting, rectifying faults and prevention of damage, such as reporting of machinery problems before they become major, fixing minor problems such as water leaks, damage to fences. • Enterprise requirements may be provided orally or in writing. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> • codes of practice • industry awards and conditions • employer's expectations • sources of information 	
An ability to	
<ul style="list-style-type: none"> • understand and comply with employment conditions • meet workplace employment requirements 	

OHS issues that impact upon the performance of this unit

- OHS issues include the application of horticultural occupational health and safety principles and conformity with relevant legislation and codes of practice in each state and territory, including duties and responsibilities of all parties. This may include:
 - the maintenance and confidentiality of records of accidents, injuries and diseases
 - records of hazardous substances being used in the course of this unit
 - special information, induction or training related to activities contained within this unit
 - health and safety representatives and OHS committees in the larger horticultural enterprises
- Employee should be aware that risk control aims to eliminate hazards of any description that may be related to this unit. Otherwise the hierarchy of hazard and risk control in order of most effective to least effective is:
 - change work practices
 - use personal protective clothing and/or equipment
- The employee should be made aware of the need for identification and corrective action for hazards pertaining to working in the industry which may include:
 - noise
 - chemicals
 - venomous animals including snakes and insects
 - dust
 - solar radiation, dust and noise
 - electricity
 - operating machinery on slopes
 - wind strength and direction when applying chemicals
 - welding hazards
 - fumes from chemicals, welding and combustion engines
 - manual handling
 - fire

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and other workplace personnel • Collecting, analysing & organising information - about work duties and routines • Planning & organising activities - on a daily basis • Working with teams & others -to work as an effective team member to achieve team goals • Using mathematical ideas & techniques - to calculate time sheets, pay details and work requirements • Solving problems - working in a team • Using technology - to communicate and calculate 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH CORE2 A Meet workplace health and safety requirements	
Unit Descriptor This unit addresses the ability of workers to meet workplace occupational health and safety requirements. This is an essential unit for all horticultural qualifications from AQF 1 to 6. It is equivalent to the rural generic unit of competency AGCORE2 <i>Follow farm occupational health & safety procedures</i> .	
Element of Competency	Performance Criteria
CORE2.1 Follow workplace procedure for hazard identification and risk control	<p>CORE2.1.1 Workplace procedures and work instructions for controlling risks are followed accurately.</p> <p>CORE2.1.2 Basic safety checks are undertaken before operation of all machinery and vehicles and hazards are reported to the appropriate supervisor.</p> <p>CORE2.1.3 Work for which protective clothing or equipment is required is identified and the appropriate protective clothing or equipment is used in performing these duties in accordance with workplace policy.</p> <p>CORE2.1.4 Prior to performing manual handling jobs, risk is assessed and work is carried out according to currently recommended safe practice.</p> <p>CORE2.1.5 Risks to bystanders are recognised and action is taken to reduce risk associated with jobs in the workplace.</p> <p>CORE2.1.6 All procedures and work instructions for controlling risk are followed closely.</p>
CORE2.2 Render appropriate emergency procedures	<p>CORE2.2.1 Individuals maintain the necessary knowledge of and ability to follow procedures for dealing with accidents, fires and emergencies, including communicating location and directions to emergency personnel.</p> <p>CORE2.2.2 Emergency procedures are followed to company standards and workplace requirements.</p> <p>CORE2.2.3 Emergency equipment is used in accordance with manufacturers specifications and workplace requirements.</p> <p>CORE2.2.4 Appropriate authorities are notified according to company policy.</p>
CORE2.3 Participate in arrangements for maintaining health and safety of all people in the workplace	<p>CORE2.3.1 Contributions are made to the on-going monitoring and reporting of all aspects of Occupational Health & Safety (OHS).</p> <p>CORE2.3.2 Assistance is provided in developing effective solutions to control the level of risk associated with tasks.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • This Occupational Health & Safety (OHS) competency involves application of relevant occupational health and safety principles and conformity with legislation and codes of practice in each state, including duties and responsibilities of all parties under the general duty of care. • Hazards in the workplace include plant and machinery operation and maintenance, vehicles including motorcycles, noise, chemicals, manual handling, dust, solar radiation, natural hazards in trees (thorns and spines) dust and noise, electricity, waterways • Workplace hazards for which protective clothing or equipment is required includes; noise associated with plant and machinery, pesticides, dust, work in the sun • Hazardous manual handling tasks include moving, lifting, carrying bags, drums, cartons, shovelling, loading materials, pulling, pushing, up-ending materials, chipping weeds, picking fruit or vegetables • Risks to bystanders include run-over and injury associated with vehicles and machinery, exposure to noise 	

- Appropriate levels of health and fitness is required for many tasks in horticulture, and include harvesting of fruit and vegetables, landscape construction, loading and handling goods
- Workplace procedures will include hazard policies and procedures, emergency policies and procedures, procedures for use of personal protective clothing and equipment, hazard identification and issue resolution procedures, job procedures and work instructions.
- Occupational Health & Safety (OHS) emergencies in the workplaces may include electrocution, fire, flood, chemical spills, serious injury associated with tractors, machines, vehicles.
- Workers may include permanently employed workers, casual workers, seasonal workers, contract workers and may include people visiting the workplace.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- significant hazards in the workplace
- local emergency services
- personal hygiene and fitness requirements

An ability to

- follow workplace procedure for hazard identification and risk control
- act in an emergency
- render first aid
- maintain health and fitness

OHS issues that impact upon the performance of this unit

- OHS risk management is the basis of this unit.
- OHS legislation, relevant regulations and codes of practice in each state

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor • Collecting, analysing & organising information - about safe operating procedures and workplace hazards • Planning & organising activities - for occupational health and safety procedures • Working with teams & others - to carry out safe working practices • - in quantifying hazardous • Solving problems - relating to workplace safety • Using technology - to communicate and record 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Parks & Gardens, Landscape, Nursery, Production, Turf
RUH CORE3 A Use hazardous substances safely	
Unit Descriptor This unit addresses the handling of hazardous substances in the workplace. Handling of hazardous substances is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles. Recording and reporting is undertaken within established routines using methods and procedures that are predictable. This is an essential unit for all horticultural qualifications from AQF 1 to 6. It is equivalent to the rural generic unit of competency AGCORE3 <i>Use hazardous substances safely</i> .	
Element of Competency	Performance Criteria
CORE3.1 Handle hazardous substances	CORE3.1.1 Specific hazardous substance is identified from the label and applicable manufacturers safety data sheet. CORE3.1.2 Selected hazardous substance is handled in safe containers or packages under instruction from the supervisor or manager.
CORE3.2 Store hazardous substances	CORE3.2.1 Storage for hazardous substances is checked for compliance with industry standards in line with instructions. CORE3.2.2 Regular participation in the conduct of safety audits maximises the individual's awareness of safety issues CORE3.2.3 Required hazardous substances are estimated and industry standard storage conditions established according to instructions
CORE3.3 Transport hazardous substances	CORE3.3.1 Transport mode and procedures are established in consultation with the manager or supervisor as instructed. CORE3.3.2 Hazardous substances are loaded or decanted into secure containers or packaging in line with work programs. CORE3.3.3 Load is secured or sealed to ensure safety and eliminate spillage according to enterprise policy. CORE3.3.4 Transport of hazardous substances is completed in line with established procedures and movements recorded according to enterprise policy.
CORE3.4 Use hazardous substances	CORE3.4.1 Personal protective equipment suited to the task is selected and fitted or worn. CORE3.4.2 Selected hazardous substance is removed from storage and utilised in accordance with the label instructions or workplace requirements. CORE3.4.3 Containers and unused hazardous substances are disposed of in accordance with established workplace procedures.
CORE3.5 Act in emergency situations with hazardous substances	CORE3.5.1 Emergency incidence is notified to appropriate authorities in the workplace. CORE3.5.2 Clear identification of the nature of the emergency is established in consultation with the workplace supervisor. CORE3.5.3 Direction is sought from the supervisor or workplace notices to establish the role of the individual in the emergency.

A. RANGE OF VARIABLES

- Hazardous substances may include paints and solvents, fuels and oils, welding and LP gases in the workshop, fumigants, pesticides, weedicides, baits, coolants and refrigerants, human medicines and treatments, alkaline and caustic substances, acids, detergents & wetting agents.
- Handling and using hazardous substances may include spraying, use of application equipment, decanting liquids, refuelling, transport and cartage, use of industrial gases.
- Suitable or industry standard storage conditions may include security systems, elevated storage, fans and ventilation, drainage systems, separation of incompatible materials, warning signage as required and workplace notices.
- Enterprise policy may include protocols for record keeping, provision of personal protective equipment, instructions to personnel, record of governing legislation.
- Disposal of containers or quantities of left over hazardous substances will be carried out in line with workplace procedures developed from State or local government regulation relating to hazardous substances, Manufacturers label directions, Farmcare recommendations.
- Emergency situations may include spilt fuels or other substances, use of incorrect substances, fire, contact with skin or eyes, leaking or damaged containers, explosion, mixing of incompatible materials, contamination of water supplies and container disposal problems.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

- A basic working knowledge of:
 - hazardous substances that occur in the rural workplace relevant to the industry sector
 - the drills and protocols with dealing with hazardous substance issues
 - who to contact and who to report to in the individual workplace about hazardous substance matters
 - horticultural mathematics and the basis of horticultural calculations
- The ability to:
 - read and interpret written instructions and hazardous substance labelling
 - communicate with other workplace personnel
 - understand and act on verbal instructions
 - manually or electronically record details of hazardous substance usage or emergency incidence
 - critically observe and accurately report on safety hazards in the workplace
 - adopt safe work strategies as an integral part of workplace routines

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe system and procedures for handling, transportation and storage of hazardous substances
 - safe manual handling systems and procedures
 - selection, use and maintenance of relevant personal protective clothing and equipment
 - safe operation and maintenance of farm machinery and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of practice pertaining to Hazardous Substances

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating** – with other workplace personnel
- **Collecting and analysing and organising information** – on usage requirements and detail
- **Planning and organising activities** – to safely use hazardous substances
- **Working with teams and others** - to ensure the safe usage of hazardous substances
- **Using mathematical ideas and techniques** – to calculate volumes and dilutions
- **Solving problems** – of spillage, container disposal or safety hazards
- **Using technology** – to record usage and communicate with other network personnel

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Parks & Gardens, Landscape, Nursery, Production, Turf
RUH CORE4 A Cooperate in the workplace	
<p>Unit Descriptor This unit describes the basic level of workplace communication that is expected of workers.</p> <p>Work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles. Recording and reporting is undertaken within established routines using methods and procedures that are predictable.</p> <p>This is an essential unit for all horticultural qualifications from AQF 1 to 4. It is equivalent to the rural generic unit of competency AGCORE4 <i>Communicate in the workplace</i>.</p>	
Element of Competency	Performance Criteria
CORE4.1 Observe and record in the workplace	<p>CORE4.1.1 Issues and events occurring in the workplace on a daily basis and which may require attention are identified.</p> <p>CORE4.1.2 Information is recorded accurately and in the required format.</p> <p>CORE4.1.3 Communication technology relevant to the enterprise is used under supervision.</p>
CORE4.2 Interact with others in the workplace	<p>CORE4.2.1 Issues or events requiring action or attention are reported to supervisor with the level of detail laid down in workplace instructions.</p> <p>CORE4.2.2 Telephone messages are taken accurately, information recorded appropriately and calls redirected to other staff efficiently.</p> <p>CORE4.2.3 Work instructions are clarified where necessary and concerns are raised promptly with the supervisor.</p> <p>CORE4.2.4 A positive attitude is maintained in interacting with others.</p>
CORE4.3 Work in a team	<p>CORE4.3.1 Allocated tasks are identified and completed within defined time-lines.</p> <p>CORE4.3.2 Assistance is actively sought by approaching other team members when difficulties arise.</p> <p>CORE4.3.3 Feedback provided by others in the working groups is acknowledged.</p> <p>CORE4.3.4 Appropriate lines of communication with supervisors and peers are demonstrated according to enterprise policy.</p> <p>CORE4.3.5 Support and tolerance are offered and provided to colleagues.</p> <p>CORE4.3.6 Participation in team problem solving activities is demonstrated.</p>
CORE4.4 Meet, greet and direct clients and customers	<p>CORE4.4.1 Client is greeted in line with enterprise policy.</p> <p>CORE4.4.2 Questioning and active listening is used to elicit client needs.</p> <p>CORE4.4.3 Clients with special needs are referred or redirected as required.</p> <p>CORE4.4.4 A positive attitude is maintained in interacting with clients and customers.</p> <p>CORE4.4.5 Personal and cultural differences are taken into account when dealing with clients.</p> <p>CORE4.4.6 Telephone is answered promptly, calls re-directed to</p>

	appropriate person or messages recorded according to enterprise policy.
CORE4.5 Maintain personal presentation	<p>CORE4.5.1 Personal dress is maintained in line with enterprise policy.</p> <p>CORE4.5.2 Personal grooming and hygiene reflect enterprise policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Workplace issues may include personal work duties and roles, personal occupational health and safety, information from other workers and/or customers and clients. • Workplace events may include reporting any daily information concerning the immediate work routines such as materials, stock, equipment, tools, plant, watering or irrigation systems. • Recording may be in writing or verbal. • Enterprise policy may be in regard to assisting with clients, interacting with supervisors and colleagues, codes of personal hygiene and dress, enterprise position description (delegated responsibilities), organisational development of enterprise. • Communication technology may include faxes, answering machines, telephone networks, electronic mail (e-mail), simple/basic interaction with computers. • Customers include those with special needs. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic knowledge of</p> <ul style="list-style-type: none"> • enterprise policy in relation to greeting and assisting clients and customers • location of enterprise layout and resources • communication technology and systems used by the enterprise • questioning and listening techniques • effective interpersonal skills <p>An ability to</p> <ul style="list-style-type: none"> • observe and record in the workplace • interact with others in the workplace • work in a team • meet, greet and direct clients and customers • maintain personal presentation 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. Requirements include: <ul style="list-style-type: none"> – effective communication regarding OHS in the workplace – effective communication of roles and responsibilities in OHS management at induction of new workers – communication relating to OHS training – communication with other industry participants regarding OHS codes and regulations, and best OHS practice in the industry – communication with OHS professionals 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p>	

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with other workers and supervisors
- **Collecting, analysing & organising information** - that relates to immediate tasks
- **Planning & organising activities** - of a routine and predictable kind relating to immediate tasks
- **Working with teams & others** - and under supervision to achieve team goals
- **Using mathematical ideas & techniques** - of a basic kind such as tallies or simple measurement
- **Solving problems** - of a routine and predictable kind relating to immediate tasks
- **Using technology** - communication technology used under supervision

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH CORE5 A Act in an emergency	
<p>Unit Descriptor This unit is concerned with the ability of workers to respond to workplace emergencies such as fire and other dangerous situations and render first aid in the workplace.</p> <p>Responsibility for some roles and coordination within a team may be required. Competency involves the application of knowledge and skills to a range of tasks and roles. Competencies are usually within established routines, methods and procedures.</p> <p>This is an essential unit for all horticultural qualifications from AQF 1 to 6. It is equivalent to the rural generic unit of competency AGCORE5 <i>Act to minimise emergencies and respond to a variety of situations</i>.</p>	
Element of Competency	Performance Criteria
CORE5.1 Minimise emergency situations	<p>CORE5.1.1 Appropriate actions are taken to maximise safety and minimise health hazards in the workshop and on site.</p> <p>CORE5.1.2 Machinery handling and actions minimise risks to all personnel.</p> <p>CORE5.1.3 Regular checks of the environs are carried out to minimise potential hazards.</p>
CORE5.2 Plan for emergencies	<p>CORE5.2.1 Contingency plans are understood and activated for emergencies in compliance with Codes of Welfare and relevant legislation.</p> <p>CORE5.2.2 Personal responsibilities are carried out in emergency situations and practice drills.</p> <p>CORE5.2.3 Evaluation procedures are implemented to company standards.</p>
CORE5.3 Act as instructed in emergencies	<p>CORE5.3.1 Contingency plans are activated for emergencies in compliance with the relevant legislation.</p> <p>CORE5.3.2 Emergency procedures are carried out as required by established workplace policy.</p>
CORE5.4 Implement fire prevention and control	<p>CORE5.4.1 Fire hazards are minimised as specified in workshop and fuelling procedures.</p> <p>CORE5.4.2 Appropriate fire extinguishers and fire fighting plant are used in fire situations and the appropriate authority is notified according to specified procedures.</p> <p>CORE5.4.3 Evacuation procedures are implemented as instructed according to workplace policy.</p>
CORE5.5 Render first aid	<p>CORE5.5.1 First aid appropriate to the incident is applied.</p> <p>CORE5.5.2 The patient is monitored whilst awaiting professional or para-medical support.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Unless otherwise stated directions, specifications and prescriptions come from management or other advisers and may include health, welfare and safety policies, emergency contingency plans, maintenance routines for safeguards and emergency equipment. • Occupational Health & Safety (OHS) Acts and Regulations apply in all States and Territories. • Emergency situations may include power failure, quarantine breakdown, fire, flood, storms, heart failure, breathing stopped and serious personal injury. • Emergency equipment may include first aid kits, fire extinguishers, emergency power generators, chemical spillage kits. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • sources of human injury • basic concept of duty of care • specific Acts and Regulations relating to emergency situations • senior First Aid Certificate <p>An ability to</p> <ul style="list-style-type: none"> • minimise emergency situations • plan for emergencies • act as instructed in emergencies • implement fire prevention and control • render first aid as required 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – Regular conduct of safety audits – Fitting of safety apparel to personnel – Fitting of guards to machinery 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Parks & Gardens, Production, Nursery, Turf
RUH CORE6 A Plan daily work routines	
<p>Unit Descriptor This unit describes the daily planning that is required of workers in regard to work duties. It includes the organisation of tools and equipment and the recording of information about the job at hand. Responsibility for some roles and coordination within a team may also be required.</p> <p>Planning at this level is likely to be under routine supervision with intermittent checking. Work duties are usually within established routines, methods and procedures.</p> <p>This is an essential unit for all horticultural qualifications from AQF 1 to 4. It is equivalent to the rural generic unit of competency AGCORE6 <i>Plan daily work routines</i>.</p>	
Element of Competency	Performance Criteria
CORE6.1 Interpret work schedules	<p>CORE6.1.1 Interpretation is consistent with the schedule and tasks defined.</p> <p>CORE6.1.2 A number of work activities are integrated.</p> <p>CORE6.1.3 Priorities are established consistent with workplace requirements.</p>
CORE6.2 Organise materials and equipment	<p>CORE6.2.1 Availability of materials and equipment, including safety and protective gear, is consistent with work schedules and the requirements of the tasks.</p> <p>CORE6.2.2 Sequence of use and preferred on-site positioning of materials, equipment and access ways is established.</p>
CORE6.3 Respond to problems as they arise	<p>CORE6.3.1 Response takes into account commercial responsibilities and constraints.</p> <p>CORE6.3.2 Response maintains a quality outcome, minimises impact on work schedules and reflects accurate knowledge of products and processes used in the workplace.</p> <p>CORE6.3.3 Response is consistent with workplace priorities and requirements.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Work activities may include daily routines, periodic routines, ad hoc activities. 	
B. EVIDENCE GUIDE	
<p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> products and processes used in the workplace time management <p>An ability to</p> <ul style="list-style-type: none"> interpret work schedules organise materials and equipment respond to problems as they arise 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe system and procedures for handling, transportation and storage of hazardous substances safe manual handling systems and procedures selection, use and maintenance of relevant personal protective clothing and equipment safe operation and maintenance of farm machinery and equipment OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> Occupational Health and Safety Act of the state Regulations and/or Codes of practice pertaining to Hazardous Substances 	

<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

LEVEL

1

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT101 A Provide crop care	
<p>Unit Descriptor This unit describes the provision of basic maintenance to a growing crop.</p> <p>All work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles. Recording and reporting is undertaken within established routines using methods and procedures that are predictable. There is a specified range of contexts where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
101.1 Install crop support components	<p>101.1.1 Tools appropriate to the task are selected, used according to guidelines and safe working practices are employed.</p> <p>101.1.2 Supports are placed and tensioned as defined by supervisors specifications.</p> <p>101.1.3 Construction methods employed in accordance with plans and specifications.</p>
101.2 Care for growing plant stock	<p>101.2.1 Plant stock treatments are carried out neatly, cleanly and in a fashion which causes them no disturbance.</p> <p>101.2.2 Crop support components are adjusted and/or repaired according to supervisors instructions.</p>
101.3 Tend to growing media	<p>101.3.1 Fertiliser is spread evenly and at rates specified by supervisor.</p> <p>101.3.2 Weed removal and soil cultivation is carried out in accordance with the requirements of the crop and soil conditions.</p> <p>101.3.3 Safe equipment operation and work practices ensure compliance with Occupational Health & Safety (OHS) regulations.</p>
101.4 Place irrigation system and components	<p>101.4.1 Irrigation components are located according to supervisors specifications.</p> <p>101.4.2 Irrigation components are assembled and connected securely and the system operation tested according to supervisors specifications.</p> <p>101.4.3 Work practices employed maintain enterprise standards of minimal disturbance and damage to crops</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Plant products may include flowers, vegetables, fruit, foliage Planting methods may include hand planting, assisting with mechanical planting Enterprise procedures for irrigation service may include scheduled cleaning and replacement tasks, cleaning or replacing filters Supervisors specifications for installation of crop supports may require that they be secure, stable, straight, spaced as instructed 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> crop support systems and their erection methods and reasons of treating growing stock including pruning and dis-budding techniques water application techniques fertiliser application techniques plant use of fertilisers competition by weeds for water, nutrients and light <p>An ability to</p> <ul style="list-style-type: none"> install crop support components 	

- care for growing stock
- tend to growing media
- place irrigation systems and components

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

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The unit will be assessed according to the following guidelines and conditions:

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Registered Training Organisation (RTO)

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4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - information about the job to others in the work team
- **Collecting, analysing & organising information** - about the crop and the required care as directed
- **Planning & organising activities** - for the completion of daily crop care work routines
- **Working with teams & others** - to complete crop care routines
- **Using mathematical ideas & techniques** - as they apply to tallies, working hours and crop husbandry
- **Solving problems** - of a basic nature as they relate to daily work routines
- **Using technology** - of a basic kind to measure or in monitoring applications

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT102 A Plant a crop by hand	
<p>Unit Descriptor</p> <p>In the Production and Floriculture industries workers plant fruit, vegetable and flower crops. In the case of fruit crops plantlets, bare rooted or containerised plants are generally planted. Vegetables are usually planted as seedlings, but in some cases seeds are raised first or planted directly. In the flower growing industry crops may be raised from seed, cuttings or bulbs and then planted directly into fields or controlled environment structures. In some instances machinery such as tractors and trailers may accompany those involved in the planting process.</p> <p>Crop planting is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles. Crop planting is undertaken within established routines using methods and procedures that are predictable.</p>	
Element of Competency	Performance Criteria
102.1 Prepare planting hole	<p>102.1.1 Planting holes are prepared to the specified dimensions as directed by management.</p> <p>102.1.2 Soil is moistened according to company policy and plant requirements.</p> <p>102.1.3 Mulch is applied as directed by management.</p>
102.2 Prepare planting material	<p>102.2.2 Plant material is selected which is sound, of defined size and suitable vigour for use in the planting process.</p> <p>102.2.3 Plants are kept cool and moist to avoid the roots drying according to enterprise practice.</p> <p>102.2.4 Planting material is selected according to company policy.</p> <p>102.2.5 Planting material is treated according to company policy.</p>
102.3 Plant the crop	<p>102.3.1 Tools appropriate to the task being undertaken are selected and used according to guidelines, and safe working practices are employed.</p> <p>102.3.2 Plants are placed in holes at a depth and angle specified by company policy.</p> <p>102.3.3 Plant placement, spacing, depth, orientation and planting technique are in line with prescribed planting method and species.</p> <p>102.3.4 Post planting treatments are completed in accordance with supervisors instructions.</p> <p>102.3.5 Plants are heeled in according to supervisors directions.</p> <p>102.3.6 Fruit is removed to aid plant establishment.</p> <p>102.3.7 Work practices employed cause no plant damage.</p> <p>102.3.8 Tool and equipment are cleaned and stored using hygiene practices specified in enterprise guidelines.</p>
102.4 Install crop support components where necessary	<p>102.4.1 Tools appropriate to the task being undertaken are selected and used according to guidelines, and safe working practices are employed.</p> <p>102.4.2 Supports are placed and tensioned as defined by supervisors specifications.</p> <p>102.4.3 Construction methods employed are according to plans and specifications.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Crops may include fruit, vegetables, foliage crops, flowers, bulbs, fruit, vegetables, foliage crops, essential oil crops. • Growing containers may include trays, pots, bags, bare rooted, small beds. • Equipment may include spades, water jets, secateurs. • Specified dimensions may include depth, width, pattern, spacings, tilth. • Planting methods may include hand planting assisting with mechanical planting. • Propagation methods may include seed, cuttings, division, simple layering. 	

- Growing media may include soil, hydroponic media.
- Plant preparation may include trimming roots and tops, washing, dipping or dusting.
- Post planting treatments will ensure that soil covering is level, soil covering is to the required depth and compaction, even application of water and fertilisers, water and fertiliser is applied at rates specified by the supervisor.
- Supervisors specifications for crop support components may require accurate spacing, specific orientation, stable construction, secure construction, straight erection.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- handling techniques for different plant types
- basic hygiene practices in plant production
- conditions for successful plant establishment
- differing crop planting requirements

An ability to

- prepare seed beds
- prepare planting hole
- prepare planting material
- plant crops
- install crop support components where necessary

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - information about the job to others in the work team • Collecting, analysing & organising information - about the crop as directed • Planning & organising activities - about daily work routines • Working with teams & others - in a planting team • Using mathematical ideas & techniques - as they apply to tallies, working hours and water and fertiliser application rates • Solving problems - of a basic nature as they relate to planting technique and process • Using technology - of a basic kind such as planting tools and equipment 						

Industry	Horticulture
Sector/s	Arboriculture, Landscape, Parks & Gardens
RUH HRT103 A Provide work site support	
<p>Unit Descriptor Most work in these sectors requires work at a site removed from the depot. Workers are involved in loading and unloading vehicles with materials, tools and equipment, preparing safety barriers and cleaning up after the days work is completed.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks. There is a specified range of contexts where the choice of actions required is quite clear.</p>	
Element of Competency	Performance Criteria
103.1 Prepare tools and equipment for use	<p>103.1.1 Tools and equipment are identified from lists provided and/or supervisors instructions.</p> <p>103.1.2 Lifting and carrying of tools and equipment is performed according to Occupational Health & Safety (OHS) guidelines and minimising damage to equipment and vehicle.</p> <p>103.1.3 Loads are secured to prevent movement during transit.</p> <p>103.1.4 Tools and equipment are set out on site in a safe manner to ensure the safety of on site personnel and the public.</p>
103.2 Establish signage, safety barriers and other structures	<p>103.2.1 Signage and safety barriers are located according to the site plan and/or supervisors instructions.</p> <p>103.2.2 Signage and safety barriers are erected according to enterprise guidelines.</p> <p>103.2.3 Field support is provided with the erection of temporary fences and structures.</p>
103.3 Clear debris from a work site	<p>103.3.1 Debris produced during operations is stacked in a designated area according to enterprise guidelines.</p> <p>103.3.2 Debris is prepared and processed according to supervisors instructions and/or manufacturers instructions.</p>
103.4 Clean work site upon completion of work program	<p>103.4.1 All materials, tools and debris are collected and stockpiled for removal or disposal.</p> <p>103.4.2 Site is returned to a tidy and undamaged condition according to enterprise guidelines.</p> <p>103.4.3 Tools and equipment are cleaned, maintained and stored in accordance with manufacturers specifications and enterprise guidelines.</p>
103.5 Observe safe work practices	<p>103.5.1 Work habits reflect knowledge and understanding of Occupational Health and Safety (Occupational Health & Safety (OHS)) responsibilities.</p> <p>103.5.2 Protective clothing is worn and safety equipment is used according to company safety plan or policy.</p> <p>103.5.3 Work environment is kept tidy and free of hazards according to company safety plan/policy.</p> <p>103.5.4 Dangers and hazards within the workplace are recognised and reported to the appropriate person.</p> <p>103.5.5 Machinery is assessed for safe use and hazards notified to the supervisor.</p> <p>103.5.6 Correct manual handling techniques are used when lifting or moving heavy loads.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Preparation of tools may include loading and unloading, checking for requirements, checking for obvious damage or malfunction. The worksite may include: public roads, parks and reserves, worksite compound and private property. 	

<ul style="list-style-type: none"> • Equipment to be loaded and unloaded may include hand tools, wheelbarrow, small machinery, knapsacks sprayers, bulk material such as soil and mulch, containerised plants, branches and other felled material, landscape construction materials such as timber, bricks or stone, personal safety equipment. • Dangers may include traffic, overhead power lines, working near the public, working near machinery and vehicles.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • Occupational Health & Safety (OHS) requirements relating to materials handling • Occupational Health & Safety (OHS) rules and regulations in the workplace • Australian Standard AS 1742 Part 3 1985 Australian Code of Practice, Work Site Traffic Management • health risks associated with working in a landscape environment such as soil borne diseases, insect and spider bites, sharp objects, UV radiation, traffic • types and placement methods relating to safety barriers and signage <p>An ability to</p> <ul style="list-style-type: none"> • prepare tools and equipment for use • establish signage and safety barriers • clear debris from a work site • clean work site upon completion of work program • observe safe work practices
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise and working on public roads – selection, use and maintenance of relevant personal protective clothing and equipment
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - information about the job to others in the work team
- **Collecting, analysing & organising information** - about daily work routines as directed
- **Planning & organising activities** - about daily work routines
- **Working with teams & others** - with others in a picking team
- **Using mathematical ideas & techniques** - including basic counting, measuring, working hours
- **Solving problems** - of a basic nature as they relate to maintaining a worksite
- **Using technology** - of a basic kind such as horticultural hand tools and equipment

Industry	Horticulture
Sector/s	Landscape, Parks & Gardens, Turf
RUH HRT104 A Provide turf care	
<p>Unit Descriptor This unit applies to the basic maintenance of grassed areas in places such as private residences, roadside verges, commercial properties, public parks and recreational areas and at sporting facilities.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of lawn maintenance tasks. There is a specified range of duties and contexts where the choice of actions required is made quite clear by supervisors.</p>	
Element of Competency	Performance Criteria
104.1 Mow grassed areas	<p>104.1.1 Mower is serviced to manufacturers specifications and enterprise policy.</p> <p>104.1.2 Grass is mown at height and in a pattern specified by supervisor.</p> <p>104.1.3 Mowing is at an appropriate distance from trunks of trees and shrubs to prevent damage.</p> <p>104.1.4 Mower controls are used safely and efficiently to complete the mowing program according to supervisors instructions.</p> <p>104.1.5 The mower is manoeuvred in a controlled manner without excessive speed according to enterprise occupational health and safety guidelines.</p>
104.2 Maintain grassed areas and surrounds	<p>104.2.1 Rubbish is collected and weeds are removed according to supervisors instructions, and disposed of according to enterprise guidelines.</p> <p>104.2.2 Grass is mown and edges are trimmed to meet the presentation standards of the enterprise.</p> <p>104.2.3 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Turf maintenance activities may include: mowing with pedestrian or ride-on machines and edge trimming. • Tools and equipment may include: 2- and 4- stroke pedestrian and ride-on rotary mowers, cylinder mowers motorised blowers, pavement sweepers, diesel ride-on mowers and sweepers, turf edging machines and brush cutters. • Vehicle licences are required when turf maintenance equipment must be driven on public roads. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • Occupational Health and Safety guidelines • manual handling guidelines • enterprise standards for grass appearance • correct use and care of equipment • AS 1742 Pt. 3 1985 - Australian Standard Code of Practice, Work site Traffic Management • correct set-up, use and cleaning procedures for tools and mowing equipment, minor repairs and service requirements <p>An ability to</p> <ul style="list-style-type: none"> • mow grassed areas • maintain grassed areas 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction 	

- systems to ensure that workers safety skills are assessed and training provided
- systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
- systems to ensure that risks are assessed by relevant workers
- systems to ensure that effective short term and long term OHS risk control measures are implemented
- systems and procedures for the safe operation and maintenance of machinery and equipment including working in public places
- safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - information about the job to others in the work team
- **Collecting, analysing & organising information** - about the daily work routines as directed
- **Planning & organising activities** - about daily work routines
- **Working with teams & others** - with others in a turf maintenance team
- **Using mathematical ideas & techniques** - to calculate volumes and areas
- **Solving problems** - of a basic nature as they relate to picking technique and process
- **Using technology** - of a basic kind such as turf maintenance tools and equipment

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT105 A Pick a crop	
<p>Unit Descriptor Fruit, vegetable and flower picking by hand is a task regularly undertaken by horticultural workers who may be seasonal and unskilled. This unit describes the basic manual crop picking, sorting and/or grading in the field prior to delivery to packing shed. The work also includes the transport of the crop to a packing shed and some basic grading or sorting. In some enterprises and for some crops machinery such as power ladders, tractors, trailers and forklifts may accompany those involved in the picking process.</p> <p>Crop picking is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of crop picking tasks and roles. Crop picking is undertaken within established routines using methods and procedures that are predictable. Responsibility for elements may fall to individuals or teams of pickers.</p>	
Element of Competency	Performance Criteria
105.1 Assess the crop for picking	105.1.1 Crop selected for picking conforms to enterprise standards for maturity, quality and health.
105.2 Pick the crop	105.2.1 Crop is selected according to company requirements. 105.2.2 Work practices employed for picking minimise plant damage. 105.2.3 Harvesting procedures are carried out according to company policy. 105.2.4 Picking equipment is cleaned and maintained according to company standards. 105.2.5 Work practices are economical, methodical and meet established work schedules. 105.2.6 Problems are reported in line with company policy.
105.3 Transport the crop	105.3.1 Containers are stacked according to company procedures. 105.3.2 Containers are moved so no damage is incurred by the crop. 105.3.3 Temperature of the crop is maintained at the levels set by industry and supervisors instructions. 105.3.4 Containers are maintained in good working order.
105.4 Maintain the hygiene of plantings	105.4.1 Dropped plant material is collected to maintain field hygiene to a level acceptable to management. 105.4.2 Diseased and/or rotten plant material is disposed of according to company policy. 105.4.3 Suspected problems are reported following company procedures.
<p>A. RANGE OF VARIABLES</p> <p>Floriculture</p> <ul style="list-style-type: none"> • Produce can include flowers, bulbs, tubers and foliage crops. • Picking equipment may include snips, knives, gloves, bags, containers. • Grades of flowers will vary with seasons and market forces. • Company policies may include hygiene routines and standards, list of contaminants, grades of crop required, temperature ranges, channels of communication. • Containers may include boxes or trays. • Problems may include equipment, pests, diseases, plant health. • Picking procedures may include correct use of equipment, select picking, removing out of type plants, taking due care of crop. <p>Production</p> <ul style="list-style-type: none"> • Produce includes fruit, vegetables and foliage. • Picking equipment may include snips, knives, gloves, bags, containers, ladders. • Grades of fruit will vary with seasons and market forces. 	

- Company policies may include hygiene routines and standards, list of contaminants, grades of crop required, temperature ranges, channels of communication.
- Containers may include bulk bins, boxes or trays.
- Problems may include equipment, pests, diseases, plant health.
- Picking procedures may include correct use of equipment, select picking, removing rotten or immature fruit, taking due care of crop.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- the basic attributes of produce
- the desired quality of produce to be picked
- picking techniques appropriate for specific crops
- lifting techniques for bulbs and tubers
- bundling and packaging techniques when picking produce
- grading and sorting techniques when picking produce
- relevant Occupational Health & Safety (OHS) and transport regulations
- the importance of quality produce including cooling requirements and quick transport from field to processing areas

An ability to

- assess crop for picking
- pick the crop
- transport crop
- maintain hygiene of plantings

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

<p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating - information about the job to others in the work team • Collecting, analysing & organising information - about the crop as directed • Planning & organising activities - about daily crop picking work routines • with others in a picking team • Using mathematical ideas & techniques - as they apply to tallies, working hours • Solving problems - of a basic nature as they relate to picking technique and process • Using technology - of a basic kind such as harvesting tools and equipment 							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

Industry	Horticulture
Sector/s	Arboriculture, Landscape, Parks & Gardens
RUH HRT106 A Provide planted area care	
<p>Unit Descriptor This unit describes the work associated with providing a range of maintenance activities to planted areas such as garden beds, landscape works and tree plantings.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tree maintenance tasks. There is a specified range of duties where the choice of actions required about tree maintenance is quite clearly described by the supervisor.</p>	
Element of Competency	Performance Criteria
106.1 Weed planted area	<p>106.1.1 Weeds to be removed are identified according to instructions from supervisor.</p> <p>106.1.2 Weeds are removed from planted area without disturbance to adjacent plants.</p> <p>106.1.3 Weeds are stacked, processed and disposed of according to enterprise guidelines.</p> <p>106.1.4 Site is cleaned according to enterprise guidelines.</p>
106.2 Water established plants	<p>106.2.1 Water is applied to plants at the rate and volume defined by supervisor.</p> <p>106.2.2 Equipment is drained of all excess water, cleaned and stored according to manufacturers instructions.</p>
106.3 Clean structures and features	<p>106.3.1 Debris is removed and sorted according to enterprise guidelines.</p> <p>106.3.2 Items are cleaned according to maintenance program details.</p> <p>106.3.3 Material is disposed of according to enterprise guidelines.</p>
106.4 Maintain plants in healthy condition	<p>106.4.1 Fertiliser is applied evenly at the rate defined by supervisor and according to manufacturers instructions.</p> <p>106.4.2 Tools chosen are appropriate to the task being undertaken, used according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations.</p> <p>106.4.3 Dead, diseased and damaged plants are treated according to supervisors instructions.</p> <p>106.4.4 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Basic maintenance includes; mowing coarse grass and ancillary grassed areas, weeding, hand watering display beds, cleaning park or garden facilities. • Equipment used includes personal protective equipment, hoses, motorised blowers, hand edging tools, spades, forks, rakes, hoes, brooms, knives, trowels, wheelbarrows. • Weeds may be removed by hand, hand tools. • Processing of weeds includes composting, bagging and removal, burying. • Plants may include trees, shrubs, ground covers both native and exotic.. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • manual handling guidelines • types and range of annual and perennial weeds • water requirements of plants • correct care and use of equipment, programmed maintenance and repair <p>An ability to</p> <ul style="list-style-type: none"> • weed planted areas • water established plants • clean structures and features
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – systems and procedures for the safe operation and maintenance of machinery and equipment including working in public places – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor • Collecting, analysing & organising information - about the nature of the job • Planning & organising activities - organising equipment and materials for plant maintenance • Working with teams & others - to care for planted areas • Using mathematical ideas & techniques - to calculate materials used, time sheets • Solving problems - relating to task at hand • Using technology - to maintain planted areas 						

Industry	Horticulture
Sector/s	Nursery, Parks & Gardens
RUH HRT107 A Provide nursery plant care	
<p>Unit Descriptor This unit describes basic plant maintenance duties in either a retail or production nursery. It refers generally to the maintenance of containerised plants but may include other nursery plant stock.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of plant maintenance tasks. There is a specified range of duties and contexts where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
107.1 Maintain nursery plants	<p>107.1.1 Plants are watered evenly and to the saturation level according to supervisors instructions.</p> <p>107.1.2 Plants are staked, mulched and fertilised as directed.</p> <p>107.1.3 Plants checked to ensure they are upright and water can efficiently wet the media according to supervisors instructions.</p> <p>107.1.4 Watering components are gathered, fitted, used and stored according to manufacturers instructions and enterprise practice.</p>
107.2 Clean up a growing site	<p>107.2.1 Weeds are removed from around cultivated plants according to supervisors instructions.</p> <p>107.2.2 Rubbish and litter are removed and pots, surroundings and presentation areas are maintained in a clean and tidy fashion according to enterprise guidelines.</p> <p>107.2.3 Tools are chosen appropriate to the task being undertaken, and used according to guidelines, and utilising safe working practices.</p>
107.3 Treat plants	<p>107.3.1 Volume and method of treatment is delivered according to supervisors instructions.</p> <p>107.3.2 Intervention methods are undertaken to assist plant growth according to supervisors instructions.</p> <p>107.3.3 Equipment operation and work practices conform with enterprise Occupational Health and Safety guidelines.</p> <p>107.3.4 Tool and equipment cleaning and storage procedures are performed and hygiene practices are followed according to enterprise guidelines.</p>
107.4 Transfer potted material	<p>107.4.1 Plants are placed appropriately according to the pattern and at the spacing designated by the supervisor.</p> <p>107.4.2 Safe lifting techniques and efficient manual handling techniques are employed according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Fitting watering components may include coupling hoses. • Nursery plants include containerised, balled and bagged, in-ground, hydroponic, aquatic, and stock plants. • Treatments may include pesticides, fungicides, fertiliser. • Intervention methods include aeration, removing dead material, spacing and thinning. • Plants may include seedlings, stock plants, bulbs, corms, tubers, woody, perennial, annual. • Tools and equipment include wheelbarrows, trolleys, motorised trolleys, secateurs, media trays, water spray container, dibblers, rubbish bins. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- use and maintenance of hand tools
- Occupational Health & Safety (OHS) guidelines and principles
- principles and practices of effective display bed presentation

An ability to

- water plants
- clean up a growing site
- treat plants
- transfer potted material

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - information about the job to others in the work group • Collecting, analysing & organising information - about daily work routines as directed • Planning & organising activities - about daily work routines • Working with teams & others - with others in a work group • Using mathematical ideas & techniques - such as counting, tallying and estimating • Solving problems - of a basic nature as they relate to nursery plant care activities • Using technology - of a basic kind such as horticultural hand tools and equipment 						

Industry	Horticulture
Sector/s	Nursery
RUH HRT108 A Provide nursery support	
<p>Unit Descriptor This unit describes the supporting role workers provide in a production or retail nursery by receiving and storing goods and materials and maintaining relevant associated records.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of handling tasks. There is a specified range of contexts and duties where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
108.1 Handle goods and materials	<p>108.1.1 Stock is placed neatly according to enterprise guidelines and in the place designated by the supervisor.</p> <p>108.1.2 Delivery documentation is checked against goods received, and loading area is left clean and tidy according to enterprise guidelines.</p> <p>108.1.3 Safe lifting methods are employed and equipment operation and work practices conform with enterprise Occupational Health and Safety guidelines.</p>
108.2 Prepare stock for dispatch	<p>108.2.1 Stock is assembled according to orders as directed.</p> <p>108.2.2 Stock is checked and selected according to enterprise standards of quality.</p> <p>108.2.3 Stock is prepared and packed for dispatch as directed.</p> <p>108.2.4 Stock is loaded for dispatch as directed.</p> <p>108.2.5 Orders are checked against goods being dispatched and loading area is left clean and tidy according to enterprise guidelines.</p> <p>108.2.6 Safe lifting methods are employed and equipment operation and work practices conform with enterprise Occupational Health and Safety guidelines</p>
108.3 Maintain records	108.3.1 Records are completed in entirety, at the appropriate time, and in a legible fashion according to enterprise guidelines.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Checks for quality may include recognising diseased or dead plant materials, damaged containers. • Preparation may include de-rooting, staking, trimming, cleaning, tagging of stock. • Handling stock may include loading, unloading, moving. • Records may include customer order forms, time sheets, delivery dockets, nursery production records. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • principles of Occupational Health and Safety • basic stock control procedures • enterprise quality standards <p>An ability to</p> <ul style="list-style-type: none"> • handle goods and materials • prepare stock for dispatch • maintain records 	

<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • risk control measures that workers undertake OHS induction <ul style="list-style-type: none"> – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT109 A Maintain the work environment	
Unit Descriptor This unit covers the daily routine expected of workers to keep a workplace, including workshops, depots, tool sheds, and planted areas, tidy and safely maintained. The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range maintenance tasks and roles. Reporting and recording is undertaken within established routines using methods and procedures that are predictable. There is a specified range of duties and contexts where the choice of actions required is made quite clear by the supervisor.	
Element of Competency	Performance Criteria
109.1 Maintain a clean and efficient workplace	109.1.1 Appropriate tools are selected and used safely. 109.1.2 Waste and used materials are removed and placed in disposal containers specified by the enterprise. 109.1.3 Floors, benches and other flat work surfaces are swept, washed and treated according to enterprise guidelines. 109.1.4 Work areas are tidied and material stored neatly and according to enterprise guidelines.
109.2 Adopt safe working practices	109.2.1 Work habits (including personal hygiene) reflect knowledge and understanding of Occupational Health & Safety (OHS) responsibilities. 109.2.2 Protective clothing is worn and safety equipment is used according to enterprise safety plan/policy. 109.2.3 The work environment is kept tidy and free of hazards according to enterprise safety plan/policy. 109.2.4 Dangers and hazards within the workplace are recognised and reported to the appropriate person. 109.2.5 Manual handling techniques when lifting or moving heavy loads conform to Occupational Health & Safety (OHS) guidelines.
109.3 Use hand tools, machinery and equipment	109.3.1 Tools, machinery and equipment are used to manufacturers or enterprise specifications. 109.3.2 Manufacturers and enterprise safety requirements are followed. 109.3.3 Unsafe or faulty tools, machinery and equipment are identified and segregated for repair or replacement. 109.3.4 Tools, machinery and equipment are cleaned and stored according to company policy.
109.4 Maintain structures and surroundings	109.4.1 Structures are repaired to enterprise standards and according to supervisors directions. 109.4.2 Surroundings are maintained according to enterprise requirements. 109.4.3 Structural damage and deterioration are reported to enterprise requirements.
A. RANGE OF VARIABLES Floriculture, Nursery, Production, <ul style="list-style-type: none"> All activities are performed and work sites maintained according to Occupational Health & Safety (OHS) policies and guidelines. Use of hand tools, machinery and equipment may be in workshop or on-site environments. Structures may include buildings, roads, tracks, soil conservation works, trellises, shelters, shade cloth, bird netting, hail netting, glass houses, yards, fences, drying racks and irrigation systems. Dangers may include fire, electricity, natural objects (trees and land forms etc), water, plant, machinery, vehicles, 	

chemicals.

- Tools may include hand tools, hand motor mowers, brush cutter, vacuum cleaners and blowers, pruning equipment, hoses.
- Machinery and equipment for maintaining the work environment may include blowers, vacuums, high pressure air and water cleaners.

Arboriculture, Landscape, Parks & Gardens, Turf

- All activities are performed and work sites maintained according to Occupational Health & Safety (OHS) policies and guidelines.
- Use of hand tools, machinery and equipment may be in workshop or on-site environments.
- Tools may include hand tools, machinery and equipment hand motor mowers, brushcutters, vacuum cleaners and blowers, pruning equipment, hoses.
- Planted areas may include display beds, treed areas, shrubberies.
- Structures may include buildings, roads, tracks, shelters, fences and irrigation systems.
- Machinery and equipment for maintaining the work environment may include blowers, vacuums, high pressure air and water cleaners.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- Occupational Health & Safety (OHS) rules and regulations for the workplace
- machinery assessment practices for safe use
- maintenance tasks for a worksite
- enterprise policy relevant to the job

An ability to

- maintain a clean and efficient workplace
- use hand tools, machinery and equipment
- maintain structures and surroundings

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safety of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise and working on public roads
 - selection, use and maintenance of relevant personal protective clothing and equipment
- Occupational Health and Safety issues associated with this unit include working with horticultural hand tools, safe lifting and manual handling techniques and working with due regard to the safety of others.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - information about the job to others in the work team
- **Collecting, analysing & organising information** - about daily work routines as directed
- **Planning & organising activities** - about daily work routines
- **Working with teams & others** - with others in a work group
- **Using mathematical ideas & techniques** - such as counting, tallying and estimating
- **Solving problems** - of a basic nature as they relate to basic workplace maintenance activities
- **Using technology** - of a basic kind such as horticultural hand tools and equipment

Industry	Horticulture
Sector/s	Nursery
RUH HRT110 A Display products	
<p>Unit Descriptor This unit describes the basic duties of workers in nurseries, particularly retail outlets, to display nursery products and stock on shelves or floor displays.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of display tasks. There is a specified range of contexts and duties where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
110.1 Place and arrange products	<p>110.1.1 Packaging is removed from goods and the area cleared in line with supervisors instructions.</p> <p>110.1.2 Merchandise is placed on floor, fixtures and shelves in defined locations.</p> <p>110.1.3 Stock is faced to achieve an even, well stocked appearance and superseded stock is rotated to front of fixtures.</p> <p>110.1.4 Damaged, poor quality or out-of-date stock are identified and action is taken.</p> <p>110.1.5 Stock range is placed to correlate with fixture prices of bar codes.</p> <p>110.1.6 Enterprise OHS Policies are observed in the manual handling of stock, display fixtures and structures.</p>
110.2 Place and arrange shelf and display price tickets and labels	<p>110.2.1 Prices and/or labels are visible, contain accurate information and are securely placed in an appropriate position on merchandise.</p> <p>110.2.2 Correct pricing is maintained on merchandise.</p> <p>110.2.3 Prices are printed in line with enterprise procedures.</p> <p>110.2.4 Enterprise OHS Policies are observed in the manual handling of stock, display fixtures and structures.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> The following variables may be present: the enterprise image, enterprise merchandising policies, enterprise fixtures. Stock includes plants, hardware, packages, landscape materials, hazardous substances, fertilisers. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> enterprise presentation and display methods enterprise procedures in regard to stock rotation and replenishment the relationship between good housekeeping and merchandising techniques for arranging and aligning stock, facing up, maintaining well-stocked appearance etc. <p>An ability to</p> <ul style="list-style-type: none"> place and arrange products place and arrange shelf and display price tickets and labels 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems to ensure that workers undertake OHS induction systems to ensure that workers safety skills are assessed and training provided systems to ensure that workers are involved in the identification and reporting of hazards to health and safety systems to ensure that risks are assessed by relevant workers systems to ensure that effective short term and long term OHS risk control measures are implemented safe systems and procedures for handling, transporting and storing chemicals and hazardous substances 	

- safe manual handling systems and procedures
- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - information about the job to others in the work team
- **Collecting, analysing & organising information** - about daily work routines as directed
- **Planning & organising activities** - about daily work routines
- **Working with teams & others** - with others in a work group
- **Using mathematical ideas & techniques** -including prices
- **Solving problems** - of a basic nature as they relate to displaying products and goods
- **Using technology** - of a basic kind such as labelling tools and equipment

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT111 A Provide postharvest care	
<p>Unit Descriptor This unit describes basic post-harvest processing duties.</p> <p>The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of postharvest processing tasks. There is a specified range of contexts and duties where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
111.1 Clean plant products	<p>111.1.1 Product is washed, foreign material and dirt removed, and excess leaves stripped and/or trimmed as directed.</p> <p>111.1.2 Material is dried as directed according to enterprise standards.</p>
111.2 Administer postharvest treatments	<p>111.2.1 Plant treatment is prepared and administered as directed.</p> <p>111.2.2 Work practices employed minimise plant damage.</p>
111.3 Store plant products	<p>111.3.1 Material is stored as directed.</p> <p>111.3.2 Work practices are economical, methodical and meet established work schedules.</p> <p>111.3.3 Manual handling techniques when lifting or moving heavy loads conform to enterprise Occupational Health & Safety (OHS) guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Plant products may include flowers, foliage, bulbs, fruit, vegetables, herbs, mushrooms. Processes may include cleaning, washing, brushing. Treatment may include sorting, dipping, spraying, waxing. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> post-harvest treatments requirements for cooling of crop products safe use of hazardous substances used in post harvest treatments Occupational Health & Safety (OHS) principles relative to lifting heavy objects <p>An ability to</p> <ul style="list-style-type: none"> clean plant products administer re-hydration treatment store products 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems to ensure that workers undertake OHS induction systems to ensure that workers safety skills are assessed and training provided systems to ensure that workers are involved in the identification and reporting of hazards to health and safety systems to ensure that risks are assessed by relevant workers systems to ensure that effective short term and long term OHS risk control measures are implemented systems and procedures for the safe operation and maintenance of machinery and equipment safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p>	

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - information about the job to others in the work team
- **Collecting, analysing & organising information** - about daily work routines as directed
- **Planning & organising activities** - about daily work routines
- **Working with teams & others** - with others in a postharvest processing team
- **Using mathematical ideas & techniques** - counting
- **Solving problems** - of a basic nature as they relate to basic postharvest processing activities
- **Using technology** - of a basic kind such as horticultural hand tools and equipment

Industry	Horticulture
Sector/s	Nursery
RUH HRT112 A Provide propagation support	
Unit Descriptor	
This unit describes the assistance that is provided by workers to plant propagators in the production nursery sector.	
The work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks. There is a specified range of contexts where the choice of actions required is made quite clear by the supervisor or plant propagator.	
Element of Competency	Performance Criteria
112.1 Perform maintenance tasks to parent plants	<p>112.1.1 Water is applied to parent plants according to daily watering plan.</p> <p>112.1.2 The hygiene of the propagation area is maintained, tools are sterilised and rubbish and litter are removed and disposed of according to enterprise policy.</p> <p>112.1.3 Parent plants and surroundings are maintained in a clean and tidy fashion according to enterprise guidelines.</p> <p>112.1.4 Weeds are removed from around cultivated plants according to supervisors instructions.</p> <p>112.1.5 Changes in parent plant appearance or emergence of pests or diseases are reported to the appropriate person according to enterprise guidelines.</p>
112.2 Prepare materials for propagation	<p>112.2.1 Containers for propagation are prepared according to supervisors guidelines.</p> <p>112.2.2 Cleaning procedures are performed and hygiene practices followed according to enterprise guidelines.</p>
112.3 Place propagated material at the propagation site	<p>112.3.1 Propagation material is obtained from cutting area, and transported to propagation site according to supervisors instructions.</p> <p>112.3.2 Plants are placed in accordance with the pattern, and spacing designated by the supervisor.</p> <p>112.3.3 Hygiene practices are followed according to enterprise guidelines.</p> <p>112.3.4 Safe lifting techniques employed and manual handling techniques are efficient according to enterprise Occupational Health and Safety guidelines.</p>
112.4 Perform blocking up	<p>112.4.1 Plants are placed in the place, pattern, and at the spacing designated by the supervisor.</p> <p>112.4.2 Safe lifting techniques employed and manual handling techniques are efficient according to enterprise Occupational Health and Safety guidelines.</p> <p>112.4.3 Hygiene practices are followed according to enterprise guidelines</p>
RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Parent plants may include plants that are hardy, in plentiful supply, on-site, in ground or containerised. • Equipment used in the propagation process may include wheelbarrow, trolley, mechanical trolley, secateurs, media trays, water spray container, dibblers, rubbish bins. • Preparing planting containers may include gathering trays and containers, locating and collecting media, filling containers with media. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> • manual handling techniques with regard to loads • principles and practices of hygiene in a nursery context • basic plant structure 	
An ability to	
<ul style="list-style-type: none"> • perform maintenance tasks to parent plants 	

<ul style="list-style-type: none"> • prepare materials for propagation • place propagated material at the propagation site • perform blocking-up 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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1	1	1	1	1	1	1														
<ul style="list-style-type: none"> • Communicating ideas and information - information about the job to others in the work team • Collecting, analysing & organising information - about daily work routines as directed • Planning & organising activities - about daily work routines • Working with teams & others - with others in a plant propagation team • Using mathematical ideas & techniques - counting • Solving problems - of a basic nature as they relate to assistance with propagation • Using technology - of a basic kind such as horticultural hand tools and equipment 																				

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT113 A Operate ride-on vehicles	
Unit Descriptor This unit covers the basic skills and knowledge required to operate a range of ride-on mowers and small ride-on vehicles (usually 16 hp or less). Work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles with ride-on vehicles. Reporting is undertaken within established routines using methods and procedures that are predictable. This is equivalent to rural generic unit AG2100EO <i>Operate ride-on farm vehicles</i>	
Element of Competency	Performance Criteria
113.1 Perform pre-operational inspections	113.1.1 Pre-start checks of vehicle systems are carried out to manufacturers specifications and legislative requirements. 113.1.2 Loads are secured to operational and legislative requirements. 113.1.3 Hitch and towing points for trailed implements are checked for safety according to manufacturers specification.
113.2 Operate a vehicle	113.2.1 Controls are used according to manufacturers guidelines 113.2.2 Vehicle is operated without damage to it, any property, structures or surfaces. 113.2.3 Vehicle is refuelled, cleaned and housed according to enterprise policy.
113.3 Carry out routine maintenance	113.3.1 Faults or malfunctions are corrected and/or reported according to enterprise requirements. 113.3.2 Vehicles are routinely cleaned and stored after use to enterprise requirements. 113.3.3 Vehicle use is recorded to reflect the enterprise operational standards.
A. RANGE OF VARIABLES <ul style="list-style-type: none"> • Vehicles may include ride-on mowers usually less than 16 hp. • Trailed implements may include trailers. • Terrain may include tracks, paths, flat grassed areas and turf areas. 	
B. EVIDENCE GUIDE Underpinning Knowledge and Skills A basic working knowledge of <ul style="list-style-type: none"> • legal obligations of using vehicles in an off-road environment • pre-operational and post-operational checks • OHS obligations relevant to the job • correct operating procedures for vehicle • enterprise policy in relation to vehicle use and maintenance An ability to <ul style="list-style-type: none"> • perform pre-operational inspections • operate a vehicle • carry out routine maintenance 	
OHS issues that impact upon the performance of this unit <ul style="list-style-type: none"> • Occupational health and safety considerations may include: <ul style="list-style-type: none"> – modifications outside of manufacturers specifications – helmet standard – selecting a ride-on vehicle appropriate to the worker and job being performed – understanding that age may result in poor vision, slower reaction time, poor hearing 	

- the effect of body vibration
- noise to bystanders
- danger to bystanders

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - on vehicle usage, service and repairs
- **Planning & organising activities** - for routine maintenance and repair
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to calculate volumes and distances
- **Solving problems** - of breakdown and adverse operating conditions
- **Using technology** - to measure, record and communicate

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT114 A Carry out basic drying operations	
<p>Unit Descriptor This unit covers the work associated with drying of fruit, vegetables, flowers and foliage products. Work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of drying tasks and roles. Reporting is undertaken within established routines using methods and procedures that are predictable.</p>	
Element of Competency	Performance Criteria
114.1 Prepare area for drying	<p>114.1.1 Contaminants are removed according to company policy and industry standards.</p> <p>114.1.2 Basic maintenance to drying areas is carried out according to company policy and supervisors directions.</p> <p>114.1.3 The drying area is cleaned to industry standards and supervisors directions.</p>
114.2 Prepare tools and equipment	<p>114.2.1 Equipment and tools are cleaned according to company policy and industry standards.</p> <p>114.2.2 Equipment and tools are selected according to supervisors directions.</p> <p>114.2.3 Management is notified if tools are insufficient or faulty according to company policy.</p>
114.3 Prepare crop for drying	<p>114.3.1 Crop is cleaned according to supervisors directions.</p> <p>114.3.2 Crop is sorted according to company policy.</p> <p>114.3.3 Crop is cut for drying according to supervisors directions.</p> <p>114.3.4 Fruit and/or foliage is placed on drying surface according to company policy.</p>
114.4 Dry and pack the crop	<p>114.4.1 Crop is placed for treatment as specified by management.</p> <p>114.4.2 Crop is protected from adverse weather conditions</p> <p>114.4.3 Crop is removed from treatment as directed by management.</p> <p>114.4.4 Crop is picked up by hand as directed by management.</p> <p>114.4.5 Crop is packed by hand as directed by management.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Crops may include fruit, vegetables, flowers and foliage products. • Areas for drying may include drying greens, racks, dehydrators, bitumen slabs, trellises and sheds. • Contaminants may include dust, weed seeds or any foreign material which will affect crop quality. • Maintenance of drying areas may include watering greens, replanting greens, fixing racks, tightening trellises wires and posts, cleaning dehydrators, fixing pot holes. • Equipment and tools may include knives, buckets, shovels, brooms, trays, hoses. • Grades of crop will vary between seasons and markets. • Treatment of crop may include solar or mechanical means and/or the application of sulphur dioxide, oils, caustic, metabisulphate, or nothing. The crop may also be dried whole, be pitted and/or cut. • Placing crop may include spreading on trays or racks at the depth required by industry for efficient drying. • All procedures comply with Occupational Health & Safety (OHS) and industry specific policies and guidelines. • Crop can be cut by hand or by using a cutting machine. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • the contaminants and their significance • crop drying treatments • the tools and equipment required for the job • Occupational Health & Safety (OHS) policies necessary for the task <p>An ability to</p> <ul style="list-style-type: none"> • prepare area for drying • prepare tools and equipment • prepare products for drying 	

<ul style="list-style-type: none"> dry the crop 														
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems to ensure that workers undertake OHS induction systems to ensure that workers safety skills are assessed and training provided systems to ensure that workers are involved in the identification and reporting of hazards to health and safety systems to ensure that risks are assessed by relevant workers systems to ensure that effective short term and long term OHS risk control measures are implemented safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment 														
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>														
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Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology								
1	1	1	1	1	1	1								

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT115 A Carry out basic canopy maintenance	
<p>Unit Descriptor This unit covers the removal of unwanted vegetative growth and erection and removal of protected covers during the growing period of crops.</p> <p>All work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range pruning tasks and roles. Reporting and recording is undertaken within established routines using methods and procedures that are predictable.</p>	
Element of Competency	Performance Criteria
115.1 Remove unwanted growth	<p>115.1.1 Unwanted growth is identified and recognised in line with supervisors directions.</p> <p>115.1.2 Unwanted growth is removed according to supervisors directions.</p> <p>115.1.3 Equipment used satisfies company policy.</p>
115.2 Clean up after pruning operations	<p>115.2.1 Pruned material is pulled out of the canopy according to supervisors directions.</p> <p>115.2.2 Pruned material is disposed of according to company policy.</p> <p>115.2.3 Suspected problems are reported according to company procedures.</p> <p>115.2.4 Pruning cuts are sealed according to company guidelines.</p>
115.3 Control exposure of crop to sunlight	<p>115.3.1 Control measures are applied according to company policy and supervisors directions.</p> <p>115.3.2 Control measures are applied according to Occupational Health & Safety (OHS) policies and guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Unwanted growth may include suckers, water shoots or any vegetative growth. • Equipment may include secateurs, knives, bare hands, hand saws. • Suspected problems may include insects, diseases, mechanical damage, irrigation problems, frost, wind. • Company procedures may include maintaining proper channels of communication. • Pruning seals may include fungicides or paint to prevent diseases entering the pruned surface. • Control measures may include leaf removal, branch removal, applying or removing shadecloth, bird or hail netting, lifting and lowering of trellises, positioning cones. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • differentials between fruiting and non-fruiting wood • dying back of limbs • the quality of fruit the company is aiming to produce • Occupational Health & Safety (OHS) policy and guidelines relevant to the task <p>An ability to</p> <ul style="list-style-type: none"> • remove unwanted growth • clean up after pruning operations • control exposure of crop to sunlight 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about requirements of the task
- **Planning & organising activities** - organising equipment and materials for canopy maintenance
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate personal production rates
- **Solving problems** - of application of instructions
- **Using technology** - to maintain canopies

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT116 A Sow plant materials	
<p>Unit Descriptor This unit describes the process of supporting the sowing of plant materials such as seeds, plugs, de-flasking, crowns, canes, eyes, bulbs or other similar plant material for flower, fruit or vegetable production.</p> <p>All work is likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles. Recording and reporting is undertaken within established routines using methods and procedures that are predictable. There is a specified range of contexts where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
116.1 Prepare growing media	<p>116.1.1 Growing media is prepared as directed.</p> <p>116.1.2 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed</p> <p>116.1.3 Cleaning procedures are performed and hygiene practices followed according to enterprise guidelines.</p>
116.2 Select plant material for planting	<p>116.2.1 Plant material is selected which is sound, of defined size and suitable vigour for use in the planting process as directed.</p> <p>116.2.2 Work practices are employed which minimise plant damage.</p>
116.3 Prepare plant products for planting	<p>116.3.1 Material is prepared neatly, cleanly and evenly to the defined size.</p> <p>116.3.2 Storage procedures and hygiene practices are followed according to enterprise guidelines.</p>
116.4 Insert plant products into growing area	<p>116.4.1 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p> <p>116.4.2 Work practices are employed which minimise plant damage.</p> <p>116.4.3 Placement, spacing depth, orientation and technique are according to planting method and species requirements.</p> <p>116.4.4 Growing media covering is even, and to the required depth and compaction.</p> <p>116.4.5 Water and fertilisers are applied evenly and in volumes specified by supervisor.</p> <p>116.4.6 Tool and equipment cleaning and storage procedures are performed and hygiene practices followed according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Growing media may include prepared media including hydroponic systems, field soils, containerised media. • Plant products may include seedlings, seeds, foliage, trees, fruit and vegetables, bulbs, vegetative materials. • Planting methods may include hand planting, assisting with mechanical planting • Plant preparation may include trimming, washing, dipping. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • handling techniques for different seed and vegetative materials • basic techniques of media preparation • basic methods of sowing plant products • hygiene practices in plant handling <p>An ability to</p> <ul style="list-style-type: none"> • prepare growing media 	

- select plant material for planting
- prepare plant products for planting
- insert plant products into growing media

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor
- **Collecting, analysing & organising information** - from the supervisor about the task at hand
- **Planning & organising activities** - organising equipment and materials for sowing plant products
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate quantities and personal production rates
- **Solving problems** - relating to the task at hand
- **Using technology** - to sow plant products

Industry	Horticulture
Sector/s	Floriculture, Production

RUH HRT117 A Carry out basic post-harvest operations	
<p>Unit Descriptor This unit describes basic postharvest operations carried out in a horticultural enterprise. It covers the field transport, grading and packing of harvested crops.</p> <p>Postharvest operations are likely to be under direct supervision with regular checking. Competency involves the application of knowledge and skills to a limited range of tasks and roles. Transporting, grading and packing are undertaken within established routines using methods and procedures that are predictable. There is a specified range of contexts where the choice of actions required is made quite clear by the supervisor.</p>	
Element of Competency	Performance Criteria
117.1 Transport produce	<p>117.1.1 Field handling practices and equipment used reflect industry best practice.</p> <p>117.1.2 Grading practices which minimise damage are used to product are utilised in line with enterprise standards.</p>
117.2 Grade, label and treat produce	<p>117.2.1 Crop is graded and labelled according to market requirements and supervisors instructions.</p> <p>117.2.2 Postharvest treatments are applied according to company policy.</p> <p>117.2.3 Plants that do not meet enterprise quality specifications are identified and disposed of according to enterprise policy.</p>
117.3 Pack produce	<p>117.3.1 Appropriate container for the produce is selected according to enterprise policy.</p> <p>117.3.2 Correct filling techniques used for specific containers are demonstrated.</p> <p>117.3.3 Wraps and lids are applied and containers are labelled to meet industry and client requirements.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture</p> <ul style="list-style-type: none"> Plant products may include flowers, foliage, bulbs. Company policies may include hygiene routines and standards, list of contaminants, grades of crop required, temperature ranges, quality assurance. <p>Production</p> <ul style="list-style-type: none"> Plant products may include fruit, vegetables, herbs, mushrooms. Company policies may include hygiene routines and standards, list of contaminants, grades of crop required, temperature ranges, quality assurance. Containers may include bulk bins, boxes or trays. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> enterprise quality procedures field handling and transport methods relevant to different enterprise crops industry standards for packaging <p>An ability to</p> <ul style="list-style-type: none"> transport produce grade, label and treat produce pack produce 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
 - systems and procedures for the safe operation and maintenance of machinery, equipment and cool rooms
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about the postharvest operations
- **Planning & organising activities** - organising equipment and materials for postharvest operations
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring volumes and weights, calibration of grading machinery
- **Solving problems** - relating to daily work activities
- **Using technology** - such as horticultural grading machinery and equipment

LEVEL

2

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT201 A Treat weeds	
Unit Descriptor	
This unit describes the control of weeds using cultural methods such as manual removal and/or low toxicity chemical control methods including the application of glyphosate by back pack spray, weed wand or similar.	
Weed treatment is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of weed treatment tasks and roles usually within established enterprise routines.	
Element of Competency	Performance Criteria
201.1 Recognise areas requiring treatment	201.1.1 Weed infestations are recognised and appropriate control measures taken according to supervisors instructions. 201.1.2 Weed problems requiring urgent attention are recognised and the response is appropriate and according to enterprise policy.
201.2 Undertake weed treatment	201.2.1 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines. 201.2.2 Treatments are prepared according to supervisors instructions and manufacturers guidelines. 201.2.3 Treatments are administered according to enterprise guidelines and species requirements. 201.2.4 Work practices employed minimise non-target damage. 201.2.5 Enterprise and regulatory guidelines are observed.
201.3 Keep records	201.3.1 Details on weed infestation are gathered and documented according to enterprise policy and industry practice. 201.3.2 Treatment regimes are documented and results tabulated according to enterprise policy. 201.3.3 Information is updated and reviewed as appropriate and according to enterprise policy. 201.3.4 Records are maintained according to enterprise guidelines.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Common weeds may include those commonly occurring in a specified enterprise, workplace or region which are easily controlled and which may impact on the quality of the crop, garden or turf. • Treatments may include chemical or cultural control • Treatment application may be by mechanised and non-mechanised operations. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> • characteristics of common weeds • chemical control measures • non-chemical and cultural control techniques • integrating chemical and non-chemical control measures • mode of action of different groups of chemicals • infestation characteristics of common weeds of the enterprise/region 	
An ability to	
<ul style="list-style-type: none"> • recognise weeds • undertake weed treatment • keep records 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor
- **Collecting, analysing & organising information** - about the weed treatment activities
- **Planning & organising activities** - organising equipment and materials for weed treatment activities
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - measuring volumes, calibration
- **Solving problems** - relating to daily weed treatment activities

- **Using technology** - such as horticultural spraying equipment

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	

RUH HRT202 A Treat pests and diseases	
Unit Descriptor This unit describes the control of pests and diseases using cultural methods such as manual removal and/or low toxicity chemical control methods such as the application of insecticides by back pack sprayer or similar. Pest and disease treatment is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of pest and disease treatment tasks and roles usually within established enterprise routines.	
Element of Competency	Performance Criteria
202.1 Recognise pests and diseases	202.1.1 Pests or diseases which impact on commercial crops, garden trees and plants and turf are identified and appropriate control measures taken according to supervisors instructions. 202.1.2 Problems requiring urgent attention are recognised and actioned as required according to enterprise policy.
202.2 Undertake pest and disease treatment	202.2.1 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines. 202.2.2 Treatments are prepared according to supervisors instructions and manufacturers guidelines. 202.2.3 Treatments are administered according to enterprise guidelines and species requirements. 202.2.4 Work practices employed minimise non-target damage. 202.2.5 Enterprise and regulatory guidelines are observed.
202.3 Keep records	202.3.1 Details on pest or disease infestations are gathered and documented according to enterprise policy and industry practice. 202.3.2 Treatment regimes are documented and results tabulated according to enterprise policy. 202.3.3 Information is updated and reviewed as appropriate and according to enterprise policy. 202.3.4 Records are maintained according to enterprise guidelines.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Common pests or diseases may include those commonly occurring in a specified enterprise, workplace or region which are easily controlled and which may impact on the quality of the crop, garden or turf. • Treatments may include chemical or cultural control. 	

<ul style="list-style-type: none"> • Treatment application may be by mechanised and non-mechanised operations.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • characteristics of common pests and diseases • chemical control measures • non-chemical and cultural control techniques • integrating chemical and non-chemical control measures • mode of action of different groups of chemicals • infestation characteristics of common pests and diseases of the enterprise/region <p>An ability to</p> <ul style="list-style-type: none"> • identify pests and diseases • apply non-chemical and environmental control measures • keep records
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – systems and procedures for the safe operation and maintenance of machinery and equipment – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit</p>

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor • Collecting, analysing & organising information - about the pest and disease treatment activities • Planning & organising activities - organising equipment and materials for pest and disease treatment • Working with teams & others - to complete specified tasks • Using mathematical ideas & techniques - measuring volumes, calibration • Solving problems - relating to daily pest and disease treatment activities • Using technology - such as horticultural spraying equipment 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT203 A Plant trees and shrubs	
Unit Descriptor	
This unit describes the tasks associated with tree and shrub planting. It applies to and, can be contextualised for, ornamental planting activities in parks and gardens, domestic and commercial landscapes, sporting facilities, and planting of windbreaks and shelter belts.	
Planting is likely to be done under routine supervision and with intermittent checking. Competency involves the application of knowledge and skills to a range of planting tasks and roles usually within established enterprise routines.	
Element of Competency	Performance Criteria
203.1 Prepare a planting site	203.1.1 Site is marked out according to planting plan and/or supervisors instructions. 203.1.2 Competing plants are controlled according to supervisors instructions. 203.1.3 Soil is modified according to the cultural requirements of the trees to be planted.
203.2 Excavate planting hole	203.2.1 Planting holes are dug to sufficient size to ensure roots can grow outwards and downwards according to the needs of the species and size of root system. 203.2.2 Sides of planting holes are gouged to remove glazing of side walls and allow root penetration into surrounding soil. 203.2.3 Depth of planting holes is sufficient to ensure that the tree is planted no deeper than the junction of the roots and the stem. 203.2.4 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.
203.3 Prepare trees and shrubs for planting	203.3.1 Trees and shrubs are watered prior to planting to ensure

	<p>entire root ball is damp.</p> <p>203.3.2 Trees and shrubs are removed from containers without damage.</p> <p>203.3.3 Bound roots are treated and damaged or broken roots are trimmed according to the needs of the species.</p>
203.4 Install trees and shrubs and provide aftercare	<p>203.4.1 Tree or shrub is placed in hole with roots prepared according to standard horticulture practice.</p> <p>203.4.2 Planting hole is back-filled with soil free from large lumps.</p> <p>203.4.3 Soil is consolidated lightly and a shallow basin formed for water retention.</p> <p>203.4.4 Tree or shrub is watered in with sufficient volume to eliminate air pockets.</p> <p>203.4.5 Mulching material is applied evenly to pre-determined depth according to enterprise guidelines.</p> <p>203.4.6 Trees and shrubs are secured as directed.</p> <p>203.4.7 Trees and shrubs are pruned as required.</p> <p>203.4.8 Fertiliser is applied according to supervisors instructions and manufacturers guidelines.</p> <p>203.4.9 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>

A. RANGE OF VARIABLES

- Equipment may include secateurs, spades, shovels, rakes, spray equipment, augers.
- Trees and shrubs may include container grown, tube grown or bare rooted plants across a range of lifeforms and growth habits that do not require mechanised lifting devices.
- Aftercare may include weed and disease control, mulching, fertilising, pruning, watering, protection such as staking and tying.
- Instructions may include supervisors orders, plans and specifications, client's instructions, sketches.
- Securing may include tying, staking, bracing, anchoring, guying and installation of tree guards and protective materials.
- Pruning may include formative pruning, removal of damaged or dead materials, canopy reduction, thinning and lifting.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- planting techniques and concepts
- factors affecting the timing and method of tree or shrub planting
- causes and prevention of drying out of plant root system
- initial establishment needs of juvenile plants
- principles relating to the application of mulches and fertilisers
- basic plant structure and the nutritional requirements of plants
- labelling techniques

An ability to

- prepare a planting site
- excavate planting hole
- prepare trees (and shrubs) for planting
- install trees (and shrubs) and provide aftercare

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:

- systems and procedures for the safe operation and maintenance of machinery and equipment
- safe operation of other vehicles
- protection from hazardous noise
- protection from organic and other dusts
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protection clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor
- **Collecting, analysing & organising information** - about the planting activities
- **Planning & organising activities** - organising equipment and materials for planting activities
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring depth and volume
- **Solving problems** - relating to daily planting activities and work routines
- **Using technology** - such as horticultural hand tools and equipment

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT204 A Communicate in the workplace	
Unit Descriptor This unit describes the communication requirements of workers operating in the horticultural industry. Workplace communication methods and techniques are likely to be under routine supervision with intermittent checking from supervisors. Responsibility for some roles and team work may be required. Communication involves the application of knowledge and skills to a range of tasks and roles. Communication is usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
204.1 Gather, record and convey data	204.1.1 Sources of required data are identified and accessed. 204.1.2 Data is organised clearly and concisely, correct procedures for storage are employed, and recording is complete, accurate and legible.
204.2 Gather, record and provide information in response to workplace requirements	204.2.1 Sources of required information are identified and appropriate contact is established. 204.2.2 Personal interaction is courteous and queries are made clearly and concisely. 204.2.3 Correct procedures for location and storage of information are employed and workplace practices are observed. 204.2.4 Recorded information is complete, accurate and legible.
204.3 Participate in work groups and teams	204.3.1 Interaction with work groups is supportive, efficient, effective and courteous and initiative is demonstrated. 204.3.2 Group decisions are understood and implemented as required.
204.4 Participate in workplace meetings	204.4.1 Interaction in meetings is consistent with purpose of meeting, meeting conventions are observed, and information, instructions and decisions are understood and adhered to.
204.5 Interact with others in the workplace	204.5.1 Interaction with others is efficient, effective, responsive, courteous and supportive, correct forms of greeting, identification and address are used, and the enterprise is presented in a positive way. 204.5.2 Contact is initiated when appropriate and interaction is consistent with the needs of the enterprise. 204.5.3 The needs of those in contact with the enterprise are clarified and noted where appropriate. 204.5.4 Information is conveyed in a clear, appropriate way. 204.5.5 A courteous manner is maintained, discretion and confidentiality are exercised where appropriate, and follow-up steps are taken when required. 204.5.6 Personal presentation is consistent with the needs of the organisation.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Data storage may include manual filing systems, computer filing systems. • Types of data may include rainfall, production data, messages, plant and product information, maintenance information, stock lists and prices, knowledge of site security, construction and/or location information. • Other contacts of the enterprise may include suppliers, industry bodies, contractors. • Forms of communication may include face to face, telephone, written, computers, faxes, 2-way radios. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- effective communication
- different modes of communication
- written communication
- effective communication in a work team

An ability to

- gather, record and convey data
- gather, record and provide information in response to workplace requirements
- participate in work groups and teams
- participate in workplace meetings
- interact with others in the workplace

OHS issues that impact upon the performance of this unit

Not applicable.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor
- **Collecting, analysing & organising information** - about workplace communication issues
- **Planning & organising activities** - for work groups and teams.
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate and record data
- **Solving problems** - relating to daily workplace communication
- **Using technology** - such as telephones, fax machines, answering machines, two-way radios

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Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT205 A Dig a grave	
<p>Unit Descriptor This unit describes the tasks associated with digging a grave, backfilling the grave and making good the site following burial.</p> <p>Opening a grave is likely to be done in association with a fellow worker under routine supervision and with intermittent checking. An individual involved in digging a grave at this level would generally work as part of a team and would not be required to operate earth-moving machinery. Competency involves the application of knowledge and skills to a range of grave digging tasks and roles usually within established cemetery routines.</p>	
Element of Competency	Performance Criteria
205.1 Prepare site for digging	<p>205.1.1 Site is marked out according to grave dimensions and according to supervisors instructions.</p> <p>205.1.2 Inspection of monumentation on and near the site is completed before digging commences.</p> <p>205.1.3 Monuments, masonry or headstones that threaten the stability of the worksite are removed according to supervisors instructions.</p> <p>205.1.4 A sludge pump is provided on site where water is present.</p> <p>205.1.5 Numbers of employees engaged in grave complies with the procedures and practices of the cemetery.</p>
205.2 Support grave excavation	<p>205.2.1 Graves are dug to suit dimensions of coffin according to cemetery policy.</p> <p>205.2.2 Soil at the top of the grave is shored to a minimum depth of 300 mm from the surface.</p> <p>205.2.3 Sides of grave are shored where depth of grave exceeds 1.5 metres or as determined by enterprise policy.</p> <p>205.2.4 Surface area for 400 mm from the edge of the excavation should be covered with an approved method to ensure the integrity and stability of the soil.</p> <p>205.2.5 Personal protective equipment is used according to OHS and cemetery requirements.</p> <p>205.2.6 Tools, machinery and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.</p> <p>205.2.7 Grave opening is completed in compliance with relevant and applicable legislative and other requirements.</p>
205.3 Secure open graves	<p>205.3.1 Protective restraints ensure that only authorised people are permitted near site while digging is in progress.</p> <p>205.3.2 Protective restraints are placed to limit access to the site when grave is left unattended.</p> <p>205.3.3 Access and egress from confined spaces is undertaken by means of an approved ladder.</p>
205.4 Backfill and make good grave following burial	<p>205.4.1 Soil is consolidated as backfilling progresses.</p> <p>205.4.2 Burial hole is back-filled with soil free from large lumps.</p> <p>205.4.3 Backfilling techniques minimise cavities in line with cemetery standards.</p> <p>205.4.4 Tools, machinery and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.</p> <p>205.4.5 Monumentation is replaced where necessary and site is made good according to cemetery policy.</p>
A. RANGE OF VARIABLES	

- A grave site is a place of burial below ground which may or may not be lined.
- A coffin is a container which contains non-cremated human remains.
- Confined space may include an enclosed or partially enclosed space that is at atmospheric pressure during occupancy, and is not intended or designed primarily as a place of work and which may have restricted access and egress, may have atmospheric contaminants or an unsafe oxygen level; or may cause engulfment.
- Protective restraints may include barricades, temporary fencing and reinforced covers.
- Tools may include spades, shovels, rakes, crowbars, augers.
- Approved ladder is one that complies with the requirements of Australian Standard AS 1892 and extends from the base of the excavation to at least 600mm above the top of the grave.
- Personal protective equipment may include hats and head protection.
- Applicable legislative and other requirements may include OHS&W Act 1986 and Regulations 1995; Approved Code of Practice AS 2885 Safe Work in Confined Space; relevant Local Government Acts, General Cemetery Regulations and Worksafe Australia Certification and Standards.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- grave digging techniques
- emergency procedures
- OHS legislation
- soil types
- tool, equipment and machinery used in grave digging
- cemetery policy in relation to grave preparation

An ability to

- prepare site for digging
- excavate grave
- secure open graves
- backfill and make good grave following burial

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe operation of other vehicles
 - protection from hazardous noise
 - protection from organic and other dusts
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protection clothing and equipment
 - safe working in confined space

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor
- **Collecting, analysing & organising information** - about the digging requirements
- **Planning & organising activities** - organising equipment and materials for grave digging
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring dimensions and depth of grave
- **Solving problems** - relating to soil, water and weather conditions and work routines affecting grave opening
- **Using technology** - such as horticultural hand tools and equipment

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens
Gardens	Production, Turf
RUH HRT206 A Operate tractors	
<p>Unit Descriptor This unit describes the operation of tractors in a horticultural workplace. Tractors in this industry are generally unlikely to exceed 100hp and be two or four wheel drive with conventional steering.</p> <p>Tractor operation is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of tractor operation tasks. Tractor operation is usually within established routines, methods and procedures.</p> <p>This is equivalent to the rural generic unit of competency AG2102EO <i>Operate tractors</i>.</p>	
Element of Competency	Performance Criteria
206.1 Implement safe tractor operating procedures	<p>206.1.1 Mechanical hazards associated with safe tractor operation are identified and relevant risk control measures are implemented in line with enterprise standards.</p> <p>206.1.2 Environmental hazards associated with safe tractor operation are identified and relevant risk control measures implemented in line with enterprise standards.</p> <p>206.1.3 Operator factors associated with safe tractor operation are identified and relevant risk control measures are implemented in line with enterprise standards.</p>
206.2 Perform routine tractor maintenance	<p>206.2.1 Routine safety checks are carried out in line with industry standards.</p> <p>206.2.2 Routine daily service requirements are completed as specified by the manufacturer.</p> <p>206.2.3 Faults detected are corrected and reported as specified in operating standards.</p>
206.3 Operate tractor	<p>206.3.1 Pre-start checks of tractor and equipment are carried out according to manufacturers specifications and legislative requirements.</p> <p>206.3.2 Selected implements are securely attached and set for required operation.</p> <p>206.3.3 Licences and permits are obtained as required.</p> <p>206.3.4 The tractor is driven in a safe and controlled manner relative to the operating conditions without damage to the tractor attachments or property.</p> <p>206.3.5 Defined shut down procedures are completed in line with operational requirements.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Tractors are two or four wheel drive with conventional steering and up to 70hp. • Routine daily safety checks may include an assessment of mechanical hazards, belts, gauges, chains and drives, power take off equipment and guards, lighting, roll over protection, spark arresters and fire safety, braking systems, hydraulic systems. • Routine daily service requirements may include checks of fluid levels, tyre conditions and pressures, belt replacements, hydraulic hoses and couplings, air cleaners, fuel and oil filters, lubrication, steering systems, in line with manufacturers specifications. • Steering systems may include conventional front wheel steering, skid steer. • Operating conditions may include terrain in both on- and off-road conditions which may be smooth, rough, slippery, with light and medium loads/draughts. It does not include difficult and hazardous 	

- conditions such as boggy and steep terrain with medium to heavy loads.
- Tractors may be set up and operated for blade, drawbar, front end loader, power take off, remote hydraulics, linkage mounted equipment.
 - Tractor shutdown procedures may include re-fuelling after work, ensuring all hydraulic equipment is lowered to a “safe” position, completing appropriate records.
 - Operational standards may include pre-operational checks, standards of operation, storage and usage of fuels and lubricants, safeguards, reporting routines.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- the provisions of the Workplace Health and Safety Acts, their regulations and codes of practice
- particular state or territory regulations relating to operations
- safety and survival skills such as the need to maintain working loads within specification, hitch points at the correct height and an awareness of operating hazards, such as power lines or steep working conditions

An ability to

- perform routine tractor maintenance
- operate tractors

OHS issues that impact upon the performance of this unit

- Safe working and operating practices are required at all times.
- WorkCover certificates may be required for the operation of hydraulic lifting equipment or any equipment worked above head height.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with others in the work group
- **Collecting, analysing & organising information** - on tractor usage and consumables

- **Planning & organising activities** - for tractor operation
- **Working with teams & others** -to complete specified works
- **Using mathematical ideas & techniques** - to calculate coverage/fuel consumption etc.
- **Solving problems** - of breakdown and equipment compatibility
- **Using technology** - to trouble shoot machinery performance and with communication systems

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT207 A Operate equipment and machinery	
Unit Descriptor This unit describes the operation of tractors and their associated implements in a horticultural workplace. Tractors in this industry are generally unlikely to exceed 100hp and be two wheel drive with conventional steering. Tractor operation is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of tractor operation tasks. Tractor operation is usually within established routines, methods and procedures. This is equivalent to the Agricultural unit of competency AGCORE1100EO <i>Operate equipment</i> .	
Element of Competency	Performance Criteria
207.1 Operate trailed and mounted equipment	<p>207.1.1 Trailing and tractor mounted equipment is selected and attached securely and safely to the vehicle or tractor as instructed.</p> <p>207.1.2 Selected machinery or equipment is calibrated for the designated task.</p> <p>207.1.3 Implements or trailers are operated safely and effectively to operational requirements.</p> <p>207.1.4 Damage, wear or malfunctions are corrected and/or reported in accordance with operational requirements.</p> <p>207.1.5 Equipment is cleaned and stored after use according to enterprise standards.</p>
207.2 Operate stationary equipment	<p>207.2.1 Pre-start checks of engines and motors are completed in accordance with operational requirements.</p> <p>207.2.2 Attached powered equipment is checked for condition and designed operation prior to starting.</p> <p>207.2.3 Damage, wear, faults or malfunctions are corrected and/or reported to operational requirements.</p> <p>207.2.4 Equipment is cleaned and stored after use in accordance with operational requirements.</p> <p>207.2.5 Equipment use is recorded according to enterprise standards operational requirements.</p>
207.3 Operate independently powered tools	<p>207.3.1 Pre-start checks of power tools are completed in line with manufacturers recommendations.</p> <p>207.3.2 Manufacturer and workplace safety requirements are followed to maximise operator safety.</p> <p>207.3.3 Unsafe or faulty tools are identified and segregated for repair or replacement.</p> <p>207.3.4 Tools are prepared to use in line with industry standards and manufacturers recommendations.</p> <p>207.3.5 Tools and equipment are operated safely and efficiently to workplace requirements.</p> <p>207.3.6 Tools are cleaned and stored after use as specified.</p>

A. RANGE OF VARIABLES

- Trailed or mounted equipment may be mounted on property vehicles, motorbikes, trailers, tractors or other prime movers.
- Trailing equipment may include a range of trailers, fertiliser spreaders, fuel tanks.
- Equipment may include forklifts, hydraulic equipment, hydroplats, stationary engines, pumps, irrigation equipment, excavators, spraying equipment, hedging machines, solar and wind powered equipment, elevated work platforms, cherry pickers, scissor lifts, chippers.
- Preparation of independently powered tools may include sharpening, priming pumps, clearing filters, general cleaning.
- Some equipment may require additional licensing.
- Operating conditions may include on- and off-road conditions which may be smooth, rough, uneven, slippery, boggy, steep or hilly.
- Tyre pressures are maintained at levels appropriate to operating conditions.
- Operating methods may include those for turbo-charged engines.
- All storage, maintenance and operation must conform to relevant Occupational Health & Safety (OHS) legislation.
- Records may be paper based or use electronic data processing devices.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- road traffic laws
- Occupational Health & Safety (OHS) procedures for various equipment
- enterprise procedures for various equipment
- relevant Occupational Health & Safety (OHS) requirements for storage of materials and equipment

An ability to

- operate trailed and mounted equipment
- operate stationary equipment
- operate independently powered tools

OHS that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe operation and maintenance of machinery and equipment
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with others in the work group • Collecting, analysing & organising information - on equipment usage and requirements • Planning & organising activities - for workplace operations • Working with teams & others -to complete specified works • Using mathematical ideas & techniques - to calculate volumes, weights and consumption • Solving problems - of equipment breakdown and equipment matching • Using technology - in communication, performance monitoring etc. 						

Industry	Horticulture
Sector/s	Arboriculture, Landscape, Parks & Gardens
RUH HRT208 A Prune shrubs and small trees	
Unit Descriptor	
<p>This unit describes ornamental tree and shrub pruning. The work is likely to be undertaken from the ground. Aerial pruning, either from a ladder, an elevated work platform or from climbing ropes and rigging in a tree is covered in separate units.</p> <p>Pruning work is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of pruning tasks and roles usually within established enterprise routines.</p>	
Element of Competency	Performance Criteria
208.1 Identify pruning requirements	<p>208.1.1 Pruning requirements are established based on sound horticultural practices and consistent with enterprise policy and guidelines.</p> <p>208.1.2 Plants requiring pruning are identified.</p> <p>208.1.3 Type of pruning required is determined according to supervisors instructions.</p> <p>208.1.4 Appropriate tools and equipment required for pruning are identified.</p> <p>208.1.5 Access to site is determined in consultation with the field supervisor.</p> <p>208.1.6 Disposal of waste materials is determined according to enterprise policy.</p>
208.2 Prepare for pruning	<p>208.2.1 Pruning tools and equipment is selected in accordance to location, access and size of material to be pruned.</p> <p>208.2.2 Safety equipment and personal protective equipment is prepared in line with pruning task requirements.</p>
208.3 Undertake pruning of trees and shrubs	<p>208.2.1 Plant material to be removed is identified according to pruning program requirements.</p> <p>208.2.2 Branches are cut according to established horticulture practice.</p> <p>208.2.3 Tools and equipment are used according to supervisors instructions and manufacturers guidelines.</p> <p>208.2.4 Disposal of waste materials is completed according to enterprise policy.</p> <p>208.2.5 Site is cleaned and made good on completion of pruning activities.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Pruning requirements may include pruning for shape, fruit and flower production, health and vigour, clearance for services and access. • Types of pruning may include formative and corrective, preventative, ornamental pruning and canopy lifting, thinning, reduction, or management. • Pruning techniques may include removal of damaged, diseased and dead wood, flowers, foliage. • Equipment used may include chipper, small chainsaws, ropes, handsaws, secateurs. • Ground pruning may be undertaken by hand tools, chainsaws. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
<p>A basic working knowledge of</p> <ul style="list-style-type: none"> • principles and methods of pruning to achieve given objectives • effects on plant growth and habit by pruning operations • principles relating to the choice and use of equipment for pruning <p>An ability to</p> <ul style="list-style-type: none"> • determine pruning requirements • plan for pruning 	

- undertake pruning of trees and shrubs
- OHS issues that impact upon the performance of this unit**
- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** -with supervisor and others in the work team
- **Collecting, analysing & organising information** - about the daily work routines
- **Planning & organising activities** - about the daily work routines
- **Working with teams & others** - with others in a work team
- **Using mathematical ideas & techniques** - as they apply to daily performance, working hours

- **Solving problems** - of a basic nature as they relate to pruning techniques
- **Using technology** - of a basic kind such as pruning tools and equipment

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT209 A Perform above ground pruning	
<p>Unit Descriptor This unit describes aerial ornamental tree and shrub pruning. The work is generally undertaken from an elevated work platform. Aerial pruning from climbing ropes and rigging in a tree is covered in a separate unit.</p> <p>Pruning work is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of pruning tasks and roles usually within established enterprise routines.</p>	
Element of Competency	Performance Criteria
209.1 Utilise safe work practices in above ground pruning operations	<p>209.1.1 Protective clothing and equipment required for above ground pruning from an elevated work platform (EWP) selected according to industry standard.</p> <p>209.1.2 Key elements for working with safety in a team environment, in above ground pruning operations are identified and practised.</p> <p>209.1.3 Procedures for safe use of tools and equipment (including placement of tools when not in use) in EWP pruning operations are practised as an integral part of work routines.</p> <p>209.1.4 The requirements for dropping pruned material in a safe manner into the designated drop zone, including use of ropes are observed in accordance with industry practice.</p> <p>209.1.5 Safety precautions and the methods of working in a safe manner in situations and/or environments in the proximity of power lines and practised as an integral part of daily work routines.</p> <p>209.1.6 Procedures for the safe use of controlled descending devices are implemented as required.</p> <p>209.1.7 Potential hazards and the preventive measures to be taken to avoid these hazards are identified while operating or working in an EWP.</p>
209.2 Perform remedial and corrective pruning of trees from an elevated work platform (EWP)	<p>209.2.1 Appropriate hand tools for use in a given EWP above ground pruning operation are located.</p> <p>209.2.2 Hand tools and all equipment are checked to be in good working order prior to commencement.</p> <p>209.2.3 Safety harness is fitted and adjusted according to manufacturers guidelines and workplace safety requirements.</p> <p>209.2.4 Ascent in an EWP to a given position for the pruning operation is achieved using communication and signage techniques according to enterprise requirements.</p> <p>209.2.5 Tools suitable for the pruning task are selected and used according to operational requirements.</p> <p>209.2.6 Tools, while not in use, are stored safely.</p> <p>209.2.7 Remedial and corrective pruning operations are performed as required according to instructions.</p> <p>209.2.8 Pruning material is dropped in a safe manner into designated drop zone using ropes as and when required.</p> <p>209.2.9 Descent in the EWP at the conclusion of the pruning operation is completed in accordance with industry safe work standards.</p> <p>209.2.10 Tools and equipment are cleaned, maintained and stored according to manufacturers specifications and enterprise policy and procedures.</p>
A. RANGE OF VARIABLES	

- Pruning may include formative or corrective
- Pruning techniques may include cleaning out, crown thinning, crown reduction, crown lifting, crown renewal, removal of dead wood.
- Equipment used may include elevated work platforms (EWP), chipper, small chainsaws, ropes, handsaws, secateurs.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- the procedures to be followed for safe use of controlled descending devices
- the types of protective clothing and equipment required in above ground pruning from an EWP
- the key elements for working with safety in a team environment, in above ground pruning operations
- the procedures for safe use of tools and equipment including placement of tools when not in use in EWP pruning operations
- the requirements for dropping pruning material in a safe manner into the designated drop zone, including use of ropes
- the safety precautions and the methods of working in a safe manner in situations and/or environments in the proximity of power lines
- the potential hazards and the preventive measures to be taken to avoid these hazards, while operating/working in an EWP

An ability to

- demonstrate procedures for safe work practices in above ground pruning operations
- perform remedial and corrective pruning of trees from an elevated work platform vehicle (EWP)

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including working in confined spaces above ground level with hand and powered pruning tools and protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a

person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment
 These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
 Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
 Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor
- **Collecting, analysing & organising information** - about the pruning operations
- **Planning & organising activities** - organising equipment and materials for tree pruning operations
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate height and safe working loads
- **Solving problems** - relating to working in confined spaces above ground level
- **Using technology** - such as elevated work platforms and powered pruning equipment

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT210 A Provide arboricultural support	
Unit Descriptor	
This unit describes the ground support role of a member of an arboricultural work unit.	
Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Ground support involves the application of knowledge and skills to a range of tasks and roles. Competencies are usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
210.1 Check and prepare equipment and tools	210.1.1 Tools are chosen appropriate to the task being under-taken, used according to manufacturers guidelines, and Occupational Health & Safety (OHS) regulations. 210.1.2 All equipment and tools are checked for safety and workability according to manufacturers instructions. 210.1.3 Any equipment identified as being faulty is reported to the designated person.
210.2 Maintain clear work site during operations	210.2.1 All persons not involved in the work program are kept away from the site during operations. 210.2.2 All equipment is kept clear of debris on the ground and material being removed from tree according to manufacturers instructions. 210.2.3 Rescue equipment is placed within easy access in the case of an emergency. 210.2.4 Drop zone is kept free of all debris according to enterprise guidelines.
210.3 Provide ground support for tree climbers	210.3.1 The climber's ascent into tree is supported by securing tail line and tracking progression of rope to control weight of climber. 210.3.2 The climber is observed at all times during ascent and subsequent tree works to ensure that ropes to ground are clear of obstacles, to communicate when required and to monitor climber safety. 210.3.3 Potential hazards associated with sending tools/equipment to climbers working in trees are identified. 210.3.4 Equipment is sent to climber as required using a clove hitch knot and employing safe working procedures. 210.3.5 Climber's descent is observed to ensure safety is maintained. 210.3.6 Climber is assisted in descending the lower part of the tree as and when required. 210.3.7 All tools and equipment are checked for wear/damage, prepared for transporting/storage and stored according to enterprise policy and procedures. 223.3.8 Reports to the supervisor comply with enterprise policy and procedures.
210.4 Receive and process tree prunings during operations	210.4.1 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines. 210.4.2 Surrounding environment is maintained in a damage free condition. 210.4.3 Tree prunings are received and stacked according to enterprise guidelines. 210.4.4 Tree prunings are prepared for processing according to enterprise guidelines. 210.4.5 Processing of tree prunings is undertaken according to supervisors instructions and/or manufacturers instructions.
210.5 Complete allocated tasks in a team environment	210.5.1 Communication links between ground crew and operator are clearly maintained at all times according to enterprise

	<p>guidelines.</p> <p>210.5.2 Instructions for operations are received and clarified, prior to work being undertaken.</p> <p>210.5.3 Operations of ground crew are performed in a coordinated manner according to enterprise guidelines.</p> <p>210.5.4 Non-verbal signs of communication are received and clarified according to enterprise guidelines.</p> <p>210.5.5 Climbing ropes are kept clear of saws and falling timber in accordance with safe working practice.</p> <p>210.5.6 Rope handling techniques are performed according to safe working practices.</p>
210.6 Provide ground support for tree climbers	<p>210.6.1 The climber's ascent into tree is supported by securing tail line and tracking progression of rope to control weight of climber.</p> <p>210.6.2 The climber is observed at all times during ascent and subsequent tree works to ensure that ropes to ground are clear of obstacles, to communicate when required and to monitor climber safety.</p> <p>210.6.3 Potential hazards associated with sending tools/equipment to climbers working in trees are identified.</p> <p>210.6.4 Equipment is sent to climber as required using a clove hitch knot and employing safe working procedures.</p> <p>210.6.5 Climber's descent is observed to ensure safety is maintained.</p> <p>210.6.6 Climber is assisted in descending the lower part of the tree as and when required.</p> <p>210.6.7 All tools and equipment are checked for wear/damage, prepared for transporting/storage and stored according to enterprise policy and procedures.</p> <p>210.6.8 Reports to the supervisor comply with enterprise policy and procedures.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Equipment used may include chipper, small chainsaw, ropes, climbing gear. • Processing may include logging, chipping, burning, removal. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • maintenance requirements of equipment • safety procedures and potential hazards of working in trees • principles and methods of rope handling techniques <p>An ability to</p> <ul style="list-style-type: none"> • check and prepare equipment and tools • maintain clear work site during operations • provide support with ropes for persons working in trees • receive and process material during operations • complete allocated tasks in a team environment 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers 	

- systems to ensure that effective short term and long term OHS risk control measures are implemented
- systems and procedures for the safe operation and maintenance of arboricultural hand tools and machinery and equipment including chainsaws and ropes in public places
- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about tree work
- **Planning & organising activities** - organising equipment and materials on site for tree work
- **Working with teams & others** - general guidance and considerable autonomy with others in a team
- **Using mathematical ideas & techniques** - to calculate volumes and lengths
- **Solving problems** - relating to working with team members in a tree
- **Using technology** - such as arboricultural tools and equipment

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT211 A Treat trees for a range of problems	
<p>Unit Descriptor This unit describes the application of treatment to trees to remedy common problems.</p> <p>Treatment of trees is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of tree treatments. Tree treatments are usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
211.1 Modify trees to alleviate stress	<p>211.1.1 All dead, fractured, poorly attached, dying and diseased wood is removed at the designated position according to compartmentalisation of decay in trees (CODIT) principles.</p> <p>211.1.2 Competing branches are removed to allow adequate space for the natural form of the tree according to supervisors instructions.</p> <p>211.1.3 Growth patterns are re-directed to avoid physical and/or structural damage to the tree according to supervisors instructions.</p> <p>211.1.4 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.</p>
211.2 Modify environment to maintain health and vigour of tree	<p>211.2.1 Competing plants are removed to ensure adequate space, light, water and nutrient requirements of the tree are maintained according to supervisors instructions.</p> <p>211.2.2 Nutrient additives are applied to the soil at the rates and location to ensure a healthy growing environment according to supervisors instructions.</p> <p>211.2.3 Soil structure is modified according to supervisors instructions.</p>
211.3 Apply treatments	<p>211.3.1 Treatments are applied according to manufacturers instructions or enterprise guidelines.</p> <p>211.3.2 Safety equipment is worn according to manufacturers instructions.</p> <p>211.3.3 Application equipment is checked for volume calibration adjusted and operated according to manufacturers instructions.</p> <p>211.3.4 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>
211.4 Install root barriers	<p>211.4.1 Material and installation procedures to suit the application are identified.</p> <p>211.4.2 Situations where tree roots can cause problems are identified and reported.</p> <p>211.4.3 Tree root barriers are installed in identified situations according to enterprise guidelines.</p> <p>211.4.4 Tools and equipment selected for the job are cleaned and stored after use according to enterprise guidelines.</p>

A. RANGE OF VARIABLES

- Equipment may include chemical applicators, secateurs, hand saws, rakes, mattocks, shovels.
- Treatments may include chemical, biological, environmental.
- Fractured wood is only removed if it is considered a hazard, it cannot be braced or if the branch is not considered integral to the structure of the tree.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- how trees react to drainage and stresses
- principles and methods relating to identification of pests and disease
- health and safety requirements when applying chemical treatments
- timing and placement of fertilisers

An ability to

- modify trees to alleviate stress
- modify environment to maintain health and vigour of tree
- apply treatments
- install root barriers

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of arboricultural hand tools and machinery and equipment including chainsaws and ropes in public places
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and others in the work team • Collecting, analysing & organising information - about tree treatments • Planning & organising activities - organising equipment and materials for tree treatments • Working with teams & others - to complete specified tasks • Using mathematical ideas & techniques - to calibrate application equipment • Solving problems - relating to tree treatments • Using technology - such as horticultural hand tools and equipment 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT212 A Apply chemicals and biological agents	
Unit Descriptor	
<p>This unit is concerned with the application of chemicals and biological agents for the control of weeds, pests and diseases in the horticultural industry.</p> <p>Application is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency involves the application of knowledge and skills to a range chemical application tasks. Application of chemicals is usually within established routines, methods and procedures.</p> <p>This unit is equivalent to the following rural generic units/elements of competency:</p> <ul style="list-style-type: none"> • AG2007CH <i>Prepare chemicals and biological agents - element 3</i> • AG2008CH <i>Maintain equipment - all elements</i> • AG2009CH <i>Apply chemicals and biological agents - elements 2 & 3</i> • AG2010CH <i>Clean-up following application of chemicals and biological agents - all elements</i> 	
Element of Competency	Performance Criteria
212.1 Check and maintain application equipment for chemical and biological agents	<p>212.1.1 Application equipment is prepared and adjusted for use appropriate to the situation.</p> <p>212.1.2 Damage, wear or malfunctions of equipment are identified and repaired/replaced or reported to the appropriate person.</p>
212.2 Check and maintain personal protective equipment	<p>212.2.1 Personal protective equipment is selected prepared and adjusted for use appropriate to the situation.</p> <p>212.2.2 Damage, wear or malfunctions of personal protective equipment are identified and repaired/replaced or reported to the appropriate person.</p> <p>212.2.3 Pre and post operative checks/maintenance on personal protective equipment are carried out according to operators manual.</p>
212.3 Use personal protective equipment	<p>212.3.1 Tools and equipment appropriate to the task are selected, calibrated and used as determined by label directions, material safety data sheet or industry or enterprise standards.</p> <p>212.3.2 Personal protective equipment appropriate to the task is selected and used as determined by label directions, material safety data sheet or industry or enterprise standards.</p> <p>212.3.3 Safe working practices are employed and regulations and legislation relevant to the situation are observed.</p>
212.4 Fill application equipment	<p>212.4.1 Measurement and decanting of substances complies with label directions and accepted industry or enterprise practice.</p> <p>212.4.2 Tools, equipment and personal protective equipment appropriate to the task are selected and used to industry or enterprise standards.</p> <p>212.4.3 Safe working practices are employed and regulations and legislation relevant to the situation and mixing site are observed.</p>
212.5 Use application equipment	212.5.1 Potential and existing hazards are identified and minimised safely in a manner consistent with accepted industry practices and/or reported to supervisor or an appropriate authority.

	<p>212.5.2 The workplace is maintained to an accepted industry standard and appropriate steps to ensure public safety are selected and used.</p> <p>212.5.3 Safe working practices determined by industry or enterprise are employed and regulations and legislation relevant to the situation are observed.</p> <p>212.5.4 Application equipment is used to accurately and effectively apply the required dose to the target.</p> <p>212.5.5 Application details are recorded according to enterprise policy, legislative requirements and industry practice.</p> <p>212.5.6 Weather conditions are assessed as suitable for the application of selected chemical.</p> <p>212.5.7 Re-entry, withholding and plant back are observed as determined by label directions.</p>
<p>212.6 Empty and clean equipment and containers according to label directions</p>	<p>212.6.1 Tools, equipment and clean up methods appropriate to chemicals/biological agents are selected and used.</p> <p>212.6.2 Clean up methods are consistent with label directions and industry standards.</p> <p>212.6.3 Disposal of containers and unused chemicals/biological agents are consistent with health, safety and environmental legislation, label directions and/or regulations.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Types of chemicals may include insecticides, herbicides, fungicides, algacides, growth regulators, growth promotants, bio-agents. • Transport should be carried out using single compartment vehicles where chemicals are not loaded in the passenger or driver's compartment and should be secure from theft. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • The use of chemicals and biological agents, specifically: <ul style="list-style-type: none"> – the requirements and responsibilities in relation to relevant state legislation relating to the transport, use, storage and disposal of horticultural chemicals (including the recognition of the label as a legal document) – the responsibilities of the user of horticultural chemicals, risks of misuse and liabilities flowing from misuse in terms of the relevant Acts of the Commonwealth and of the particular states and territories (including the variation between states), also specific industry requirements. – those horticultural chemicals and biological agents classified as dangerous goods – the requirements and responsibilities in relation to relevant state legislation relating to the correct signage, security and identification of chemical storage areas • The requirements and responsibilities in relation to relevant state legislation relating to correct storage facilities and maintenance procedures. <p>An ability to:</p> <ul style="list-style-type: none"> • Transport chemicals and biological agents • Store chemicals and biological agents within the workplace • Record chemical purchase details 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transportation and storage of chemicals – safe manual handling systems and procedures – selection, use and maintenance of relevant personal protective clothing and equipment – safe operation and maintenance of machinery and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: 	

- Occupational Health and Safety Act of the state
- Regulations and/or Codes of Practice pertaining to Hazardous Substances
- Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with chemical representatives and supervisors
- **Collecting, analysing & organising information** - from chemical labels and material safety data sheets
- **Planning & organising activities** - of chemical application
- **Working with teams & others** - by ensuring others are aware of spraying works
- **Using mathematical ideas & techniques** - to calculate dosage, application rates and calibrate equipment
- **Solving problems** - of mixing and applying
- **Using technology** - spray equipment and record keeping

Industry	Horticulture
Sector/s	Arboriculture, Parks & Gardens
RUH HRT213 A Fell small trees	
<p>Unit Descriptor This unit describes small tree felling work undertaken by arborists and gardeners in a low hazard environment.</p> <p>Tree felling is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Tree felling at this level involves the application of knowledge and skills to a range of felling tasks. Tree felling is usually within established workplace routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
213.1 Determine natural direction of fall	<p>213.1.1 Topography and site conditions are assessed and all factors influencing the determination of the direction of fall are identified according to established tree felling principles.</p> <p>213.1.2 Natural direction of fall is determined having regard for weight bias, canopy distribution, lean of tree, together with topography and site conditions.</p> <p>213.1.3 Hazards associated with felling operation are identified according to industry practice.</p>
213.2 Remove obstructions within fall zone	<p>213.2.1 Clearance zone is established by calculation of height of tree using published mathematical principles.</p> <p>213.2.2 Safety margin for drop zone is determined by identifying wind direction and speed at the time of felling.</p> <p>213.2.3 Drop zone is cleared of all articles which may be damaged by felled tree according to enterprise policy.</p>
213.3 Bring down tree	<p>213.3.1 Clear escape route is established at 45° diagonally away from the proposed line of fall.</p> <p>213.3.2 Standard scarf and back-cut is applied to base of tree at level and depth determined by ground conditions and state of canopy and according to enterprise policy.</p> <p>213.3.3 Safe working practices are employed according to Occupational Health & Safety (OHS) requirements.</p> <p>213.3.4 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>
213.4 Clear felled tree from drop site	<p>213.4.1 Appropriate method of clearing the site of felled tree is determined.</p> <p>213.4.2 Machinery required for removal of felled tree is selected and use according to manufacturers specifications.</p> <p>213.4.3 Drop site is cleared of tree and all tree debris according to enterprise standards.</p> <p>213.4.4 Load to be removed is secured according to given instructions, using appropriate equipment.</p> <p>213.4.5 Safe work practices specific to felled tree removal from the site are observed at all times.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Low hazard environment means level ground, open space, no overhead power lines. • Factors influencing the determination of the direction of fall include weight bias, canopy distribution, degree of lean, topography, site conditions • Trees may include small and medium sized (maximum height 10m and maximum diameter at breast height, DBH, 300mm) • Equipment used may include small chainsaw (up to 350mm with engine capacity not exceeding 50cc), 	

hand saws, safety equipment.

- Site conditions may include weather conditions, obstructions, distance to obstacles, overhead wires. Trees will be felled in one piece from ground level.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- felling considerations relating to weather conditions, position and location of trees
- identifying weight bias impacting upon felling operations
- potential hazards when felling trees

An ability to

- determine natural direction of fall
- remove obstructions within fall zone
- bring down tree
- clear felled tree from drop site

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of arboricultural hand tools, machinery and equipment including chainsaws, ropes in public places
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and others in the work team • Collecting, analysing & organising information - about tree felling requirements at a particular site • Planning & organising activities - organising equipment and materials on site for tree felling project • Working with teams & others - to complete specified tasks • Using mathematical ideas & techniques - estimation, measurement • Solving problems - relating to simple tree felling operations • Using technology - such as chainsaws and arboricultural hand tools and equipment 						

Industry	Horticulture
Sector/s	Arboriculture, Landscape, Parks & Gardens
RUH HRT214 A Transplant small trees	
Unit Descriptor	
This unit describes basic tree transplanting where the use of lifting machinery and equipment is not involved.	
Transplanting is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Tree transplanting at this level involves the application of knowledge and skills to a range of transplanting tasks. Transplanting is usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
214.1 Prepare tree for removal	<p>214.1.1 All underground services are located according to supply authorities guidelines.</p> <p>214.1.2 Crown is prepared according to requirements of species, time of removal and enterprise guidelines.</p> <p>214.1.3 Tree and site are watered prior to transplanting.</p> <p>214.1.4 Access is provided to ensure all machinery and equipment is operated without damage to surrounding structures and the tree.</p> <p>214.1.5 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.</p>
214.2 Undertake earthworks for tree removal	<p>214.2.1 Root ball width and depth is selected to ensure the root system can colonise new ground according to needs of the species and size of the specimen.</p> <p>214.2.2 Root system is prepared and appropriate treatments hygienically applied to ensure viability of tree is maintained according to enterprise guidelines.</p> <p>214.2.3 Root ball is undercut to ensure the ball comes away cleanly and with minimum stress to the tree according to enterprise guidelines.</p>
214.3 Remove tree from original site	<p>214.3.1 Root ball is bound with appropriate material to ensure adequate soil is retained according to enterprise guidelines.</p> <p>214.3.2 Crown is bound and, if required, supported securely to minimise during handling and transportation according to enterprise guidelines.</p> <p>214.3.3 Tree is lifted in a manner which ensures minimum damage and stress according to enterprise guidelines.</p> <p>214.3.4 Manual lifting practices are performed according to Occupational Health & Safety (OHS) guidelines.</p>
214.4 Install tree in new environment	<p>214.4.1 Drainage is incorporated to ensure root system survival is maintained according to needs of the species and conditions of the planting site.</p> <p>214.4.2 Soil is modified according to the cultural requirements of the species.</p> <p>214.4.3 Tree is planted in prepared planting hole according to enterprise guidelines.</p> <p>214.4.4 Tree support devices are installed according to supervisors instructions and/or installation plan.</p> <p>214.4.5 Aftercare is provided to the tree according to enterprise guidelines.</p> <p>214.4.6 Tools and equipment are cleaned, maintained and stored consistent with according to manufacturers specifications and enterprise guidelines.</p>

A. RANGE OF VARIABLES

- Trees to be transplanted may include shrubs, small trees which can be transplanted by wheelbarrow.
- Equipment may include hand tools, wheelbarrows, ropes, jacks, tree frames, tie downs.
- Appropriate material for binding may include hessian, sacking, wire frames.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- factors affecting the timing and method of lifting trees
- causes of damage or drying-out and their prevention
- safety procedures and potential hazards associated with lifting trees
- appropriate knots
- transplanting practices associated with different soil types
- care, maintenance and protection of trees during transplanting operations
- nutrition and watering requirements for newly transplanted trees
- techniques of securing and anchoring of transplanted trees.

An ability to

- prepare tree for removal
- undertake earthworks for tree removal
- remove tree from original site
- install tree in new environment

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are

competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about tree transplanting activities
- **Planning & organising activities** - organising equipment and materials on site for tree transplanting
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate quantities and volume
- **Solving problems** - relating to tree transplanting
- **Using technology** - such as horticultural hand tools and equipment

Industry Horticulture Sector/s Arboriculture, Landscape, Parks & Gardens	
RUH HRT215 A Protect trees	
Unit Descriptor This unit describes the work that is undertaken to protect trees from damage to their root system, trunk and canopy while nearby construction earthworks are taking place. Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Tree protection at this level involves the application of knowledge and skills to a range of tasks. Tree protection work is usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
215.1 Install protection devices	215.1.1 Tools are chosen appropriate to the task being undertaken, used according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations. 215.1.2 Proposed protection devices are located according to details outlined on site plan and/or instructions. 215.1.3 Protection devices are constructed/assembled according to instructions. 215.1.4 Devices are installed in line with plans and/or supervisors instructions.
215.2 Identify and report malfunctions in protection program	215.2.1 Protection devices are checked for their effectiveness according to enterprise guidelines. 215.2.2 Damaged and/or ineffective devices are reported to the nominated person according to enterprise guidelines. 215.2.3 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.
A. RANGE OF VARIABLES <ul style="list-style-type: none"> • Protection devices may include fences, tree guards, tree plantings, barriers, retaining walls, soil coverings, traffic re-direction. • Instruction for locating, constructing and assembling protection devices may include manufacturers guidelines, verbal, plans and specifications, diagrams. 	
B. EVIDENCE GUIDE Underpinning Knowledge and Skills A basic working knowledge of <ul style="list-style-type: none"> • principles of techniques relating to the choice of tools/equipment for installing tree protection devices • techniques and application of a range of tree protection devices • plan reading and interpretation including a range of graphic symbols An ability to <ul style="list-style-type: none"> • install protection devices • identify and report malfunctions in protection program 	
OHS issues that impact upon the performance of this unit <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers 	

- systems to ensure that effective short term and long term OHS risk control measures are implemented
- safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
- systems and procedures for the safe operation and maintenance of machinery and equipment
- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about tree protection activities
- **Planning & organising activities** - organising equipment and materials on site tree protection work
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - in plant interpretation and estimations
- **Solving problems** - relating to tree protection
- **Using technology** - such as horticultural hand tools and equipment

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT216 A Maintain supplies of chemicals and biological agents	
<p>Unit Descriptor This unit is concerned with the duties undertaken by those who maintain supplies of chemicals and biological agents.</p> <p>Maintenance is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency involves the application of knowledge and skills to a range of chemical maintenance tasks. Maintenance of chemicals is usually within established routines, methods and procedures.</p> <p>This unit is equivalent to the rural generic unit of competency AG2005CH <i>Maintain supplies of chemicals and biological agents - all elements</i>.</p>	
Element of Competency	Performance Criteria
216.1 Transport chemicals and biological agents	<p>216.1.1 Transportation methods prevent damage to or deterioration of containers or their contents and prevent leakage or spillage of chemicals and biological agents.</p> <p>216.1.2 Transportation methods do not allow containers in proximity to people, human or stock food.</p> <p>216.1.3 Safe working practices are employed according to enterprise policy and regulations and legislation relevant to the situation are observed.</p>
216.2 Store chemicals and biological agents within the workplace	<p>216.2.1 Storage methods are consistent with relevant regulations and legislation.</p> <p>216.2.2 Safe working practices are employed according to enterprise policy and regulations and legislation relevant to the situation are observed.</p> <p>216.2.3 Storage area and facilities are maintained to statutory and enterprise requirements.</p>
216.3 Record chemical purchase details	216.3.1 Records of purchases and storage manifests are kept in compliance with relevant regulations and legislation
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Types of chemicals may include insecticides, herbicides, fungicides, algaecides, growth regulators, growth promotants, bio-agents Transport should be in single compartment vehicles where chemicals are not loaded in the passenger or driver's compartment and should be secure from theft. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> the use of chemicals and biological agents; the requirements and responsibilities in relation to relevant state legislation relating to the transport, use, storage and disposal of horticultural chemicals including the recognition of the label as a legal document; the responsibilities of the user of horticultural chemicals, risks of misuse and liabilities flowing from misuse in terms of the relevant Acts of the Commonwealth and of the particular states and territories including the variation between states; those horticultural chemicals and biological agents classified as dangerous goods; the requirements and responsibilities in relation to relevant state legislation relating to the correct 	

<p>signage, security and identification of chemical storage areas;</p> <ul style="list-style-type: none"> the requirements and responsibilities in relation to relevant state legislation relating to correct storage facilities and maintenance procedures. <p>An ability to:</p> <ul style="list-style-type: none"> transport chemicals and biological agents; store chemicals and biological agents within the workplace; record chemical purchase details.
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<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk management and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for handling, transportation and storage of chemicals selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state
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<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

<ul style="list-style-type: none"> Communicating ideas and information - with chemical supply companies and transporters Collecting, analysing & organising information - of chemical purchases and storage manifests Planning & organising activities - by maintaining an efficient storage area Working with teams & others - in organising transport and storage of chemicals Using mathematical ideas & techniques - in recording quantities of chemicals Solving problems - of predicted chemical usage Using technology - computer based recording systems
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Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT217 A Maintain properties and structures	
<p>Unit Descriptor This unit describes basic maintenance work undertaken to workplace structures where either the specialist skills of another trade are not warranted or available.</p> <p>Maintenance work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of maintenance tasks. Property and structure maintenance is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
217.1 Perform routine maintenance to properties and structures	<p>217.1.1 Water supply is checked for operation and pollution and minor repairs are undertaken according to supervisors directions.</p> <p>217.1.2 Paths, tracks and roadways are checked for potholes, weeds and effective drainage and minor repairs are undertaken according to supervisors directions.</p> <p>217.1.3 Fences are checked for holes or other damage and minor repairs undertaken according to supervisors directions.</p> <p>217.1.4 Tools chosen are appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed according to enterprise policy.</p>
217.2 minor repairs to properties and structures	<p>217.2.1 Damage to building cladding and structural finishes is identified and repaired according to supervisors directions.</p> <p>217.2.2 Tools chosen are appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p> <p>217.2.3 The site is tidied and tools and materials are stored according to enterprise policy after use.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture & Production</p> <ul style="list-style-type: none"> Structures may include buildings, greenhouses, igloos, potting houses, shade houses, sheds, benches, cool rooms, glass houses, staff rooms, water tanks. Cladding may include corrugated iron, weather boards, glass, shade cloth, plastic, cement sheeting. Water supply may include irrigation systems, dams, troughs. Structural finishes may include paint, stains. Fences may include weld mesh, picket, post and wire, brick, hedges. Drains may include agricultural drains, spoon drains, culverts. Property may include fences, drains, waterways, dams, roads, car parks, vegetation, windbreaks, paths, loading bays. <p>Parks & Gardens</p> <p>Structures may include pergolas, poly-tunnels, shade houses, sheds, benches, water tanks, park furniture.</p> <ul style="list-style-type: none"> Cladding may include corrugated iron, shade cloth, plastic, cement sheeting. Water supply may include irrigation systems, dams. Structural finishes may include paint, stains. Fences may include picket, post and wire, brick, hedges. Drains may include spoon or swale drains, culverts. Property may include fences, drains, waterways, roads, car parks, vegetation, windbreaks, paths. 	

Landscape

- Structures may include landscape features
 - Water supply may include irrigation systems.
 - Structural finishes may include paint, stains.
 - Fences may include picket, post and wire, brick, hedges.
 - Drains may include spoon drains, culverts.
 - Property may include fences, drains, car parks, vegetation, paths.
- **Nursery**
 - Structures may include greenhouses, igloos, potting houses, shade houses, sheds, benches, glass houses.
 - Cladding may include corrugated iron, glass, shade cloth, plastic, cement sheeting.
 - Water supply may include irrigation systems, troughs.
 - Structural finishes may include paint, stains.
 - Fences may include picket, post and wire, brick, hedges.
 - Drains may include agricultural drains, spoon drains, culverts.
 - Property may include fences, drains, waterways, dams, roads, car parks, vegetation, windbreaks, paths, loading bays.

Turf

- Structures may include work sheds, information boards, sporting fixtures such as goal posts, benches.
- Cladding may include corrugated iron, cement sheeting.
- Water supply may include irrigation systems, dams, troughs.
- Structural finishes may include paint, stains.
- Fences may include picket, post and wire, brick, hedges.
- Drains may include agricultural drains, spoon drains, culverts.
- Property may include fences, drains, waterways, dams, roads, car parks, vegetation, windbreaks, paths.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- the operation of water taps and reticulation systems
- types of building cladding and finishes, purpose and use

An ability to

- perform routine maintenance to properties and structures
- perform minor repairs to properties and structures

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit.

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and others in the work team
- **Collecting, analysing & organising information** - about the nature of maintenance activities required
- **Planning & organising activities** - to achieve task requirements
- **Working with teams & others** - with others in a work team
- **Using mathematical ideas & techniques** - to calculate materials
- **Solving problems** - of a basic nature as they relate to solving basic maintenance tasks
- **Using technology** - of a basic kind such as hand tools

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT218 A Establish crops	
<p>Unit Descriptor This unit describes the operation of crop planting.</p> <p>Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of tasks and roles. Competencies are usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
218.1 Clear the site	218.1.1 Old crop is removed according to supervisors directions. 218.1.2 Old crop is disposed of according to company policy. 218.1.3 Machinery and equipment is operated according to manufacturers specifications and company policy.
218.2 Prepare the site for planting	218.2.1 Site is worked to a standard accepted by management and according to supervisors directions 218.2.2 Soil amendments are applied according to supervisors instructions 218.2.3 Wind protection is established where necessary according to company guidelines and industry recommendations 218.2.4 Support structures are installed where required according to company guidelines and industry recommendations 218.2.5 Mulch is applied as directed by supervisor 218.2.6 All machinery is operated according to manufacturers specifications and company policy 218.2.7 The planting pattern is marked out according to the site plan or company guidelines
218.3 Prepare crop for planting	218.3.1 Planting material is treated according to specified industry guidelines. 218.3.2 Planting material is selected according to company policy. 218.3.3 Planting material is maintained under conditions which will ensure maximum establishment to a standard accepted by management. 218.3.4 Planting material is transported to the site with no signs of transport damage. 218.3.5 Planting material is trimmed according to supervisors directions.
218.4 Plant crops	218.4.1 Planting procedures to be followed are established from the supervisor. 218.4.2 Planting is carried out according to company policy.
218.5 Care for young plants	218.5.1 Plantings are protected from pests and frost according to company policy. 218.5.2 Plantings are mulched and fertilised according to supervisors directions. 218.5.3 Plantings are irrigated according to the irrigation schedule and supervisors directions. 218.5.3 Plantings are trained according to supervisors directions.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Removing the crop will include the crop as well as all supporting structures. • Working the site may include any method that produces a clean, weed free and pliable soil at the specified tilth ready to receive the new plantings • Machinery and equipment may include tractors, rotary hoes, cultivators, fertiliser spreaders, surveying and measuring equipment, seeding or planting machinery. • Irrigation systems may include drip, overheads, central pivot, micro irrigation, under tree, flood. • Soil amendments may include gypsum, organic matter, artificial fertilisers or the planting of a 	

- temporary or permanent cover crop.
- Wind protection may include artificial structures, permanent shelter belts or temporary plantings of cereals, bana grass or sudax
 - Support structures may include trellises and stakes.
 - All operations are carried out according to Occupational Health & Safety (OHS) guidelines and policies.
 - Planting material may include seeds, seedlings, runners, cuttings or bare rooted trees.
 - Mulch may include straw, plastic, cover crop or any vegetative material.
 - Pests may include weeds, insects, diseases, vermin.
 - Pre-plant treatments may include seed or root treatments.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- interpret a site map to employers requirements
- identify Occupational Health & Safety (OHS) policies and guidelines relevant to the tasks being undertaken
- state the requirements of the plant
- explain the importance of correct timing and procedures
- use of nutrients by plants

An ability to

- clear the site
- prepare the site for planting
- prepare crop for planting
- plant crops using mechanical means
- care for young plants

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe operation of other vehicles
 - safe manual handling systems and procedures
 - safe systems and procedures for working around dams, channels and other water sources
 - safe systems and procedures for storage, handling and transportation of hazardous substances
 - protection from hazardous noise
 - protection from organic and other dusts
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protection clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit.

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a

minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about the crop planting activities
- **Planning & organising activities** - organising equipment and materials for crop planting activities
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring volumes, calibration
- **Solving problems** - relating to daily crop planting activities
- **Using technology** - such as horticultural machinery and spraying equipment

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT219 A Maintain a crop	
<p>Unit Descriptor This unit describes the program of maintenance activities from post planting up until harvest for field crops such as flowers, fruit and vegetables.</p> <p>Crop maintenance is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of crop maintenance tasks and roles. Crop maintenance is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
219.1 Water the crop	<p>219.1.1 Watering is carried out according to enterprise policy.</p> <p>219.1.2 Remedial watering needs are identified and action taken where necessary.</p> <p>219.1.3 Placement of sprinklers is monitored for coverage and delivery, and remedial action undertaken where necessary.</p> <p>219.1.4 Supervisor advised of variances and problems associated with irrigation systems.</p>
219.2 Monitor environmental factors	<p>219.2.1 Environmental factors are observed and related to requirements for the specific crop according to enterprise guidelines.</p> <p>219.2.2 Action is taken where appropriate and specified by supervisor, all other variances reported to supervisor promptly.</p>
219.3 Observe plant condition	<p>219.3.1 Plant condition is observed and physical damage or variances to plant components or structure are advised to supervisor according to enterprise guidelines.</p> <p>219.3.2 Action is taken where appropriate and as specified by supervisor.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Physical damage or variances may include symptoms resulting from presence of insect and pathogens. Types of crops may include crops grown in field situations or in enclosed structures. Equipment may include pumps, hoses, pipes, sprinklers, trickle irrigation. Environmental factors may include temperature, humidity, light. Environmental control measures may include heaters, vents, sulphur vaporisers. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> the broad environmental requirements of crops in enclosed structures, in particular the likely impact of major variations in environmental factors characteristics of weather and impact on enclosed structures methods of environmental control and the effect of each on an enclosed structure ventilation techniques <p>An ability to</p> <ul style="list-style-type: none"> water a crop monitor environmental factors observe plant condition 	

<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe operation of motorcycles and other vehicles – safe manual handling systems and procedures – safe systems and procedures for working around dams, channels and other water sources – safe systems and procedures for storage, handling and transportation of hazardous substances – protection from hazardous noise – protection from organic and other dusts – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protection clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and others in the work team • Collecting, analysing & organising information - about the crop maintenance activities • Planning & organising activities - organising equipment and materials for crop maintenance activities • Working with teams & others - general guidance and considerable autonomy with others in the work group • Using mathematical ideas & techniques - measuring volumes, calibration • Solving problems - relating to daily crop maintenance activities • Using technology - such as horticultural machinery and equipment 							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

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Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT220 A Support crop harvesting	
<p>Unit Descriptor This unit describes crop picking and related tasks such as routine assessment of crop readiness for harvest, harvesting and some basic post harvest operations such as grading and sorting.</p> <p>Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of tasks and roles. Competencies are usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
220.1 Recognise the optimum time of harvest for a crop	220.1.1 Crop maturity is determined by experience, specification charts, aids or devices. 220.1.2 The calendar date from flowering to predicted harvest is calculated. 220.1.3 The probable date of maturity for a crop is forecast.
220.2 Perform routine assessment of plant products for harvest	220.2.1 Observations are performed against published characteristics of species and reflect comprehensive analysis of entire crop being assessed. 220.2.2 Plant characteristics conform to enterprise market requirements. 220.2.3 Analysis is reported to supervisor according to enterprise policy.
220.3 Harvest a crop	220.3.1 Equipment is prepared and used according to supervisors instructions and manufacturers guidelines. 220.3.2 Work patterns reflect efficient use of time, resources and labour as per management instructions. 220.3.3 Work practices employed minimise plant damage. 220.3.4 Equipment operation and work practices conform with Occupational Health & Safety (OHS) regulations.
220.4 Grade plant products	220.4.1 Graded material conforms to enterprise guidelines for length, quality, cleanliness and bud count. 220.4.2 Work practices employed minimise product damage.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Harvest methods may include hand, mechanical. • Plant products may include flowers, foliage, fruit, vegetables, bulbs. • Equipment may include secateurs, callipers, cane knives. • Grading may include species selection, size, colour identification, basic quality categorisation. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • plant and bulb species, and characteristics of maturity • characteristics of a crop relative to varying marketing requirements • grading characteristics of each genre <p>An ability to</p> <ul style="list-style-type: none"> • recognise the optimum time of harvest for a crop • perform routine assessment of plant products for harvest • harvest a crop • grade plant products 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about the crop harvesting activities
- **Planning & organising activities** - organising equipment and materials for crop harvesting activities
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group

- **Using mathematical ideas & techniques** - counting, tallying
- **Solving problems** - relating to daily crop harvesting activities
- **Using technology** - such as horticultural machinery and equipment

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT221 A Carry out post-harvest processes	
Unit Descriptor	
<p>This unit describes routine post-harvest operations carried out in a horticultural enterprise. It covers the application of treatments and the storage of harvested crops.</p> <p>Post-harvest processing is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of post-harvest processing tasks and roles. Competencies are usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
221.1 Transport the crop	<p>221.1.1 Correct field handling practices and equipment are used.</p> <p>221.1.2 Correct grading practices which minimise damage are used.</p>
221.2 Determine market specifications prior to packaging	<p>221.2.1 Colour, weight and dimension specifications of produce used by industry are determined according to enterprise policy.</p> <p>221.2.2 Specifications relating to the amount of blemishes on produce used by industry are determined.</p>
221.3 Grade, label and treat a crop according to market specifications	<p>221.3.1 Crop is graded and labelled according to market requirements and supervisors instructions.</p> <p>221.3.2 Post-harvest treatments are applied according to company policy.</p> <p>221.3.3 Plants that do not meet enterprise quality specifications are identified and disposed of according to enterprise policy.</p>
221.4 Determine market requirements for packing produce	<p>221.4.1 Packing requirements including packaging materials and containers are determined according to market requirements and supervisors instructions.</p> <p>221.4.2 Containers are filled and produce is arranged within containers according to industry and client specifications and supervisors instructions.</p> <p>221.4.3 Packaging requirements meet industry and client packaging specifications.</p> <p>221.4.4 Labelling procedures specified by industry and clients are used.</p>
221.5 Pack produce	<p>221.5.1 Appropriate container for the produce is selected.</p> <p>221.5.2 Correct filling techniques used for specific containers are demonstrated.</p> <p>221.5.3 Wraps and lids are applied and containers are labelled to meet industry and client requirements.</p>
221.6 Deliver produce to an on-farm storage facility	<p>221.6.1 Containers are placed onto pallets to ensure stability and maximum airflow.</p> <p>221.6.2 Pallets are transported to the storage facility according to company standards.</p> <p>221.6.3 Pallets are transported and arranged in the store to industry standards.</p>
221.7 Monitor the storage facility	<p>221.7.1 The storage facility's monitoring gauges are read accurately and efficiently</p> <p>221.7.2 Abnormal readings are reported to the supervisor according to company policy.</p> <p>221.7.3 The condition of stored produce is checked randomly and abnormal readings are reported to the supervisor according to company policy.</p>
221.8 Maintain storage and grading facility hygiene levels	<p>221.8.1 Damaged produce and broken containers are removed from the storage facility.</p> <p>221.8.2 Containers are cleaned to a level of hygiene acceptable to</p>

	<p>industry standards.</p> <p>221.8.3 The storage facility is cleaned without damaging monitoring or refrigeration equipment.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture</p> <ul style="list-style-type: none"> • Post-harvest treatments may include preservatives, washing/hydration, cool room storage, packing, insecticides, dips and sprays, quarantine requirements. • Plant products may include flowers, foliage, bulbs. • Cool room environmental conditions may include temperature, humidity, light. • Company policies may include hygiene routines and standards, list of contaminants, grades of crop required, temperature ranges, channels of communication, quality assurance. <p>Production</p> <ul style="list-style-type: none"> • Post-harvest treatments may include washing, chemical spraying or dipping, drying, ripening or de-greening with ethylene gas, waxing, cool room storage, packing. • Plant products may include fruit, vegetables, herbs, mushrooms. • Company policies may include hygiene routines and standards, list of contaminants, grades of crop required, temperature ranges, channels of communication, quality assurance. • Containers may include bulk bins, boxes or trays. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • enterprise quality procedures • post-harvest treatments for various horticultural crops • temperature settings within storage facilities • cool chain principles and practices • characteristics, procedures and uses of cool rooms • storage methods relevant to different enterprise crops • the correct storage temperature for a range of produce • humidity levels and their effect on the quality of produce • hygiene issues in storage of plant products • packaging standards relevant to the various distribution channels for enterprise crops • industry standards for packaging <p>An ability to</p> <ul style="list-style-type: none"> • transport the crop • determine market specifications prior to packaging • grade, label and treat a crop according to market specifications • determine market requirements for packing produce • pack produce • deliver produce to an on-farm storage facility • monitor the storage facility • maintain storage and grading facility hygiene levels 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances – systems and procedures for the safe operation and maintenance of machinery, equipment and cool rooms – safe manual handling systems and procedures 	

- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about the post-harvest processing activities
- **Planning & organising activities** - organising equipment and materials for post-harvest processing activities
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring volumes, calibration of grading machinery
- **Solving problems** - relating to daily weed treatment activities
- **Using technology** - such as horticultural grading machinery and equipment

Industry	Horticulture
Sector/s	Arboriculture, Landscape, Parks & Gardens
RUH HRT222 A Operate and maintain chainsaws	
Unit Descriptor This unit describes the operation and maintenance of a chainsaw to cross cut timber on the ground. Chainsaw operation is likely to be under routine supervision with intermittent checking. Competency at this level involves the application of knowledge and skills to a range of chainsaw operation and maintenance tasks and roles. Competencies are usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
222.1 Perform routine daily maintenance on a chainsaw.	222.1.1 Daily routine pre-start checks completed in accordance with instruction manual. 222.1.2 Chain bar is removed, burrs removed, cleaned and reassembled. 222.1.3 Chain tension is adjusted according to model specification. 222.1.4 Saw is oiled and refuelled using safe working procedures.
222.2 Sharpen chainsaw chain.	222.2.1 Chainsaw chain is sharpened to manufacturers specifications. 222.2.2 Depth gauges are checked and adjusted to manufacturers specifications. 222.2.3 Irregularities and faults are reported to supervisor. 222.2.4 Cutting rate is compared with that anticipated from knowledge of saw, log size, species and condition. 222.2.5 Sawing problems that arise are recognised or reported according to site requirements. 222.2.5 Communication with supervisor and other workers is maintained to ensure efficient work flow coordination and personnel cooperation.
222.3 Cross cut fallen timber on the ground.	222.3.1 Chainsaw and safety equipment are selected according to the requirements of the task. 222.3.2 Personal safety clothing and equipment are identified and used as required by legislation. 222.3.3 Safe working procedures including the selection of a safe working site are utilised as an integral part of work routines. 222.3.4 Log to be sawn is visually assessed for defects. 222.3.5 Bridging cuts, swinging cuts, boring cuts, limbing and horizontal cuts are performed according to industry standard and safe working practices.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Routine prestart checks may include checking and cleaning of air filter, chain, chain brake, bar and all nuts and bolts. • Timber cut may be hardwood or softwood. • Logs are cut on a level surface and clear surface. • OHS requirements include manual handling, protective clothing, elimination of hazards, use of chainsaws, use of hand tools and enterprise safety policy. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> • OHS relating to chainsaw use, manual handling • Maintenance procedures for chainsaws, oils and fuels • Personal protective safety equipment • Legislation and licenses governing chainsaw use 	

- An ability to
- perform routine daily maintenance on a chainsaw
 - sharpen chainsaw chain
 - cross cut fallen timber on the ground

- OHS issues that impact upon the performance of this unit**
- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications
Registered Training Organisation (RTO)

2. Qualifications of Assessor
Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment
These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with others in the work group
- **Collecting, analysing & organising information** - on chainsaw usage and consumables
- **Planning & organising activities** - for chainsaw operation
- **Working with teams & others** -to complete specified works

- **Using mathematical ideas & techniques** - to calculate coverage/fuel consumption etc.
- **Solving problems** - of breakdown and equipment compatibility
- **Using technology** - to trouble shoot machinery performance and with communication systems

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT223 A Climb small trees	
<p>Unit Descriptor This unit describes the methods and techniques used to climb in trees.</p> <p>Climbing is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency involves the application of knowledge and skills to a range of climbing tasks. Climbing is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
223.1 Tie knots required for tree climbing operations	<p>223.1.1 Ropes of a specification to suit the job are selected and inspected for wear, damage and soundness.</p> <p>223.1.2 Industry recognised knots are used in accordance with the required application.</p> <p>223.1.3 All knots are checked on completion in line with established workplace practice.</p>
223.2 Climb small to medium trees in a low hazard environment	<p>223.2.1 A ladder is set and a climbing rope is used to climb the tree using industry standard methods.</p> <p>223.2.2 Body thrust and foot-locking methods of climbing or the climbing spike method are used in tree climbing.</p> <p>223.2.3 Industry recognised safety procedures are used to tie the operator in.</p> <p>223.2.4 Safe climbing procedures are employed in all climbing tasks, according to occupational health and safety requirements, manufacturers specifications/instructions and enterprise policy and procedures</p>
223.4 Provide ground support during emergency rescue procedures for tree climbers	<p>223.4.1 Emergency situations are assessed with team members and assistance is called for if necessary.</p> <p>223.4.2 Emergency rescue procedures for ground support workers are followed according to Occupational Health & Safety (OHS) and enterprise requirements.</p> <p>223.4.3 Any incident is recorded and reported according to job role, occupational health and safety legislation and enterprise requirements.</p> <p>223.4.4 Rescue operation is evaluated with team members and supervisor to determine improvements that could be made in future rescue operations.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Industry standard knots may include bowline, bowline on a bight, tautline, prussik, figure 8, square, clove hitch, half hitch. • Equipment may include ropes, harnesses, ladders, safety equipment. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • AS 1742 Pt 3 1985 - Australian Standard Code of Practice, Work Site Traffic Management • The risks, potential hazards and the procedures that support safe work practices in tree climbing activities • Basic climbing principles and preparation procedures • Basic climbing techniques • Ground support for tree climbers • Ground support in emergency rescue climbing situations 	

<p>An ability to</p> <ul style="list-style-type: none"> • tie knots required for tree climbing operations • climb small to medium trees in a low hazard environment • provide ground support for tree climbers • provide ground support during emergency rescue procedures for tree climbers • work safely in elevated situations 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – systems and procedures for the safe operation and maintenance of arboricultural climbing equipment including ropes and harnesses – safe manual handling systems and procedures – safe systems and procedures for working at height in trees – safe systems and procedures for outdoor work including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and others in the work team • Collecting, analysing & organising information - about climbing strategy and safety requirements • Planning & organising activities - organising equipment and materials for climbing small trees • Working with teams & others - to climb small trees safely 							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

- **Using mathematical ideas & techniques** - to calculate heights and loads
- **Solving problems** - relating to climbing technique and strategy
- **Using technology** - to climb safely

Industry Sector/s Horticulture Floriculture, Nursery, Parks & Gardens, Production		
RUH HRT224 A Undertake propagation activities		
Unit Descriptor This unit describes the operation of vegetative propagation undertaken principally in commercial production nurseries and in some large gardening operations where nursery facilities are available. Propagation is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of propagation tasks. Plant propagation is usually within established routines, methods and procedures.		
Element of Competency	Performance Criteria	
224.1 Collect propagation material	224.1.1 Parent plant is prepared and collection method employed suitable to species and according to enterprise guidelines and supervisors instructions. 224.1.2 Maximum viability of propagated material is maintained by conditioning and storage according to the requirements of the species. 224.1.3 Tools are chosen appropriate to the task being undertaken, used according to enterprise guidelines, and safe working practices are employed.	
224.2 Propagate plants	224.2.1 Pre-planting treatment is applied and/or carried out appropriate to the propagation method and species according to enterprise policy and supervisors instructions. 224.2.2 Placement and depth comply with requirements of the planting method and species. 224.2.3 Seeds are handled in a way that minimise damage and maximise viability. 224.2.4 Water and nutrients are applied to suit the media conditions, plant requirements and propagation techniques employed, and according to manufacturers instructions. 224.2.5 Labels and identification are correct and applied according to enterprise guidelines. 224.2.6 Remedial action is taken, as specified in planting program, to control pests and diseases. 224.2.7 Records are completed accurately and at the required time according to enterprise guidelines. 224.2.8 Tools are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed. 224.2.9 Tool and equipment cleaning and storage procedures are performed, and hygiene practices are followed according to enterprise guidelines.	
A. RANGE OF VARIABLES <ul style="list-style-type: none"> • Equipment required for potting up may include pots, media ready, growing-on site ready to receive newly-potted plants, refuse bins. • Label information may include date, species, variety, cultivar. • Plants may include potted plants for display. • Activities may include pricking out, potting on, re-potting. • Propagation may include seed - (small seed sown in modules and pricked out or sown in seedbeds by hand), cuttings - (hardwood stem, semi-ripe stem, leaf, root), simple layering, growing on tissue 		

<p>cultured plants, division or splitting, grafting and budding</p> <ul style="list-style-type: none"> • Reasons for re-potting may include root reduction into same-size pot, pot selection, replace part of media (fresh nutrition), leaf reduction, shaping. • Records may include required by legislation, required for management purposes.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • basic principles and practice in the promotion of plant growth • basic propagation techniques • correct conditioning and storage procedures • growing media • nursery hygiene • plant growth and development, impact of external influences • plant nutrition programs • plant recognition <p>An ability to</p> <ul style="list-style-type: none"> • collect propagation material • propagate plants
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances – systems and procedures for the safe operation and maintenance of propagating equipment including knives – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are</p>

competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - with the supervisor about propagation activities
- **Planning & organising activities** - organising equipment and materials for plant propagation activities
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - counting, tallying
- **Solving problems** - relating to daily plant propagation activities
- **Using technology** - such as horticultural propagation equipment

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT225 A Maintain drainage systems	
<p>Unit Descriptor This unit describes the work undertaken to maintain various water drainage systems.</p> <p>Work is likely to be under routine supervision with intermittent checking. Competency at this level involves the application of knowledge and skills to a range of maintenance tasks. The maintenance of drains is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
225.1 Undertake maintenance to drains	<p>225.1.1 Structures are reformed, reshaped or realigned, gutters unblocked and free flow of water is checked.</p> <p>225.1.2 Equipment operation and work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p> <p>225.1.3 Cleaning tasks are monitored and remedial action undertaken where necessary according to enterprise guidelines.</p> <p>225.1.4 Root damage to drains is identified and treated by mechanical or chemical means according to enterprise policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Drainage systems may include surface drains, culverts, mole drains, sand slit, sub-surface traps, reed beds, pumps for recycling, baffles. • Maintenance may be undertaken using hand or powered equipment and chemical means. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • methods and techniques of drainage • Occupational Health & Safety (OHS) guidelines • behaviour of water on varying terrain and soil types • soil water retention testing techniques • basic principles and practice in drainage design <p>An ability to</p> <ul style="list-style-type: none"> • undertake maintenance to drains • use hand or powered equipment 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise 	

- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - with the supervisor about maintenance activities
- **Planning & organising activities** - organising equipment and materials for maintaining drains
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - to calculate volume and quantities
- **Solving problems** - relating to daily maintenance activities
- **Using technology** - such as horticultural machinery and equipment

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT226 A Undertake irrigation systems maintenance activities	
Unit Descriptor	
This unit is concerned with the basic repair and replacement of irrigation system components.	
Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of tasks and roles. Competencies are usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
226.1 Carry out pre- and post season maintenance	<p>226.1.1 Pre season equipment preparation ensures effective operation to design specifications and enterprise standards.</p> <p>226.1.2 Post season system maintenance including flushing, cleaning and/or close down procedures is completed as directed.</p> <p>226.1.3 Equipment requiring storage is dismantled, loaded, transported and stored without damage according to enterprise standards.</p>
226.2 Carry out routine maintenance activities on irrigation systems	<p>226.2.1 All maintenance activities are carried out according to the maintenance program and the manufacturers specifications.</p> <p>226.2.2 Mechanical equipment is serviced in accordance with the operator's manual or as directed.</p> <p>226.2.3 Supply and distribution system is flushed and cleaned with sprinklers, emitters and/or drip line tapes replaced as directed.</p> <p>226.2.4 Outlets, strainers, pump screens, and filters are cleaned and replaced as directed.</p> <p>226.2.5 Total irrigation system is visually inspected for leaks, operating faults and dry areas and observations are recorded legibly in the maintenance book.</p> <p>226.2.6 Operation area is maintained in a clean and safe condition and OHS procedures are followed.</p> <p>226.2.7 Gradients and levels of system are maintained to design requirements.</p>
226.3 Maintain irrigation system components	<p>226.3.1 System maintenance is carried out as instructed at scheduled times using equipment and materials in accordance with enterprise standards.</p> <p>226.3.2 Parts are inspected for wear or blockage and reported or replaced according to enterprise guidelines.</p> <p>226.3.3 Outlets are removed and cleaned and damaged ones are reassembled and replaced according to manufacturers specifications.</p> <p>226.3.4 Washers are assembled according to manufacturers specifications.</p> <p>226.3.5 Operation area is maintained in a clean and safe condition and OHS procedures are followed.</p>
226.4 Monitor weed growth	<p>226.4.1 Silt is cleared from channels, drains, sumps and crossings with no disruption to gradients and levels.</p> <p>226.4.2 System checks ensure weeds free and unobstructed water flow from outlets.</p> <p>226.4.3 Damage to plants, structures and fittings is minimised</p>

	<p>through the use of recognised mechanical and chemical methods of weed control according to enterprise guidelines.</p> <p>226.4.4 Operation area is maintained in a clean and safe condition and OHS procedures are followed.</p>
226.5 Record and report maintenance activities	<p>226.5.1 Rainfall records are maintained legibly in the irrigation schedule and rain gauges are emptied after each reading.</p> <p>226.5.2 Flow rates, water levels and pressures at selected sites are determined as required according to design specifications.</p> <p>226.5.3 All testing and monitoring procedures, maintenance and servicing repairs and replacement parts is recorded and reported.</p> <p>226.5.4 All damage and blockage caused by pests and vermin is recorded by damage type, location and the section of the system affected.</p> <p>226.5.5 Damage or faulty pumps, valves, electrical components and computer systems is recorded and reported and action taken to effect repairs.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Micro-irrigation systems may include mains pressure, low pressure, below or above ground, sprays systems, drip emitter trickle, t-tape, mini-sprinklers, capillary, ebb and flow and flood systems. • Spray irrigation systems may include travelling irrigators (soft hose, hard hose boom type) centre pivot, linear move, powered side roll hand shift permanent (installed), bike shift/easy shift. • Surface irrigation systems may include border check, contour irrigation, furrow irrigation, hillside flooding, basin irrigation. • Outlets may include siphons, drip lines, cups and fluming, pipes, risers, gates/slides/doors, valves, sprinklers, emitters. • Pre-season maintenance may include weed control, fence repair, motor servicing, flushing and supply distribution, desilting channels, descaling, equipment service. • Post-season maintenance may include disconnecting electrics, motor servicing, reports of equipment and machinery damage, flush and drain, cap open piping, protection from environmental damage, service equipment. • Machinery may include graders, back hoes, front end loaders, ploughs, moulding boards. • Fixtures may include dams, bores, windmills, tanks, channels. • Equipment may include injectors, pumps, tensiometers, probe tubes, flow meter, catch cans, pressure gauge, computer and/or other scheduling devices, recycling equipment, spray equipment. • Materials may include gland packing, rubber rings, belts and pulleys, hazardous substances, chemicals. • Irrigation systems may range from manual operation and monitoring to fully automated with computer control and monitoring. • Reuse systems may include disinfestation and filtering equipment. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • methods and techniques of irrigation • Occupational Health & Safety (OHS) guidelines • components of an irrigation system • characteristics and operation of joints, valves and sprinkler components • operation of pumps • soil water retention testing techniques • water quality and water filtration techniques • computerised irrigation systems • types and pressure ratings for pipes and fittings and outlets • system cleaning procedures • measuring and monitoring procedures <p>An ability to</p> <ul style="list-style-type: none"> • carry out pre- and post season maintenance 	

- carry out routine maintenance activities on irrigation systems
- maintain irrigation system components
- monitor weed growth
- record and report maintenance

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about the irrigation maintenance activities
- **Planning & organising activities** - organising equipment and materials for irrigation systems maintenance

- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring volumes
- **Solving problems** - relating to daily irrigation maintenance activities
- **Using technology** - such as horticultural machinery and equipment

Industry	Horticulture
Sector/s Landscape,	Arboriculture, Nursery, Parks & Gardens, Turf
RUH HRT227 A Recognise plants, products and treatments	
<p>Unit Descriptor This unit describes the recognition of plants, products and treatments within a specified enterprise or industry sector.</p> <p>Assistance to customers and clients is likely to be under routine supervision with intermittent checking by supervisors. Competency at this level involves the application of a limited range of horticultural knowledge and skills.</p>	
Element of Competency	Performance Criteria
227.1 Recognise a range of plants associated with a specified enterprise.	227.1.1 Plants are recognised and called by their common or botanical name. 227.1.2 Brief descriptions of plant habits and significant features are communicated within the enterprise. 227.1.3 The advice of supervisors is sought when necessary and where appropriate in the identification of plant species.
227.2 Recognise a range of products and services associated with a specified enterprise.	227.2.1 Products and services are recognised and described in line with sound horticultural principles and practices. 227.2.2 Information provided on products and services is based on sound horticultural principles and practices. 227.2.3 The advice of supervisors is sought when necessary and where appropriate in the identification of products and services.
227.3 Recognise a range of horticultural treatments	227.3.1 Horticultural treatments are recognised and described according to sound horticultural principles and practices. 227.3.2 The advice of supervisors is sought when necessary and where appropriate in the identification of horticultural treatments.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • A range of plants may include the varieties and numbers of plants as determined by a specific enterprise. • Products and services may include the products and services used and provided by an enterprise, and related services and contractors. • Treatments may include soil treatments, pest and disease treatments, weed control treatments, fertiliser treatments, cultural practices as determined by a specific enterprise. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • recognition of a range of plants specific to an enterprise • basic soil treatments, pest and disease treatments, weed control treatments, fertiliser treatments, cultural practices for a specified enterprise • products and services of specified horticultural enterprises • company policy on dealing with advice and information <p>An ability to</p> <ul style="list-style-type: none"> • recognise a range of plants associated with a specified enterprise • recognise a range of products and services associated with a specified enterprise • recognise a range of horticultural treatments 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications
Registered Training Organisation (RTO)

2. Qualifications of Assessor
Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment
These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about enterprise plants, products and treatments
- **Planning & organising activities** - for plant product and treatment recognition
- **Working with teams & others** - to seek advice when necessary
- **Using mathematical ideas & techniques** - to calculate, areas, volumes, rates
- **Solving problems** - relating to providing limited advice and dealing with customers and clients
- **Using technology** - in the identification and electronic recording of plants and products

Industry Horticulture	
Sector/s Nursery	
RUH HRT228 A Pot-on plants	
Unit Descriptor	
This unit describes the production of containerised nursery plants after propagation in production nurseries.	
The work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Potting-on at this level involves the application of knowledge and skills to a range of tasks and roles. Potting-on usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
228.1 Prepare growing media	<p>228.1.1 Enterprise based safety precautions are taken when handling potting media in line with industry standards.</p> <p>228.1.2 Media components are measured, blended thoroughly and checked to ensure that the product complies with enterprise specifications.</p> <p>228.1.3 Cleaning procedures are performed and hygiene practices followed according to enterprise guidelines.</p>
228.2 Pot on propagated plants	<p>228.2.1 Preparation procedures for potting-up are completed in accordance with enterprise guidelines.</p> <p>228.2.2 Plants are graded during the potting process according to enterprise guidelines.</p> <p>228.2.3 Root systems are prepared to eliminate interface problems according to established horticulture practice.</p> <p>228.2.4 Soil levels in pots and drill depth is adjusted to produce a well-furnished plant according to supervisors instructions and enterprise guidelines.</p> <p>228.2.5 Placement and depth comply with the planting method, plan, enterprise guidelines and sound industry practice.</p> <p>228.2.6 Air pockets are eliminated by thorough watering according to supervisors instructions.</p> <p>228.2.7 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise policy.</p> <p>228.2.8 Cleaning procedures are performed and hygiene practices followed according to enterprise guidelines.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Media components may include sand, potting mix, gravel, gro-wool, sawdust, pine bark, perlite, vermiculite, foam, peat, amendments, nutrients, ameliorants, ash, rice hulls, sphagnum moss, commercial mixes. Pots may include cells, tubes, standard, squat, planter bags, root trainers. Potting may be done manually or mechanically. Grading may include size, health, potential. Established plants may include plants with developed root systems. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> media types, application to production outcomes and preferred uses. basic plant physiology common plants and plant types nutritional requirements of propagated plants 	

<ul style="list-style-type: none"> • handling and potting on techniques • environmental requirements for maintenance and storage of potted-on plants. <p>An ability to</p> <ul style="list-style-type: none"> • prepare growing media • pot-on propagated plants 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table>							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
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1	1	1	1	1	1	1														

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - with the supervisor about production schedule
- **Planning & organising activities** - organising equipment and materials for production schedules
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring volumes, calibration, counting, tallying
- **Solving problems** - relating to daily production schedules
- **Using technology** - such as potting machines, soil mixing equipment and small tractors and trailers

Industry	Horticulture
Sector/s	Nursery

RUH HRT229 A Tend nursery plants

Unit Descriptor

This unit describes the daily maintenance routines that are required for the production of containerised nursery plants.

Plant maintenance is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of plant maintenance tasks. Nursery plant maintenance is usually within established routines, methods and procedures.

Element of Competency	Performance Criteria
229.1 Monitor serviceability of irrigation system	229.1.1 Spray patterns are checked for dry spots and blockages according to enterprise guidelines. 229.1.2 System is serviced and faulty spray heads are repaired or replaced according to the manufacturers guidelines.
229.2 Apply daily water requirements	229.2.1 Water is applied in the quantity and method specified by the daily watering plan. 229.2.2 Irrigation system is operated according to the manufacturers guidelines and plant requirements. 229.2.3 Water is applied by hand to dry or under-watered plants according to the requirements of the crop and according to supervisors instructions.
229.3 Promote growth by intervention	229.3.1 Plants are staked and tied to optimise plant shape according to supervisors instructions. 229.3.2 Plants are fertilised according to supervisors instructions. 229.3.3 All tips are removed from plants with clean cuts according to supervisors instructions. 229.3.4 Plants are spaced in the pattern specified by the supervisor. 229.3.5 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.

A. RANGE OF VARIABLES

- Components of irrigation system may include pump, sprinkler, sprinkler heads, solenoids, filters, controllers, sprayers, drippers.
- Irrigation system types may include ebb and flow, sprinklers, capillary beds, sprayers, drippers.
- Intervention may include tip pruning, weeding, spraying, staking, tying, spacing.
- Tools used for tip pruning may include fingernail, secateurs.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- Nursery Industry Water Management Best Practice Guidelines, 1997
- principles and operation of low pressure irrigation systems
- plant nutritional and environmental needs during the growing-on process
- techniques and practices in shaping plants
- plant presentation preparation and techniques

An ability to

- monitor the serviceability of irrigation system
- apply daily water requirements
- promote growth by intervention

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - with the supervisor about plant maintenance
- **Planning & organising activities** - organising equipment and materials for daily plant maintenance routines
- **Working with teams & others** - general guidance and considerable autonomy with others in the work

group <ul style="list-style-type: none"> • Using mathematical ideas & techniques - • Solving problems - relating to daily plant maintenance routines • Using technology - such as horticultural machinery and equipment 	
Industry	Horticulture
Sector/s	Nursery
RUH HRT230 A Assist sales of products and services	
Unit Descriptor This unit describes the sales role of workers principally in nursery retail outlets but also in some cases in production nursery enterprises. Sales work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of sales tasks and roles. Selling products and services is usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
230.1 Assess customer needs	230.1.1 Customer approach reflects enterprise standards of timing and courtesy. 230.1.2 Customer needs are established through the active use of industry recognised listening/questioning techniques. 230.1.3 Customers are directed to the location of specific items within the enterprise to suit described needs. 230.1.4 Basic questions about merchandise are answered in line with store policy. 230.1.5 Advice on matters such as alternative merchandise is offered when required items are out of stock. 230.1.6 A buying environment is created with store layout and sound communication techniques.
230.2 Acquire product knowledge	230.2.1 Appropriate sessions on product knowledge are attended to meet sales needs. 230.2.2 Senior sales people are consulted to increase product knowledge in line with enterprise policy. 230.2.3 Customer inquiries are referred to senior sales staff when a query is not able to be answered. 230.2.4 Manufacturers/product representatives are consulted to increase product knowledge in line with enterprise policy. 230.2.5 Manufacturers product information is accessed to reinforce customer advice and product knowledge.
230.3 Recommend basic products	230.3.1 Customer needs are matched to the appropriate product. 230.3.2 Product use and safety requirements are described to clients in line with store policy. 230.3.3 Product knowledge including features and benefits is communicated verbally or in writing to clients. 230.3.4 Authoritative advice is provided to customers regarding enterprise policy. 230.3.5 Limits of product knowledge are recognised and customers are referred to product specialists when appropriate.
230.4 Complete sales transactions	230.4.1 Customer's requirements are assessed promptly and accurately in line with enterprise policy. 230.4.2 Opportunities for additional sales are identified through

	<p>customer interview and product knowledge.</p> <p>230.4.3 Contact with a customer is maintained until a sale is completed in line with store policy.</p> <p>230.4.4 Customer order forms, invoices etc are completed in line with store policy.</p> <p>230.4.5 Customer delivery requirements are identified and processed promptly.</p> <p>230.4.6 Customers are directed to sales checkouts as required.</p> <p>230.4.7 Customer is fare-welled appropriately and courteously in line with store policy.</p>
230.5 Wrap and pack goods	<p>230.5.1 Merchandise is prepared for packing by selecting appropriate packaging material.</p> <p>230.5.2 Merchandise is wrapped neatly and effectively in line with store policy.</p> <p>230.5.3 Items are packed safely to avoid damage in transit, and labels are attached where appropriate.</p> <p>230.5.4 Transfer of merchandise for parcel pick-up is arranged if appropriate, or for delivery.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Basic questions about merchandise may include price, quality, usage. • Elements of a buying environment may include approaching customer to offer assistance, ask open ended questions, listen actively to customers, establish and prioritise customers needs. • The following variables may be present: types of customer, calculations may be done manually or by calculator, enterprise policies, value of items, statutory requirements in relation to sale and use of goods, Occupational Health & Safety (OHS) requirements in relation to handling and packing of goods, enterprise may be self-service or service orientated, nature of product. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • manufacturers specifications contained in product information • basic literacy and numeracy, requirements <p>An ability to</p> <ul style="list-style-type: none"> • assess customer needs • basic ability to calculate quantities • research product knowledge • recommend products • complete sales transactions • wrap and pack goods 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise 	

- selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - with the supervisor about products and services
- **Planning & organising activities** - organising sales
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - counting, measuring, estimating, basic numeracy
- **Solving problems** - relating to dealing with customers and sales transactions
- **Using technology** - such as scanning devices

Industry	Horticulture
Sector/s	Nursery
RUH HRT231 A Operate point of sale systems	
<p>Unit Descriptor This unit describes the work undertaken by workers in retail nursery outlets who handle and reconcile money from sales.</p> <p>Transactions are likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency at this level involves the application of knowledge and skills to a range of transaction tasks and roles. Point of sale and cash handling procedures are usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
231.1 Operate point-of-sale equipment	<p>231.1.1 Point-of-sale equipment is operated and maintained in line with manufacturers specifications as required.</p> <p>231.1.2 Enterprise procedure for opening the cash register is followed.</p> <p>231.1.3 Adequate change is maintained in cash register in line with enterprise policy.</p> <p>231.1.4 Register is cleared and cash transferred at required intervals and times.</p> <p>231.1.5 Records are completed for over/under rings, refunds, and no sales according to enterprise policy.</p> <p>231.1.6 Security in respect of cash handling is implemented according to enterprise policy.</p> <p>231.1.7 Docket, voucher and point-of-sale document supplies are maintained as instructed.</p>
231.2 Count and reconcile daily sales	231.2.1 Register is closed off by implementing enterprise cash security procedures as an integral part of daily routines.
231.3 Perform point-of-sale transactions	<p>231.3.1 Point-of-sale transactions are completed according to enterprise policy.</p> <p>231.3.2 Company procedures are identified and implemented in respect of non-cash sale transactions.</p> <p>231.3.3 Debtor sales are processed in line with enterprise procedure.</p> <p>231.3.4 Goods are accurately weighed as required and price calculated accurately according to weight when required.</p> <p>231.3.5 Goods are moved through point-of-sale area in an efficient manner and with due respect for their fragility and packaging.</p> <p>231.3.6 Supervisors are advised when undue delays occur in line with enterprise procedures.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Point-of-sale equipment may involve electronic or manual cash registers, electronic funds transfer, scanning systems, enterprise point-of-sales procedures, the point-of-sale area may operate under busy trading conditions or normal trading conditions. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> features and functions of the enterprise point-of-sale equipment touch keying techniques enterprise maintenance and cleaning routines for cash registers routines for maintaining security of cash methods of accurately counting notes and coins enterprise point-of-sale procedures methods for making retail calculations using an electronic calculator 	

<p>An ability to</p> <ul style="list-style-type: none"> operate point-of-sale equipment count and reconcile daily sales perform point-of-sale transactions 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems to ensure that workers undertake OHS induction systems to ensure that workers safety skills are assessed and training provided systems to ensure that workers are involved in the identification and reporting of hazards to health and safety systems to ensure that risks are assessed by relevant workers systems to ensure that effective short term and long term OHS risk control measures are implemented safe manual handling systems and procedures selection, use and maintenance of relevant personal protective clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table>							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														
<ul style="list-style-type: none"> Communicating ideas and information - with the supervisor and others in the work team Collecting, analysing & organising information - with the supervisor point of sales and cash handling Planning & organising activities - organising daily work routines Working with teams & others - general guidance and considerable autonomy with others in the work 																				

group

- **Using mathematical ideas & techniques** - counting and reconciling money from daily transactions
- **Solving problems** - relating to work routines
- **Using technology** - such as cash registers, scanners and other point of sales equipment

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT232 A Carry out canopy management	
<p>Unit Descriptor This unit describes the work undertaken where thinning and pruning of flower, fruit or vegetable crops is undertaken to control yield quality.</p> <p>The work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Canopy management involves the application of knowledge and skills to a range of thinning and pruning tasks. Canopy management is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
232.1 Thin crops	<p>232.1.1 The degree of thinning required by management is established.</p> <p>232.1.2 Thinning procedures specified by the supervisor are used.</p> <p>232.1.3 The extent of thinning is checked to ensure the correct level has been achieved.</p> <p>232.1.4 Thinning operations are recorded according to company policy.</p>
232.2 Prune plants by hand	<p>232.2.1 The method of pruning is selected according to supervisors directions.</p> <p>232.2.2 Tools and equipment to suit the job are selected.</p> <p>232.2.3 Pruning is carried out according to company policy.</p> <p>232.2.4 Pruning equipment is cleaned and stored according to enterprise guidelines.</p> <p>232.2.5 Signs of diseases and pests are recorded and reported to the supervisor.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Thinning may include crop removal, thinning flowers. • Thinning techniques may include hands, sticks, shakers, thinning sprays. • Methods of pruning may include winter or summer pruning, minimal pruning, hand clean-up after machine pruning. • Tools and equipment may include secateurs, knives, hand saws, chain saws, ladders, power ladders. Use of hydraulic snips, pneumatic snips subject to local regulations. • Machinery may include hydroplats, scissor lifts, chippers and mulchers. • All pruning procedures are carried out according to Occupational Health & Safety (OHS) policies and guidelines. • Company policy on pruning may include hygiene, protective clothing, maintenance of equipment, severity of pruning, angle of cut and position of buds. • Records may include information of percentage crop removal, technique used, timing. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • difference between fruiting and non-fruiting wood • the growth and fruiting habit of the crop • the differences in growth and fruiting habits between different varieties of the same crop • the purpose of pruning and thinning <p>An ability to</p> <ul style="list-style-type: none"> • thin crops • prune plants by hand 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about canopy management procedures
- **Planning & organising activities** - organising equipment and materials for thinning and pruning
- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - counting, tallying
- **Solving problems** - relating to canopy management practices

- **Using technology** - such as horticultural machinery and equipment

Industry	Horticulture	
Sector/s	Landscape, Parks & Gardens, Turf	
RUH HRT233 A Renovate grassed areas		
<p>Unit Descriptor This unit describes the basic renovation practices that are used to restore turf health and condition on a range of grassed areas.</p> <p>Renovation work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency involves the application of knowledge and skills to a range of turf renovation tasks. Turf renovation is usually within established routines, methods and procedures.</p>		
Element of Competency		Performance Criteria
223.1 Prepare equipment and turf area for renovation		223.1.1 Area is prepared according to supervisors instructions and renovation program. 223.1.2 Services are located and location of pipelines is compared with construction plan. 223.1.3 Tools are chosen appropriate to the task being undertaken, used according to the guidelines, and safe working practices are employed.
223.2 Undertake turf renovation		223.2.1 Renovation machinery is operated according to enterprise guidelines and safe working practices are employed. 223.2.2 Debris is cleaned away and the renovation site is neatly left according to enterprise guidelines. 223.2.3 Safety barriers are erected around trench lines and holes between working periods, and the area is left thoroughly clean and tidy at end of working periods throughout the works according to enterprise guidelines. 223.2.4 Tools are chosen appropriate to the task being undertaken, used according to the guidelines, and safe working practices are employed. 223.2.5 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Turf renovation may include coarse turf, fine turf, localised areas, large scale renovation. • Renovation tasks may include scarifying, de-thatching, over-sowing, turf replacement, checking surface and/or sub-surface drains, soil aeration, top dressing. • Machinery may include trailed or motorised renovating equipment, coring machines, core harvesters. • Tools may include rake, spreader, hose, hand tools, scarifier, de-thatcher. • Area preparation may include peg placement, barrier erection. 		
<p>B. EVIDENCE GUIDE</p>		

Underpinning Knowledge and Skills

A basic working knowledge of

- principles and practice of turf presentation
- manual handling guidelines
- correct use and care of equipment

An ability to

- prepare equipment and turf area for renovation
- undertake turf renovation

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating	Collecting	Planning &	Working with	Using	Solving problems	Using technology
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ideas & information	analysing & organising information	organising activities	teams & others	mathematical ideas & techniques		
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and others in the work team • Collecting, analysing & organising information - about renovation activities • Planning & organising activities - organising equipment and materials for turf renovation • Working with teams & others - general guidance and considerable autonomy with others in the work group • Using mathematical ideas & techniques - measuring areas, calibration, estimating • Solving problems - relating to daily work routines • Using technology - such as turf renovation machinery and equipment 						

Industry Horticulture	Sector/s Turf
RUH HRT234 A Prepare turf surfaces for play	
<p>Unit Descriptor This unit describes the work undertaken by greenkeepers and sports turf curators in preparing turf surfaces for match play.</p> <p>Turf surface preparation is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of surface preparation tasks. Turf surface preparation is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
234.1 Prepare an area to be mown	<p>234.1.1 The site is assessed for hazards and obstacles according to enterprise policy.</p> <p>234.1.2 Movable obstacles are removed before and replaced after mowing and debris is disposed of according to enterprise policy.</p> <p>234.1.3 Abnormal conditions or changes in the appearance of the site are reported to the supervisor according to enterprise guidelines.</p>
234.2 Adjust a mower	<p>234.2.1 Mower is calibrated according to manufacturers guidelines.</p> <p>234.2.2 Mower is adjusted to height as specified by supervisor and according to manufacturers guidelines.</p> <p>234.2.3 Pre- and post-operational checks, including setting up and storage of tools are completed according to manufacturers guidelines and enterprise policy.</p>
234.3 Mow playing surface	<p>234.3.1 Grass is assessed for appearance against enterprise guidelines.</p> <p>234.3.2 The mower is matched to any implement attached to it according to manufacturers guidelines.</p> <p>234.3.3 Continuous oversight of mowing activities is maintained according to supervisors instructions.</p>
234.4 Undertake final preparations for use	<p>234.4.1 Marking out is completed according to purpose for use and enterprise guidelines.</p> <p>234.4.2 Lengths and angles are measured for location of markers and equipment according to enterprise specification and industry practice.</p> <p>234.4.3 Equipment is placed, and removed where necessary, according to enterprise guidelines.</p> <p>234.4.4 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Turf may include coarse turf, fine turf, juvenile turf. • Obstacles may include irrigation sprinkler heads, plants, open drains, debris, wildlife. • Hazards and obstacles may include players, limbs of trees, ground water, designed features, litter. • Types of mowers may include cylinder, rotary, flail, hand, hand-operated cylinder mower, greens mower, large ride-on fairway mowers, triplex greens mowers and 4 wheel drive machinery. • Machinery may include rollers, super soakers, line marking equipment, brush cutters, edge clippers, edge slicers. • Mark out may include dry, wet markers, aerosols, measurements, fitting placements. • Uses of turf may include golf, cricket, tennis, volleyball, football, horse racing, hockey, bowls, lacrosse. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- hand watering, systems and procedures
- turf cultural practices for preparation for play
- competition playing requirements for various games
- marking out regulations
- reporting procedures

An ability to

- prepare an area to be mown
- adjust a mower
- mow playing surface
- undertake final preparations for use

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural

workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with the supervisor and others in the work team • Collecting, analysing & organising information - about surface requirements • Planning & organising activities - organising equipment and materials for surface preparation • Working with teams & others - general guidance and considerable autonomy with others in the work group • Using mathematical ideas & techniques - measuring, calibration • Solving problems - relating to turf surface preparation • Using technology - such as turf mowing and rolling equipment 						

Industry	Horticulture
Sector/s	Turf
RUH HRT235 A Support turf construction	
<p>Unit Descriptor This unit describes the assistance workers provide to others in a team who are constructing new turf surfaces.</p> <p>Construction work is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of construction tasks. The work is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
235.1 Prepare a site for construction	<p>235.1.1 Area is prepared according to supervisors instructions and construction plan.</p> <p>235.1.2 Services are located and location of pipelines is compared with construction plan.</p> <p>235.1.3 Safety barriers are erected around the construction area between working periods, and area is left thoroughly clean and tidy at end of working periods throughout the works according to enterprise guidelines.</p> <p>235.1.4 Work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p>
235.2 Undertake earthworks	<p>235.2.1 Base is graded to the specified level and on a consistent slope and is consolidated to achieve uniform compaction over entire site according to supervisors instructions.</p> <p>235.2.2 Trench lines are dug to specified depth, width and fall, with all superfluous material evacuated, according to construction plan and supervisors specifications.</p> <p>235.2.3 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p> <p>235.2.4 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
235.3 Restore a site after drainage and irrigation installation	<p>235.3.1 Trenches are back-filled with specified material, consolidated and levelled consistent with site or construction plans.</p> <p>235.3.2 Site is visually levelled as each layer of the profile is installed and watered thoroughly on completion according to supervisors instructions.</p> <p>235.3.3 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p> <p>235.3.4 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Levelling equipment may include drag mat, level frame, rake, level turf, bunker rake. • Earthworks equipment may include front end loader, grader blade, ditch witch, mechanical roller. • Services may include electricity, telephone, gas, water. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • Work site occupational health and safety procedures • Irrigation and/or drainage installation procedures • Australian standards for PVC welds <p>An ability to</p> <ul style="list-style-type: none"> • prepare a site for construction • undertake earthworks • restore a site after drainage and irrigation installation 	

- OHS issues that impact upon the performance of this unit**
- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications
Registered Training Organisation (RTO)

2. Qualifications of Assessor
Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
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3. Measures to ensure consistency in assessment
These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about construction activities
- **Planning & organising activities** - organising equipment and materials for sports turf construction
- **Working with teams & others** - general guidance and considerable autonomy with others in the work

group

- **Using mathematical ideas & techniques** - measuring, counting
- **Solving problems** - relating to daily work routines
- **Using technology** - such as earth moving and digging machinery and equipment

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT236 A Undertake stump removal	
<p>Unit Descriptor This unit describes the work undertaken to removes tree stumps from the ground with the aid of motorised stump grinders.</p> <p>Stump removal is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of stump removal tasks. The work is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
236.1 Undertake stump removal	<p>236.1.1 Stump is removed to agreed depth and spread, without damage to underground services and in accordance with established industry standards.</p> <p>236.1.2 Equipment safely is operated according to manufacturers instructions.</p> <p>236.1.3 Stump hole is back-filled and consolidated to original ground level according to enterprise policy.</p> <p>236.1.4 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Equipment may include axe, spade, shovel, crowbar, hand or powered winches, hand tools, stump grinding machine, chainsaw. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> stump grinding machinery operation safe working practices <p>An ability to</p> <ul style="list-style-type: none"> undertake stump removal operate a range of hand and power tools 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems to ensure that workers undertake OHS induction systems to ensure that workers safety skills are assessed and training provided systems to ensure that workers are involved in the identification and reporting of hazards to health and safety systems to ensure that risks are assessed by relevant workers systems to ensure that effective short term and long term OHS risk control measures are implemented safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment 	

C. ASSESSMENT GUIDE

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The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about daily routines
- **Planning & organising activities** - organising equipment and materials
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate depth and plan dimensions
- **Solving problems** - with supervisor about planning daily work routines
- **Using technology** - stump grinders

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT237 A Support revegetation works	
Unit Descriptor	
This unit is concerned with assistance some workers provide in revegetation.	
Revegetation is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of revegetation tasks. The work is usually within established routines, methods and procedures.	
Element of Competency	Performance Criteria
237.1 Apply weed control measures	<p>237.1.1 Equipment is prepared and used according to supervisors instructions and manufacturers guidelines.</p> <p>237.1.2 Treatments are prepared according to supervisors instructions and manufacturers specifications.</p> <p>237.1.3 Treatments are administered according to enterprise guidelines and species requirements.</p> <p>237.1.4 Work practices and control measures employed cause damage only to target weed species.</p>
237.2 Stabilise soil	<p>237.2.1 Stabilising material is gathered, prepared and applied to areas of soil vulnerable to erosion.</p> <p>237.2.2 Previously laid stabilising material is removed with minimal soil disturbance and damage to plants.</p>
237.3 Plant vegetation	<p>237.3.1 Area to be planted is thoroughly watered to encourage strong root growth, where appropriate and according to supervisors instructions.</p> <p>237.3.2 Plants are laid in the positions described in the garden design or specified by the supervisor.</p> <p>237.3.3 Soil conditioner is applied, if appropriate, according to supervisors and manufacturers instructions.</p> <p>237.3.4 Plants are planted as they have been placed ensuring good contact between roots and surrounding soil.</p> <p>237.3.5 Newly planted area is watered according to supervisors instructions.</p> <p>237.3.6 Tools are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p> <p>237.3.7 Tool and equipment cleaning and storage procedures are performed and hygiene practices are followed according to enterprise guidelines.</p>
237.4 Maintain ancillary equipment	<p>237.4.1 Ancillary equipment is used where appropriate and is placed according to enterprise guidelines and supervisors instructions.</p> <p>237.4.2 Ancillary equipment is replaced or repaired according to site requirements.</p>
237.5 Promote growth by intervention	<p>237.5.1 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p> <p>237.5.2 The plant is staked and tied to optimise plant shape according to supervisors instructions.</p> <p>237.5.3 All tips are removed from plants with clean cuts according to supervisors instructions.</p>

A. RANGE OF VARIABLES**Parks & Gardens**

- Ancillary equipment may include weed mats, tree guards, fencing.
- Common weeds may include commonly occurring varieties of the enterprise and region, easily controlled and which may impact the quality of the site.
- Components of irrigation systems may include pump, sprayers, sprinkler heads, sprinklers, solenoids, drippers.
- Intervention may include tip pruning, staking, tying.
- Planting methods may include direct seeding, tube planting, natural regeneration, planting of divisions, transplanting.
- Soil conditioners may include additives to affect a change in the water holding capacity of the soil, pH, organic components, soil structure and texture.
- Stabilising material may include mesh, mown grass, dead vegetative material, mulch, weed mat.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- different plant communities and habitats
- plant identification
- chemical and cultural weed control techniques
- revegetation techniques
- soil amelioration and stabilisation techniques
- tool, equipment and material use
- Occupational Health & Safety (OHS) guidelines

An ability to

- apply weed control measures
- stabilise soil
- plant vegetation
- maintain ancillary equipment
- promote growth by intervention

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

<p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

Industry	Horticulture
Sector/s	Landscape, Parks & Gardens
RUH HRT238 A Install paving	
Unit Descriptor	
This unit is concerned with the installation of modular paving.	
The work is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of setting out and installation tasks and roles usually within established enterprise routines.	
Element of Competency	Performance Criteria
238.1 Plan and prepare work	<p>238.1.1 Materials and quantities are determined from job drawings and specifications.</p> <p>238.1.2 Appropriate personal protective equipment is selected and fitted according to OHS requirements.</p> <p>238.1.3 Tools and equipment are selected and checked for serviceability to ensure they are suitable for the job to be undertaken.</p> <p>238.1.4 The quality of materials is checked to ensure they are free of defects and conform to the specification details.</p>
238.2 Set out and prepare for construction	<p>238.2.1 The position of works is marked out according to job drawings and specifications.</p> <p>238.2.2 The layout is checked for compliance with job details and/or client's needs and adjusted where necessary.</p> <p>238.2.3 Signage and barriers are erected where required according to OHS regulations.</p> <p>238.2.4 Where required, Temporary Bench Marks or datum points are established in close proximity to works from survey bench mark.</p> <p>238.2.5 The Reduced Levels of the proposed works are calculated and pegged from the Temporary Bench Marks using the rise and fall method in a closed level run.</p>
238.3 Undertake ground preparation	<p>238.3.1 The site is excavated to shape, depth and dimensions to sub base level according to job drawings and specifications.</p> <p>238.3.2 The sub base is trimmed to levels and falls to ensure final level of completed works can be achieved according to job drawings and specifications.</p> <p>238.3.3 Drainage systems are constructed as required according to job drawing and specifications</p> <p>238.3.4 Base material is placed and compacted to the required finished level according to job drawings and specifications.</p> <p>238.3.5 Soil and waste material from excavation area is separated and stockpiled according to directions.</p>
238.4 Install bedding material	<p>238.4.1 Screed rails are established to ensure the bedding course is maintained at the designated level and falls as detailed in job drawings and specifications.</p> <p>238.4.2 Bedding material is spread loosely over area to ensure designated bedding depth can be attained according to manufacturers specifications.</p> <p>238.4.3 Bedding material is levelled to designated level and fall as detailed in job drawings and specifications.</p>
238.5 Install pavers to a given pattern	<p>238.5.1 Grid string lines are set to required levels to ensure designated pattern of project is attained and to maintain straight lines of components.</p> <p>238.5.2 Pavers are set out to required dimensions and pattern according to job drawings and specifications.</p> <p>238.5.3 Whole pavers are laid and compacted to specified finish</p>

	<p>level according to working drawings and specifications.</p> <p>238.5.4 Pavers are marked, cut and fitted to accurately fill gaps in pattern within tolerances nominated within the working drawings and specifications.</p> <p>238.5.5 Permanent edge constraints are installed to prevent movement of pavers in line with job specifications.</p> <p>238.5.6 Joints to works are finished according to the working drawings and specifications.</p> <p>238.5.7 Paving is cleaned down to produce a clean and flat surface free of stains and debris.</p> <p>238.5.8 Paving is swept with sand and compacted to finished level.</p>
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A. RANGE OF VARIABLES

- Modular paving may include clay or concrete paving bricks, other modular paving units.
- Machinery and equipment may include brick and concrete saws, mallets, compactors, concrete mixers.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- Occupational health and safety issues
- site set out principles and practices
- materials available
- calculations for materials

An ability to

- plan and prepare work
- set out and prepare for construction
- undertake ground preparation
- install bedding material
- install pavers to a given pattern

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about daily routines
- **Planning & organising activities** - organising equipment and materials
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to measure and calculate areas
- **Solving problems** - with supervisor about planning daily work routines
- **Using technology** - for paving

Industry	Horticulture
Sector/s	Landscape
RUH HRT239 A Install retaining walls	
<p>Unit Descriptor This unit applies to the construction of retaining walls in a landscape settings.</p> <p>The work is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of setting out and installation tasks and roles usually within established enterprise routines.</p>	
Element of Competency	Performance Criteria
239.1 Plan and prepare work	<p>239.1.1 Materials and quantities are determined from job drawings and specifications.</p> <p>239.1.2 Appropriate personal protective equipment is selected and fitted according to OHS requirements.</p> <p>239.1.3 Tools and equipment are selected and checked for serviceability to ensure they are suitable for the job to be undertaken.</p> <p>239.1.4 The quality of materials is checked to ensure they are free of defects and conform to the specification details.</p> <p>239.1.5 The location and depth of excavations are determined from site plans and drawings.</p>
239.2 Set out retaining wall	<p>239.2.1 The position of retaining wall is marked out according to job drawings and specifications.</p> <p>239.2.2 Profiles are established to conform with plans and specification details and to the tolerances designated by supervisor and/or plan details.</p> <p>239.2.3 Survey bench marks, datums and Temporary Bench Marks are established according to plan details where required.</p> <p>239.2.4 On-site services and utilities are located from data provided by appropriate authorities.</p> <p>239.2.5 Waste and unused materials are removed and stacked to provide a safe working area.</p>
239.3 Prepare footings to given dimensions	<p>239.3.1 Where required foundations for retaining wall are excavated to depth and dimensions described in job drawings and specifications.</p> <p>239.3.2 Soil and waste material from site are stockpiled and removed according to directions.</p> <p>239.3.3 Reinforcing is located and positioned where required, according to design documentation.</p> <p>239.3.4 Steps in trench are formed where required according to design documentation and Building Code of Australia requirements.</p> <p>239.3.5 The finished heights of pegs are positioned to maintain even depth and horizontal plane to top of footings.</p> <p>239.3.6 All debris from excavation is removed according to directions.</p> <p>239.3.7 Concrete is evenly placed and consolidated using approved vibration methods to AS 3600 and specifications.</p> <p>239.3.8 Concrete surface is finished to screeded level ensuring adequate coverage of reinforcement as detailed in job drawings.</p>
239.4 Prepare for construction and install components	<p>239.4.1 Components for assembly or installation are prepared as detailed in the job drawings and specifications.</p> <p>239.4.2 Components to be cut are marked out to length and/or shape and cut accurately to the requirements of the design and specification documents.</p> <p>239.4.3 Base layer of retaining wall structure is installed to a point above top of drainage media and weep holes are formed where indicated.</p>

	<p>239.4.4 Where required drainage media is installed to given specification.</p> <p>239.4.5 Fill material is back-filled and compacted behind base of retaining wall.</p> <p>239.4.6 Installation of retaining wall components is completed to determined dimensions, profiles and levels as outlined in job drawings and specifications.</p> <p>239.4.7 Capping to top of retaining wall is set to determined level with a tolerance appropriate to style of capping according to design details.</p>
239.5 Clean up site and store all tools and equipment	<p>239.5.1 Debris from structure and site is cleaned according to specification details.</p> <p>239.5.2 Waste material is safely disposed of without adversely impacting upon the environment.</p> <p>239.5.3 Unused material is stored and stacked for future re-use according to job instructions.</p> <p>239.5.4 All tools and equipment are cleaned and stored according to job instructions.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Retaining walls may be timber, modular units 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • occupational health and safety • set out and construction principles and practices • material selection • calculations for materials <p>An ability to</p> <ul style="list-style-type: none"> • plan and prepare work • set out retaining wall • prepare footings to given dimensions • prepare for construction and install components • clean up site and store all tools and equipment 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p>	

<p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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1	1	1	1	1	1	1														

Industry	Horticulture	
Sector/s	Landscape, Parks & Gardens, Turf	
RUH HRT240 A Establish turf		
Unit Descriptor		
<p>This unit describes the operation of basic turf establishment by seed or sod that is undertaken by gardeners, landscapers and greenkeepers.</p> <p>Turf establishment is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Competency involves the application of knowledge and skills to a range of turf establishment task. The work is usually within established routines, methods and procedures.</p>		
Element of Competency		Performance Criteria
240.1 Prepare seedbed for new turf		<p>240.1.1 The entire surface is raked out evenly to achieve a consistent texture and the area is uniformly levelled to defined contour requirements according to supervisors instructions.</p> <p>240.1.2 Fertiliser is evenly distributed at the rate specified by the supervisor.</p> <p>240.1.3 Tools are chosen appropriate to the tasks being undertaken, used according to enterprise guidelines and safe working practices are employed.</p> <p>240.1.4 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
240.2 Sow turf		<p>240.2.1 Seed spreader is operated to achieve even distribution over the whole area with no overlap and no areas missed according to supervisors instructions.</p> <p>240.2.2 Seed is spread by hand to achieve even distribution over the whole area with no overlap and no areas missed according to supervisors instructions.</p> <p>240.2.3 The entire surface is evenly raked in and thoroughly watered according to supervisors instructions.</p> <p>240.2.4 Tools are chosen appropriate to the tasks being undertaken, used according to enterprise guidelines and safe working practices are employed.</p>
240.3 Lay sod		<p>240.3.1 Sodds are correctly oriented, rolled evenly onto a moist surface and interlocked in the pattern and area according to supervisors instructions.</p> <p>240.3.2 Newly laid turf is watered thoroughly to encourage establishment according to supervisors specifications.</p> <p>240.3.3 Tools are chosen appropriate to the tasks being undertaken, used according to enterprise guidelines and safe working practices are employed.</p> <p>240.3.4 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
240.4 Roll site		<p>240.4.1 Work pattern is planned to cover the area evenly and efficiently and rolling is even, flat and uniform with no disturbance left according to supervisors instructions.</p> <p>240.4.2 Tools are chosen appropriate to the tasks being undertaken, used according to enterprise guidelines and safe working practices are employed.</p> <p>240.4.3 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise occupational health and safety guidelines.</p>

240.5 Top dress new turf	<p>240.5.1 Soil is applied evenly to the required depth over the whole area and is worked, or rubbed, into surface according to supervisors instructions.</p> <p>240.5.2 Tools are chosen appropriate to the tasks being undertaken, use according to enterprise guidelines and safe working practices are employed.</p> <p>240.5.3 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise occupational health and safety guidelines.</p>
240.6 Monitor turf health	<p>240.6.1 Damaged turf is identified according to published data, supplier specifications and historical data.</p> <p>240.6.2 Turf structure is observed for quality according to published data, industry practice and enterprise guidelines.</p> <p>240.6.3 Reports and recommendations are made to supervisor according to enterprise guidelines.</p> <p>240.6.4 Tools are chosen appropriate to the tasks being undertaken, use according to enterprise guidelines and safe working practices are employed.</p>
240.7 Water turf	<p>240.7.1 Site is protected from animals and people as required.</p> <p>240.7.2 Water is applied in the quantity and method specified by supervisor.</p> <p>240.7.2 Irrigation system is operated according to the manufacturers guidelines.</p> <p>240.7.3 Water is applied by hand to dry or under-watered plants according to the requirements of the variety and according to supervisors instructions.</p> <p>240.7.4 Spray patterns are checked for dry spots and blockages and faults rectified and reported.</p> <p>240.7.5 Faulty spray heads are repaired or replaced according to manufacturers specifications.</p>

A. RANGE OF VARIABLES

- Disturbance may include overlapping sods, parting sods.
- Tools may include rake, spreader, hose, hand tools, turf spade.
- Machinery may include tractors, trailers, sod cutters, rollers
- Properties of damaged turf may include strength, wear tolerance, growth rate, colour, recovery rate.
- Observations for turf quality may include upright, stress, growing pattern, variation.
- Manual watering equipment may include hoses, sprinklers, pop-ups.
- Water may be applied to fine turf, display beds, juvenile turf.
- Servicing of irrigation systems may include minor repairs to low pressure systems, relocatable mains pressure systems.
- Mowing equipment may include 2- and 4- stroke hand operated rotary mowers, ride-on mowers, brush cutters, pedestrian cylinder mowers.
- Trailed implements may include trailers, gang mowers.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- AS 1742 Pt 3 1985 - Australian Standard Code of Practice, Work Site Traffic Management
- correct set up, use and cleaning procedures for mowing equipment, minor repairs and service requirements
- correct use and care of equipment, programmed maintenance and repair
- enterprise standards for turf appearance
- hand watering, systems and procedures
- manual handling guidelines
- Occupational Health & Safety (OHS) guidelines
- propagating by seed and sod
- weed/pest control and biology

<p>An ability to</p> <ul style="list-style-type: none"> • prepare seedbed for new turf • sow turf • lay sod • roll site • top dress new turf • monitor turf health • water turf
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OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about the turf establishment activities
- **Planning & organising activities** - organising equipment and materials for turf establishment activities

- **Working with teams & others** - general guidance and considerable autonomy with others in the work group
- **Using mathematical ideas & techniques** - measuring areas, application rates, calibration
- **Solving problems** - relating to daily turf establishment activities
- **Using technology** - such as horticultural machinery and equipment

Industry Horticulture	
Sector/s Parks & Gardens	
RUH HRT241 A Conduct visual inspection of park facilities	
<p>Unit Descriptor This unit describes the routine visual inspection of park facilities to identify visible hazards and existing and/or potential risks.</p> <p>Work is likely to be under routine supervision with intermittent checking. Responsibility for some roles and coordination within a team may be required. Inspection at this level involves the application of knowledge and skills to a range of tasks. Inspection work is usually within established routines, methods and procedures.</p>	
Element of Competency	Performance Criteria
241.1 Prepare for visual inspection	<p>241.1.1 Specific facilities and equipment requiring maintenance are described on a report sheet so that maintenance personnel can locate them at a later stage.</p> <p>241.1.2 Appropriate checklists are obtained from supervisor.</p> <p>241.1.3 Different types of facilities are identified on site from checklist descriptions.</p> <p>241.1.4 Specific terminology used in checklists are clarified.</p>
241.2 Undertake visual inspection	<p>241.2.1 Visible hazards are recorded identified and recorded as instructed.</p> <p>241.2.2 Checklist entries are concise and accurate and comply with enterprise standards.</p> <p>241.2.3 Inspections undertaken in efficient and safe manner according to enterprise policy.</p>
241.3 Submit report	<p>241.3.1 Situations requiring urgent action actioned and reported immediately to supervisors.</p> <p>241.3.2 Checklist and/or report is forwarded to supervisor according to enterprise policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Facilities and equipment may include playgrounds, playground softfall and edging, pathways, play equipment, parks and street furniture and structures, fences, bollards and tree/grass protection devices, and paved, turf and/or grassed recreational areas. Visible hazards may include damaged parts, broken glass, loss of soft surfacing, protruding nails, bolts and splinters, sudden changes in surface levels such as holes and trip points, and worn, rusted and weathered components. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> relevant Occupational Health and Safety issues range of park facilities and equipment terminology used to describe different components of facilities different hazards likely to be encountered with park facilities and equipment reporting requirements facility use and safety parameters <p>An ability to</p>	

- prepare for visual inspection
- undertake visual inspection
- submit report

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about safety hazards

- **Planning & organising activities** - organising checklist and site inspections
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - to calculate dimension and costing damage
- **Solving problems** - relating to hazard identification
- **Using technology** - such as computers, video and audio recorders

LEVEL

3

Industry	Horticulture
Sector/s	Nursery, Parks & Gardens
RUH HRT301 A Prepare plant displays	
Unit Descriptor	
<p>This Unit of Competency is concerned with the process of preparing plant displays either in indoor settings or as seasonal displays of annual and perennial plants in garden beds.</p> <p>Preparation is likely to be under limited supervision from others and with checking only related to overall progress. The preparation of plant displays involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
301.1 Design plant displays	<p>301.1.1 Display site is analysed for aesthetic, environmental and physical attributes.</p> <p>301.1.2 Display plan is prepared according to enterprise guidelines.</p> <p>301.1.3 Plant types suitable for aesthetic effects are identified on the display plan.</p>
301.2 Select plants	<p>301.2.1 Plants selected are healthy and vigorous and are selected according to the display plan.</p> <p>301.2.2 Number and size of plants selected are according to the display plan.</p> <p>301.2.3 Plants selected display the ability to survive in the display position for the length of the display or the length of time required.</p>
301.3 Place plants	<p>301.3.1 Plants are placed in pattern specified by the plan.</p> <p>301.3.2 Accessories and materials chosen are as specified in the plan.</p> <p>301.3.3 Display is completed to achieve the enterprise's aesthetic standard.</p>
301.4 Maintain plants	<p>301.4.1 Plants are observed for health qualities according to published data, supplier specifications and historical data.</p> <p>301.4.2 Plants are fertilised and watered to maintain optimum health and appearance.</p> <p>301.4.3 Plants are replaced when no longer at optimum health and appearance.</p> <p>301.4.4 Rubbish, litter and decaying material are removed from plants, pots and surrounds to maintain appearance of display at enterprise standard.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Plant displays may include annual bedding displays, herbaceous perennial displays, indoor presentations. • Parameters for analysis may include light, air, humidity, desired effect, nature of event or exhibition, time-span of display, size of display. • Plant characteristics may include colour, texture, size, species, longevity. • Displays designed may include, small displays, displays for small functions. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • plant culture and maintenance • long and short term slow release fertilisers • plant performance and requirements • plant establishment and after-care • plant maintenance • plant selection for display areas <p>An ability to:</p> <ul style="list-style-type: none"> • design plant displays • select and place plants in displays • maintain plant displays 													
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment – OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 													
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>													
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <tr> <td>Communicating</td> <td>Collecting</td> <td>Planning &</td> <td>Working with</td> <td>Using</td> <td>Solving</td> <td>Using technology</td> </tr> </table>							Communicating	Collecting	Planning &	Working with	Using	Solving	Using technology
Communicating	Collecting	Planning &	Working with	Using	Solving	Using technology							

ideas & information	analysing & organising information	organising activities	teams & others	mathematical ideas & techniques	problems	
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with suppliers, end users and members of the work team • Collecting, analysing & organising information - on the design requirements of the site • Planning & organising activities - of self and others to prepare a range of plant displays • Working with teams & others - to complete specified works • Using mathematical ideas & techniques - to calculate design requirements and cost project requirements • Solving problems - especially of a horticultural nature • Using technology - to achieve the requirements of the task 						

Industry	Horticulture
Sector/s	Landscape, Parks & Gardens, Turf
RUH HRT302 A Cultivate turf	
<p>Unit Descriptor This Unit of Competency is concerned with the process of establishing turf in commercial and domestic recreational situations.</p> <p>Turf establishment is likely to be under limited supervision from others and with checking only related to overall progress. Turf establishment involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of machinery and equipment, work organisation, services, actions and achieving outcomes within time and budget constraints.</p>	
Element of Competency	Performance Criteria
302.1 Plant turf	<p>302.1.1 Soil is watered according to enterprise guidelines.</p> <p>302.1.2 Placement and planting method of the plant material is consistent with the plant species.</p> <p>302.1.3 Newly planted turf is watered and top-dressing is applied according to plan and supervisors instructions.</p> <p>302.1.4 Tools and equipment chosen are appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p>
302.2 Manage juvenile turf	<p>302.2.1 Juvenile turf is irrigated and fertilised according to variety and method of planting.</p> <p>302.2.2 Turf is rolled with a lightweight roller prior to first mowing and mowed according to a specified pattern and height according to the requirements of the enterprise.</p> <p>302.2.3 Juvenile turf is monitored relative to published data on variety, problems identified and any changes are reported to supervisor according to enterprise policy.</p> <p>302.2.4 Top dressing is applied according to the establishment plan and where plant health characteristics dictate.</p> <p>302.2.5 Tools and equipment chosen are appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p>
302.3 Collect samples for a soil analysis	<p>302.3.1 Samples are taken from a representative area and accurately labelled according to enterprise guidelines and consultant requirements.</p> <p>302.3.2 Tools and equipment are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
302.4 Identify damaged turf	<p>302.4.3 Plants are observed for health properties according to published data, supplier specifications and historical data.</p> <p>302.4.4 Turf structure is observed for quality according to published data, industry practice and enterprise guidelines.</p> <p>302.4.5 Reports and recommendations are made to supervisor according to enterprise guidelines.</p> <p>302.4.6 Tools and equipment chosen are appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • This unit applies to all turf areas such as parks, gardens and sports fields. • Site conditions may include soil types, moisture content, pH levels, salinity, texture, compaction, aspect, pollutants, toxicity, climate, buildings, road works, shade. 	

- Elements that will affect the water requirements may include evaporation, wind, transpiration, rain, season, daylight, use of turf, situation.
- Environmental conditions may include wind, rain, sun, shade, humidity.
- Health properties may include strength, wear tolerance, growth rate, colour, recovery rate.
- Irrigation system types may include mains pressure, low pressure, below ground, above ground, spray systems, dripper-systems.
- Observations for turf quality may include upright, stress, growing pattern, variation.
- Plant material may include sprigs, sod, seed, hydro-seed, stolons.
- Plant material is selected according to required characters, soil type, climate and use.
- Planting methods may include sowing, laying, rolling, chaffing, sprigging.
- Requirements for supplementary watering may include volume delivered was not appropriate, dry patches in places.
- Requirements to be monitored may include irrigation, fertiliser, mowing, weeds, pests and diseases.
- Situations where top dressing is appropriate may include joins in sods, to level an area that is “puddling”, to promote lateral growth on after planting practices.
- Soil testing methods may include core sample, penetration test.
- Variables in taking a sample penetration reading may include speed with which readings are taken, time of day, turf use.
- Water distribution variables may include, dry spots, pooling, representative samples, consistency, visually checking sprinklers.
- Enterprise standards may include spacing of core holes, even scarification, no damage to remaining turf.
- Renovation tasks may include fertilising, seeding, top dressing, watering, levelling, installation of barriers and protective measures, scarifying, de-thatching.
- Renovation equipment may include scarifiers, de-thatchers.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of:

- appropriate agricultural chemicals and concentrations
- turf identification and growth characteristics
- soils and turf nutrition
- fertiliser use and application
- watering practices
- common weeds, pests and diseases

An ability to:

- plant turf
- manage juvenile turf
- collect samples for a soil analysis
- interpret the results of a soil analysis
- identify damaged turf

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with suppliers and other members of the work team
- **Collecting, analysing & organising information** - with end users and members of the work team
- **Planning & organising activities** - of self and others to establish turfed areas
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - calculate and cost project requirements
- **Solving problems** - especially of a horticultural nature
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Nursery
RUH HRT303 A Maintain nursery plants	
<p>Unit Descriptor This unit describes the maintenance and growing on of plants under production in a wholesale or production nursery.</p> <p>Maintenance and growing on of plants is likely to be under limited supervision from others and with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Plant maintenance is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
303.1 Monitor environmental parameters	<p>303.1.1 Environmental parameter levels are checked against those needed by crop and production plan and according to enterprise guidelines.</p> <p>303.1.2 Environmental parameters are changed as required to meet the needs of the crop and production plan.</p>
303.2 Determine daily water requirements	<p>303.2.1 Crop needs are determined according to industry best practice, environmental parameters and enterprise guidelines.</p> <p>303.2.2 Method of water delivery recommended is applied according to industry best practice and enterprise guidelines.</p>
303.3 Select media for growing-on	<p>303.3.1 Media with suitable drainage and aeration characteristics for the crop are chosen according to enterprise guidelines.</p> <p>303.3.2 Treatments and method of growing-on chosen appropriate to the crop and according to enterprise guidelines.</p>
303.4 Promote growth by intervention	<p>303.4.1 Plants are fed and watered according to the crop or batch nutrition programs.</p> <p>303.4.2 Plants are pruned to achieve consistency, shape and marketing requirements.</p> <p>303.4.3 Environmental conditions are modified to achieve presentation requirements of marketing plans and sales patterns.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Plants may include plants that are plentiful and hardy, plants that are commonly grown in the enterprise. Environmental parameters may include light, temperature, humidity, wind. Market requirements may include foliage colour, time of sale. Environmental parameters for media selection may include dry soil, heat, wind strength. Treatments may include fungicide, herbicides, fertiliser. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> environmental conditions needed by the crop methods of calculating daily water needs, taking environmental parameters into consideration. drainage and air-filled porosity characteristics of various media types treatments appropriate to the crop for growing-on <p>An ability to:</p> <ul style="list-style-type: none"> monitor environmental parameters determine daily water requirements select media for growing-on promote growth by intervention 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: 	

- safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
- systems and procedures for the safe operation and maintenance of machinery and equipment
- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on site maintenance requirements
- **Planning & organising activities** - of self and others to prepare a range of plant displays
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to monitor growing conditions
- **Solving problems** - especially of a horticultural nature to maximise production
- **Using technology** - to monitor environmental parameters

Industry	Horticulture
Sector/s	Nursery
RUH HRT304 A Prepare specialised plants	
<p>Unit Descriptor</p> <p>This unit describes the specialist techniques, such as formative and decorative pruning, staking, tying and training, and work with other aids such as baskets, frames, specialist tools and materials, that are used in the preparation of some plants for sale.</p> <p>Preparation of these plants is likely to be under limited supervision from others and with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Specialist plant preparation is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
304.1 Select plant	<p>304.1.1 Strong, disease and pest free plants are selected according to supervisors instructions.</p> <p>304.1.2 The plant selected is of the variety, species and height required for the treatment, and is visually balanced according to enterprise guidelines.</p>
304.2 Determine treatment	<p>304.2.1 Treatment is appropriate to the specimen and in line with the production and/or propagation plan.</p> <p>304.2.2 The timing of the treatment is appropriate for the plant and the production and/or propagation plan.</p>
304.3 Perform treatment	<p>304.3.1 Tools, equipment and substances are chosen and treatment is undertaken cleanly and swiftly according to plant needs, the production and/or propagation plan, and enterprise guidelines.</p> <p>304.3.2 The container, placement, media and nutrition chosen are appropriate to the treatment, the crop and the production and/or propagation plan.</p> <p>304.3.3 Water is applied according to industry best practice.</p> <p>304.3.4 The season in which the treatment is undertaken is in line with the production and/or propagation plan.</p> <p>304.3.5 Cleaning procedures performed and hygiene practices followed are according to enterprise guidelines and sound horticultural practice.</p>
304.4 Maintain plant shape	<p>304.4.1 Plant shape is maintained to retain symmetry, balance and size according to the treatment being undertaken and enterprise guidelines.</p> <p>304.4.2 Water and applications are applied to stimulate crop requirements, quantities are according to manufacturers instructions and enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Specialised plant types may include weeping specimens potted trees and shrubs, bloomers, bulbs, bonsai, ferns, cacti, succulents, indoor foliage, flowering, scions. Treatments and maintenance may include hormones, pruning, staking, wiring, marcotting, growth regulators, root pruning, grafting. Timing for treatments may include bud ready to open, seedling young and vigorous, root system strong, season. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • Nursery Industry Water Management Best Practice Guidelines, 1997 • characteristics and uses of specialised plants • treatments and practices in the production of specialised plants <p>An ability to:</p> <ul style="list-style-type: none"> • select plants • determine treatments • perform treatments • maintain plant shape 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of specialist pruning equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
1	1	1	1	1	1	1														

- **Using technology** - to achieve the requirements of the task

Industry Sector/s	Horticulture Landscape, Parks & Gardens
RUH HRT305 A Implement a landscape maintenance program	
<p>Unit Descriptor This unit describes the work undertaken by landscapers and others in the implementation of landscape maintenance programs.</p> <p>Maintenance is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Landscape maintenance is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
305.1 Maintain plant protection devices	<p>305.1.1 Protection devices are checked for their effectiveness according to protection plan requirements.</p> <p>305.1.2 Broken, damaged, or ineffective components are reported and/or repaired according to terms and conditions of contract.</p> <p>305.1.3 Protection devices are dismantled and removed according to protection plan requirements.</p>
305.2 Replace diseased or damaged plants	<p>305.2.1 Diseased or damaged plants are identified and recorded according to enterprise guidelines.</p> <p>305.2.2 Plants which are to be replaced are removed and new specimens installed in their place according to maintenance program specifications.</p> <p>305.2.3 Diseased and damaged plants which are beyond the scope of the maintenance program are reported to the nominated person.</p> <p>305.2.4 Aftercare is provided to established plants to ensure their health and vigour is maintained according to enterprise guidelines.</p>
305.3 Maintain landscape areas	<p>305.3.1 Standard and scope of maintenance is established according to maintenance program.</p> <p>305.3.2 Site is regularly inspected for remedial action and repairs according to maintenance contract conditions.</p> <p>305.3.3 Remedial action and repairs are implemented to restore site to full effectiveness according to maintenance contract conditions.</p> <p>305.3.4 Results of operations are assessed to ensure repairs or renovation objectives and standards have been achieved according to maintenance program details.</p> <p>305.3.5 Surroundings are returned to a tidy and undamaged condition following operations according to enterprise guidelines.</p> <p>305.3.6 Work performances of others are monitored and remedial action undertaken to ensure terms and conditions of the contract are maintained.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Equipment used includes spraying equipment, safety equipment, mowers, cutting, digging and chipping equipment and machinery, hand tools. Maintenance programs can incorporate mowing, pruning, weeding, plant replacement, minor structural repairs, spraying, fertilising, re-mulching, pest control, cleaning, adjustment and programming irrigation systems, top soiling, rubbish removal, chipping. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> application of specifications to individual areas of work appropriate horticultural practices for heritage and cultural areas principles and applications of an integrated pest management program actions permitted in the event of variations to maintenance contracts sources of hazards encountered in landscape maintenance and measures for their reduction <p>An ability to:</p>	

- maintain plant protection devices
- replace diseased/damaged plants
- maintain landscape areas

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on site maintenance requirements
- **Planning & organising activities** - of landscaping work teams
- **Working with teams & others** - to complete specified maintenance
- **Using mathematical ideas & techniques** - to calculate and cost maintenance requirements
- **Solving problems** - especially of a horticultural nature

- **Using technology** - to achieve the requirements of the task

Industry Horticulture	
Sector/s Arboriculture, Landscape, Parks & Gardens	
RUH HRT306 A Establish planted areas	
Unit Descriptor This Unit of Competency is concerned with the work undertaken to implement a large scale planting program. Planting is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of arboricultural knowledge with depth in some areas and a broad range of arboricultural skills. Planting is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
306.1 Undertake a soil test	306.1.1 Soil samples collected are representative of area being tested as specified for the test being undertaken and according to enterprise specifications. 306.1.2 On-site testing procedures are performed according to manufacturers guidelines and industry practice. 306.1.3 Off-site testing samples are packaged, documented, labelled and dispatched according to enterprise specifications and testers requirements. 306.1.4 Sampling records are maintained according to enterprise guidelines.
306.2 Prepare a planting site	306.2.1 Tools chosen are appropriate to the task being undertaken, used according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations. 306.2.2 Earthworks are undertaken according to planting plan and/or supervisors instructions. 306.2.3 Soil ameliorants are used as required according to job specifications. 306.2.4 Positions of plants are marked out on site according to supervisors directions and/or plans. 306.2.5 All competing plants, debris and pollutants are treated according to enterprise guidelines. 306.2.6 Treatments are selected and applied according to enterprise guidelines and manufacturers instructions.
306.3 Plant trees and shrubs according to prepared plan	306.3.1 All plants are inspected prior to being planted out and all plants with major defects discarded. 306.3.2 Broken or damaged plants are trimmed to maintain health and vigour according to enterprise guidelines. 306.3.3 Plants are planted at spacing sufficient to enable them to develop their full potential and according to planting program. 306.3.4 Individual species are planted with due regard to the specific growing requirements of the species.
306.4 Nurture newly installed plants	306.4.1 Newly planted plants are provided with immediate aftercare according to the planting program. 306.4.2 Formative pruning is undertaken according to the needs of the species to ensure trees develop a sound framework for the natural growth and habit of the species. 306.4.3 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.
306.5 Oversee planting	306.5.1 Planting program is monitored according to enterprise guidelines.

	<p>306.5.2 Plants incorrectly planted or situations which will prevent trees from reaching their full potential are identified and reported according to enterprise guidelines.</p> <p>306.5.3 Remedial action is undertaken to ensure all of the planting program requirements have been implemented.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Site conditions may include soil types, moisture content, pH levels, salinity, texture, compaction, aspect, pollutants, toxicity, climate, buildings, road works, shade. • Species selected may include exotic, evergreen, native, endemic, deciduous, conifer, palm, shape, habit. • Establishment methods may include hand planting, mechanical planting, direct seeding, mechanical sowing. • Earthworks may include irrigation, drainage, ripping, cultivating. • Major defects may include any condition which will prevent the tree from reaching its full potential. • Growing requirements may include time of planting, pruning, depth, drainage. • Nurturing program may include watering, mulching, fertilising, protection, staking, weeding. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • factors affecting the timing and method of planting • identification of pests and diseases of trees • principles and methods relating to the prevention and control of pests and diseases • safety requirements when handling and using hazardous goods • nutrient requirements of a range of plant species and cultivars • physiology of plant growth • techniques for securing/anchoring trees and shrubs • plant selection and culture • soils and nutrients • calculations for materials <p>An ability to:</p> <ul style="list-style-type: none"> • prepare a planting site • plant shrubs and trees according to prepared plan • nurture newly planted trees • oversee tree planting 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p>	

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on site planting plan and maintenance requirements
- **Planning & organising activities** - of self and others in the work team
- **Working with teams & others** - to complete specified maintenance
- **Using mathematical ideas & techniques** - to calculate and cost planting requirements
- **Solving problems** - especially of a horticultural nature
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT307 A Implement a tree pruning program	
Unit Descriptor	
<p>This unit describes the work undertaken to implement a large scale tree pruning program. It covers both work undertaken from elevated work platforms and from ropes in trees.</p> <p>Tree pruning is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of arboricultural knowledge with depth in some areas and a broad range of arboricultural skills. Tree pruning is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
307.1 Determine pruning requirements	<p>307.1.1 Potential dangers to immediate structures and/or the public are identified according to enterprise guidelines.</p> <p>307.1.2 Tree is visually inspected and all obvious dead and/or decayed material is identified.</p> <p>307.1.3 Branches to be removed are identified according to the pruning requirements of the program.</p> <p>307.1.4 Removal stages are nominated to ensure the program is undertaken without damage.</p> <p>307.1.5 Equipment is prepared and used according to supervisors instructions and manufacturers guidelines.</p>
307.2 Access trees	<p>307.2.1 All climbing equipment is checked for damage or imperfections, all equipment which does not comply with manufacturers specifications or safety standards is discarded.</p> <p>307.2.2 Climbing harness is fitted and adjusted according to manufacturers guidelines and Occupational Health & Safety (OHS) guidelines.</p> <p>307.2.3 Rope is attached to tree and climber to ensure the weight of the climber is fully supported during all operations.</p> <p>307.2.4 Tree is ascended and descended without damage to the tree and ensuring that the climbers weight is taken by the harness with the anchor point always above the climber.</p> <p>307.2.5 Climbing equipment is checked, serviced and stored according to manufacturers guidelines and enterprise guidelines.</p> <p>307.2.6 Elevated work platform (EWP) is operated according to manufacturers guidelines and within the restrictions of electrical supply authorities.</p> <p>307.2.7 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>
307.3 Oversee pruning program	<p>307.3.1 Placement, execution and sealing of pruning cuts are implemented according to established horticulture principles.</p> <p>307.3.2 Program is undertaken safely without damage or injury to any persons and/or structures.</p> <p>307.3.3 Site is cleared and materials processed according to the needs of the client.</p> <p>307.3.4 Waste material is mechanically processed according to the manufacturers guidelines and within any restrictions determined by legislation.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Pruning is undertaken with regards to the following requirements size, light, shape, aesthetics, size requirements, competition, density, structures, growth re-direction, modification of flowering or fruiting behaviour, removal of diseased , broken or damaged material, sight lines, habit and form. 	

- Trees to be pruned may include small and medium trees to 20 metres by rope, all trees from EWP or platforms, trees close to overhead power lines.
- Pruning techniques are cleaning out, crown lifting, crown reduction, structural integrity, crown renewal, crown thinning, dead wooding, hedging.
- Equipment may include climbing ropes and harnesses, EWP, chipper, front end loader, secateurs, handsaws, chainsaws.
- Legislation may include local government by-laws and government legislation such as the Environmental Protection Act.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of:

- principles and methods of pruning to achieve given objectives
- effect on plant growth and habit after pruning
- compartmentalisation of decay in trees
- significance of timing of pruning
- identification and evaluation of structural defects in trees
- principles of renovating plants to maximise their amenity value
- principles and techniques relating to the choice and use of equipment and protective clothing for pruning and climbing
- principles and techniques of rigging procedures
- rope types and uses
- use of Controlled Descending Devices from Elevated Work Platforms
- local government bylaws and other relevant legislation

An ability to:

- determine pruning requirements
- access trees
- oversee pruning program

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems and procedures for the safe operation and maintenance of arboricultural machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and

- Plan and review assessment.

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3. Measures to ensure consistency in assessment
 These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
 Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
 Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- Communicating ideas and information** - with suppliers, end users and members of the work team
- Collecting, analysing & organising information** - on species and their pruning requirements
- Planning & organising activities** - of self and others in work team
- Working with teams & others** - to complete specified pruning program
- Using mathematical ideas & techniques** - to calculate and cost project requirements
- Solving problems** - of a arboricultural nature
- Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT308 A Implement a tree maintenance program	
<p>Unit Descriptor This unit describes the work undertaken to implement a tree maintenance program. The work involves assistance with assessment of trees and the application of treatments</p> <p>Tree maintenance is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of arboricultural knowledge with depth in some areas and a broad range of arboricultural skills. Tree maintenance is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
308.1 Contribute to a tree assessment	<p>308.1.1 Stress inducing factors are identified which impact upon the health and vigour of the tree according to published characteristics of the species.</p> <p>308.1.2 Specimens of stressed material are collected to enable diagnosis of stress according to enterprise guidelines.</p> <p>308.1.3 Environmental issues that could affect the health and vigour of trees are assessed for impact on growth according to published data and species characteristics.</p> <p>308.1.4 Records are maintained according to enterprise policy and industry practice.</p>
308.2 Undertake a treatment program	<p>308.2.1 Treatment methods and equipment are selected according to published data and manufacturers specifications.</p> <p>308.2.2 Equipment is prepared and used according to supervisors instructions and manufacturers guidelines.</p> <p>308.2.3 Physical and/or chemical treatments are undertaken according to treatment program specifications.</p> <p>308.2.4 Growing environment is maintained according to the needs of the species.</p> <p>308.2.5 Infected plant material is disposed of according to enterprise hygiene policy.</p> <p>308.2.6 Pruning equipment is sterilised according to manufacturers instructions and enterprise hygiene policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Health and stress problems are pests and diseases, fungal, structural, storm damage, root damage, gassing, compaction, incineration, nutrient deficiencies, chemical, changes in levels, competition, poor drainage, vandalism, salt, drought. • Site conditions may include soil types, moisture content, pH levels, salinity, texture, compaction, aspect, pollutants, toxicity, climate, buildings, road works, shade. • Pests and diseases may include insects, fungal, bacterial, viral, birds and animals. • Disposal methods may include burning, burying, chemical destruction. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • identification and evaluation of structural defects in trees • the principles of identifying pests, diseases and physiological damage to trees • methods of attack of tree pests and diseases • methods of analysing the nutritional status of trees • statutory requirements relating to the use of pesticides and herbicides • recognition and identification of a range of species • methods of collecting and storing specimens for identification • plant identification sources <p>An ability to:</p> <ul style="list-style-type: none"> • contribute to a tree assessment 	

<ul style="list-style-type: none"> undertake a treatment program 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects systems and procedures for the safe operation and maintenance of arboricultural machinery and equipment including hydraulics and guarding of exposed moving parts safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> Occupational Health and Safety Act of the state Regulations and/or Codes of Practice pertaining to Hazardous Substances Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> <td>1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Communicating ideas and information - with clients and members of the work team Collecting, analysing & organising information - on tree maintenance requirements Planning & organising activities - to undertake a treatment program Working with teams & others - to complete specified works Using mathematical ideas & techniques - to calculate and cost project requirements Solving problems - of tree health Using technology - such as equipment used to measure health of trees 							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
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1	1	1	1	1	1	1														

Industry Horticulture	
Sector/s Arboriculture	
RUH HRT309 A Remove trees in confined spaces	
Unit Descriptor	
<p>This Unit of Competency is concerned with the removal of trees and includes work undertaken in confined spaces and in difficult circumstances.</p> <p>Tree removal is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of arboricultural knowledge with depth in some areas and a broad range of arboricultural skills. Tree removal is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
309.1 Contribute to assessment of removal method	<p>309.1.1 Site is assessed and all hazards associated with felling operation are identified according to Occupational Health & Safety (OHS) guidelines.</p> <p>309.1.2 Tree is assessed for appropriate removal methods to ensure the safety of operators, the public and property is maintained according to enterprise guidelines.</p> <p>309.1.3 Local by-laws and regulations governing tree removal are identified.</p> <p>309.1.4 Equipment necessary to implement tree removal is identified and noted according to enterprise guidelines</p>
309.2 Prepare for tree removal	<p>309.2.1 Site is prepared for tree removal activities including notification of local residents and authorities where necessary.</p> <p>309.2.2 Signage, warning devices and traffic management structures are located as required.</p> <p>309.2.3 Surrounding property is relocated, secured and/or protected from potential damage during tree removal.</p> <p>309.2.4 Equipment necessary to implement tree removal is identified and prepared according to enterprise guidelines</p>
309.3 Implement directional felling trees	<p>309.3.1 Tools chosen are appropriate to the task being undertaken, used according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations.</p> <p>309.3.2 Drop zone is determined according to Occupational Health & Safety (OHS) guidelines, site characteristics, site access, proximity to other structures and size of tree.</p> <p>309.3.3 Directional felling techniques are employed to ensure trees fall into desired drop zone.</p> <p>309.3.4 Suspended trees are brought down safely and efficiently according to enterprise guidelines.</p> <p>309.3.5 Wind thrown trees are stabilised to ensure trunk movement does not occur according to industry standards.</p> <p>309.3.6 Felled trees are trimmed to manoeuvrable lengths without injury to the operator according to enterprise policy.</p> <p>309.3.7 Safety equipment is used and adjusted according to manufacturers guidelines.</p>
309.4 Implement branch and tree removal	<p>309.4.1 Weights of branches are ascertained so that they do not exceed the safe working limit of the equipment.</p> <p>309.4.2 Branches and branch sections are held and thrown into drop zone without damage to surrounding features/structures.</p> <p>309.4.3 Branches are removed in a controlled manner without injury to the operator and ground staff.</p> <p>309.4.4 Heavy branches and branch sections are lowered by rope into drop zone using accepted rigging techniques.</p> <p>309.4.5 Sufficient material is removed from stump to ensure re-growth is prevented.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Equipment used may include axe, wedges, hand or power winches, hydraulic jacks, hand tools, chipper, elevated work platform, stump grinding machine, crane, climbing ropes and harness, spurs, chainsaws, lowering ropes, blocks, ladders. Removal methods may include branch removal, branch reduction, trunk sectioning, cut and throw, cut and drop, cut and lower by rope. 	

<ul style="list-style-type: none"> • Stabilising wind thrown trees may include cross cutting or propping. • Felling techniques may include plunge cut, back release cut.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • identification and evaluation of structural defects in trees • procedures for calling emergency services at the work site • first aid and rescue procedures applicable to tree work • methods of felling and timber disposal • equipment and protective clothing for felling operations • potential hazards and methods of minimising risks • safe working limit of ropes <p>An ability to:</p> <ul style="list-style-type: none"> • contribute to assessment of removal method • implement directional felling of trees • implement branch and tree removal
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of arboricultural machinery and equipment including chainsaws and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p>

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on the removal technique and the limitations of the site
- **Planning & organising activities** - for work team and others
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - estimating and calculating tree and branch weights and sizes
- **Solving problems** - related to the task
- **Using technology** - such as described in Range of Variables

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT310 A Implement a tree transplanting program	
<p>Unit Descriptor This Unit of Competency is concerned with the work undertaken to implement a tree transplanting program.</p> <p>Tree transplanting is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Tree transplanting is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
310.1 Contribute to assessment of tree to be transplanted	<p>310.1.1 Tree is assessed and all hazards associated with transplanting operations are identified according to Occupational Health & Safety (OHS) guidelines.</p> <p>310.1.2 Tree is assessed for appropriate transplanting operations to ensure the safety of operators, the public and property is maintained according to enterprise guidelines.</p> <p>310.1.3 Root ball and crown treatments are defined to ensure tree remains viable during transplant process according to needs of species</p> <p>310.1.4 Local by-laws and regulations governing tree removal/transplanting are identified.</p> <p>310.1.5 Equipment necessary to implement tree transplanting is identified and noted according to enterprise guidelines</p>
310.2 Prepare for tree transplanting	<p>310.2.1 Site is prepared for activities including notification of local residents and authorities where necessary.</p> <p>310.2.2 Locate signage, warning devices and traffic management structures are erected as required.</p> <p>310.2.3 Surrounding property is relocated, secured and/or protected from potential damage.</p> <p>310.2.4 Equipment necessary to implement tree transplanting is prepared according to enterprise guidelines</p>
310.3 Implement transplanting operations	<p>310.3.1 Tools chosen are appropriate to the task being undertaken, used according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations.</p> <p>310.3.2 Worksite is set-out according to Occupational Health & Safety (OHS) guidelines, site characteristics, site access, proximity to other structures and size of tree..</p> <p>310.3.3 Soil around the root zone is excavated according to enterprise guidelines and sound arboricultural practices.</p> <p>310.3.4 Tree is lifted and secured according to enterprise guidelines and sound arboricultural practices.</p> <p>310.3.5 Tree canopy and roots are pruned according to enterprise guidelines and sound arboricultural practices</p> <p>310.3.6 Safety equipment is used and adjusted according to manufacturers guidelines.</p>
310.4 Install transplanted tree	<p>310.4.1 Tools chosen are appropriate to the task being undertaken, used according to manufacturers guidelines and Occupational Health & Safety (OHS) regulations.</p> <p>310.4.2 Water is applied to the newly installed tree over a sustained period to ensure leaf loss is maintained at minimum levels and new growth is apparent.</p> <p>310.4.3 Fertiliser is applied according to the nutrition plan and</p>

	<p>stage of growth.</p> <p>310.4.4 Tree protection devices are installed to ensure adequate support and protection is provided according to the transplant program, and the terms and conditions of the contract.</p> <p>310.4.5 Tree condition is monitored to ensure the plant remains viable according to the transplant program.</p> <p>310.4.6 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Planning processes may include route, equipment, access, obstructions. • Site conditions may include soil types, moisture content, pH levels, salinity, texture, compaction, aspect, pollutants, toxicity, climate, buildings, road works, shade. • Transplanting equipment may include lifting chains, frames and clamps, cranes, trucks, front end loaders. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • principles and methods of operating tree moving equipment • safety procedures and potential hazards associated with tree lifting • causes of stress in trees resulting from transportation and their prevention • safety procedures and potential hazards of transporting trees • legislation requirements when transporting trees by road • requirements for securing and signage when transporting trees on road vehicles • problems and methods relating to the aftercare of trees during their establishment period <p>An ability to:</p> <ul style="list-style-type: none"> • contribute to assessment of trees to be transplanted • prepare for tree transplanting • implement transplanting operations • install transplanted tree 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications
Registered Training Organisation (RTO)

2. Qualifications of Assessor
Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment
These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on transplanting requirements
- **Planning & organising activities** - for work team and others
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - including estimating and calculating tree weights and sizes
- **Solving problems** - related to the task including horticultural impact of transplanting works
- **Using technology** - such as described in Range of Variables

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT311 A Implement a tree protection program	
<p>Unit Descriptor</p> <p>This unit describes the work undertaken to implement a tree protection program. The work includes the identification and monitoring of protection issues and the construction of tree protection devices.</p> <p>Tree protection work is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Tree protection is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
311.1 Determine the protection requirements of trees on site.	<p>311.1.1 Trees are assessed for protection from earthworks and other intrusions.</p> <p>311.1.2 Trees to be protected are identified according to supervisors instructions and/or plans and specifications.</p>
311.2 Set out site	<p>311.2.1 Locations of protection devices are marked out on the site according to supervisors instructions and/or plans and specifications.</p> <p>311.2.2 Safety barriers and signage are erected to secure public safety.</p> <p>311.2.3 All materials are checked for suitability and defective or faulty components discarded and replaced.</p>
311.3 Construct protective devices	<p>311.3.1 Tree protection devices are constructed according to the needs of the species.</p> <p>311.3.2 Protection devices are installed according to supervisors instructions and/or plans and specification.</p> <p>311.3.3 Completed protection devices are inspected for viability and remedial action undertaken according to specifications.</p> <p>311.3.4 Tools and equipment are prepared and used according to supervisors instructions and manufacturers guidelines.</p>
311.4 Monitor protection program	<p>311.4.1 Protection devices are periodically checked for their effectiveness according to protection plan requirements.</p> <p>311.4.2 Broken, damaged or ineffective components are reported and/or repaired according to enterprise guidelines.</p> <p>311.4.3 Damaged trees are repaired and/or replaced according to protection plan requirements.</p> <p>311.4.4 Protection devices are dismantled and removed according to protection plan requirements.</p> <p>311.4.5 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p> <p>311.4.6 Tree health is monitored during the protection program and remedial action implemented to ensure the health and vigour is maintained according to protection plan requirements.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Protection devices are installed for the following situations construction, vandals, animals, vermin, pollution, chemical, mechanical, insects, waterlogging, weeds. • Construction may include assembly, installation, • Protection devices may include fences, tree guards, tree plantings, barriers, soil coverings, traffic re-direction. • Type and extent of protection influenced by site conditions, tree size, aesthetics, duration of program, expected threats, cost, significance of tree. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • principles, regulations and practices relating to restricting access • AS1742 Pt 3 1985 - Australian Standard Code of Practice, Work Site Traffic Management • protection requirements in relation to type, position, location and potential threats • principles of evaluating the effect of damage to trees during construction programs • specifications and construction methods when installing protection devices <p>An ability to:</p> <ul style="list-style-type: none"> • set out site • construct protective devices • monitor protection program
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with suppliers, end users and members of the work team • Collecting, analysing & organising information - on site maintenance requirements • Planning & organising activities - of self and others • Working with teams & others - to complete specified maintenance • Using mathematical ideas & techniques - to calculate and cost maintenance requirements • Solving problems - especially of a horticultural nature • Using technology - to achieve the requirements of the task 						

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT312 A Install drainage systems	
<p>Unit Descriptor This unit describes the installation of drainage systems at a horticultural site.</p> <p>Drainage installation is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Installation is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
312.1 Prepare a site according to plans and specifications	<p>312.1.1 Services are detected and recorded on the site plans before work commences.</p> <p>312.1.2 Measurement and marking out of drainage lines is consistent with plan.</p> <p>312.1.3 Trenches where constructed are at the specified depth without damage to services, facilities, features and established plants.</p> <p>312.1.4 Equipment operation and work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p> <p>312.1.5 Regulations and legislation relevant to the situation are observed.</p> <p>312.1.6 Work practices reflect sustainable horticultural principles and respond to local community requirements.</p>
312.2 Install drainage components	<p>312.2.1 The drainage plan is interpreted and where applicable, contractors are supervised and work is monitored to conform to the plan.</p> <p>312.2.2 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p> <p>312.2.3 Components are assembled and connected according to the plan, joints are completed and tested according to manufacturers specifications.</p> <p>312.2.4 Fittings and valves are fitted and adjusted to the requirements of the installation plan, and all joints are secured according to enterprise guidelines.</p> <p>312.2.5 Earthworks are finished off to specification.</p> <p>312.2.6 The system configuration and capacity matches the installation plan.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Drainage systems may include surface drains, subsoil drains, culverts, mole drains, sub-surface drains. • Equipment may include pumps, motors, appropriate levelling devices. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- operation of pumps and water flow rates
- behaviour of water on varying terrain and soil types
- soil water retention testing techniques
- principle and practice in drainage design
- calculations for installing drainage systems

An ability to:

- prepare a site according to plans and specifications
- install drainage components

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with suppliers, end users and members of the work team • Collecting, analysing & organising information - on site requirements for drainage • Planning & organising activities - of self and others • Working with teams & others - to complete specified installation works • Using mathematical ideas & techniques - to calculate and cost project requirements • Solving problems - imposed by site and contingencies • Using technology - to achieve the requirements of the task 						

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT313 A Install irrigation systems	
Unit Descriptor	
This Unit of Competency is concerned with the installation of irrigation systems.	
Irrigation installation is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Irrigation installation is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints and may include the coordination of other tradespersons such as plumbers and electricians.	
Element of Competency	Performance Criteria
313.1 Organise resource requirements	<p>313.1.1 Parts and equipment delivered to site are checked according to system drawings and specifications.</p> <p>313.1.2 Work team is briefed on installation or modification procedures and requirements and jobs and tasks allocated.</p> <p>313.1.3 Equipment and machinery is in good working condition and safety hazards are identified.</p>
313.2 Prepare a site in accordance with plans and specifications	<p>313.2.1 Measurement and marking out of irrigation lines is consistent with plan.</p> <p>313.2.2 Trenches where constructed are at the specified depth without damage to services, facilities, features and established plants.</p> <p>313.2.3 Equipment operation and work practices conform with enterprise OHS guidelines.</p> <p>313.2.4 Regulations and legislation relevant to the situation are observed.</p> <p>313.2.5 Work practices reflect sustainable horticulture principles and respond to local community requirements.</p>
313.3 Install irrigation components	<p>313.3.1 Plan is interpreted and where applicable, contractors are supervised and work is monitored to conform to plan.</p> <p>313.3.2 Components are assembled and connected according to plan, joints are completed and tested according to manufacturers specifications.</p> <p>313.3.3 Fittings and valves are fitted and adjusted to requirements of the installation plan, and all joints are secured according to enterprise guidelines.</p> <p>313.3.4 Earthworks are finished off to specification.</p> <p>313.3.5 The system configuration and capacity matches the installation plan.</p> <p>313.3.6 The site is restored to its original condition after works completion.</p> <p>313.3.7 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p>
313.4 Commission irrigation system	<p>313.4.1 Start up sequence is in accordance with operations manual.</p> <p>313.4.2 System is flushed as required.</p> <p>313.4.3 Operating faults are identified and corrective actions taken according to operations manual.</p> <p>313.4.4 Testing and monitoring equipment is calibrated to manufacturers specifications..</p>

	313.4.5 Regular monitoring ensures that the system operates according to design specifications.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Irrigation systems may include mains pressure, low pressure, below ground, above ground, spray systems, dripper, capillary, ebb and flow and flood systems. • Irrigation equipment may include pumps, motors, delivery equipment, sprays, system controllers. • Testing equipment may include pressure gauges, flow meters. • Water supply may be underground, mains or surface storage. • Machinery may include graders, back hoes, front end loaders, ploughs, molding boards. • Fixtures may include dams, bores, windmills, tanks, channels. • Equipment may include injectors, pumps, tensiometers, probe tubes, flow meter, cath cans, pressure gauge, computer and/or other scheduling devices, recycling equipment, spray equipment. • Materials may include gland packing, rubber rings, belts and pulleys, hazardous substances, chemicals. • Irrigation systems may range from manual operation and monitoring to fully automated with computer control and monitoring. • Reuse systems include disinfection and filtering equipment. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • methods and techniques of irrigation • components of an irrigation system • characteristics and operation of joints, valves and sprinkler components • operation of pumps and water flow rates • behaviour of water on varying terrain and soil types • soil water retention testing techniques • principle and practice in irrigation design • water quality and water filtration techniques • calculations for installing irrigation systems <p>An ability to:</p> <ul style="list-style-type: none"> • prepare a site according to plans and specifications • install irrigation components 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed</p>	

'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on site requirements for irrigation
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to complete specified installation works
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - imposed by site and contingencies
- **Using technology** - to achieve the requirements of the task

Industry Horticulture	
Sector/s Landscape	
RUH HRT314 A Set out landscape works	
<p>Unit Descriptor This Unit of Competency is concerned with the setting out of landscape works from plans and specifications in advance or in conjunction with implementation of planned works.</p> <p>The work is likely to be under routine supervision with intermittent checking. Competency involves the application of knowledge and skills to a range of setting out and installation tasks and roles usually within established enterprise routines.</p>	
Element of Competency	Performance Criteria
314.1 Mark out position of works	<p>314.1.1 Proposed structure is located on site according to site plan dimensions.</p> <p>314.1.2 Shape of proposed structure is marked out on ground according to plan dimensions.</p> <p>314.1.3 Datum height is established to ensure all features can be linked by survey equipment according to established survey techniques.</p>
314.2 Establish set-out lines	<p>314.2.1 Profiles are located with close proximity to site set out to ensure they are not damaged during construction according to site plan.</p> <p>314.2.2 Profiles are installed to ensure they remain stable when set-out lines are tightened according to established construction techniques.</p> <p>314.2.3 Base lines are established according to plan dimensions.</p> <p>314.2.4 Building lines are established with corners at 90° and diagonals of equal distance according to size and shape as determined by plan.</p>
314.3 Establish survey bench marks	<p>314.3.1 Equipment is prepared and used according to instructions and manufacturers guidelines.</p> <p>314.3.2 Levelling equipment is set up and checked for accuracy of readings according to manufacturers guidelines.</p> <p>314.3.3 Instruments which are out of specification are adjusted or reported to nominated person according to enterprise guidelines.</p> <p>314.3.4 A temporary bench mark is selected and established on a position/structure according to established surveying techniques.</p> <p>314.3.5 A temporary bench mark height is established using line levelling techniques according to established surveying practice.</p> <p>314.3.6 Tools and equipment are cleaned, maintained and stored consistent with manufacturers specifications and enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Marking out procedures include application of lime, paint, chipping, pegging, staking. • Equipment includes tilting levels, automatic levels, line level, spirit level, water level, Cowley level, staffs, boning rods, measuring tapes, claw hammer, sledge hammer. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- interpretation of landscape plans
- mathematical and geometrical principles used in setting out
- methods of detecting underground services

An ability to:

- mark out position of structures
- establish set-out lines
- establish survey bench marks

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - about the construction works to others in the work team • Collecting, analysing & organising information - with the supervisor about the construction project • Planning & organising activities - organising equipment and materials on site for the construction project, setting out construction site • Working with teams & others - to set out a site for construction • Using mathematical ideas & techniques -such as measurement, scale, proportion • Solving problems - relating to site set outs and construction • Using technology - such as horticultural surveying and levelling equipment, construction tools and equipment 						

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT315 A Operate irrigation systems	
Unit Descriptor	
This Unit of Competency is concerned with the operation of irrigation systems.	
Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
315.1 Perform pre-start checks	<p>315.1.1 Checks of water, power, fuel and lubricants ensure that all are available and the control system is operational.</p> <p>315.1.2 Pump is primed if necessary and valves, gates and controls are open or closed as directed.</p> <p>315.1.3 Water management devices are in position according to design specifications.</p> <p>315.1.4 Pressure and flow testing equipment is calibrated and available.</p>
315.2 Prepare injection or fertigation equipment	<p>315.2.1 Injection or fertigation equipment is connected as directed and calibrated according to manufacturers specifications.</p> <p>315.2.2 Fertiliser concentration is calculated and the solution thoroughly mixed according to enterprise standards.</p> <p>315.2.3 Injection equipment is flushed out until equipment is clean or for approximately ten minutes prior to shut down.</p>
315.3 Start up and inspect system	<p>315.3.1 Start up sequence is implemented in accordance with operations manual and water levels and pressure built up slowly as directed.</p> <p>315.3.2 All malfunctions, leakages and blockages are corrected or repaired immediately and reported to the supervisor.</p> <p>315.3.3 Control system is set to ensure time of application for amount of water required is in accordance with irrigation schedule.</p> <p>315.3.4 Pressure at the headworks and control valves is within design specifications indicating efficient filter operation and water is distributed evenly to the targeted areas with minimal wastage and run-off.</p>
315.4 Shut down system based upon irrigation indicators	<p>315.4.1 Area is irrigated to the required soil moisture levels and time lag between shut down and end of watering is determined to minimise run-off and deep percolation.</p> <p>315.4.2 System components are shut down and drained in sequence according the operations manual and irrigation activity is recorded as required according to enterprise guidelines.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Irrigation systems may include mains pressure, low pressure, below ground, above ground, spray systems, dripper systems, capillary, ebb and flow and flood systems. • Water sources may include underground water supply, mains or surface storage. • Irrigation equipment may include pumps, motors, tensiometers, probe tubes, solenoid valves, sprinklers, delivery equipment, sprays, system controllers, disinfestation equipment and filters or other water treatment equipment. • Testing equipment may include pressure gauges, flow meters. • Injection/fertigation equipment may include pumps, tanks, strainers and injectors. 	

- Irrigation systems may range from manual operation and monitoring to fully automated with computer control and monitoring.
- Maintenance may include efficiency testing, run off awareness, filter maintenance, legislative requirements.
- Checks may include flow rates, operating pressures, tail waters.
- Inspections may include solenoid adjustments, priming all laterals to prevent water hammer, sprinkler pressure and output, head ditch, tail water, reuse system, flow rate.
- Fertigation may involve leaf, water and soil analyses.
- Treatment systems for both head and tail water.
- Re-use systems including disinfection and filtering equipment.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of:

- methods and techniques of irrigation
- components of an irrigation system
- characteristics and operation of joints, valves and sprinkler components
- operation of pumps and water flow rates
- emergency shut down procedures
- behaviour of water on varying terrain and soil types
- soil water retention testing techniques
- principle and practice in irrigation design
- water quality and water filtration techniques

An ability to:

- perform pre-start checks
- prepare injection or fertigation equipment
- start up and inspect system
- shut down system based upon irrigation indicators

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems and procedures for the safe operations and maintenance of machinery and equipment including guarding of exposed moving parts
 - safe manual handling systems and procedures
 - protection from hazardous noise
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a

person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on irrigation maintenance requirements
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to complete specified maintenance works
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - to provide effective irrigation
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT316 A Control weeds	
<p>Unit Descriptor This Unit of Competency is concerned with the control of weeds and pest plants in horticultural situations.</p> <p>Weed control is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Weed control is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
316.1 Diagnose weed infestation	<p>316.1.1 Observations support a systematic and demanding analysis of available symptoms.</p> <p>316.1.2 Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence.</p> <p>316.1.3 Professional advice is obtained where the complexity of the problem or the severity of infestation dictate.</p>
316.2 Select control measures for the treatment of weeds	<p>316.2.1 Control measures suited to the infestation are identified from integrated pest management strategy.</p> <p>316.2.2 Treatment suited to crop conditions, severity of infestation, marketing requirements and enterprise circumstances is chosen.</p>
316.3 Apply treatments to weeds	<p>316.3.1 Treatments are applied having regard to Occupational Health & Safety (OHS) principles, business requirements and sound horticultural practice.</p> <p>316.3.2 Records are maintained as required by legislation and enterprise guidelines.</p>
316.4 Review weed control programs	<p>316.4.1 Infestations are monitored and progress compared to manufacturers specifications and enterprise records.</p> <p>316.4.2 Treatment programs are modified where necessary and when dictated by progress.</p> <p>316.4.3 Supervisor is notified promptly of significant changes to treatments and/or when business implications dictate.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture, Production</p> <ul style="list-style-type: none"> Weeds may include declared noxious weeds of the region and state, weeds likely to seriously impact on the profitability of a crop, weeds likely to impact on the management of horticultural practices in a crop for the enterprise. Control measures may include chemical, cultural, biological, environmental. <p>Landscape</p> <ul style="list-style-type: none"> Weeds may include declared noxious weeds of the region and state. Control measures may include chemical and cultural. <p>Nursery</p> <ul style="list-style-type: none"> Weeds may include declared noxious weeds of the region and state, weeds likely to seriously impact on the profitability of a crop, weeds likely to impact on the management of horticultural practices in a crop for the enterprise. Control measures may include chemical, cultural, biological, environmental. 	

Parks & Gardens

- Weeds may include commonly occurring varieties of the enterprise and region, easily controlled and which may impact on the quality of the garden.
- Control measures may include chemical, cultural, biological, environmental.

Production

- Weeds may include declared noxious weeds of the region and state, weeds likely to seriously impact on the profitability of a crop, weeds likely to impact on the management of horticultural practices in a crop for the enterprise.
- Control measures may include chemical, cultural, biological, environmental.

Turf

- Weeds may include declared noxious weeds of the region and state, weeds likely to impact the management of turf practices.
- Control measures may include chemical, cultural, biological, environmental.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- the characteristics, signs and symptoms of weed infestations of crops
- treatment methodologies, behaviour characteristics, withholding periods of various common treatment programs
- alternate combinations of treatment methodologies
- local, regional and state based priorities for the use of chemicals in the control of infestations
- chemical and non-chemical control measures for use and application in the Parks & Gardens industry
- commercial control principles for weeds
- labelling conventions for the safe use and storage of a variety of chemicals
- AS1742 Pt 3 1985 - Australian Standard Code of Practice, Work Site Traffic Management
- plant biology
- specialist plant identification

An ability to:

- diagnose weed infestations
- select control measures for the treatment of weeds
- apply treatments to weeds
- review weed control programs

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for storage, handling and transportation of hazardous substances, chemicals selected taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on weed incidence
- **Planning & organising activities** - of self and others in the work team
- **Working with teams & others** - to complete specified weed control
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - to select control methods
- **Using technology** - to achieve the requirements of the task

Industry Sector/s Turf	Horticulture Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
RUH HRT317 A Control pests and diseases	
Unit Descriptor This Unit of Competency is concerned with the control of plant pests and diseases in a horticultural situation. Pest and disease control is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Pest and disease control is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
317.1 Diagnose pest and disease infestations	317.1.1 Observations support a systematic and demanding analysis of available symptoms. 317.1.2 Samples are collected for laboratory diagnosis where necessary. 317.1.3 Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence. 317.1.4 Professional advice is obtained where the complexity of the problem or the severity of infestation dictate.
317.2 Select control measures for the treatment of pests and diseases	317.2.1 Control measures suited to infestation are identified from integrated pest management strategy. 317.2.2 Treatment suited to crop conditions, severity of infestation, marketing requirements and business circumstances is chosen.
317.3 Apply treatments to pests and diseases	317.3.1 Treatments are applied having regard to Occupational Health & Safety (OHS) principles, business requirements and sound horticultural practice. 317.3.2 Records are maintained as required by legislation and enterprise guidelines.
317.4 Review pest and disease control programs	317.4.1 Infestations are monitored and progress compared to manufacturers specifications and enterprise records. 317.4.2 Treatment programs are modified where necessary and when dictated by progress. 317.4.3 Supervisor is notified promptly of significant changes to treatments and/or when business implications dictate.
A. RANGE OF VARIABLES Floriculture, Production <ul style="list-style-type: none"> • Pests may include proclaimed pests of the region, commonly occurring pests of the region, high risk occasionally occurring pests of the region. • Diseases may include commonly occurring diseases of the region, high risk occasional diseases of the region. • Control measures may include chemical, cultural, biological and environmental. Landscape <ul style="list-style-type: none"> • Pests may include proclaimed pests of the region, commonly occurring pests of the region, high risk occasionally occurring pests of the region. • Diseases may include commonly occurring diseases of the region, high risk occasional diseases of the region. 	

<ul style="list-style-type: none"> Control measures may include chemical, cultural. <p>Nursery</p> <ul style="list-style-type: none"> Pests may include proclaimed pests of the region, commonly occurring pests of the region, high risk occasionally occurring pests of the region. Diseases may include commonly occurring diseases of the region, high risk occasional diseases of the region. Control measures may include chemical, cultural, biological and environmental. <p>Parks & Gardens</p> <ul style="list-style-type: none"> Pests may include proclaimed pests of the region, commonly occurring pests of the region, high risk occasionally occurring pests of the region. Control measures may include chemical, cultural, biological and environmental. <p>Turf</p> <ul style="list-style-type: none"> Pests may include proclaimed pests of the region, commonly occurring pests of the region, high risk occasionally occurring pests of the region. Diseases may include commonly occurring diseases of the region, high risk occasional diseases of the region. Control measures may include chemical, cultural, biological and environmental.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> the characteristics, signs and symptoms of pest and disease infestations of crops life cycles and physiology of families of pests characteristics of pathogenic and non-pathogenic diseases in crops treatment methodologies, behaviour characteristics, withholding periods of various common treatment programs alternate combinations of treatment methodologies local, regional and state based priorities for the use of chemicals in the control of infestations chemical and non-chemical control measures for use and application in the Parks & Gardens industry labelling conventions for the safe use and storage of a variety of chemicals AS1742 Pt 3 1985 - Australian Standard Code of Practice, Work Site Traffic Management <p>An ability to:</p> <ul style="list-style-type: none"> diagnose pest and disease infestations select control measures for the treatment of pests and diseases apply treatments to pests and diseases review pest and disease control programs
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for storage, handling and transportation of hazardous substances, chemicals selected taking into account toxicity levels and environmental effects systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p>

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on pest and/or disease incidence
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to complete specified pest and/or disease control
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - to select control methods
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT318 A Undertake operational maintenance of machinery	
<p>Unit Descriptor This Unit of Competency is concerned with the basic operational maintenance and servicing work undertaken by machinery operators.</p> <p>Operational maintenance is likely to be under limited supervision from others with checking only related to overall progress. Basic operational maintenance is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
318.1 Perform scheduled maintenance	<p>318.1.1 Basic operational maintenance is performed on the equipment according to manufacturers guidelines and enterprise guidelines.</p> <p>318.1.2 Equipment is adjusted, cleaned and stored consistent with manufacturers specifications and enterprise policy.</p>
318.2 Rectify common mechanical faults	<p>318.2.1 Faults are diagnosed from mechanical symptoms and where they do not require specialist attention are repaired according to manufacturers guidelines, enterprise policy and supervisors instructions.</p> <p>318.2.2 Tools selected are appropriate to each task and safe work practices are employed according to enterprise policy.</p>
318.3 Document operational maintenance	318.3.1 Machinery and equipment log books are updated after use according to regulatory standards and enterprise guidelines.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Equipment may include motorised equipment, plant, implements. • Tools may include hand tools, power tools, safety equipment, chainsaws. • Motorised machinery may include sprayers, tractors, mechanical pruners, harvesters, turf mowers, rotary hoes, chainsaws, hedge trimmers, winches, motor cycles. • Plant may include pumps, generators, coolers. • Engine types may include petrol, diesel, 2-stroke, 4-stroke. • Scheduled maintenance may include daily, weekly, monthly, quarterly and yearly servicing schedules, servicing schedules based upon hourly usage rates. • Mechanical faults may include basic faults reasonably within the scope of a non-mechanic, damage, wear, malfunction or unsoundness. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • the working principles of 2-stroke and 4-stroke petrol and diesel engines • major set-up requirements of vehicles and equipment and principles of calibration • servicing characteristics of vehicles and equipment • fault finding techniques in mechanical devices • enterprise recording systems for machinery use <p>An ability to:</p> <ul style="list-style-type: none"> • perform scheduled maintenance • rectify common mechanical faults • document operational maintenance 	

OHS issues that impact upon the performance of this unit

- The rights and responsibilities of employers and employees under the relevant state and workplace OHS legislation
- Codes of practice for:
 - manual handling
 - the control of workplace hazardous substances
- OHS requirements for the safe use of chemical and biological agents
- OHS requirements for the safe operation of vehicles, machinery and equipment such as Australian Standards for:
 - guards for agricultural tractor PTO drives
 - agricultural wheeled tractors - Roll Over Protective Structures (ROPS)
 - chainsaw safety requirements
 - guide to safe working practices for chainsaws
 - brush cutter safety requirements
 - guide to safe working practices for brush cutters
 - in service safety inspection and testing of electrical equipment
- On site OHS procedures may include:
 - provision of personal protective clothing and equipment
 - provision of sunscreen for outdoor work

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on machinery maintenance requirements • Planning & organising activities - of self and others • Working with teams & others - to undertake scheduled maintenance • Using mathematical ideas & techniques - to calculate and cost maintenance requirements • Solving problems - to keep machinery operational • Using technology - to achieve the requirements of the task 						

Industry	Horticulture
Sector/s	Floriculture, Nursery, Production
RUH HRT319 A Prepare field soils for planting	
Unit Descriptor	
This Unit of Competency is concerned with the preparation of field soils for planting of crops.	
Preparation of field soils is likely to be under limited supervision from others with checking only related to overall progress. Preparation of growing media is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
319.1 Undertake a soil test	<p>319.1.1 Samples collected are representative of area being tested as specified for the test being undertaken and according to enterprise specifications.</p> <p>319.1.2 On-site testing procedures are performed according to manufacturers guidelines and industry practice.</p> <p>319.1.3 Off-site testing samples are packaged, documented and dispatched according to enterprise specifications and testers requirements.</p> <p>319.1.4 Records are maintained according to enterprise guidelines.</p>
319.2 Contribute to the development of a crop nutrition plan	<p>319.2.1 Evidence gathered relates to published nutritional requirements of the specified crop.</p> <p>319.2.2 Conclusions drawn from relevant information and recommendations are based on reasoned argument and appropriate evidence.</p>
319.3 Implement the soil preparation program	<p>319.3.1 Advanced implements are connected to tractors, checked and driven safely according to enterprise policy.</p> <p>319.3.2 Work patterns are developed to ensure full coverage, minimum overlap and optimum efficiency.</p> <p>319.3.3 Soil additives are applied evenly, over whole area and in volume specified in media preparation program.</p> <p>319.3.4 Beds are prepared according to crop requirements and supervisors specifications.</p> <p>319.3.5 Work of others is supervised to ensure conformity to plan.</p> <p>319.3.6 Program is monitored and remedial action undertaken where necessary.</p>
319.4 Implement soil dis-infestation procedures	<p>319.4.1 Equipment is prepared and used according to supervisors instructions and manufacturers guidelines.</p> <p>319.4.2 Treatments are prepared according to soil preparation plan and integrated pest management strategy.</p> <p>319.4.3 Covers, protective devices and quarantine measures are established according to manufacturers specifications and enterprise guidelines.</p> <p>319.4.4 Dis-infestation process is undertaken according to manufacturers specification, industry practice and enterprise guidelines.</p> <p>319.4.5 Procedures are monitored and remedial action undertaken where necessary.</p> <p>319.4.6 Equipment operation and work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p>
319.5 Assess suitability of soil for planting	<p>319.5.1 Soil is assessed for moisture, tilth, compactness, depth and decaying plant material, relative to soil preparation program.</p> <p>319.5.2 Conclusions drawn from relevant information are based on</p>

	<p>reasoned argument and appropriate evidence and relate to the requirements of the crop.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • On-site soil tests undertaken may include those for pH, N, salts. • Nutritional factors may include observations of crop or plant behaviour, information from soil tests. • Soil preparation techniques may include ploughing, harrowing, ripping, rotary hoeing. • Advanced implements may include PTO implements, three-point linkage equipment. • Soil dis-infestation processes may include fumigation, pasteurisation, sterilisation. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • plant nutrition principles, • soil characteristics • field soil preparation techniques • growing requirements of specific crop • major set-up requirements of vehicles and equipment <p>An ability to:</p> <ul style="list-style-type: none"> • undertake a soil test • contribute to the development of a nutrition plan • implement the soil preparation program • implement soil dis-infestation procedures • assess suitability of soil for planting 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include : <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a</p>	

person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the crop
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to establish new crops
- **Using mathematical ideas & techniques** - to calibrate machinery
- **Solving problems** - related to requirements for planting
- **Using technology** - to measure soil capacity

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT320 A Implement a crop planting program	
<p>Unit Descriptor This Unit of Competency is concerned with the implementation of a crop planting program.</p> <p>The implementation of a crop planting program is likely to be under limited supervision from others with checking only related to overall progress. The implementation of a crop planting program is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
320.1 Select plant material	<p>320.1.1 Grading standards defined in the marketing plan are identified.</p> <p>320.1.2 Standards for selection of common plant material are defined according to enterprise policy and communicated clearly to all personnel.</p> <p>320.1.3 Advanced, complex or special plant material is selected according to the production plan.</p> <p>320.1.4 The plant selection process is monitored and remedial action is undertaken where necessary.</p>
320.2 Apply pre-planting treatments	<p>320.2.1 Treatments are selected in line with species requirements, integrated pest management strategy and marketing needs.</p> <p>320.2.2 Equipment operation and work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p>
320.3 Plant crops	<p>320.3.1 Planting equipment is prepared and used according to manufacturers guidelines and enterprise Occupational Health & Safety (OHS) guidelines.</p> <p>320.3.2 Planting practices suit the requirements of the species and conform to enterprise quality and hygiene standards.</p> <p>320.3.3 Planting tasks are monitored and remedial action is undertaken where necessary.</p>
320.4 Apply post-planting treatments	<p>320.4.1 Treatments are selected in line with species requirements, integrated pest management strategy and marketing needs.</p> <p>320.4.2 Equipment operation and work practices conform with Occupational Health & Safety (OHS) regulations.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Pre-planting treatments may include biological, chemical, mechanical. • Planting practices may include manual and/or mechanical planting techniques. • Advanced planting equipment may include mechanical planting machinery. • Post-planting treatments may include pre-emergent herbicide, watering, fertilisers. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- plant biology relevant to material selection in planting
- characteristics of plant material selection relevant to propagation methods
- pre- and postharvest treatments, purpose and application

An ability to:

- select plant material
- apply pre-planting treatments
- plant crops
- apply post-planting treatments

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include :
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on the requirements of the crop • Planning & organising activities - of self and others • Working with teams & others - to establish new crops • Using mathematical ideas & techniques - to calibrate machinery • Solving problems - related to requirements for planting • Using technology - to meet the requirements of the task 						

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT321 A Implement a crop maintenance program	
<p>Unit Descriptor This Unit of Competency is concerned with the implementation of a crop maintenance program.</p> <p>The implementation of a crop maintenance program is likely to be under limited supervision from others with checking only related to overall progress. The implementation of a crop maintenance program is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
321.1 Implement crop maintenance plan	<p>321.1.1 Crop maintenance plan is reviewed and operational tasks are determined in line with enterprise requirements.</p> <p>321.1.2 Maintenance plan is monitored and remedial action is undertaken where necessary.</p> <p>321.1.3 Conditions likely to impact on business viability are reported promptly to the supervisor.</p>
321.2 Apply nutrients	<p>321.2.1 Nutrients are selected and volumes determined in line with crop nutrition program and supervisors specifications.</p> <p>321.2.2 Application is even, over the whole area and according to requirements of the species, soil conditions and environmental factors.</p> <p>321.2.3 Equipment operation and work practices conform with Occupational Health & Safety (OHS) regulations.</p>
321.3 Implement an irrigation program	<p>321.3.1 Crop irrigation plan is reviewed and operational tasks are determined.</p> <p>321.3.2 Crop conditions are monitored and remedial action is undertaken where necessary.</p> <p>321.3.3 Conditions likely to impact on business viability are reported to supervisor promptly.</p>
321.4 Perform complex roguing	<p>321.4.1 Diseased and pest infested plant material is identified and removed from crop.</p> <p>321.4.2 Diseased and pest infested plant material is disposed of according to enterprise policy and industry hygiene practices.</p> <p>321.4.3 Tool and equipment cleaning and storage procedures are performed and hygiene practices followed according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Nutrients may include chemicals, fertilisers, organic material. • Complex roguing may include individual blooms, plants, groups of plants. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • timing patterns in water delivery, frequency patterns, soil water retention behaviour and transpiration characteristics • nutrition requirements of the crop including deficiency symptoms and possible remedies • pest and disease infestation indicators <p>An ability to:</p> <ul style="list-style-type: none"> • implement crop maintenance plan • apply nutrients • implement irrigation program • perform complex roguing 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include : 	

- safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
- systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust, noise.
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on the maintenance requirements of the crop • Planning & organising activities - of self and others • Working with teams & others - to maintain crops • Using mathematical ideas & techniques - to measure crop performance • Solving problems - related to the maintenance requirements of the crop • Using technology - measure crop performance 						

Industry	Horticulture
Sector/s	Floriculture,
Production	
RUH HRT322 A Harvest crops	
<p>Unit Descriptor This Unit of Competency is concerned with the harvesting of horticultural crops.</p> <p>Crop harvesting is likely to be under limited supervision from others with checking only related to overall progress. Crop harvesting is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
322.1 Pick specialised crops	<p>322.1.1 Equipment is prepared and used according to supervisors instructions and manufacturers guidelines.</p> <p>322.1.2 Work patterns reflect efficient use of time, resources and labour according to enterprise guidelines.</p> <p>322.1.3 Work practices employed cause no plant damage.</p> <p>322.1.4 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p>
322.2 Harvest crops with mechanised implements	<p>322.2.1 Advanced implements connected to tractors are checked and driven safely according to enterprise guidelines.</p> <p>322.2.2 Work patterns are developed to ensure full coverage, minimum overlap and optimum efficiency.</p> <p>322.2.3 Work practices ensure maximum yield, no damage to plant material and maintain variety integrity.</p> <p>322.2.4 Equipment operation and work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p> <p>322.2.5 Work of others is supervised to ensure conformity to harvesting plan.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Specialised crops may include unique species, high value crops, species requiring special treatment. Advanced implements may include mechanical harvesters. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> moisture and heat stress and their influence on postharvest quality machinery operation harvesting and post harvesting operations factors affecting harvest and postharvest quality <p>An ability to:</p> <ul style="list-style-type: none"> pick specialised crops harvest crops with mechanised implements 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts safe operation of other vehicles safe manual handling systems and procedures protection from hazardous noise safe systems and procedures for handling and storage of crops safe systems and procedures to protect against electrical hazards safe systems and procedures for outdoor work, including protection from solar radiation, dust and 	

<p>noise</p> <ul style="list-style-type: none"> - safe systems and procedures are in place for emergencies, including fires. - selection, use and maintenance of relevant personal protective clothing and equipment 														
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>														
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> <td style="text-align: center;">1</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on the harvesting specifications of the crop • Planning & organising activities - of self and others • Working with teams & others - to harvest crops • Using mathematical ideas & techniques - to calculate yields • Solving problems - related to harvesting • Using technology - pick, transfer, grade and store crops 	Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	1	1	1	1	1	1	1
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology								
1	1	1	1	1	1	1								

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT323 A Implement postharvest processes	
<p>Unit Descriptor This Unit of Competency is concerned with implementing postharvest processes of horticultural crops.</p> <p>Implementing postharvest processes is likely to be under limited supervision from others with checking only related to overall progress. Implementing postharvest processes is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
323.1 Implement postharvest treatments	<p>323.1.1 Treatments are selected in line with species requirements, integrated pest management strategy and marketing needs.</p> <p>323.1.2 Timing, rate, application method, environmental requirements and handling techniques conform to requirements of species, enterprise policy and industry practice.</p> <p>323.1.3 Equipment operation and work practices conform with enterprise Occupational Health & Safety (OHS) guidelines.</p>
323.2 Implement hazardous waste disposal guidelines	<p>323.2.1 Waste disposal requirements of the enterprise are reviewed and operational tasks determined.</p> <p>323.2.2 Collection of waste and disposal are monitored and variation from guidelines rectified promptly.</p> <p>323.2.3 Conditions likely to impact on business viability are reported promptly to the supervisor.</p>
323.3 Implement packaging/presentation requirements	<p>323.3.1 Packaging/presentation requirements of marketing plan and/or customer order are reviewed and operational tasks determined.</p> <p>323.3.2 Packaging/presentation process is monitored and remedial action taken where necessary.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Postharvest treatments may include cleaning, washing, chemical spraying or dipping, drying, ripening or degreening with ethylene gas, waxing, cool room storage, packing. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> postharvest treatments relevant to specific production requirements and distribution channels hazardous waste disposal methodologies, application and purpose enterprise quality procedures. <p>An ability to:</p> <ul style="list-style-type: none"> implement postharvest treatments implement hazardous waste disposal guidelines implement packaging/presentation requirements 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include : <ul style="list-style-type: none"> safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts safe manual handling systems and procedures 	

- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the postharvest requirements of the crop
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to prepare crops for sale
- **Using mathematical ideas & techniques** - to calibrate machinery
- **Solving problems** - related to postharvest requirements of particular crops
- **Using technology** - to prepare crops for sale

Industry	Horticulture
Sector/s	Floriculture, Nursery, Parks & Gardens, Production
RUH HRT324 A Propagate plants	
Unit Descriptor This Unit of Competency is concerned with propagation of plants by sexual and asexual methods. The propagation of plants is likely to be under limited supervision from others with checking only related to overall progress. The propagation of plants is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
324.1 Select propagation material	324.1.1 Parent plant is prepared and collection method employed suitable to species and according to enterprise guidelines. 324.1.2 Maximum viability of propagated material is maintained by conditioning and storage according to the requirements of the species. 324.1.3 Tools are chosen appropriate to the task being undertaken, used according to enterprise guidelines and safe working practices are employed.
324.2 Prepare growing media	324.2.1 Components are prepared according to manufacturer' directions, enterprise guidelines, propagation method and plant needs. 324.2.2 Storage procedures are performed and hygiene practices followed according to enterprise guidelines.
324.3 Prepare growing site	324.3.1 Benches are maintained free from contamination and hygiene practices are followed according to enterprise guidelines. 324.3.2 Growing environment is prepared to suit species and propagation method, weed retardants are prepared and applied as specified in planting program. 324.3.3 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.
324.4 Implement propagation method	324.4.1 Pre-planting treatment is applied and/or carried out appropriate to the propagation method and species, according to enterprise policy. 324.4.2 Placement and depth are according to planting method and species. 324.4.3 Plants are handled in a way that minimises damage. 324.4.4 Water and nutrients are applied to suit the media conditions, plant requirements and propagation techniques employed, according to supervisors instructions. 324.4.5 Labels and identification are ratified and applied according to enterprise guidelines. 324.4.6 Remedial action is taken as specified in planting program, to control pests and diseases. 324.4.7 Records are completed accurately and at the required time according to enterprise guidelines. 324.4.8 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed. 324.4.9 Tools and equipment cleaning and storage are performed, and hygiene practices are followed in accordance with

	enterprise guidelines.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Plants to be propagated may include ornamentals, fruit, nuts, vegetables, herbs, bulbs, fungi. • Propagation material may include seeds, cuttings, spores, grafted plants, buds, separations/divisions, tissue cultures, rhizomes, plantlets. • Growing media may include sand, potting mix, gravel, scoria, rock wool, gro-wool, sawdust, pine bark, water (hydroponics). • Growing environment may include temperature, light, humidity, wind, sun, moisture, topography, rainfall. • Nutrients may include chemicals, fertilisers, organic material. • Remedial action may include removal of infected material, treatment with chemicals. • Weed retardants may include weed-mat, slatted benches, chemical solutions, granular pre-emergent. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • media mixing and storage procedures • selection of media components for plant species' requirements. • growing environments and weed retardants that are suited to propagated material • pre-planting treatments, water and nutrients suited to propagated material • remedial action for weeds, pests and diseases • all forms and techniques of propagation <p>An ability to:</p> <ul style="list-style-type: none"> • select propagation material • prepare growing media • prepare growing site • implement propagation method 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include : <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p>	

<ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>
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D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on the propagation requirements of the plants • Planning & organising activities - of self and others in propagation team • Working with teams & others - to achieve production targets • Using mathematical ideas & techniques - to calculate production records • Solving problems - of poor germination or strike rate • Using technology - to communicate and keep records 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT325 A Supervise work site activities	
Unit Descriptor	
<p>This Unit of Competency is concerned with the small-scale supervision of projects and work site activities and not general management of people and processes. Responsibility may be for basic coordination and direction of small groups working on a site remote from the enterprise headquarters, small projects or parts of projects, or small areas within the enterprise.</p> <p>The supervision of work site activities is likely to be under limited supervision from above and with checking only related to overall progress. Work site supervision involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
325.1 Prepare project plan	<p>325.1.1 Requirements of the job are clarified with author and/or works manager.</p> <p>325.1.2 Staff, equipment and material resource requirements are specified and time is allocated in conjunction with supervisor.</p> <p>325.1.3 The order of activities is specified according to enterprise guidelines.</p> <p>325.1.4 Occupational Health & Safety (OHS) legislation, enterprise procedures and site specific safety requirements are observed.</p> <p>325.1.5 The plan is documented clearly and presented to supervisor for verification.</p>
325.2 Organise resources for project implementation	<p>325.2.1 Materials are purchased and equipment is hired as authorised by supervisor in conjunction with activities undertaken by management.</p> <p>325.2.2 External agency permits are gained in the correct order, where required.</p> <p>325.2.3 Neighbours and affected parties are notified of works to be undertaken when appropriate.</p> <p>325.2.4 Materials are ordered for delivery on site as required.</p> <p>325.2.5 Staff are coordinated to be on site when they are required.</p>
325.3 Implement and monitor the project plan	<p>325.3.1 All resources are prepared and timed to suit the project plan.</p> <p>325.3.2 Staff are directed in activities for each period of work.</p> <p>325.3.3 Work is undertaken together with staff following documented plan guidelines.</p> <p>325.3.4 Staff, activities and resource usage are supervised and are accounted for in the project records.</p> <p>325.3.5 Training on the job is provided as required and as appropriate.</p> <p>325.3.6 Contingency situations are recognised and appropriate corrective actions are taken to enterprise instructions.</p>
325.4 Perform site administration	<p>325.4.1 Management reporting is completed in a timely and accurate manner.</p> <p>325.4.2 Decisions are sought from management on important and relevant issues.</p> <p>325.4.3 Site administration is monitored to ensure compliance with</p>

	<p>enterprise procedures.</p> <p>325.4.4 A simple project report is written to authorise payment for work and materials and to inform management of project details, where required by enterprise.</p>
<p>A. RANGE OF VARIABLES</p> <p>External agency permits may include noise pollution, waste production and removal, environmental protection.</p> <ul style="list-style-type: none"> • Operations may be in all weather conditions, and may be modified by poor weather. • Project may include small/short term job, part of a larger project. • Reporting includes completion of enterprise procedures and associated manual or computer-based documentation. • Staff may be obtained from within the enterprise, “borrowed” from another enterprise, hired from a contracting firm, hired for the project from outside the industry. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • application of employment-related legislation and awards • application of legislative requirements, especially in the areas of safety, site management and employment • AS 1742 Pt 3 1985 - Australian Standard Code of Practice, Work Site Traffic Management • development and maintenance of effective teamwork • enterprise computing systems • enterprise policies especially in areas of quality, personnel and operations, including EEO target groups • enterprise reporting and recording policies • first line supervision • interpreting and communication of operational information, procedures and instructions, and enterprise policies • management of contingencies and emergencies • operation cost control • operational quality control • operational safety • reporting to enterprise requirements <p>An ability to:</p> <ul style="list-style-type: none"> • prepare a project plan • organise resources for project implementation • implement and monitor the project plan • perform site administration 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise • selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	1	2	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on labour, resources and project constraints
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to achieve workplace targets
- **Using mathematical ideas & techniques** - to calculate purchases and monitor records
- **Solving problems** - of organisation and communication
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s Landscape,	Arboriculture, Nursery, Parks & Gardens, Turf
RUH HRT326 A Provide information on plants, products and treatments	
<p>Unit Descriptor This Unit of Competency is concerned with providing information to clients and others about plants, horticultural products and treatments.</p> <p>The provision of information is likely to be under limited supervision from others with checking only related to overall progress. The provision of information involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The provision of information is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
326.1 Identify the issue	<p>326.1.1 Contact is initiated when appropriate according to enterprise client service guidelines.</p> <p>326.1.2 Customer is assisted in explaining the issue by the use of active listening and questioning techniques according to enterprise client service guidelines.</p> <p>326.1.3 Nature of issue is clarified by gathering all relevant information from client, according to enterprise client service guidelines.</p>
326.2 Decide on preferred solution	<p>326.2.1 Options and/or strategies identified and devised are examined and evaluated according to enterprise guidelines and sound problem-solving techniques.</p> <p>326.2.2 Optimal solution is determined based on reasoned argument, appropriate evidence, sound horticultural principles and enterprise policy.</p>
326.3 Provide the preferred solution	<p>326.3.1 Recommended solution, method of application and probable outcomes are clearly provided to the customer according to enterprise client service guidelines.</p> <p>326.3.2 The original supplier of the product is referred to where necessary.</p> <p>326.3.3 Customer requests for clarification or expansion are responded to by the use of active listening and questioning techniques according to enterprise client service guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Horticultural issues may include weeds, pests and diseases control measures, basic garden design, products and services, selection and use of plant materials, local geographical variables. • Information relevant to a horticultural issue may include soil types, proximity to buildings, environment, positioning, material types. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • effective questioning techniques combined with a friendly and helpful manner • a broad range of horticultural and basic garden design issues • legal issues, environmental conditions, regulations, indigenous plants, cultural sensitivities • problem-solving techniques • plant identification and selection • soil characteristics • pest and disease treatments • weed treatments • local horticultural services, products and contractors 	

- duty of care in provision of advice and recommendations

An ability to:

- identify the issue
- decide on preferred solution
- provide the preferred solution

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2
<ul style="list-style-type: none"> • Communicating ideas and information - with clients or customers and other members of the work team • Collecting, analysing & organising information - plants, products and treatments • Planning & organising activities - of self and others in work team • Working with teams & others - to solve problems of a horticultural nature • Using mathematical ideas & techniques - to calculate areas, volumes and application rates • Solving problems - associated with inadequate advice or inappropriate solutions • Using technology - to communicate and keep records 						

Industry	Horticulture
Sector/s	Landscape
RUH HRT327 A Undertake a site assessment	
<p>Unit Descriptor This Unit of Competency is concerned with undertaking a site assessment as part of preliminary tasks leading to the development of a landscape design.</p> <p>Undertaking a site assessment is likely to occur under limited supervision from others with checking only related to overall progress. Undertaking a site assessment involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The provision of information is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
327.1 Survey site features and characteristics	<p>327.1.1 Existing on-site features and services impacting upon the design proposal are identified and recorded according to enterprise guidelines.</p> <p>327.1.2 Compass bearings are identified and magnetic north recorded.</p> <p>327.1.3 Direction of prevailing weather conditions are ascertained from historical data.</p> <p>327.1.4 General falls and contours are visually identified and recorded according to recognised land surveying techniques.</p> <p>327.1.5 Covenants which could affect the design are identified and recorded according to enterprise guidelines.</p> <p>327.1.6 Features adjacent to the site which could be used to enhance the design are identified and recorded.</p> <p>327.1.7 Site boundaries are measured and shape of site determined and recorded according to recognised land surveying techniques.</p> <p>327.1.8 Site inventory report is produced according to enterprise guidelines.</p>
327.2 Conduct a soil analysis	<p>327.2.1 Soil profile examination holes are excavated to the prescribed depth and to the designated spacings according to enterprise guidelines.</p> <p>327.2.2 Horizon levels within the examination holes are noted according to soil identification reference chart guidelines.</p> <p>327.2.3 Soil samples for testing by others are gathered and prepared according to test kit instructions.</p> <p>327.2.4 Soil types are identified from soil identification reference chart guidelines and soil maps.</p>
327.3 Record survey levels	<p>327.3.1 The assumed datum is located and height calculated and recorded using 'rise and fall' or similar survey techniques.</p> <p>327.3.2 Line levelling techniques are applied to plot and record levels at corners and random points across site according to recognised land surveying techniques.</p> <p>327.3.3 Relationship between site levels and adjacent levels are calculated and recorded according to enterprise guidelines.</p> <p>327.3.4 Grid layout plan of site is produced from field notes with all features relevant to the design noted and recorded according to recognised land surveying techniques.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Site inventory factors include topography, vegetation, hydrology, services and amenities, buildings and structures, access, soil types, site modifications, fauna, location of boundaries, aspect, streams, paths, banks, gullies. 	
B. EVIDENCE GUIDE	

<p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • types, application and uses of surveying equipment • principles of line levelling techniques • methods of analysing condition and nutritional status of soil • principles and theory of landscape design <p>An ability to:</p> <ul style="list-style-type: none"> • undertake a site assessment • conduct a soil analysis • record survey levels 													
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 													
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>													
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <tr> <td>Communicating</td> <td>Collecting</td> <td>Planning &</td> <td>Working with</td> <td>Using</td> <td>Solving problems</td> <td>Using technology</td> </tr> </table>							Communicating	Collecting	Planning &	Working with	Using	Solving problems	Using technology
Communicating	Collecting	Planning &	Working with	Using	Solving problems	Using technology							

ideas & information	analysing & organising information	organising activities	teams & others	mathematical ideas & techniques		
2	2	2	2	2	2	2
<ul style="list-style-type: none"> • Communicating ideas and information - with client, supervisor and members of the work team • Collecting, analysing & organising information - on the features of the site • Planning & organising activities - of self and others involved in a site assessment • Working with teams & others - to survey and record details of assessment • Using mathematical ideas & techniques - to calculate and record site features and characteristics • Solving problems - of site contingencies • Using technology - to communicate and keep records 						

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens
Gardens	Production, Turf
RUH HRT328 A Operate specialised machinery	
<p>Unit Descriptor This unit describes the operation of specialised machinery and equipment in a horticultural workplace.</p> <p>Machinery operation is likely to be under limited supervision from others with checking only related to overall progress. Specialised machinery operation is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
328.1 Check and maintain specialised machinery.	<p>328.1.1 Pre-operational checks are performed on specialised machinery as a part of daily work routines.</p> <p>328.1.2 Specialised machinery is calibrated in line with operators manual and enterprise requirements.</p>
328.2 Operate specialised machinery.	<p>328.2.1 Specialised machinery is operated in normal and adverse conditions according to need.</p> <p>328.2.2 The effectiveness of specialised machinery is monitored from enterprise records.</p> <p>328.2.3 Details of the operation of specialised machinery are recorded as a part of work routines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Pre-operational checks in accordance with the manufacturers recommendations may include fluid levels (fuel, water, oil, brake, transmission, battery water levels and electrolyte checks), tyres, belts, leads, hydraulic lines and connections, air cleaners, air conditioners, brakes, worn parts, leaks • Specialised machinery may include tractor drawn implements, harvesters, seeders, sprayers, balers, front end loaders, land levellers, feed mixers, cabling equipment, specialised turf equipment, specialised nursery equipment • Operating conditions may include mountainous terrain, slippery ground, boggy ground 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • specialised machinery components, functions and controls • specialised machinery maintenance procedures • specialised machinery adjustments • specialised machinery operations • relevant state legislation and regulations relating to the operation of specialised machinery • OHS legislation, regulations and codes of practice relating to the operation of specialised machinery <p>An ability to</p> <ul style="list-style-type: none"> • check and maintain specialised machinery • operate specialised machinery 	
<p>OHS issues that impact upon the performance of this unit Relevant OHS hazards identification, risk assessment and risk control measures. These include:</p> <ul style="list-style-type: none"> • Systems and procedures for the safe operation and maintenance of machinery and equipment, including hydraulics and guarding of exposed moving parts • Safe systems and procedures for outdoor work, including protection from solar radiation • Safe operation of motorcycles • Safe operation of other vehicles • Safe manual handling systems and procedures 	

- Selection, use and maintenance of relevant personal protective clothing and equipment
- The rights and responsibilities of employers and employees under the relevant state and workplace OHS legislation
- Codes of practice for:
 - manual handling
 - the control of workplace hazardous substances
- OHS requirements for the safe use of chemical and biological agents
- OHS requirements for the safe operation of vehicles, machinery and equipment, such as Australian Standards for:
 - guards for agricultural tractor PTO drives
 - agricultural wheeled tractors - Roll Over Protective Structures (ROPS)
 - guide to safe working practices for chainsaws
- On site OHS procedures may include:
 - provision of sunscreen for outdoor work

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with others in the work group
- **Collecting, analysing & organising information** - on tractor usage and consumables
- **Planning & organising activities** - for tractor operation
- **Working with teams & others** -to complete specified works
- **Using mathematical ideas & techniques** - to calculate coverage/fuel consumption etc.
- **Solving problems** - of breakdown and equipment compatibility
- **Using technology** - to trouble shoot machinery performance and with communication systems

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens
Gardens	Production, Turf
RUH HRT329 A Operate machinery in adverse conditions	
Unit Descriptor	
<p>This unit describes the operation of machinery and equipment in adverse conditions. Machinery operation is likely to be under limited supervision from others with checking only related to overall progress. Machinery operation is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
329.1 Prepare machinery for use in adverse conditions.	<p>329.1.1 Pre-operational checks are performed on specialised machinery as a part of daily work routines.</p> <p>329.1.2 Specialised machinery is calibrated in line with operators manual and enterprise requirements.</p>
329.2 Operate a vehicle in adverse conditions.	329.2.1 Vehicles are driven in a safe and controlled manner relative to the conditions without damage to the vehicle.
329.3 Operate a vehicle with attached equipment in adverse conditions.	<p>329.3.1 Equipment is securely attached and set for required operation in line with enterprise policy.</p> <p>329.3.2 The vehicle with the attached equipment is driven in a safe and controlled manner relative to the operating conditions without damage to the equipment, vehicle or property.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Vehicles may include two wheel motorcycles, four wheel motorcycles, utilities, four wheel drive vehicles, tractors fitted with roll over protection structures (ROPS), trailers • Equipment may include a non-PTO, non-draft controlled tractor three point linkage implement, a tractor PTO three point linkage implement, a tractor draft/position controlled three point linkage implement, a tractor mounted external hydraulic operated three point linkage implement, front mounted implements eg front end loader, other tractor mounted equipment • Trailed equipment may include a range of trailers, spray units, fertiliser spreaders, field bins, fuel tanks • Adverse conditions may include steep ascents, steep descents, working across slopes, boggy terrain, slippery surfaces, water crossings, saturated ground, loose sand, ice/snow, dust, • Operate may include moving off, travelling, working, at commencement of adverse conditions, stopping • Safe and controlled manner is indicated by suitable selection of gear and throttle settings for the specific terrain and conditions, driving techniques appropriate for the specific terrain and conditions, awareness of length, height and width of vehicle and attached equipment, reversing of vehicle and trailed equipment into a confined space, special care to check for livestock, children and obstacles before and during reversing, successful stalling of vehicle and attached equipment on up/downhill grades, awareness of possible hazards, awareness of the effects the attached implement may have on vehicle performance, procedures in line with operational requirements • Hazards may include those associated with mounted equipment, trailed equipment, passengers including children, loose articles inside vehicles, dogs in, on or near vehicles, inappropriate clothing, headwear, footwear, contours, obstacles, underground pipes or cables, livestock, overhead wires, fatigue 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of:	
<ul style="list-style-type: none"> • potential hazards associated with operating vehicles with and without equipment • principles of weight distribution with regard to load shifting and vehicle movement • the effects the operating conditions under which vehicles with or without attached equipment are used will have on: 	

<ul style="list-style-type: none"> - centre of gravity - weight distribution - leverage - stability - traction - steering - safe working loads and heights • the issues associated with the use of front mounted equipment in normal and adverse conditions • relevant OHS legislation, regulations and codes of practice <p>The ability to:</p> <ul style="list-style-type: none"> • operate a vehicle and attached equipment on uncomplicated terrain • attach and detach a range of three point linkage implements • attach and detach PTO (power take off) operated equipment • attach and detach equipment operated by external hydraulic rams • attach and detach front mounted equipment • employ safe work practices
<p>OHS issues that impact upon the performance of this unit</p> <p>Relevant OHS hazards identification, risk assessment and risk control measures. These include:</p> <ul style="list-style-type: none"> • Systems and procedures for the safe operation and maintenance of machinery and equipment, including hydraulics and guarding of exposed moving parts • Safe systems and procedures for outdoor work, including protection from solar radiation • Safe operation of motorcycles • Safe operation of other vehicles • Safe manual handling systems and procedures • Selection, use and maintenance of relevant personal protective clothing and equipment • The rights and responsibilities of employers and employees under the relevant state and workplace OHS legislation • Codes of practice for: <ul style="list-style-type: none"> - manual handling - the control of workplace hazardous substances • OHS requirements for the safe use of chemical and biological agents • OHS requirements for the safe operation of vehicles, machinery and equipment, such as Australian Standards for: <ul style="list-style-type: none"> - guards for agricultural tractor PTO drives - agricultural wheeled tractors - Roll Over Protective Structures (ROPS) - guide to safe working practices for chainsaws • On site OHS procedures may include: <ul style="list-style-type: none"> - provision of sunscreen for outdoor work
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor</p> <p>Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is</p>

qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - to management, staff and equipment operators
- **Collecting, analysing & organising information** - on operating conditions and equipment requirements
- **Planning & organising activities** - operational activities
- **Working with teams & others** - to ensure safe vehicle and equipment operations in adverse conditions
- **Using mathematical ideas & techniques** - calibration/adjustment of equipment
- **Solving problems** - adverse operating conditions and break down
- **Using technology** - vehicles and equipment

Industry	Horticulture
Sector/s	Floriculture, Nursery, Parks & Gardens, Production
RUH HRT330 A Erect horticultural structures	
<p>Unit Descriptor This Unit of Competency is concerned with the erection of pre-fabricated horticultural structures such as shade-houses, poly-tunnels and their fixtures.</p> <p>The erection of horticultural structures is likely to be under limited supervision from others with checking only related to overall progress. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
330.1 Set-out prefabricated buildings and structures	<p>330.1.1 The building area is cleaned, leveled and marked out according to plans and specifications.</p> <p>330.1.2 Prefabricated materials are laid out according to manufacturers specifications and components are checked against delivery manifest.</p> <p>330.1.3 Additional construction materials are determined and procured according to supervisors specifications.</p>
330.2 Assemble buildings and structures	<p>330.2.1 Assembly conforms to manufacturers plans and specifications.</p> <p>330.2.2 Fixtures and fittings are assembled and fixed, and building works are finished off according to plan.</p> <p>330.2.3 The area is cleaned and tidied, and prepared for designated use according to supervisors specifications.</p> <p>330.2.4 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture, Nursery, Production</p> <ul style="list-style-type: none"> Buildings and structures may include shade houses, igloos, potting houses, sheds, cool rooms, glasshouses, water tanks. Fixtures and fittings may include benches, screens, storage areas, lighting and heating equipment. <p>Parks & Gardens</p> <ul style="list-style-type: none"> Buildings and structures may include shade houses, sheds, picnic and playground equipment. Fixtures and fittings may include benches, screens, sporting structures - goal posts etc. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> basic surveying techniques in building construction purpose and application of buildings and structures in production processes <p>An ability to:</p> <ul style="list-style-type: none"> set out prefabricated buildings and structures assemble buildings and structures 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts 	

- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the erection details
- **Planning & organising activities** - of self and others involved in the project
- **Working with teams & others** - to complete the requirements of the task
- **Using mathematical ideas & techniques** - to calculate location, siting and construction records
- **Solving problems** - of site contingencies
- **Using technology** - to erect, communicate and keep records

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT331 A Maintain an office	
<p>Unit Descriptor This Unit of Competency is concerned with the maintenance of an office for a horticultural enterprise.</p> <p>The maintenance of an office is likely to be under limited supervision from others with checking only related to overall progress. The maintenance of an office is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
331.1 Maintain records	331.1.1 A recording system is implemented to meet enterprise requirements. 331.1.2 Records are kept updated according to company policy. 331.1.3 Records are stored and retrieved according to company policy.
331.2 Collate field data	331.2.1 Data is compiled from a range of sources in an accurate and scientifically valid manner. 331.2.2 Collected data is sorted and presented in an easily recognisable format. 331.2.3 Data is analysed in a scientifically valid manner in conjunction with the supervisor.
331.3 Monitor stocks	331.3.1 A monitoring system is implemented according to enterprise requirements. 331.3.2 Stocks on hand are recorded following company policy. 331.3.3 Inventory balances are kept up to date as prescribed by enterprise requirements. 331.3.4 Usage is recorded according to company policy.
331.4 Arrange purchase of materials	331.4.1 Quotes are obtained from alternative suppliers. 331.4.2 Suppliers are selected according to company policy. 331.4.3 Orders are placed in line with enterprise requirements. 331.4.4 Delivery is arranged according to company policy. 331.4.5 Dispatch is recorded according to company policy.
331.5 Implement office security	331.5.1 Assets are secured according to company guidelines.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Scientifically valid manner means data is reliable, repeatable and unbiased. • Presentation of data may include graphs, tables, reports, computer spreadsheets. • Company policy may include type of monitoring system to use, how often to be monitored, notification of low stock, budget restraints, types of stock to re-order, recording system. • Stocks may include any material used in the workplace. • Data may include weather data, irrigation, pest incidence, beneficial insects, soil information. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • different recording systems - advantages and disadvantages of each • different monitoring systems - advantages and disadvantages of each • different presentation styles of field data • numeracy and literacy 	

An ability to:

- maintain records
- collate field data
- monitor stocks
- arrange purchase of materials
- implement office security

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - repetitive strain injury
 - correct seating and posture
 - lifting
 - computer usage
 - workplace layout

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the business performance of the enterprise
- **Planning & organising activities** - of self and others in keeping office records
- **Working with teams & others** - to achieve business targets
- **Using mathematical ideas & techniques** - to calculate business and production records
- **Solving problems** - of inaccurate data or incomplete records
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Turf
RUH HRT332 A Construct turf playing surfaces	
Unit Descriptor	
This Unit of Competency is concerned with the construction of sports and recreational turf playing surfaces.	
The construction of sports and recreational turf playing surfaces is likely to be under limited supervision from others with checking only related to overall progress. The construction of sports and recreational turf playing surfaces is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
332.1 Set out site for construction	<p>332.1.1 Boundaries and features contained in site plan are checked and verified against actual site and existing features.</p> <p>332.1.2 Services and utility layout are recognised and depth checked against site plan and discrepancies reported to the relevant authority.</p> <p>332.1.3 Finishing levels of site are identified and checked against plan to ensure nominated levels are workable.</p> <p>332.1.4 Symbols and terminology are interpreted to ensure the concept of the plan is clearly understood according to industry practice.</p> <p>332.1.5 Measurements are checked against plan area pegged out and variances notified to supervisor according to enterprise policy.</p>
332.2 Survey the site	<p>332.2.1 Equipment is chosen appropriate to the task being undertaken, and set up and used according to industry standards.</p> <p>332.2.2 Existing levels are read and recorded accurately and clearly according to industry standards.</p> <p>332.2.3 New levels are set according to specifications and pegs placed according to industry convention.</p>
332.3 Conduct basic soil analysis	<p>332.3.1 Salt and pH test are undertaken using a representative sample and procedures are applied according to instrument instruction.</p> <p>332.3.2 Samples are labelled according to enterprise guidelines.</p> <p>332.3.3 Results are accurately and legibly recorded and reported according to enterprise guidelines.</p> <p>332.3.4 Equipment is chosen and used appropriate to the task being undertaken and safe working practices are employed according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
332.4 Excavate site	<p>332.4.1 Pre- and post-operating procedures are undertaken according to manufacturers instructions and enterprise guidelines.</p> <p>332.4.2 Location of services is observed and no damage is inflicted on pipes or lines.</p> <p>332.4.3 Excess soil is removed and site cleared with the stockpile being placed in the designated area according to supervisors instructions.</p> <p>332.4.4 Base is graded to the specified level and slope, and base of profile is consolidated to achieve uniform compaction over entire site according to construction plan.</p> <p>332.4.5 Tools and equipment are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p> <p>332.4.6 Correct manual handling techniques are used when lifting or moving heavy loads according to Occupational Health & Safety (OHS) guidelines.</p>
332.5 Install soil profile	<p>332.5.1 Drainage material is installed to the required depth and to design specified in construction plan.</p> <p>332.5.2 Remaining profile layers are installed with each layer reflecting the final contour and compacted, and the interface between layers is uniform and unbroken</p>

	<p>according to construction plan and supervisors instructions.</p> <p>332.5.3 Soil surface is given a final levelling and consolidated, ready for planting according to construction plan.</p> <p>332.5.4 Tools and equipment are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p> <p>332.5.5 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
332.6 Apply soil amendments	<p>332.6.1 Quantities required to spread material over designated area are calculated and measured according to construction plan.</p> <p>332.6.2 Equipment is calibrated according to manufacturers guidelines to distribute the required amount over the required area.</p> <p>332.6.3 Soil amendment is prepared according to enterprise guidelines, mixed thoroughly and applied evenly over the target area.</p> <p>332.6.4 Tools are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p> <p>332.6.5 Correct manual handling techniques are used when lifting or moving heavy loads according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Soil tests are for salts, pH. • Measuring techniques may include scales, package size, trucks, volume. • Soil test methods may include plugs, core samples, dry test, CSIRO kits, probes. • Drainage systems may include earthenware, PVC, surface, sub-surface, spoon, agricultural, strip, aggregate, pits, mole plough, sand slit, sub-surface cultivation. • Irrigation systems may include tow lines, trailing irrigation, pop-ups, automatic, quick coupling valves, pipe-work, black poly, sprinkler, Upton irrigator, hand held hose, drip. • Survey equipment may include dumpy levels, laser level, Cowley level, staff, boning rods, pegs, notebook, pencil. • Excavation equipment may include bobcats, shovel, backhoe, front end loader, grader, grader blade, trucks, hydraulic trailer, 3-point linkage, ditch witch. • Finishing soil surface may include matching levels of soil with required final levels, aligning surface with pegs, no depressions exist, area is consolidated. • Soil amendments may include ameliorants (zeolite, gypsum), organic matter, Netlon, surfactants. • Pipes may include PVC, black poly, copper, galvanised. • Services may include Telecom, electricity, water, gas, computer lines. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • soil test methods • surveying principles and procedures, together with the use of survey equipment • pipe classes and materials <p>An ability to:</p> <ul style="list-style-type: none"> • set out site for construction • survey the site • conduct basic soil analysis • excavate site • install soil profile • apply soil amendments 	

<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on the turf construction project • Planning & organising activities - of self and others in construction team • Working with teams & others - to achieve project time lines • Using mathematical ideas & techniques - to calculate requirements of project • Solving problems - such as site contingencies • Using technology - to construct, communicate and keep records 						

Industry Horticulture	
Sector/s Turf	
RUH HRT333 A Monitor turf health	
<p>Unit Descriptor This Unit of Competency is concerned with the monitoring of the health and condition of sports turf playing surfaces.</p> <p>Turf health monitoring is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Turf health monitoring is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
333.1 Collect samples for a soil analysis	<p>333.1.1 Samples are from a representative area and accurately labelled according to enterprise guidelines and consultant requirements.</p> <p>333.1.2 Tools and equipment are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
333.2 Interpret the results of a soil and/or plant tissue analysis	<p>333.2.1 Results are recorded, compared with acceptable levels according to published data and historical records, and reports and recommendations made to supervisor.</p> <p>333.2.2 Requirements to address deficiencies based upon manufacturers specifications and enterprise guidelines to meet target chemical balances are determined.</p>
333.3 Monitor turf health	<p>333.3.1 Damaged turf is identified according to published data, supplier specifications and historical data.</p> <p>333.3.2 Turf structure is observed for quality according to published data, industry practice and enterprise guidelines.</p> <p>333.3.3 Reports and recommendations are made to supervisor according to enterprise guidelines.</p> <p>333.3.4 Tools and equipment are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Health properties may include strength, wear tolerance, growth rate, colour, recovery rate. • Observations for turf quality may include upright, stress, growing pattern, variation. • Site conditions may include soil types, moisture content, pH levels, salinity, texture, compaction, aspect, pollutants, toxicity, climate, buildings, road works, shade. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • soil analysis procedures • reasons for such analysis • trace element requirements for turf and soil <p>An ability to:</p> <ul style="list-style-type: none"> • collect samples for a soil analysis • interpret the results of a soil and/or plant tissue analysis • monitor turf health 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe manual handling systems and procedures 	

- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the health and condition of turfed surfaces
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to maintain, repair and improve turfed surfaces
- **Using mathematical ideas & techniques** - to interpret results of plant or soil analysis
- **Solving problems** - of turf decline
- **Using technology** - to repair turf, communicate and keep records

Industry	Horticulture
Sector/s	Turf
RUH HRT334 A Renovate sports turf	
<p>Unit Descriptor This unit is concerned with the renovation of sports turf.</p> <p>Turf renovation is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Turf renovation is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
334.1 Select and adjust renovation equipment	<p>334.1.1 Equipment is chosen appropriate to the task being undertaken and the conditions under which they are undertaken.</p> <p>334.1.2 Equipment is adjusted according to the requirements of the renovation program and manufacturers specifications.</p>
334.2 Implement renovation program	<p>334.2.1 Equipment is selected and adjusted according to the requirements of the program and manufacturers specifications.</p> <p>334.2.2 Operational tasks of renovation program are implemented.</p> <p>334.2.3 Work pattern is planned to cover the determined area in an efficient manner according to enterprise guidelines.</p> <p>334.2.4 Renovation tasks are monitored and remedial action is undertaken where necessary.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Enterprise standards may include spacing of core holes, even scarification, no damage to remaining turf. Renovation tasks may include fertilising, seeding, top dressing, watering, levelling, installation of barriers and protective measures, scarifying, de-thatching. Renovation equipment may include scarifiers, de-thatchers. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> enterprise renovation procedures thorough working knowledge of: all renovation equipment <p>An ability to:</p> <ul style="list-style-type: none"> select and adjust renovation equipment implement renovation program 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state, including: 	

- Occupational Health and Safety Act of the state
- Regulations and/or Codes of Practice pertaining to Hazardous Substances
- Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the health and condition of turfed surfaces
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to renovate turfed surfaces
- **Using mathematical ideas & techniques** - to interpret results of plant or soil analysis
- **Solving problems** - associated with turf renovation
- **Using technology** - to renovate turf, communicate and keep records

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT335 A Conduct operational inspection of park facilities	
<p>Unit Descriptor This unit describes the operational inspection of park facilities to identify hazards, existing and/or potential risks and non-conformities with Australian Standards and Occupational Health & Safety issues.</p> <p>Work is likely to be under limited supervision from others and with checking only related to overall progress. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints</p>	
Element of Competency	Performance Criteria
335.1 Prepare for operational inspection	<p>335.1.1 Specific facilities and equipment for inspection are determined according to operational request.</p> <p>335.1.2 Equipment test and check procedures are carried out in line with enterprise policy.</p> <p>335.1.3 Appropriate checklists and reporting formats are prepared to suit the application.</p> <p>335.1.4 Different types of facilities are identified from checklist descriptions.</p> <p>335.1.5 Specific terminology used in checklists are clarified with the supervisor.</p>
335.2 Undertake operational inspection	<p>335.2.1 Modes of non-conformity with Australian Standards, Occupational Health and Safety guidelines and enterprise standards are recorded.</p> <p>335.2.2 Visible hazards, indications and signs of hidden faults are detected and recorded</p> <p>335.2.3 Checklist entries are concise and accurate.</p> <p>335.2.4 Inspections undertaken in efficient and safe manner according to enterprise policy.</p> <p>335.2.5 The organisation's 'Playground Safety Management System' is implemented in line with industry standards.</p> <p>335.2.6 Specific terminology used in checklists are clarified.</p> <p>335.2.7 Tools and equipment used for testing are identified.</p>
335.3 Recommend effective rectification action	<p>335.3.1 Situations requiring urgent action are reported immediately to supervisors.</p> <p>335.3.2 Recommendations required to rectify non conformities are noted and actioned as required.</p> <p>335.3.3 An inspection report is submitted to supervisor according to enterprise policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Facilities and equipment may include playgrounds, playground softfall and pathways, play equipment, parks and street furniture and structures, fences, barbeques, steps and stairs, bollards and tree/grass protection devices, and paved, turf and/or grassed recreational areas. Visible hazards may include damaged parts, broken glass, loss of soft surfacing, protruding nails, bolts and splinters, sudden changes in surface levels such as holes and trip points, and worn, rusted and weathered components. Non-conformities may include obvious or hidden hazards, worn or damaged components such as bearings and moving joints, and structural instability, and defective operation of equipment. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p>	

A basic working knowledge of

- relevant Australian Standards such as those covering playgrounds, boardwalks, shelters, pathways, lookouts, fences (eg AS4486.1, AS4422, AS1924.1 & AS1924.2,)
- range of park facilities and equipment
- terminology used to describe different components of facilities
- different modes of non-conformity
- reporting requirements
- facility use and safety parameters
- practical elements of test and check procedures
- playground management systems (eg AS4486)
- material construction and maintenance principles.

An ability to

- prepare for operational inspection
- undertake operational inspection
- submit inspection report

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems to ensure that workers undertake OHS induction
 - systems to ensure that workers safety skills are assessed and training provided
 - systems to ensure that workers are involved in the identification and reporting of hazards to health and safety
 - systems to ensure that risks are assessed by relevant workers
 - systems to ensure that effective short term and long term OHS risk control measures are implemented
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?
 Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
 Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	2	1	1	1	1	1

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - about safety hazards and non-conformities
- **Planning & organising activities** - organising checklist and site inspections
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - scope and extent of replacement/repair of components
- **Solving problems** - operational non-conformities
- **Using technology** - such as computers, video and audio recorders

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT336 A Install cable and bracing	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of cable and bracing in a tree.</p> <p>The installation of cable and bracing is likely to be under limited supervision from others and with checking only related to overall progress. The installation of cable and bracing involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of cable and bracing is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
336.1 Plan for cable and bracing	<p>336.1.1 Cable and bracing is planned in a manner to cause minimal stress and according to compartmentalisation of decay in trees (CODIT) principles.</p> <p>336.1.2 Materials and equipment required for installation of cable and bracing are obtained with adequate lead time for the proposed work.</p> <p>336.1.3 Planning of cable and bracing is undertaken according to local and state legislative requirements.</p>
336.2 Prepare tree for cable and bracing	<p>336.2.1 Branches are examined and their vitality and integrity of attachment ascertained to ensure the bracing can be safely implemented according to the provided plan.</p> <p>336.2.2 Preliminary pruning is undertaken to aid cable and bracing installation without damage to the operator, the tree and property.</p>
336.3 Implement cable and bracing	<p>336.3.1 Planned approach to cable and bracing plan is communicated to all staff in a clear and concise manner.</p> <p>336.3.2 Cable and bracing is implemented in line with plan and enterprise standards.</p> <p>336.3.3 Completed program is assessed to ensure cable and bracing has been undertaken according to identified plan.</p> <p>336.3.4 Further pruning is carried out to ensure the tree is able to sustain its growth and is restored to its natural habit and form.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Situations may include access, utilities, space, size, risk factors, position, structures, angle, shape and condition of the tree. • Pruning program designed for a range of situations - size, light, aesthetics, competition, structure, shape, density, growth re-direction, modification of flowering/fruiting behaviour, damage, general clearances, signage, sight lines. • Trees may be present in parks, streetscapes, domestic environment, rural, confined spaces, hazardous situations. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • tree pruning techniques • tree identification • principles and applications of risk assessment in tree structure • Occupational Health & Safety (OHS) aspects of working in hazardous situations with trees • implications of cable and bracing and the way trees respond • legislative requirements 	

<p>An ability to</p> <ul style="list-style-type: none"> • plan for cable and bracing • prepare tree for cable and bracing • implement cable and bracing
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
1	1	2	2	2	2	2
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisor and members of the work team • Collecting, analysing & organising information - on the health and condition of limbs to be braced • Planning & organising activities - of self and others in the arboriculture team • Working with teams & others - to brace weakened tree limbs • Using mathematical ideas & techniques - to measure and calculate project requirements • Solving problems - of tree structures to support cables • Using technology - to brace tree limbs 						

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT337 A Install hydroponic systems	
<p>Unit Descriptor</p> <p>This unit covers the site selection, installation and commissioning of a hydroponic unit. The site selection, installation and commissioning of a hydroponic unit is usually assisted by consultants in various disciplines. The owner/operator must be able to evaluate the consultant's advice and make decisions to achieve maximum performance while considering cost effectiveness.</p> <p>The installation of a hydroponic system is likely to be under limited supervision from others with checking only related to overall progress. Installation involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Hydroponic system installation is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
337.1 Assess a site for suitability	<p>337.1.1 The physical characteristics of the proposed site are assessed in line with enterprise requirements.</p> <p>337.1.2 The proximity of markets and services is assessed to verify suit suitability.</p> <p>337.1.3 Agreement is established on type and extent of hydroponic system to be installed.</p>
337.2 Prepare for installation	<p>337.2.1 Equipment and materials for installation are arranged according to plans and manufacturers specifications.</p> <p>337.2.2 The site is cleared and prepared for installation according to enterprise guidelines.</p>
337.3 Install a hydroponic system	<p>337.3.1 Hydroponic equipment is installed according to plans and manufacturers specifications.</p> <p>337.3.2 Problems associated with installation are communicated to client and/or supervisor.</p>
337.4 Commission the site	<p>337.4.1 Hydroponic equipment is tested to ensure it is in good working order and nutrient monitoring systems are accurate.</p> <p>337.4.2 Media is installed according to enterprise standards.</p> <p>337.4.3 The hydroponic system is test run and calibrated ready for the planting of the crop.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Physical characteristics may include slope, aspect, water flow, air flow. Services may include electricity and water supplies. Media and production choices may include greenhouse technology, media, nutrient film technique (NFT) 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> site characteristics for successful commercial hydroponic culture plant and crop nutritional requirements installation methods and techniques media choices and technology <p>An ability to:</p> <ul style="list-style-type: none"> assess a site for suitability prepare for installation install a hydroponic system commission the site 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the hydroponic requirements of crops
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to install hydroponic systems
- **Using mathematical ideas & techniques** - to calculate crop and material requirements
- **Solving problems** - relating to requirements of crop and site
- **Using technology** - to install hydroponic systems

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT338 A Maintain hydroponic systems	
<p>Unit Descriptor This unit describes the maintenance of structures and systems in a hydroponic unit. Maintenance is an essential part of an efficient hydroponic system.</p> <p>Maintenance of a hydroponic system is likely to be under limited supervision from others with checking only related to overall progress. Maintenance involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Hydroponic system maintenance is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
338.1 Perform routine maintenance	<p>338.1.1 All buildings are inspected and checked for wear and tear.</p> <p>338.1.2 Minor repairs of broken or damaged cladding, doors, ducts, benches, systems are completed to enterprise standard.</p> <p>338.1.3 Significant damage is reported to supervisor and/or owner according to enterprise policy.</p> <p>338.1.4 Minor modification is carried out to structures and systems as required to maintain optimum condition.</p>
338.2 Repair hydroponic systems	<p>338.2.1 Pumps are inspected and maintained to enterprise standards.</p> <p>338.2.2 Pipes and other systems are inspected and maintained according to enterprise standards.</p> <p>338.2.3 Repairs are made as required according to enterprise standards.</p> <p>338.2.4 Unused materials are disposed of according to relevant legislation..</p>
338.3 Maintain hygiene of a hydroponic system environment	<p>338.3.1 Contaminants from other areas are monitored and removed in line with industry standards.</p> <p>338.3.2 Areas between sheds, rows and plants are kept clean (dirt free) and tidy as required by the enterprise.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Systems may include water treatment systems for re-circulating water (eg UV light), pipes, emitters, pumps, filters, connectors, pressure gauges, containers, collectors, drains, associated fixtures. • Repairs may include poly-pipe, plastic (PVC), copper, galvanised materials. • Contaminants may include dirt on boots, foreign materials, smoke, pathogens. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • use of hand tools • repair procedures for plastic and metal pipes • enterprise reporting systems <p>An ability to:</p> <ul style="list-style-type: none"> • perform routine maintenance • repair hydroponic systems • maintain hygiene of a hydroponic system environment 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: 	

- safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
- systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the hydroponic requirements of crops
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to maintain hydroponic systems
- **Using mathematical ideas & techniques** - to calculate crop requirements
- **Solving problems** - relating to requirements of crop
- **Using technology** - to maintain hydroponic systems

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT339 A Monitor hydroponic systems	
<p>Unit Descriptor This unit describes the monitoring and resulting action taken for hydroponic systems to produce prescribed plant growth.</p> <p>Maintenance of a hydroponic system is likely to be under limited supervision from others with checking only related to overall progress. Maintenance involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Hydroponic system maintenance is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
339.1 Monitor environmental parameters	<p>339.1.1 Environmental parameters are regularly assessed according to enterprise policy and practices.</p> <p>339.1.2 Supervisors are notified where potential problems are recognised in line with enterprise procedures.</p> <p>339.1.3 Assessments are recorded in the unit record according to enterprise guidelines.</p>
339.2 Monitor nutrient solution	<p>339.2.1 Properties of nutrient solution are assessed according to enterprise policy and practices.</p> <p>339.2.2 Samples are taken for testing and analysis.</p> <p>339.2.3 Comparisons are made against enterprise guidelines, published data and other relevant standards.</p> <p>339.2.4 Supervisors are notified where potential problems are recognised according to enterprise procedures.</p> <p>339.2.5 Assessments are recorded according to enterprise guidelines.</p>
339.3 Modify nutrient solution	<p>339.3.1 Modifications to nutrient solutions are made as required according to enterprise policy and practices.</p> <p>339.3.2 Analysis and actions taken are recorded according to enterprise guidelines</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Environmental parameters include temperature, light, humidity, CO₂ concentration, wind. • Properties of nutrient solution include pH, electrical conductivity, nutrient content. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • assessment and monitoring procedures • plant growth and development • nutritional requirements of specific crops under hydroponic cultivation <p>An ability to:</p> <ul style="list-style-type: none"> • monitor environmental parameters • monitor nutrient solutions • modify nutrient solutions 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts 	

- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the hydroponic requirements of crops
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to monitor hydroponic systems
- **Using mathematical ideas & techniques** - to calculate crop requirements
- **Solving problems** - relating to requirements of crop
- **Using technology** - to monitor hydroponic systems

Industry	Horticulture
Sector/s	Nursery, Parks & Gardens
RUH HRT340 A Install and maintain interior plant displays	
Unit Descriptor	
This Unit of Competency is concerned with the installation and maintenance work associated with interior plant displays in buildings and offices.	
The installation and maintenance of a interior plant displays is likely to be under limited supervision from others with checking only related to overall progress. Installation and maintenance involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Interior plant display installation and maintenance is normally done within routines, methods and procedures where some discretion and judgement is required.	
Element of Competency	Performance Criteria
340.1 Assess interior spaces prior to plantscaping	340.1.1 Access factors are assessed and recorded prior to installation. 340.1.2 Environmental factors are assessed and recorded prior to installation. 340.1.3 Growing conditions and constraints are analysed and recorded. 340.1.4 Light sources in regard to both plant growth and client requirements are noted.
340.2 Install containerised and direct planted specimens	340.2.1 Pre-installation materials, equipment, machinery and personnel required for the job are listed and scheduled according to a given plan or specifications. 340.2.2 Direct planted and containerised material are installed according to the given plan or specifications. 340.2.3 Plants are installed securely so that they are well presented, accessible for routine maintenance and conform to the plan or specifications. 340.2.4 Damaged or unnecessary material is pruned to enhance the presentation. 340.2.5 Plants are watered and fertilised as required according to enterprise policy. 340.2.6 The site is left in a clean and tidy state following installation of plants.
340.3 Maintain indoor plants	340.3.1 The symptoms of under and over-watering in indoor plants are detected by hand and with the aid of a water meter. 340.3.2 Corrective action for under and over watering is actioned according to enterprise standards. 340.3.3 The symptoms of low and high light intensity are detected using a light meter. 340.3.4 Corrective action to rectify the direction, quality and intensity of light is actioned according to plant locations. 340.3.5 The symptoms of low and high fertiliser concentration are detected and the pH of the growing medium is measured. 340.3.6 Insects, pests and diseases associated with indoor plants are detected and controlled. as required. 340.3.7 Indoor plants are regularly cleaned, trained, trimmed and pruned as part of maintenance routines. 340.3.8 Cleaning agents are selected and decorative containers are cleaned as required.
340.4 Prepare, maintain and revive indoor plants	340.4.1 The cost benefit of reviving plants is determined in line with site requirements. 340.4.2 A range of pruning techniques are used which will give plants (in baskets, on totems, as standards or braids and bonsai) the desired shape and size for a plantscape.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Access factors include time constraints, parking restrictions, stairs and level changes, watering facilities, room surface finishes, work areas, colours, lift size, equipment needed, loading bay (walls, floor, furnishings), spatial volume and room use. • Environmental factors include room temperature range, light intensity, air circulation and ventilation, 	

<p>humidity and drainage.</p> <ul style="list-style-type: none"> • Light sources include natural, incandescent, fluorescent and metal halide lights.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • physical and perceptual characters of plants • attributes of plants commonly used in interior plantscaping • indoor plant growth • light and moisture tolerance/intolerance for common indoor plant species • photosynthesis, respiration, nutrient uptake and growth rate • acclimatisation techniques for indoor plants <p>An ability to:</p> <ul style="list-style-type: none"> • assess interior spaces prior to plantscaping • install containerised and direct planted specimens • maintain indoor plants in-situ • prepare, maintain and revive indoor plants
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed?</p>

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on the design requirements of the site
- **Planning & organising activities** - of self and others to prepare a range of plant displays
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to calculate design requirements and cost project requirements
- **Solving problems** - especially of a horticultural nature
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Landscape
RUH HRT341 A Install concrete structures and features	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of concrete structures and features as a component of landscape project works.</p> <p>The installation of concrete structures and features is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of concrete structures and features is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
341.1 Set out landscape works	<p>341.1.1 The position of specified landscape features are marked out as outlined in plans and specifications.</p> <p>341.1.2 Profiles are established to conform with plan and specification details and to the tolerances designated by supervisor and/or plan details.</p> <p>341.1.3 Survey bench marks, datums and TBM are established according to plan details.</p> <p>341.1.4 On-site services and utilities are located from data provided by appropriate authorities</p> <p>341.1.5 Waste and debris is removed and unused materials are stacked to provide a safe working area.</p>
341.2 Prepare a site for concrete	<p>341.2.1 The subsoil is prepared by removing all debris, vegetable matter and top soil to provide a solid foundation for concrete.</p> <p>341.2.2 Drainage provisions are installed according to plan details.</p> <p>341.2.3 Form work is installed to site within nominated tolerances in a manner which will ensure that it remains rigid during concrete placement operations.</p> <p>341.2.4 Sub-base material is installed to site and the area is compacted to the specified level and to a consistency which will ensure that the material does not consolidate during the concrete placement.</p> <p>341.2.5 Waterproof membrane is installed to area, when required, according to manufacturers guidelines.</p> <p>341.2.6 Reinforcement is cut, placed and tied to the area according to plan details and industry standards (AS1554.3).</p> <p>341.2.7 Release agent is applied to form work according to manufacturers specifications.</p>
341.3 Mix concrete for a landscape project	<p>341.3.1 Volume of concrete required for project is calculated.</p> <p>341.3.2 Proportions for concrete mix are determined according to the strength requirements of the project.</p> <p>341.3.3 Volume of dry materials necessary to produce final concrete mix are determined.</p> <p>341.3.4 All dry ingredients are mixed together to ensure a thorough blending of all materials is achieved.</p> <p>341.3.5 Sufficient water is introduced to produce a plastic concrete mix after making allowances for damp aggregates.</p> <p>341.3.6 Equipment is cleaned on completion to ensure equipment can be immediately used when next required.</p>
341.4 Place and finish concrete	<p>341.4.1 Any faults are checked and rectified prior to placing concrete including: form work stability, reinforcement placement, screeding point positions, debris removal.</p> <p>341.4.2 Release agent is applied to form work to facilitate ease of</p>

	<p>removal when concrete has hardened.</p> <p>341.4.3 The appropriate method of transporting concrete to minimise segregation of materials is identified and used.</p> <p>341.4.4 A concrete slump test is undertaken and samples are taken for tests to check for conformity to specifications where required.</p> <p>341.4.5 Concrete is placed to designated levels in a manner to avoid segregation of materials.</p> <p>341.4.6 Concrete is consolidated using an approved vibration method to industry standard (AS3600) to ensure air pockets are eliminated.</p> <p>341.4.7 Concrete is screeded to a flat surface to maintain the desired finished level.</p> <p>341.4.8 Surface is prepared to ensure a non-slip finish.</p> <p>341.4.9 An appropriate curing agent/method is provided to ensure the concrete attains the desired strength.</p> <p>341.4.10 Equipment is cleaned on completion to ensure equipment can be immediately used when next required.</p>
341.5 Remove form work from concrete	<p>341.5.1 Form work is removed without damaging concrete surfaces in a manner which will allow for re-use of the form work.</p> <p>341.5.2 Nails are removed from form work without damage to components.</p> <p>341.5.3 All debris is cleaned from form work for next usage and all components are correctly stored and stacked in a safe manner.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Concrete structures and features may include paths, footings, edgings, floors, decking, boardwalks, ornamental garden elements. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> setting out landscape works concrete construction techniques legislation regarding footings and foundations concrete properties and characteristics hand tools and equipment use and operation <p>An ability to:</p> <ul style="list-style-type: none"> set out landscape works prepare a site for concrete mix concrete for a landscape project place and finish concrete remove form work from concrete 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> systems and procedures for the safe operation and maintenance of machinery and equipment safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> Occupational Health and Safety Act of the state Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p>	

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on the project requirements
- **Planning & organising activities** - of self and others in the construction team
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - especially site contingencies
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Landscape
RUH HRT342 A Install timber structures and features	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of timber structures and features as a component of landscape project works.</p> <p>The installation of timber structures and features is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of timber structures and features is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
342.1 Plan and prepare works	<p>342.1.1 Materials and quantities are determined from job drawings and specifications.</p> <p>342.1.2 Appropriate personal protective equipment is selected and fitted according to Occupational Health & Safety (OHS) requirements.</p> <p>342.1.3 Tools and equipment are selected and checked for serviceability according to enterprise guidelines.</p> <p>342.1.4 Materials are checked for quality to ensure they are free of defects and conform to the specification details.</p>
342.2 Set out the works	<p>342.2.1 All obstructions to the construction programs are identified and removed to ensure the works can proceed uninterrupted.</p> <p>342.2.2 Site access and storage areas are identified to ensure works can proceed in an orderly manner according to enterprise guidelines.</p> <p>342.2.3 The position of structure is marked out according to job drawing details.</p> <p>342.2.4 The structure is set out to tolerances nominated within specifications.</p> <p>342.2.5 Safety signage and barriers are erected to ensure safety of all persons within the construction area.</p> <p>342.2.6 Footings are excavated and prepared according to job drawings and specifications.</p> <p>342.2.7 Components are prepared for assembly to the design requirements contained in the job drawings and specifications.</p> <p>342.2.8 The length of components and the positions of cuts marked out if applicable to designated requirement details contained in job drawings.</p> <p>342.2.9 Material is cut accurately allowing for overhang where applicable.</p>
342.3 Assemble and erect structure	<p>342.3.1 Initial components are located into position and fixed into place according to specification details.</p> <p>342.3.2 Temporary bracing is fixed where required to maintain stability of components during construction.</p> <p>342.3.3 The remaining components are installed and fixed into position according to job drawings and specifications.</p> <p>342.3.4 All overhangs are cut off and the finished structure completed according to job drawing and specifications</p>
342.4 Apply coatings to finished structure	342.4.1 Personal protective equipment is selected and fitted according to Occupational Health & Safety (OHS)

	<p>requirements.</p> <p>342.4.2 Tools and equipment are selected and checked for serviceability in line with enterprise standards.</p> <p>342.4.3 Safety signage and barriers are set up to ensure the safety of all persons within the area.</p> <p>342.4.4 Paint cloths are placed to protect the surroundings.</p> <p>342.4.5 Preparation of all components is undertaken according to specifications and manufacturers guidelines.</p> <p>342.4.6 Paint is applied, as specified by the manufacturer, ensuring complete coverage and evenness of application.</p> <p>342.4.7 Tools and equipment are cleaned up to ensure that immediate use is possible when next required.</p> <p>342.4.8 Waste is disposed of to ensure the environment is not adversely affected according to regulatory requirements.</p>
342.5 Undertake a site commissioning	<p>342.5.1 All mechanical features are checked and adjusted to ensure that they operate according to the manufacturers specifications.</p> <p>342.5.2 Quality of finished works are inspected to ensure the standard of the finished product is according to the plans and specifications.</p>
342.6 Clean up site and store all tools and equipment	<p>342.6.1 Debris is cleaned from structure and site according to specifications details.</p> <p>342.6.2 Waste material is disposed of safely without adversely impacting upon the environment.</p> <p>342.6.3 Unused material is stored and stacked for future re-use according to job instructions.</p> <p>342.6.4 Tools and equipment are cleaned and stored according to job instructions.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Timber structures and features includes fences, pergolas, trellises, lattices, gazebos, small bridges, handrails, decking, boardwalks, screens, seats, site furniture, bollards, car barriers. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • setting out landscape works • timber construction techniques • legislation regarding construction of structures • timber properties and characteristics • hand tools and equipment use and operation <p>An ability to:</p> <ul style="list-style-type: none"> • plan and prepare works • set out the works • assemble and erect structure • apply coatings to finished structure • undertake a site commissioning • clean up site and store all tools and equipment 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures 	

- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on the project requirements
- **Planning & organising activities** - of self and others in the construction team
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - especially site contingencies
- **Using technology** - to achieve the requirements of the task

Industry Sector/s	Horticulture Landscape
RUH HRT343 A Install brick structures and features	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of brick structures and features as a component of landscape project works. The installation of brick structures and features is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of brick structures and features is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
343.1 Set out landscape works	343.1.1 The position of specified landscape features are marked out as outlined in plans and specifications. 343.1.2 Profiles are established to conform with plan and specification details and to the tolerances designated by supervisor and/or plan details. 343.1.3 Survey bench marks, datums and TBM are established according to plan details. 343.1.4 On-site services and utilities are located from data provided by appropriate authorities 343.1.5 Waste and debris is removed and unused materials are stacked to provide a safe working area.
343.2 Set out brickwork or block work for a small landscape project	343.2.1 The finished level of structure are determined according to plans and specifications. 343.2.2 Profile is set to required levels to ensure plumb and level finishes are achieved. 343.2.3 String lines are set to profiles to ensure straight and level courses are achieved.
343.3 Construct a brickwork or block work structure for a small landscape project	343.3.1 Mortar is mixed to determined ratio and appropriate admixes and colouring agents are applied to ensure plasticity of mix during laying operations. 343.3.2 Damp proofing and base course of brickwork is laid below ground level according to specifications. 343.3.3 Courses of brickwork laid using designated bond/s in a manner which will ensure the viability and stability of the structure.
343.4 Clean up brickwork and site	343.4.1 Brickwork surface are cleaned down using chemicals of sufficient strength to remove all debris without damage to the mortar and bricks. 343.4.2 Site is cleaned up and all tools and equipment are stored according to enterprise requirements. 343.4.3 Debris from structure and site is removed according to specifications details. 343.4.4 Waste material is disposed of safely without adversely impacting upon the environment. 343.4.5 Unused material is stored and stacked for future re-use according to job instructions. 343.4.6 Tools and equipment are cleaned and stored according to job instructions.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Brick and block structures include paving, paths, edging, walls, retaining walls, barriers, ornamental garden features. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> setting out landscape works brick and block construction techniques legislation regarding construction of brick and block structures properties and characteristics of bricks, blocks and associated materials hand tools and equipment use and operation <p>An ability to:</p>	

<ul style="list-style-type: none"> • set out landscape works • set out brickwork or block work for a small landscape project • construct a brickwork or block work structure for a small landscape project • clean up brickwork and site • setting or other specified setting. 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with suppliers, end users and members of the work team • Collecting, analysing & organising information - on the project requirements • Planning & organising activities - of self and others in the construction team • Working with teams & others - to complete specified works • Using mathematical ideas & techniques - to calculate and cost project requirements • Solving problems - especially site contingencies • Using technology - to achieve the requirements of the task 							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	2	2	2	2	2	2	2
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
2	2	2	2	2	2	2														

Industry	Horticulture
Sector/s	Landscape
RUH HRT344 A Install masonry structures and features	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of masonry structures and features as a component of landscape project works.</p> <p>The installation of masonry structures and features is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of masonry structures and features is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
344.1 Set out landscape	<p>344.1.1 The position of specified landscape features are marked out as outlined in plans and specifications.</p> <p>344.1.2 Profiles are established to conform with plan and specification details and to the tolerances designated by supervisor and/or plan details.</p> <p>344.1.3 Survey bench marks, datums and TBM are established according to plan details.</p> <p>344.1.4 On-site services and utilities are located from data provided by appropriate authorities.</p> <p>344.1.5 Waste and debris is removed and unused materials are stacked to provide a safe working area.</p>
344.2 Prepare site for masonry construction	<p>344.2.1 The site is prepared by removing all debris, vegetable matter and top soil to provide a solid foundation for masonry.</p> <p>344.2.2 Drainage provisions are installed according to plan details.</p> <p>344.2.3 Sub-base material is installed on site and the area compacted to the specified level and to a consistency which will ensure that the material does not consolidate during the masonry work.</p> <p>344.2.4 Irrigation and drainage systems are prepared and installed according to plans and specifications.</p>
344.3 Install masonry	<p>344.3.1 Masonry work is installed according to plans and specifications.</p> <p>344.3.2 Keystones are installed according to plans and specifications.</p> <p>344.3.3 Levels are checked regularly during construction.</p> <p>344.3.4 Site is made good at completion of works according to enterprise standards.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Masonry structures include paving, paths, edging, walls, retaining walls, barriers, ornamental garden features. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- setting out landscape works
- masonry construction techniques
- legislation regarding construction of masonry structures
- properties and characteristics of masonry materials
- hand tools and equipment use and operation

An ability to:

- set out landscape works
- prepare site for masonry construction
- install masonry

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on the project requirements
- **Planning & organising activities** - of self and others in the construction team
- **Working with teams & others** - to complete specified works

- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - especially site contingencies
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Landscape
RUH HRT345 A Install metal structures and features	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of metal structures and features as a component of landscape project works.</p> <p>The installation of metal structures and features is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of metal structures and features is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
345.1 Plan and prepare works	<p>345.1.1 Materials and quantities are determined from job drawings and specifications.</p> <p>345.1.2 Appropriate personal protective equipment is selected and fitted according to Occupational Health & Safety (OHS) requirements.</p> <p>345.1.3 Tools and equipment are selected and checked for serviceability according to enterprise guidelines.</p> <p>345.1.4 Materials are checked for quality to ensure they are free of defects and conform to the specification details.</p>
345.2 Set out the works	<p>345.2.1 All obstructions to the construction programs are identified and removed to ensure the works can proceed uninterrupted.</p> <p>345.2.2 Site access and storage areas are identified to ensure works can proceed in an orderly manner according to enterprise guidelines.</p> <p>345.2.3 The position of structure is marked out according to job drawing details.</p> <p>345.2.4 The structure is set out to tolerances nominated within specifications.</p> <p>345.2.5 Safety signage and barriers are erected to ensure safety of all persons within the construction area.</p> <p>345.2.6 Footings are excavated and prepared according to job drawings and specifications.</p> <p>345.2.7 Components are prepared for assembly to the design requirements contained in the job drawings and specifications.</p> <p>345.2.8 The length of components and the positions of cuts marked out if applicable to designated requirement details contained in job drawings.</p> <p>345.2.9 Material is cut accurately allowing for overhang where applicable.</p>
345.3 Assemble and erect structure	<p>345.3.1 Initial components are located into position and fixed into place according to specification details.</p> <p>345.3.2 Temporary bracing is fixed where required to maintain stability of components during construction.</p> <p>345.3.3 The remaining components are installed and fixed into position according to job drawings and specifications.</p> <p>345.3.4 All overhangs are cut off and the finished structure completed according to job drawing and specifications</p>
345.4 Apply coatings to finished structure	<p>345.4.1 Personal protective equipment is selected and fitted according to Occupational Health & Safety (OHS) requirements.</p> <p>345.4.2 Tools and equipment are selected and checked for serviceability.</p> <p>345.4.3 Safety signage and barriers are set up to ensure the safety of all persons within the area.</p> <p>345.4.4 Paint cloths are placed to protect the surroundings.</p> <p>345.4.5 Preparation to all components is undertaken according to specifications and manufacturers guidelines.</p> <p>345.4.6 Paint is applied, as specified by the manufacturer, ensuring complete coverage and evenness of application.</p> <p>345.4.7 Tools and equipment are cleaned up to ensure that</p>

	<p>345.4.8 immediate use is possible when next required. Waste is disposed of to ensure the environment is not adversely affected according to regulatory requirements.</p>
345.5 Undertake a site commissioning	<p>345.5.1 All mechanical features are checked and adjusted to ensure that they operate according to the manufacturers specifications.</p> <p>345.5.2 Quality of finished works are inspected to ensure the standard of the finished product is according to the plans and specifications.</p>
345.6 Clean up site and store all tools and equipment	<p>345.6.1 Debris is cleaned from structure and site according to specifications details.</p> <p>345.6.2 Waste material is disposed of safely without adversely impacting upon the environment.</p> <p>345.6.3 Unused material is stored and stacked for future re-use according to job instructions.</p> <p>345.6.4 Tools and equipment are cleaned and stored according to job instructions.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Metal structures and features includes fences, pergolas, trellises, handrails, screens, seats, site furniture, bollards, playground equipment, rubbish bins, sculptures and artworks. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • setting out landscape works • metal assembling and construction techniques • legislation regarding construction of structures • metal properties and characteristics • hand tools and equipment use and operation <p>An ability to:</p> <ul style="list-style-type: none"> • plan and prepare works • set out the works • assemble and erect structure • apply coatings to finished structure • undertake a site commissioning • clean up site and store all tools and equipment 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p>	

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Registered Training Organisation (RTO)

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on the project requirements
- **Planning & organising activities** - of self and others in the construction team
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to calculate and cost project requirements
- **Solving problems** - especially site contingencies
- **Using technology** - to achieve the requirements of the task

Industry	Horticulture
Sector/s	Landscape
RUH HRT346 A Install water features	
<p>Unit Descriptor This Unit of Competency is concerned with the installation of water features such as waterfalls, ponds, waterways and fountains.</p> <p>The installation of water features is likely to be under limited supervision from others with checking only related to overall progress. Installation involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The installation of water features is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
346.1 Plan and prepare work	346.1.1 Materials and quantities required are determined from job drawings and specifications. 346.1.2 Personal protective equipment is selected and fitted according to Occupational Health & Safety (OHS) requirements. 346.1.3 Tools and equipment are selected and checked to ensure they are suitable for the job to be undertaken. 346.1.4 Quality of materials is checked to ensure they are free of defects and conform to the specifications details. 346.1.5 The exact location and depth of excavations is determined from site plans and drawings.
346.2 Set out and prepare for construction	346.2.1 Components are located into position and fixed into place according to specification details. 346.2.2 Temporary bracings are fixed where required, to maintain stability of components during construction.
346.3 Excavate and remove soil	346.3.1 Site is excavated to the shape, depth and dimensions according to job drawings and specifications. 346.3.2 Sumps are constructed to specified levels and locations when required according to job specifications. 346.3.3 Drainage systems are constructed according to job drawings and specifications. 346.3.4 Bedding material is placed and compacted to the required finished level according to job drawings and specifications. 346.3.5 Soil and waste material is stockpiled and removed from the site according to directions.
346.4 Construct water features	346.4.1 A waterproof membrane is installed according to job drawings, specifications and manufacturers specifications. 346.4.2 All accessories to structure are installed according to job drawings and manufacturers specifications. 346.4.3 The structure is filled with water, tested for leaks and any detected leaks are repaired.
346.5 Undertake a site commissioning	346.5.1 All mechanical features are checked and adjusted to ensure they operate according to manufacturers specifications. 346.5.2 The quality of finished works is inspected to ensure the standards of the work is according to the job drawings and specifications. 346.5.3 All non-conforming items are rectified according to job drawings and specifications.
346.6 Clean up site and store all tools and equipment	346.6.1 Debris is cleaned from structure and site according to specification details. 346.6.2 Waste material is disposed of safely without adversely impacting upon the environment. 346.6.3 Unused material is stored and stacked for future re-use according to job instructions. 346.6.4 All tools and equipment are cleaned and stored according to job instructions. 346.6.5 Water is treated to remove or neutralise contaminants resulting from construction works.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Water features include waterfalls, ponds, waterways and fountains. • Accessories includes pumps, pipes, ornamental features, plant materials, timber structures, site furniture. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- setting out landscape works
- water feature construction techniques
- legislation regarding water use, recycling and safety in public places
- pumping systems and components associated with water features
- hand tools and equipment use and operation

An ability to:

- plan and prepare work
- set out and prepare for construction
- excavate and remove soil
- construct/install water features
- undertake a site commissioning
- clean up site and store all tools and equipment

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2
<ul style="list-style-type: none"> • Communicating ideas and information - with suppliers, end users and members of the work team • Collecting, analysing & organising information - on the project requirements • Planning & organising activities - of self and others in the construction team • Working with teams & others - to complete specified works • Using mathematical ideas & techniques - to calculate and cost project requirements • Solving problems - especially site contingencies • Using technology - to achieve the requirements of the task 						

Industry Sector/s	Horticulture Arboriculture
RUH HRT347 A Fell large trees	
<p>Unit Descriptor</p> <p>This Unit of Competency is concerned with the felling of large and hazardous trees. The felling of large and hazardous trees is likely to be under limited supervision from others with checking only related to overall progress. The felling of large and hazardous trees involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The felling of large and hazardous trees is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
347.1 Prepare site for tree removal	347.1.1 Trees are assessed for size, structural defects, weight distribution and canopy. 347.1.2 The fall site is assessed considering prevailing conditions, topography, clearance zone and hazards. 347.1.3 The safety requirements for operators, public and property are assessed. 347.1.4 The tools and equipment required for given removal methods are located. 347.1.5 The felling site is prepared considering tree, site and in compliance with safety assessments.
347.2 Remove branches	347.2.1 Branch weights are calculated using industry standard methods. 347.2.2 Drop zone is cleared and surrounding features/structures are protected from damage. 347.2.3 Rigging requirements for given tree/branch removal situations are identified with team members. 347.2.4 Held branches and branch sections are cut and allowed to fall into clear drop zone. 347.2.5 Lowering ropes are used to drop large and heavy branches or branch sections ensuring the weight of branches does not exceed the Safe Working Load of the equipment. 347.2.6 Ropes, hitches and knots appropriate for the rigging requirements are utilised in line with enterprise standards. 347.2.7 Anchor points for the lowering rope are rigged according to branch weight and shock loading factors. 347.2.8 Load is controlled using appropriate crainage points in line with enterprise standards. 347.2.9 Anchor points are determined and rope attached to branches according to enterprise standards. 347.2.10 Lowering of branches is controlled by friction in the rope system. 347.2.11 All branch removal techniques are performed observing safe work practices and wearing protective clothing and equipment.
347.3 Fell trees	347.3.1 A planned escape route, noting debris and other potential hazards is identified. 347.3.2 A drop zone is determined considering tree, site and safety assessments. 347.3.3 A safety lanyard and climbing spurs are used to ascend tree to perform sectional felling where required. 347.3.4 An elevated work platform vehicle (EWP) is used for access to perform sectional felling where required. 347.3.5 A directional scarf and back cut is used to cut and throw sections of a tree in line with industry recognised techniques. 347.3.6 Sections of a tree are cut and dropped using a horizontal cut and appropriate hinge wood. 347.3.7 A pull rope is used to control fall of tree sections. 347.3.8 Industry standard hitches and knots are used in rope lowering of cut tree sections.
347.4 Fell wind thrown and suspended trees	347.4.1 The hazard potential of tree to be removed is assessed. 347.4.2 Warning signs and barriers are used to isolate suspended tree or limbs. 347.4.3 Safe work practices which apply to removal of suspended

	<p>trees are applied.</p> <p>347.4.4 Tools and equipment are used according to manufacturers guidelines for safe and efficient removal of suspended trees.</p> <p>347.4.5 Hand or power winches are used to pull out suspended tree as required.</p> <p>347.4.6 The root system of a wind thrown tree lying on the ground is propped.</p> <p>347.4.7 Wind thrown tree is crosscut in correct position to reduce trunk movement.</p>
347.5 Remove branches and dispose of trunk and branches	<p>347.5.1 Felled trunks and branches are crosscut and trimmed to manoeuvrable lengths ready for disposal.</p> <p>347.5.2 The site is cleared of trunk, branches and tree debris using appropriate timber disposal equipment with safety and according to manufacturers guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Felling techniques include conventional felling, directional felling • Directional felling techniques includes cutting a scarf and making a plunge cut, making a back release leaving standard hinge depth using a falling wedge in the back cut to avoid chainsaw jamming and to assist the fall are selected to ensure trees fall into desired drop zone. • Large trees include trees that must be removed in sections, wind thrown trees, suspended trees • Equipment may include climbing and rigging equipment, elevated platform vehicles 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • appropriate safe tree removal methods based on results of tree, site and safety assessments • tools and equipment required for given removal methods • the procedures for calling emergency services to work site • the advantage of using a plunge cut and back release method • Safe Working Loads of the equipment used <p>An ability to:</p> <ul style="list-style-type: none"> • assess the site and the tree in order to assist in determining safe tree removal methods and prepare site for tree removal • use appropriate tools and equipment to perform felling techniques • apply basic rigging techniques in tree removal operations • fell medium to large sized trees using directional felling techniques • fell wind thrown and suspended trees • remove branches and dispose of trunk and branches <p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation and maintenance of machinery and equipment including chainsaws – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p>	

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on the removal technique and the limitations of the site
- **Planning & organising activities** - for work team and others
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - estimating and calculating tree and branch weights and sizes
- **Solving problems** - related to the task
- **Using technology** - such as described in range of variables

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT348 A Undertake aerial rescue	
<p>Unit Descriptor This Unit of Competency is concerned with aerial rescue where an injured or unconscious worker is safely brought to the ground from a tree or aerial lift.</p> <p>Aerial rescue is likely to be undertaken in emergency situations with little or no supervision. Aerial rescue requires discretion and judgement in the selection of equipment, organisation of rescue, and associated actions.</p>	
Element of Competency	Performance Criteria
348.1 Recognise an emergency situation	<p>348.1.1 Immediate emergency assistance is requested through fellow workers or public.</p> <p>348.1.2 Hazards associated with approaching the victim are identified and neutralised according to industry standards.</p> <p>348.1.3 Appropriate access equipment to effect rescue is identified according to enterprise standards.</p> <p>348.1.4 Tie in points identified to safely secure victim and rescuer according to enterprise standards.</p> <p>348.1.5 Victim's rope footlocked and crotched in at a position to support victim and rescuer's combined weights.</p> <p>348.1.6 The roles required of groundstaff during aerial rescue are understood and communicated clearly and concisely.</p>
348.2 Assess nature of injury	<p>348.2.1 Injuries are assessed to determine whether or not to move victim based on standard first aid procedures.</p> <p>348.2.2 Victims with possible neck or spinal injuries are supported (but not moved) and prepared for expert advice.</p> <p>348.2.3 First aid able to be performed above ground is applied as required in line with standard procedures.</p>
348.3 Lower victim to ground	<p>348.3.1 Victims ropes and saddle are checked for damage prior to lowering.</p> <p>348.3.2 Victim is lowered safely with support of rescuer.</p> <p>348.3.3 First aid is applied according to need in line with industry standard procedures.</p> <p>348.3.4 Emergency assistance is obtained as required.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Emergency assistance may include contacting ambulance, police, fire brigade or electrical company. • Hazards include electrical wires, energised trees and equipment, unstable branches or structures. • Appropriate access equipment includes climbing spikes, ropes, climbing saddle, safety lines, aerial lifts, ladders. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • first aid • safety ropes and equipment • dealing with electrical emergencies • Occupational Health & Safety (OHS) aspects of working in hazardous situations with trees <p>An ability to</p> <ul style="list-style-type: none"> • recognise an emergency situation • assess nature of injury • lower victim to ground 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems and procedures for the safe operation of rescues at height – safe manual handling systems and procedures 	

- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- systems and procedures for working in hazardous electrical environments
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
1	1	2	2	1	3	2

- **Communicating ideas and information** - with endangered person and members of the work team
- **Collecting, analysing & organising information** - on the nature of the situation and the rescue technique
- **Planning & organising activities** - for rescue team
- **Working with teams & others** - to effect a safe rescue
- **Using mathematical ideas & techniques** - to calculate loads, heights or monitor victim vital signs
- **Solving problems** - related to the situation
- **Using technology** - such as described in range of variables

Industry	Horticulture
Sector/s	Nursery
RUH HRT349 A Receive and dispatch plants	
<p>Unit Descriptor This Unit of Competency is concerned with the receiving and dispatching plants and other products.</p> <p>This type of work is likely to be under limited supervision from others with checking only related to overall progress. Receiving and dispatching involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Receiving and dispatching is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
349.1 Prepare plants for dispatch	<p>349.1.1 Orders are selected from stock batches according to order forms and collated in the dispatch area according to enterprise guidelines and sales plan.</p> <p>349.1.2 Stock presentation is finalised and accurately labelled according to enterprise marketing guidelines.</p> <p>349.1.3 All orders are thoroughly checked for correctness and prioritised according to enterprise guidelines.</p>
349.2 Receive and dispatch plants	<p>349.2.1 Incoming stock is received and stored according to enterprise guidelines and sound horticultural practice.</p> <p>349.2.2 Dispatch areas and packing goods are maintained and tidied.</p> <p>349.2.3 Shelving on trucks is organised according to enterprise standards.</p> <p>349.2.4 Contracted arrangements met according to enterprise marketing and occupational health and safety guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Incoming stock may include tubestock, propagation units, stock from quarantine, treatments, tools and equipment, seedlings, containerised and bare-rooted plants, bulbs, seeds. • Packing goods may include pallets, sleeving, plastic wrapping, boxes, trays. • Stock presentation may include sleeving for seasonal times and overall sleeving for protection during transport. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • plant presentation principles and techniques • dispatch and storage procedures • planning and organising • record keeping <p>An ability to:</p> <ul style="list-style-type: none"> • prepare plants for dispatch • receive and dispatch plants 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on orders and sales
- **Planning & organising activities** - of self and others in sales and dispatch
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to monitor stocks and sales
- **Solving problems** - of stock handling and control
- **Using technology** - to communicate with others, monitor sales and keep records

Industry	Horticulture
Sector/s	Nursery
RUH HRT350 A Provide product and service marketing support	
<p>Unit Descriptor This unit is about the transport and delivery of plants to other nurseries and the associated tasks of maintaining promotional displays.</p> <p>This type of work is likely to be under limited supervision from others with checking only related to overall progress. The provision of product and marketing support involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
350.1 Deliver plants	<p>350.1.1 Display truck and sample stock are maintained according to enterprise standards.</p> <p>350.1.2 Current stock lists are updated and maintained according to enterprise requirements.</p> <p>350.1.3 Regular delivery service is maintained according to enterprise standards.</p> <p>350.1.4 Queries regarding stock availability are answered according to enterprise guidelines and production and sales plan.</p>
350.2 Maintain off site displays	350.2.1 Off-site product displays are maintained according to enterprise marketing guidelines.
350.3 Promote sales	<p>350.3.1 Retailers are informed of available promotional literature with particular stock lines.</p> <p>350.3.2 Regular sales memos are dispatched according to enterprise marketing guidelines.</p> <p>350.3.3 Advanced lists for seasonal promotions are prepared according to enterprise marketing guidelines and production and sales plan.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Delivery may include trucks, vans, carriers. 	
B. EVIDENCE GUIDE	
<p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • plant botanical, common and trade names • labelling methods • enterprise methods for dispatch • enterprise standards for dispatch <p>An ability to:</p> <ul style="list-style-type: none"> • prepare plants for dispatch • receive and dispatch plants • deliver plants 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2

- **Communicating ideas and information** - with suppliers, end users and members of the work team
- **Collecting, analysing & organising information** - on enterprise products and services
- **Planning & organising activities** - of self and others in marketing team
- **Working with teams & others** - to complete specified works
- **Using mathematical ideas & techniques** - to monitor stocks and sales
- **Solving problems** - of delivery and promotion
- **Using technology** - to communicate with others, monitor sales and keep records

Industry Horticulture	
Sector/s Nursery	
RUH HRT351 A Sell products and services	
Unit Descriptor	
This unit is concerned with the job of selling plants, products and services in either a retail or production nursery to members of the public or the trade.	
Selling is likely to be under limited supervision from others with checking only related to overall progress. Selling involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Selling is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of services, actions.	
Element of Competency	Performance Criteria
351.1 Conduct sales	351.1.1 Selling techniques used demonstrate an understanding of sales communication according to enterprise client service guidelines. 351.1.2 Sales results are accurately monitored according to enterprise guidelines and sales plan.
351.2 Prepare quotes	351.2.1 Quotations are prepared and provided according to enterprise client service guidelines. 351.2.2 Quotations match client requirements and are costed, preserved and tendered in writing to client.
351.3 Merchandise products and services	351.3.1 Displays are erected in line with enterprise standards. 351.3.2 Existing layouts are observed for prime and problem merchandising areas and corrective action taken as required. 351.3.3 Specials areas and out of date displays are dismantled and reset according to enterprise marketing guidelines. 351.3.4 Merchandise is arranged according to enterprise marketing guidelines. 351.3.5 Labels are legible, accurate and replaced as required according to enterprise guidelines and sound horticultural practice.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Sales communication may include negotiation techniques, telephone techniques, appropriate language, conversation tone and manner. • Sales results monitoring may include achievement of sales targets, outcomes of merchandising and promotions, matching of products and services to customer needs, on-going feedback from sales activities. • Sales variables may include product range available, selling policies and procedures, range of responsibilities. • Merchandising may include enterprise policy regarding enterprise image, target market and promotional themes, sales area layout and traffic flow. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of:	
<ul style="list-style-type: none"> • plant nomenclature • principles and procedures of quoting and selling • principles of merchandising • labelling methods • enterprise methods for dispatch • enterprise standards for dispatch 	
An ability to:	
<ul style="list-style-type: none"> • prepare plants for dispatch • receive and dispatch plants 	

<ul style="list-style-type: none"> • deliver plants 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas & information</th> <th>Collecting analysing & organising information</th> <th>Planning & organising activities</th> <th>Working with teams & others</th> <th>Using mathematical ideas & techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with suppliers, customers and members of the work team • Collecting, analysing & organising information - on products and merchandising sites • Planning & organising activities - of self and others in sales team • Working with teams & others - to sell products and services • Using mathematical ideas & techniques - to monitor stocks and sales • Solving problems - of dealing with customers • Using technology - to communicate with others, monitor sales and keep records 							Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology	2	2	2	2	2	2	2
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology														
2	2	2	2	2	2	2														

Industry	Horticulture
Sector/s	Floriculture, Nursery, Parks & Gardens, Production, Turf
RUH HRT352 A Implement an integrated pest management program	
<p>Unit Descriptor This Unit of Competency is concerned with the implementation of an integrated pest management program.</p> <p>Implementation is likely to be under limited supervision from others with checking only related to overall progress. Responsibility for and limited organisation of the work of others may be involved. Implementation involves the application of horticultural knowledge with depth in some areas such as weed, pest and disease recognition and control, lifecycles of predators and hosts and plant health requirements.</p>	
Element of Competency	Performance Criteria
352.1 Identify organisms and infestations	<p>352.1.1 Beneficial organisms are identified when they occur and noted in the enterprise record.</p> <p>352.1.2 Pest organisms are identified and numbers/scope reported or recorded.</p> <p>352.1.3 Levels of pest infestations tolerated by the client or market and the IPM program are determined.</p>
352.2 Implement control measures	<p>352.2.1 Control methods are implemented according to enterprise guidelines.</p> <p>352.2.2 Correct IPM practices are employed as determined by enterprise or local industry standards or code of practice</p> <p>352.2.2 Control measures comply with relevant legislation and industry standards..</p>
352.3 Monitor control methods	<p>352.3.1 Control methods are monitored to minimise side effects to crop or environment.</p> <p>352.3.2 Effectiveness of control methods are monitored to a standard accepted by clients/markets and quality assurance program.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Control procedures may include chemical, non-chemical. Weeds may include those occurring regionally, in the state, nationally which may present a high risk and that occur in regions of similar climatic and geographic conditions. Pests and diseases may include infestations occurring regionally, occurring statewide, not occurring but identified as high risk potential problems for the industry. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> recognition of weeds, pests and diseases, predators and hosts chemical, biological and cultural control methods and treatments pest, host and predator lifecycles monitoring techniques <p>An ability to</p> <ul style="list-style-type: none"> identify organisms and infestations implement control measures monitor control methods 	

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	2	2	3	2

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on pests and diseases and treatments
- **Planning & organising activities** - of treatments and worksite activities
- **Working with teams & others** - to implement strategies
- **Using mathematical ideas & techniques** - to monitor infestation numbers/scope
- **Solving problems** - of new pests and diseases and unexpected outcomes of program
- **Using technology** - to communicate with others, monitor results and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT353 A Select chemicals and biological agents	
Unit Descriptor	
<p>This unit covers the responsibility workers have for the selection and preparation of chemicals and biological agents for others who may apply them.</p> <p>The selection of chemicals and biological agents is likely to be under limited supervision from others with checking only related to overall progress. The work involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Selection is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p> <p>This unit is equivalent to the following rural generic units and elements:</p> <ul style="list-style-type: none"> • AG2006CH <i>Determine chemicals and biological agents: Element 1 and 2</i> • AG2007CH <i>Prepare chemicals and biological agents: Element 1 and 2</i> • AG2009CH <i>Apply chemicals and biological agents: Element 1</i> 	
Element of Competency	Performance Criteria
353.1 Select appropriate chemical	353.1.1 Chemical and biological agents selected are as determined or prescribed and are consistent with user requirements.
353.2 Select application equipment	353.2.1 Application equipment appropriate to the chemicals and biological agendas and situations are selected, adjusted and calibrated to industry or enterprise standards. 353.2.2 Application methods and equipment are consistent with label specifications and health and safety regulations.
353.3 Determine chemicals appropriate to the identified problem	353.3.1 Chemicals determined are consistent with label specifications, with regard to dosage and application rates.
353.4 Determine chemicals which are consistent with user requirements and capabilities	353.4.1 Chemicals determined are cost effective and minimise environmental and human impact. 353.4.2 Phytotoxicity, compatibility and detrimental impacts to end product are also determined. 353.4.3 Most appropriate formulation is selected. 353.4.4 Weather conditions are assessed as suitable for the application of determined chemical. 353.4.5 Regulations and legislation relevant to the situation are observed
353.5 Use personal protective equipment	353.5.1 Tools, equipment and personal protective equipment appropriate to the task are selected, and used as determined by label directions, material safety data sheet or industry or enterprise standards.
353.6 Prepare application requirements	353.6.1 Mixing procedures comply with label directions and health and safety regulations are used. 353.6.2 Compatibility of products and quantity of water are determined. 353.6.3 Calculations comply with label directions.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Types of formulation may include emulsifiable concentrates, gases, baits, pellets, liquid concentrates, powder, granules, suspension concentrates. • Types of chemicals may include insecticides, herbicides, fungicides, algacides, growth regulators, growth regulators, bio-agents. • Control methods may include chemical, mechanical, biological, cultural, hygiene. 	

- Regulations may include industry codes of practice, State and Federal Acts, local government by-laws.
- Biological agents may include viruses, bacteria, fungi, nematodes, lures, pheromones.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of:

- the location and significance of information provided on a label of a horticultural chemical container
- the sources of specific information with regard to chemicals, including the Material Safety Data Sheet, State Department of Primary Industry (DPI) publications and “Peskem”
- incorporating cultural, chemical, mechanical, biological and quarantine controls
- the requirements and responsibilities in relation to relevant state legislation relating to correct storage facilities and maintenance procedures.

An ability to:

- determine chemicals appropriate to the identified problem
- determine chemicals which are consistent with user requirements and capabilities
- select appropriate chemicals and biological agents
- use personal protective equipment
- fill application equipment

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transportation and storage of chemicals
 - safe manual handling systems and procedures
 - selection, use and maintenance of relevant personal protective clothing and equipment
 - safe operation and maintenance of machinery and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed ‘Assessment Guidelines’ for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	2	2	2
<ul style="list-style-type: none"> • Communicating ideas and information - with chemical supply companies and consultants • Collecting, analysing & organising information - from chemical labels and material data safety sheets • Planning & organising activities - including control methods and monitoring procedures • Working with teams & others - at the workplace • Using mathematical ideas & techniques - in calculating dosage and application rates • Solving problems - associated with control methods and assessment of weather conditions • Using technology - spray equipment and personal protective equipment 						

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT354 A Coordinate crop harvesting	
<p>Unit Descriptor This Unit of Competency is concerned with coordinating activities associated with crop harvesting.</p> <p>Coordinating crop harvesting is likely to occur under limited supervision from others with checking only related to overall progress. Coordinating crop harvesting involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Coordinating crop harvesting is normally done within routines, methods and procedures where some discretion and judgement is required.</p>	
Element of Competency	Performance Criteria
354.1 Monitor crop quality	<p>354.1.1 The maturity of the crop is accurately determined according to industry and quality assurance specifications.</p> <p>354.1.2 Suitable weather conditions for picking are determined according to company policy and quality assurance criteria.</p> <p>354.1.3 Crop is handled according to company policy.</p> <p>354.1.4 Crop storage minimises deterioration to a standard accepted by management and markets.</p> <p>354.1.5 Crop is transported with a level of damage acceptable to management.</p> <p>354.1.6 Harvest records are maintained according to company requirements.</p>
354.2 Maintain harvest requirements	<p>354.2.1 Harvest equipment is maintained to a standard which enables smooth and trouble free harvest operations.</p> <p>354.2.2 Pickers are provided with sufficient containers to match daily needs and to prevent unnecessary interruptions.</p> <p>354.2.3 Full containers of crop are removed as soon as possible after picking to minimise deterioration to a standard acceptable to management and the market.</p>
354.3 Implement quality control	<p>354.3.1 Pickers tally is counted according to company policy.</p> <p>354.3.2 Crop picked complies with customer specifications and enterprise standard.</p> <p>354.3.3 Picking procedures meet established quality assurance criteria for the enterprise.</p>
354.4 Deliver crop to specified destination	<p>354.4.1 Crop is delivered with damage levels acceptable to industry/customers.</p> <p>354.4.2 Delivered crop reconciles with buyers records and banking records.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture</p> <ul style="list-style-type: none"> • Crops may include flowers, foliage and wild harvest plants. • Harvest equipment may include snips, knives, vehicles. • Containers may include buckets, trays. • Company policy on picking may include maturity and quality tests, quality safeguards, packaging, temperature and moisture levels for storage. • Grades of crop picked will vary on markets and will comply to industry specifications and protocols. • All operations are carried out according to Occupational Health & Safety (OHS) guidelines and policies. • Harvest records may include dates of harvest, yield, quality, weather, percentage deterioration. • Specified destination may include point of sale or to site for further treatment. • Customers may include packers, exporters, wholesalers and processors. <p>Production</p>	

<ul style="list-style-type: none"> • Harvest equipment may include ladders, power ladders, snips, knives, trucks, trailers, tractors and forklifts. • Containers may include bulk bins, trays, cartons. • Maturity of crop can be determined using Brix/acid, percentage juice, sugars, colour, size, skin pressure. • Company policy on picking may include maturity and quality tests, quality safeguards, packaging, temperature and moisture levels for storage. • Grades of crop picked will vary on markets and will comply to industry specifications and protocols. • All operations are carried out according to Occupational Health & Safety (OHS) guidelines and policies. • Harvest records may include dates of harvest, withholding periods, yield, quality, weather, % deterioration. • Potential hazards may include holes, through traffic, sprays, unsafe equipment. • Specified destination may include point of sale or to site for further treatment. • Customers may include packers, exporters, wholesalers and processors.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of:</p> <ul style="list-style-type: none"> • quality assurance programs • differentiation between the different grades of crop and protocols • State company policy and procedures • State Occupational Health & Safety (OHS) and industry wage rates • licences for use of forklifts and trucks • numeracy and literacy • market requirements <p>An ability to:</p> <ul style="list-style-type: none"> • monitor crop quality • maintain harvest requirements • implement quality control • deliver crop to specified destinations
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a</p>

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the harvesting specifications of the crop
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to harvest crops
- **Using mathematical ideas & techniques** - to calculate yields
- **Solving problems** - related to harvesting
- **Using technology** - pick, transfer, grade and store crops

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT355 A Undertake complex tree climbing	
Unit Descriptor	
This Unit of Competency is concerned with the undertaking complex tree climbing and rigging.	
Complex tree climbing and rigging is likely to be undertaken with limited supervision with general guidance on progress sought by others. Complex tree climbing and rigging requires a broad range of Level 2 skills and involves the application of underpinning knowledge with depth in some areas such as ropes and climbing hardware, tree pruning, tree removal, and complex tree operations.	
Element of Competency	Performance Criteria
355.1 Select appropriate equipment for climbing	<p>355.1.1 Ropes are selected according to industry specifications and required tree works.</p> <p>355.1.2 Ropes are assessed prior to use and damaged and faulty ropes are discarded according to enterprise standards.</p> <p>355.1.3 Appropriate climbing hardware is selected according to enterprise standards.</p> <p>355.1.4 Ropes, tools and equipment are checked, handled and maintained and stored according to safe work practices, manufacturers specifications and enterprise guidelines.</p>
355.2 Access and descend from trees in complex situations	<p>355.2.1 Potential hazards and risk are determined in line with enterprise policy.</p> <p>355.2.2 Trees are accessed in safe manner using appropriate techniques and equipment according to enterprise policy and procedures.</p> <p>355.2.3 Safe anchor points are selected according to strength and suitability requirements.</p> <p>355.2.4 Tree is descended in a controlled manner according to enterprise procedures.</p>
355.3 Undertake tree operations in complex situations	<p>355.3.1 Team members are informed of role and duties in the operation according to enterprise guidelines.</p> <p>355.3.2 Equipment, machinery and materials are prepared according to enterprise guidelines.</p> <p>355.3.3 Traffic management and safety signs and barriers are erected as required.</p> <p>355.3.4 Site is prepared and fall area is identified.</p> <p>355.3.5 Anchor points are selected and branches are lowered by appropriate rigging techniques according to safe work practices, branch weight and rope characteristics.</p> <p>355.3.6 Load is lowered in a controlled manner using appropriate crane points.</p> <p>355.3.7 Staff are communicated with during operations as required verbally and by hand signals.</p> <p>355.3.8 Debris from tree work is removed and disposed of according to enterprise guidelines and area is made good.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Complex situations includes large trees, trees in close proximity to built structures, tall clear-trunk trees, variable weather conditions. • Industry specifications for ropes may include type, dynamics, diameter, tensile strength, safe working load (SWL) and melting point. • Climbing hardware can include pulleys and blocks, shackles and carabines. • Techniques include setting false anchor points, footlocking, using climbing spikes. • Craneage includes false crotches, trunk wraps, lowering services. 	
B. EVIDENCE GUIDE	

<p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • climbing ropes, tools, equipment and hardware • correct maintenance, handling and storage of climbing hardware. • access and decent techniques for trees in complex situations. • responsibilities in respect to traffic management, safety signs and barriers. • tree operations in complex situations. <p>An ability to</p> <ul style="list-style-type: none"> • select appropriate equipment for climbing • undertake tree operations in complex situations 																				
<p>OHS issues that impact on the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – safe systems and procedures for the health and safety of workers who will be involved in complex climbing and rigging and those assisting below in respect to falling objects – safe systems and procedures for the operation of arboricultural machinery and equipment – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
2	2	2	1	1	2	2														

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT356 A Maintain an aquatic environment	
Unit Descriptor	
<p>This Unit of Competency is concerned with the maintenance of aquatic environments.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills.</p> <p>Competencies are normally applied within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
356.1 Control invasive aquatic plants	<p>356.1.1 Indigenous, ornamental and pest aquatic plants are correctly identified in specific situations.</p> <p>356.1.2 Emergent aquatic plants are controlled by physical intervention according to enterprise guidelines.</p> <p>356.1.3 Material is handled and disposed of according to enterprise guidelines.</p> <p>356.1.4 Tools are chosen appropriate to the task being undertaken, used according to guidelines, and safe working practices are employed.</p> <p>356.1.5 Site is tidied and tools and materials are stored according to enterprise guidelines.</p>
356.2 Remove gross rubbish	<p>356.2.1 Gross rubbish is removed using appropriate equipment according to enterprise guidelines.</p> <p>356.2.2 Rubbish is disposed of according to enterprise guidelines.</p> <p>356.2.3 Tools are chosen appropriate to the task being undertaken, used according to guidelines and safe working practices are employed.</p> <p>356.2.4 Site is made good and tools and materials are stored according to enterprise guidelines.</p>
356.3 Clean a pond	<p>356.3.1 Water is drained into the required place according to enterprise guidelines.</p> <p>356.3.2 Manual removal of algae and build-up material on base of water body/pond floor according to enterprise guidelines and sound environmental management.</p> <p>356.3.3 Water is returned from storage area or refilled from alternative source.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Equipment appropriate to cut leaf material from submersible plants may include aqua/marine harvester. • Equipment appropriate to trim emergent aquatic plants may include brush-cutter, shears. • Location appropriate to which to remove excess material may include compost, local dump sites. • Locations to which water may be drained include lake, storm water system, river. • Reasons for controlling invasive plants may include reducing size, prevent encroachment on other plants/features, permitting access, aesthetics. • Sources for replacement of water may include lake, town water, river. • Tools and equipment used in trimming may include waders, boats. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
<p>A basic working knowledge of</p> <ul style="list-style-type: none"> • aqua/marine harvesting equipment - care and use • identification, biology and characteristics of aquatic plants • aquatic systems ecology • relevant legislation regarding the use of chemicals near water • biology of fish and aquatic animals • wildlife habitats associated with aquatic environments • food chain and nutrient cycling in aquatic systems <p>An ability to</p> <ul style="list-style-type: none"> • control invasive aquatic plants 	

<ul style="list-style-type: none"> remove gross rubbish clean a pond 														
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects systems and procedures for the safe operation and maintenance of machinery and equipment in aquatic environments and in observing correct safety procedures in working from boats or adjacent to large bodies of water safe manual handling systems and procedures safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> Occupational Health and Safety Act of the state Regulations and/or Codes of Practice pertaining to Hazardous Substances Regulations and/or Codes of Practice pertaining to Plant 														
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>														
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology								
2	3	3	3	1	3	3								

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT357 A Implement occupational health & safety policies and guidelines	
<p>Unit Descriptor This Unit of Competency is concerned with the implementation of Occupational health and safety policies and guidelines in a horticultural workplace and/or work site.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p> <p>This unit is equivalent to the rural generic unit AG3021OH <i>Implement and monitor the farm OHS program</i></p>	
Element of Competency	Performance Criteria
357.1 Provide information to the work group	<p>357.1.1 Relevant provisions of Occupational Health & Safety (OHS) legislation, regulations and codes of practice are accurately and clearly explained to the work group.</p> <p>357.1.2 Information on the organisation's Occupational Health & Safety (OHS) policies, procedures and programs is provided in a readily accessible manner and is accurately and clearly explained to the work group.</p> <p>357.1.3 Information about identified hazards and the outcomes of risk assessment and risk control procedures is regularly provided and is accurately and clearly explained to the work group.</p>
357.2 Implement and monitor participative arrangements for the management of Occupational Health & Safety (OHS)	<p>357.2.1 Organisational procedures for consultation on Occupational Health & Safety (OHS) issues are implemented and monitored to ensure that all members of the work group have the opportunity to contribute.</p> <p>357.2.2 Issues raised through consultation are dealt with and resolved promptly or referred to the appropriate personnel for resolution according to workplace procedures for issue resolution.</p> <p>357.2.3 The outcomes of consultation over Occupational Health & Safety (OHS) issues are made known promptly to the work group.</p>
357.3 Implement and monitor the organisation's procedures for identifying hazards and assessing risks	357.3.1 Existing and potential hazards in the work area are identified and reported so that risk assessment and risk control procedures can be applied.
357.4 Implement and monitor the organisation's procedures for controlling risks	<p>357.3.2 Work procedures to control risks are implemented and adherence to them by the work group is monitored according to workplace procedures.</p> <p>357.3.3 Existing risk control measures are monitored and results reported regularly according to workplace procedures.</p> <p>357.3.4 Inadequacies in resource allocation for implementation of risk control measures are identified and reported to designated personnel.</p>

<p>357.5 Implement and monitor the organisation's procedures for providing Occupational Health & Safety (OHS) training</p>	<p>357.5.1 Occupational Health & Safety (OHS) training needs are identified accurately, specifying gaps between Occupational Health & Safety (OHS) competencies required and those held by work group members.</p> <p>357.5.2 Arrangements are made for fulfilling identified Occupational Health & Safety (OHS) training needs in both on and off-the-job training programs in consultation with relevant parties.</p>
<p>357.6 Implement and monitor the organisation's procedure for maintaining Occupational Health & Safety (OHS) records</p>	<p>357.6.1 Occupational Health & Safety (OHS) records for the work area are accurately and legibly completed according to workplace requirements for Occupational Health & Safety (OHS) records and legal requirements for the maintenance of records of occupational injury and disease.</p> <p>357.6.2 Aggregate information from the area's Occupational Health & Safety (OHS) records is used to identify hazards and monitor risk control procedures within the work area according to organisational procedures and within the scope of responsibilities and competencies.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Occupational Health & Safety (OHS) legislation may include general duty of care; requirements for the maintenance and confidentiality of records of occupational injury and disease; provision of information and training; regulations and codes of practice relating to hazards present in work area; health and safety representatives and occupational health and safety committees; issue resolution. Hazardous events may include accidents, fires and emergencies such as chemical spills or bomb scares. Procedures for dealing with them may include evacuation, chemical containment and first aid procedures. Workplace procedures for Occupational Health & Safety (OHS) may include inspection; housekeeping; consultation processes, either general or specific to Occupational Health & Safety (OHS), training and assessment; specific hazard policies and procedures; Occupational Health & Safety (OHS) information; Occupational Health & Safety (OHS) record keeping; maintenance of plant and equipment; purchasing of supplies and equipment; counselling/disciplinary processes. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> applicable Occupational Health & Safety (OHS) legislation, regulations and Codes of Practice the hierarchy of control risk assessment and control Occupational Health & Safety (OHS) record keeping <p>An ability to</p> <ul style="list-style-type: none"> provide information to the work group implement and monitor participative arrangements for the management of Occupational Health & Safety (OHS) implement and monitor the organisation's procedures for identifying hazards and assessing risks implement and monitor the organisation's procedures for controlling risks implement and monitor the organisation's procedures for providing Occupational Health & Safety (OHS) training implement and monitor the organisation's procedures for maintaining Occupational Health & Safety (OHS) records 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> OHS risk management is the basis of this unit OHS legislation, relevant regulations and codes of practice in each state 	

<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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3	3	3	3	2	3	3														

Industry	Horticulture
Sector/s	Floriculture,, Production Horticulture
RUH HRT358 A Survey soil characteristics	
<p>Unit Descriptor: This Unit of Competency is concerned with surveying soil characteristics and interpreting the results as a foundation for further horticultural operations such as nutrition programs and irrigation scheduling.</p> <p>Preparation is likely to be under limited supervision from others and with checking only related to overall progress. Surveying soil characteristics at this level involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The work is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
358.1 Determine soil characteristics by performing a soil survey	<p>358.1.1 The density and depth for a representative sampling of the area are determined in consultation with the supervisor.</p> <p>358.1.2 Holes are excavated as determined at sampling sites according to enterprise policy.</p> <p>358.1.3 Soil samples are collected for off-site assessment using recommended procedures.</p> <p>358.1.4 Information for off-site testing is labelled according to enterprise and testing agency guidelines.</p> <p>358.1.5 The physical characteristics of the soil (colour, texture, structure, depth of rootzone, depth of watertable) are determined in line with investigative requirements.</p> <p>358.1.6 The chemical characteristics of the soil (pH, salinity, carbonate content) are determined as required.</p> <p>358.1.7 Results are recorded in an established format according to enterprise guidelines.</p>
358.2 Interpret soil analysis results	<p>358.2.1 The soil types of the sample area are classified according to standards for soil classification.</p> <p>358.2.2 The acceptable soil parameters for a specified plant are determined from published data and historical records.</p> <p>358.2.3 Collected results are compared with established parameters.</p> <p>358.2.4 Soil characteristics are evaluated to determine whether they can be altered to meet plant needs.</p> <p>358.2.5 The Readily Available Water (RAW) values for irrigation sites are determined in line with industry standards.</p> <p>358.2.6 Interpreted results are mapped in an established format according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Soils may include field sites and specialist growing media. • Soil surveying equipment may include hand auger, back hoe, equipment for pH testing such as CSIRO Innoculo soil test kit or electronic pH testing device, hand held salinity/EC meter, tape measure, sample bags, plastic overlays, aerial photographs, charts and tables of soil characteristics. • Soil testing agencies may be government, commercial or private consultants. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p>	

- the value of understanding soils in horticultural production
- the physical properties of soils
- the chemical properties of soils
- the capacity of soils to provide water to plants
- the importance of organic matter in soil
- ameliorants and soil improvement

An ability to

- determine soil characteristics by performing a soil survey
- interpret soil analysis results

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
2	3	3	3	1	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - from the area to be surveyed
- **Planning & organising activities** - to achieve testing objectives
- **Working with teams & others** - as required
- **Using mathematical ideas & techniques** - to read instruments and calculate soil properties
- **Solving problems** - associated with sampling
- **Using technology** - for soil testing

Industry	Horticulture
Sector/s	Floriculture, Parks & Gardens, Nursery, Production Horticulture, Turf
RUH HRT359 A Implement a plant nutrition program	
<p>Unit Descriptor: This Unit of Competency is concerned with implementing a plant nutrition program in the horticultural industry.</p> <p>Implementing a plant nutrition program is likely to be under limited supervision from others and with checking only related to overall progress. The implementation of a plant nutrition program at this level involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. The work is normally done within a program, routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
359.1 Monitor soil pH.	<p>359.1.1 Soil pH in the field or growing media is monitored in relation to plant nutrition and in accordance with enterprise policy.</p> <p>359.1.2 Products useful in changing soil pH are identified and sourced according to enterprise policy.</p>
359.2 Determine nutritional problems in plants.	<p>359.2.1 Common nutrient deficiency and toxicity problems in plants are identified using visual methods.</p> <p>359.2.2 Supervisor and/or nutritional specialist are consulted as required to determine nutritional or toxicity problems.</p> <p>359.2.3 Soils are modified to improve soil fertility according to the enterprise nutrition program.</p>
359.3 Prepare for fertiliser use.	<p>359.3.1 The type of fertiliser for use is selected according to crop requirements, soil types and the enterprise nutrition program.</p> <p>359.3.2 Fertiliser applications are timed according to the crop growing cycle and the enterprise fertiliser calendar.</p> <p>359.3.3 Fertiliser application methods are compared in the light of types of fertiliser, crop needs and enterprise guidelines.</p> <p>359.3.4 Fertilisers are handled and stored safely, in an environmentally friendly manner and according to legislative requirements and industry guidelines.</p>
359.4 Apply specific fertilisers and rates of application.	<p>359.4.1 Fertiliser labels are read and interpreted accurately.</p> <p>359.4.2 Fertiliser and nutrient application rates are calculated.</p> <p>359.4.3 Specific fertilisers are selected based on their analysis to meet enterprise needs.</p> <p>359.4.4 Specific fertilisers are applied at the correct rate, timing and method according to the fertiliser, crop needs and enterprise guidelines.</p> <p>359.4.5 Fertiliser applications are recorded according to enterprise policy.</p> <p>359.4.6 The effects of the fertiliser program are monitored, documented and reported according to enterprise policy.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Soils may include field sites and specialist growing media. 	

<ul style="list-style-type: none"> • Soil surveying equipment may include equipment for pH testing such as CSIRO Innoculo soil test kit or electronic pH testing device, hand held salinity/EC meter, tape measure, plastic overlays, aerial photographs, charts and tables of soil characteristics. • Soil ameliorants to improve fertility may include cover crops, animal manures, gypsum, lime. • Fertilisers may include solids, liquids, gases, artificial, organic, ground applied, foliar. • Application methods may include banding, broadcasting, ripping, spraying, fertigation.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • the relationship between soil characteristics and nutrient availability to plants • macro and micro elements • nutrient cycling • sources of plant nutrients • nutrient uptake by plants • nutrient deficiency/toxicity symptoms • types and characteristics of fertilisers • soil ameliorants <p>An ability to</p> <ul style="list-style-type: none"> • monitor soil pH • determine nutritional problems in plants • prepare for fertiliser use • apply specific fertilisers and rates of application
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p>

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
2	3	3	3	1	3	3

- **Communicating ideas and information** - with supervisor and others in work team
- **Collecting, analysing & organising information** - on soil tests and physical characteristics
- **Planning & organising activities** - to implement a plant nutrition program
- **Working with teams & others** - to sample soils and apply differing nutritional regimes
- **Using mathematical ideas & techniques** - to calculate rates and quantities
- **Solving problems** - of nutrient deficiency or toxicity
- **Using technology** - to measure nutritional requirements

LEVEL

4

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT401 A Plan revegetation works	
<p>Unit Descriptor This Unit of Competency is concerned with the planning the revegetation of disturbed, degraded or remnant natural sites involving analysis of the site, plant selection and the preparation of maintenance plans. This unit is applicable to a site that incorporates indigenous and non-indigenous species.</p> <p>Planning of revegetation works is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. This unit involves the application of underpinning knowledge with depth in some areas such as plant recognition and selection, weed control principles and revegetation techniques.</p>	
Element of Competency	Performance Criteria
401.1 Analyse area	<p>401.1.1 Site is analysed for physical, historical, ecological and legal attributes.</p> <p>401.1.2 Research is conducted into local plant species, and local by-laws and restrictions.</p> <p>401.1.3 Site is analysed for biophysical factors, plant species, ecological and environmental aspects, and site modifications.</p> <p>401.1.4 Analysis results are recorded according to enterprise guidelines.</p>
401.2 Prepare a planting plan	<p>401.2.1 Plan lists plants appropriate to the site and as required by the project brief.</p> <p>401.2.2 Native and local fauna are provided for in the plant selection.</p> <p>401.2.3 Plan allows for staged implementation and development, where appropriate, according to enterprise guidelines and site requirements.</p> <p>401.2.4 The plant selection is ratified by the client and/or relevant local community groups.</p>
401.3 Outline revegetation treatments	<p>401.3.1 Revegetation treatments are selected to reflect characteristics and availability of plant materials.</p> <p>401.3.2 Revegetation treatments are selected to suit machinery, labour and material availability as required by project brief.</p> <p>401.3.3 Revegetation treatments are selected to accommodate environmental influences affecting success of revegetation works.</p>
401.4 Prepare a maintenance plan	<p>401.4.1 Ongoing plant health is provided for according to enterprise standards.</p> <p>401.4.2 Habitat and fauna corridor requirements are met according to enterprise policy.</p> <p>401.4.3 Access for future works is provided for where staged development is planned.</p> <p>401.4.4 Time-lines, schedules and required resources are clearly stated.</p> <p>401.4.5 Plan is communicated clearly to those who will undertake the ongoing management of the area and documented according to enterprise guidelines.</p> <p>401.4.6 The maintenance plan is ratified by the client and/or relevant community group.</p> <p>401.4.7 Recommendations are made in respect to maintenance of vegetation according to enterprise guidelines.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Available sources for research may include libraries, oral history, biological remains, local archives, 	

educational institutions.

- Causes of disturbance may include clearance, wildfire, erosion, drainage, animal grazing and damage.
- Environmental factors may include rainfall, sunlight, humidity, wind.
- Indigenous plant issues may include pre-existing native flora, environmental weeds.
- Local restrictions may include prohibited plant species, restricted plant species, by-laws.
- Provisions for native and local fauna may include adequate leaf litter, leaving fallen logs or standing trunks for nest sites, leaving animal “highways” undisturbed, encouraging certain insect populations, encouragement of fauna corridors, understanding of fauna habitat requirements and planning for ongoing maintenance of habitat.
- Provisions for plant health may include water, nutrition, weeds, pests and diseases control, guarding against damage by local fauna.
- Staged implementation may include gradual replacement of habitat, planting during different times, provision of access for future works.
- Revegetation treatments may include planting of containerised plants, planting of bare rooted plants, direct seeding, natural regeneration, planting of divisions, transplanting mature plants, fencing of stock and pest animals, chemical control of weeds, cultural control of weeds, biological control of weeds, retention of site debris, preparation of soil surface to suit regeneration.
- Topographical attributes may include slope, over-storey, natural and artificial watercourses, outcrops, gross modifications.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- principles of ecology
- identification and propagation techniques of native plant species
- chemical, cultural and biological weed control techniques
- control of pest animal species
- forward planning and scheduling of works
- the advantages and disadvantages of a range of revegetation treatments
- revegetation issues
- soil conservation techniques
- wildlife habitat principles
- maintenance practices associated with revegetated sites

An ability to

- survey and analyse the biophysical characteristics of a site
- plan revegetation works integrating a range of treatments
- select plants relevant to an area
- prepare a maintenance plan

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

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1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on the revegetation site and project plans
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to prepare a revegetation plan
- **Using mathematical ideas & techniques** - to collect and store data relevant to revegetation plans
- **Solving problems** - related to the vagaries of the project site
- **Using technology** - produce revegetation plan and communicate and record information

Industry	Horticulture
Sector/s	Parks and Gardens
RUH HRT402 A Design plant displays	
<p>Unit Descriptor This Unit of Competency is concerned with the design and preparation of plant displays for special occasions. This work involves the selection of plants and garden features, design of the display and implementation of works.</p> <p>The work is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the display works may be involved.</p> <p>Garden displays requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as plant recognition and selection and garden design principles.</p>	
Element of Competency	Performance Criteria
402.1 Design display	<p>402.1.1 Nature of display is determined in relation to the site and enterprise needs.</p> <p>402.1.2 Site/location is analysed for aesthetic, environmental and physical attributes.</p> <p>402.1.3 Plan is documented according to enterprise guidelines and uses common horticultural conventions.</p> <p>402.1.4 Proposal is communicated to client and agreement reached on design.</p> <p>402.1.5 Time-lines for display are understood and incorporated into the plan and the plants chosen.</p>
402.2 Organise materials	<p>402.2.1 Plant types suitable for required effect are selected.</p> <p>402.2.2 Accessories for the display are determined and arranged.</p> <p>402.2.3 Plants and display materials are inspected prior to installation to ensure required availability of quality.</p>
402.3 Supervise installation of display	<p>402.3.1 Plan is communicated clearly to those who will prepare the display.</p> <p>402.3.2 Preparation of the display and its maintenance are supervised to ensure they meet the planned outcomes.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Nature of display may include purpose, location, indoor/outdoor, size, client requirements, length of time of display, restrictions on display. • Aesthetic attributes may include sculptures, surrounding internal and/or external buildings, views and vistas. • Environmental attributes may include existing vegetation, trees, aspect, light. • Physical attributes may include existing vegetation, garden structures, pavements, water courses, water bodies, public access areas. • Plant characteristics may include variety, cultivar, colour, foliage, texture, size, longevity, portability, seasonally relevant, heritage, indigenous, exotic. • Accessories may include garden furniture, rocks, water, landscape structures and features, surface and edge treatments. • Displays may include large displays, formal occasions, large events, internal or external displays. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • garden design principles • plant selection and culture • planning and supervision of horticultural activities 	

An ability to

- design a display
- assess plant, product and treatment quality
- supervise implementation of works

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the display
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to design and install a plant display
- **Using mathematical ideas & techniques** - to produce a design
- **Solving problems** - related to requirements of the client and limitations of the site
- **Using technology** - design plant displays and communicate information

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT403 A Source information	
Unit Descriptor This Unit of Competency is concerned with the sourcing, evaluation and collating of relevant information. Information sourcing is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Sourcing information requires a broad range of Level 3 skills.	
Element of Competency	Performance Criteria
403.1 Obtain information	403.1.1 Information needs are clearly defined in line with enterprise requirements. 403.1.2 Information sources are identified in line with defined needs. 403.1.3 Information is researched using appropriate methods and technologies. 403.1.4 Sources of information are regularly reviewed for usefulness, reliability and cost. 403.1.5 Channels and sources of information are used effectively. 403.1.6 Opportunities are taken to establish and maintain contacts with those who may provide useful information.
403.2 Evaluate information	403.2.1 Information collected is relevant and sufficient to meet enterprise needs. 403.2.2 Where information is unclear or difficult to understand, clarification and assistance is sought. 403.2.3 Where available information is inadequate, additional information is obtained. 403.2.4 Information is assessed for its validity and reliability and is organised into a suitable form to aid decision making. 403.2.5 Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence.
403.3 Record and store information	403.3.1 Information recorded is accurate, complete and legible. 403.3.2 Information is recorded and stored using accepted formats, systems and procedures and can be retrieved promptly when required. 403.3.3 New methods of recording and storing information are suggested or introduced as needed.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Sources of information may include published books, academic reports, industry reports, colleagues, computer software, internet, newspapers, journals, industry publications, industry specialists and experts. • Recording techniques includes written, audio, video, computers. • Methods of information storage may include hard copy files, electronic databases, and library collections. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> • information sources including internet 	

<ul style="list-style-type: none"> information recording techniques information storage methods <p>An ability to</p> <ul style="list-style-type: none"> obtain information evaluate information record and store information 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Not applicable. 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>1</td> <td>1</td> <td>-</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Communicating ideas and information - with suppliers, consultants, specialists, trainers and others Collecting, analysing & organising information - from a variety of sources Planning & organising activities - of self and others involved in the sourcing of information Working with teams & others - to obtain the required information Using mathematical ideas & techniques - Solving problems - related to sourcing and analysing complex information Using technology - obtain, store, retrieve and communicate information 							Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	1	1	-	3	3
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3	3	1	1	-	3	3														

Industry	Horticulture
Sector/s and	Arboriculture, Parks and Gardens
RUH HRT404 A Plan a tree planting program	
<p>Unit Descriptor This Unit of Competency is concerned with the planning and development of a tree planting program.</p> <p>Planning is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the tree planting works may be involved. Planning tree planting programs requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as plant selection and tree planting techniques.</p>	
Element of Competency	Performance Criteria
404.1 Determine planting program requirements	<p>404.1.1 Planting concept is developed in accordance with client needs.</p> <p>404.1.2 Site assessment is undertaken to determine the most appropriate method of tree establishment and species according to the site environmental factors.</p> <p>404.1.3 Suggested species and genus list is produced best suited to the identified environment and the needs of the client.</p> <p>404.1.4 Planting and preparation time frame is identified in line with the needs of the species and the site conditions.</p> <p>404.1.5 Cost of proposed plan is developed in line with clients budget outline.</p>
404.2 Prepare tree planting plans and specifications	<p>404.2.1 Scaled site plan is produced which can be readily interpreted and understood by on-site personnel according to enterprise standards.</p> <p>404.2.2 Detailed specifications are produced identifying the on site procedures necessary for the establishment and on going viability of the planting program.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Sites may include coastal, parkland, urban, road reserve, rural, domestic, streetscape, low lying, compacted, toxic. • Equipment may include tractors and associated implements, spraying equipment, hand tools. • Establishment factors may include aspect, topography, soil types, fertility; soil condition, irrigation, drainage, space, cost, usage, planting time, aeration, planting stock types, weed control. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • tree selection • soils and nutritional requirements of trees for given situations • principles and methods of selecting species suitable to the site environment • methods of analysing soil conditions • maintenance requirements of trees prior to and after initial establishment • project planning and costing • preparation of plans, and planting specifications. <p>An ability to</p> <ul style="list-style-type: none"> • select trees appropriate for given site conditions • develop tree planting plans and specifications • cost labour and materials and equipment required in tree planting programs. 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	2	3	3	2

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s and	Arboriculture, Parks and Gardens
RUH HRT405 A Develop a tree pruning program	
<p>Unit Descriptor This Unit of Competency is concerned with the planning and development of a tree pruning program and the monitoring of program implementation.</p> <p>The development is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the pruning program may be involved.</p> <p>Planning tree planting programs requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as plant identification and tree pruning techniques.</p>	
Element of Competency	Performance Criteria
405.1 Undertake site assessment	<p>405.1.1 Trees are assessed to determine suitability for pruning based upon the overall health and vigour of the specimen.</p> <p>405.1.2 Specific species are identified and their fruiting, flowering and foliage characteristics recorded according to enterprise guidelines.</p> <p>405.1.3 Site conditions are assessed for equipment, personnel and access requirements to ensure the pruning program can be safely implemented according to the needs of the client and Occupational Health & Safety (OHS) principles.</p>
405.2 Prepare a pruning program	<p>405.2.1 Branches are examined and their vitality and integrity of attachment ascertained to ensure the program can be safely implemented.</p> <p>405.2.2 Pruning strategies are developed with regard to mass energy ratios to ensure pruning is undertaken without damage to the operator, the tree and property.</p> <p>405.2.3 Pruning plan is developed which causes minimum stress and according to compartmentalisation of decay in trees (CODIT) principles.</p>
405.3 Monitor pruning program	<p>405.3.1 Completed program is assessed to ensure pruning has been undertaken according to identified plan.</p> <p>405.3.2 Any pruning which causes stress is rectified to ensure the tree is able to sustain its growth and is restored to its natural habit and form.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Situations may include access, utilities, space, size, risk factors, position, structures, angle, shape and condition of the tree. • Pruning program designed for a range of situations - size, light, aesthetics, competition, structure, shape, density, growth re-direction, modification of flowering/fruiting behaviour, damage, general clearances, signage, sight lines. • Trees may be present in parks, streetscapes, domestic environment, rural, confined spaces, hazardous situations. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • tree pruning techniques • principles and applications of risk assessment in tree structure • Occupational Health & Safety (OHS) aspects of tree pruning, working in hazardous situations and handling of debris • implications of pruning cuts and the way trees respond • tree morphological and physiological processes 	

An ability to

- undertake a site assessment
- determine a pruning program
- monitor pruning program

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
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C. ASSESSMENT GUIDE

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1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT406 A Plan the removal of trees	
<p>Unit Descriptor This Unit of Competency is concerned with planning for the removal of large trees.</p> <p>Planning is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the removal of trees may be involved.</p> <p>Planning tree removal requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as advanced tree felling techniques.</p>	
Element of Competency	Performance Criteria
406.1 Undertake a site assessment	<p>406.1.1 Site assessment is undertaken and all equipment and personnel required to safely remove trees are identified and recorded according to enterprise guidelines.</p> <p>406.1.2 Access provisions of site are identified to ensure all on site vehicles and equipment can be accommodated.</p> <p>406.1.3 All relevant tree and site measurements are calculated to ensure tree removal can be undertaken in a safe and efficient manner according to enterprise guidelines.</p>
406.2 Evaluate risk factors of tree access	<p>406.2.1 Branches and stems are checked for their viability to sustain the climber and the material to be removed.</p> <p>406.2.2 Suitable alternatives are identified when condition of tree would be hazardous to a climber.</p>
406.3 Develop a removal program	<p>406.3.1 Program is documented which specifies equipment requirement, access and removal details, personnel requirements, safety issues and process to be employed according to enterprise guidelines.</p> <p>406.3.2 Costing details are developed according to historical data, industry practice and enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Removal method may be one of or a combination of the following methods: sectioning, felling, slashing, burning, chemical destruction. Equipment may include cranes, EWP, ropes, climbing harness, ropes, chainsaws. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> methods of felling using specialised techniques and timber disposal and their applications potential hazards and methods of minimising risk equipment and safety clothing for felling operations felling considerations in relation to type, condition, position and location of tree statutory requirements relating to felling trees <p>An ability to</p> <ul style="list-style-type: none"> undertake a site assessment evaluate risk factors of tree access develop a removal program 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: 	

- safe manual handling systems and procedures
- safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT407 A Plan a tree transplanting program	
<p>Unit Descriptor This Unit of Competency is concerned with planning for the transplanting of large trees and supervision of the transplanting operation.</p> <p>Planning is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the tree transplanting works may be involved.</p> <p>Planning tree transplanting programs requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as large tree transplanting techniques.</p>	
Element of Competency	Performance Criteria
407.1 Undertake a site assessment	<p>407.1.1 Trees are assessed for viability for transplanting and unsuitable specimens categorised according to species characteristics and historical data.</p> <p>407.1.2 Access is determined to ensure all plant and equipment can be safely utilised on site according to enterprise Occupational Health & Safety (OHS) guidelines.</p>
407.2 Determine transplanting requirements	<p>407.2.1 Root ball preparation is determined according to the requirement of the species and the specific specimen.</p> <p>407.2.2 Root ball and tree mass is calculated to determine appropriate lifting and transport requirements.</p> <p>407.2.3 Crown reduction tasks are determined according to species, size and time of year.</p> <p>407.2.4 Implementation tasks are defined, documented and communicated to relevant personnel according to enterprise guidelines.</p>
407.3 Coordinate the activities of regulatory authorities and sub contractors	<p>407.3.1 Work schedule is developed which defines requirements of on site contractors, staff and resources needed to achieve the contracted schedule.</p> <p>407.3.2 Regulatory authorities and utility supply bodies are notified where necessary during lifting and transportation operations.</p>
407.4 Plan lifting, transport and replanting	<p>407.4.1 On site supervision is planned to ensure trees are prepared, lifted, transported and planted with minimum shock.</p> <p>407.4.2 A transport route which is practicable and safe is identified having regard to the size and shape of the tree.</p> <p>407.4.3 Regulatory authorities and utility supply bodies are coordinated when access is impeded during transport</p>
407.5 Plan aftercare and maintenance program.	<p>407.5.1 After care plan outlines required monitoring frequency and methods according to enterprise standards.</p> <p>407.5.2 Maintenance tasks are defined, documented and communicated to relevant personnel according to enterprise guidelines</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Planning program incorporates species, funds, equipment, time of year, value/rarity, aftercare requirements, method, time required to undertake project. • Equipment may include hand tools, tree frames, lifting chains, trucks, cranes. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p>	

A basic working knowledge of

- current practices and techniques in tree preparation, lifting, transportation and replanting
- causes of stress in trees resulting from transplanting
- safety procedures and potential hazards associated with transplanting trees
- requirements for securing and signing trees on road vehicles

An ability to

- undertake a site analysis
- determine transplanting requirements
- coordinate the activities of regulatory authorities and sub-contractors
- plan lifting, transport and replanting
- plan aftercare and maintenance programs

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT408 A Plan a tree protection program	
<p>Unit Descriptor This Unit of Competency is concerned with planning for and monitoring the protection of trees at sites where there may be physical and/or chemical threats to tree health and vigour.</p> <p>Planning is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the tree protection works may be involved.</p> <p>Planning tree protection programs requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as specialist tree protection techniques.</p>	
Element of Competency	Performance Criteria
408.1 Undertake a site assessment	<p>408.1.1 All potential risks to trees are identified and noted according to enterprise guidelines.</p> <p>408.1.2 Tree locations are plotted onto working drawings to enable their identification by on-site staff.</p>
408.2 Determine the requirements of a protection program	<p>408.2.1 Length of protection program is determined and all resources necessary for the program are accurately estimated and recorded according to enterprise guidelines.</p> <p>408.2.2 Protection devices are designed and/or nominated to ensure the trees do not sustain damage for the duration of the program relative to the species, risk factor and intended use of the area.</p> <p>408.2.3 Installation and construction methods are determined and working drawings produced to ensure on site personnel can implement program.</p>
408.3 Assess and modify a protection program	<p>408.3.1 Protection program is monitored to ensure trees are protected according to contractual terms and conditions.</p> <p>408.3.2 Alternative strategies are identified and implemented when malfunctions are evident in protection program.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Risks may include construction, associated engineering operations, vandals, animals, pollutants, mechanical damage, chemicals. • Protection devices include tree guards, root barriers, other plantings, soil covering, traffic re-direction, barriers, bunting and flagging, temporary fencing, bollards, vehicle barriers. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • effects on trees of permanent and temporary changes in their environment • principles and techniques relating to the choice and implementation of protection programs • principles of designing customised protection devices • effects of pollutants, vandalism, mechanical damage, physiological attack to trees • principles and methods of mechanical and chemical damage control • principles and methods relating to protecting trees from human activities <p>An ability to</p> <ul style="list-style-type: none"> • undertake a site assessment • determine the requirements of a protection program • assess and modify a protection program 	

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s	Nursery
RUH HRT409 A Supervise sales	
<p>Unit Descriptor This Unit of Competency is concerned with the supervision of sales and handling of customer complaints in both the retail and/or production sectors of the Nursery industry.</p> <p>The work is likely to be undertaken without supervision and with only general guidance on progress sought by higher management. Responsibility for and limited organisation of the work of others involved in the sales may be involved. Supervising sales requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as dealing with customers, and training and supervision skills.</p>	
Element of Competency	Performance Criteria
409.1 Supervise point of sale and cash handling procedures	<p>409.1.1 Daily sales are counted and reconciled according to enterprise policy and cash security procedures.</p> <p>409.1.2 Enterprise policies are implemented in regard to selling behaviours of staff and variations to standard sales procedures are authorised according to enterprise guidelines.</p>
409.2 Resolve customer complaints	<p>409.2.1 Complaints are always handled sensitively, courteously and with discretion in line with enterprise policy.</p> <p>409.2.2 A positive attitude to problem resolution is conveyed to the customer, the nature of the complaint is established and agreed with the customer and appropriate action is taken to resolve the complaint to the customer's satisfaction.</p> <p>409.2.3 Where appropriate, industry recognised negotiating techniques are used to turn complaints into opportunities and demonstrate high quality customer service.</p> <p>409.2.4 Documentation is completed accurately and legibly within designated time constraints.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Variations to standard sales procedures may include refunds, product return. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> techniques for successful selling mathematical techniques used to calculate size, dimension, quantities and volume preparation of written quotations dealing with difficult customers counting and reconciliation of daily sales supervision of sales staff <p>An ability to</p> <ul style="list-style-type: none"> supervise point-of-sale and cash handling procedures resolve customer complaints supervise sales staff reconcile daily sales 	
<p>OHS issues that impact on the performance of this unit</p> <ul style="list-style-type: none"> Not applicable 	
C. ASSESSMENT GUIDE	

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the sales program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s	Floriculture, Nursery, Production
RUH HRT410 A Implement a soil preparation program	
<p>Unit Descriptor This Unit of Competency is concerned with the preparation of field soils for selected crops.</p> <p>Implementation of a media preparation program is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in soil preparation may be involved.</p> <p>Implementing soil preparation programs requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as crop nutrition requirements, soils and other growing media properties.</p>	
Element of Competency	Performance Criteria
410.1 Determine the texture and structure of soil	<p>410.1.1 Requirements of a soil test are determined from requirements of species, climatic conditions, prevailing soil conditions and industry practice.</p> <p>410.1.2 Soil testing program is developed which defines field testing activities, task responsibilities, involvement of contractors and desired information outcomes.</p> <p>410.1.3 Testing tasks are monitored and liaison procedures with outside testing bodies are supervised and remedial action is taken where necessary.</p>
410.2 Prepare a soil nutrition plan	<p>410.2.1 Additives required are determined from soil tests and species requirements.</p> <p>410.2.2 Seasonal issues are determined from published data on species, historical records, industry practice and enterprise policy.</p> <p>410.2.3 Crop nutrition plan is developed to achieve appropriate plant condition, and responds to different nutrition requirements during a range of conditions over the growing cycle of the crop.</p>
410.3 Prepare a soil preparation program	<p>410.3.1 Requirements of soil preparation are determined from needs of species, enterprise policy and industry practice.</p> <p>410.3.2 Program specifies timing, techniques, methods, soil conditions required, resources, cost elements and implementation tasks.</p> <p>410.3.3 Program is documented according to enterprise policy.</p>
410.4 Monitor the preparation of field soils	<p>410.4.1 Soil testing, treatment and preparation program are monitored to ensure requirements of production plan are achieved.</p> <p>410.4.2 Costs are monitored against the requirements of the production and business plans.</p> <p>410.4.3 Conditions likely to impact business viability are identified, options documented and recommendations presented to management.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Soils may include field soils in existing cropped areas and new areas to be cropped. • Range of condition effecting crop nutrition may include weather, seasonal influences, soil characteristics. • Soil preparation may include cultivation, seed bed preparation, incorporation of additives, sterilisation and other treatments. • Crops includes fruits, seedlings, vegetables, nuts, ornamental, flowers, foliage, seeds and essential oils. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- characteristics of soil types, uses and additives for specific crops
- aspects of soil texture, influences and variations
- nutritional requirements for specific crops.

An ability to

- determine the texture and structure of soil
- prepare a soil nutrition plan
- prepare a soil preparation program
- monitor the preparation of field soils

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant
 -

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with manager and members of the work team • Collecting, analysing & organising information - on the properties and characteristics of soils • Planning & organising activities - of self and others • Working with teams & others - to achieve the requirements of the task • Using mathematical ideas & techniques - to calculate quantities and costs • Solving problems - related to soil and nutrition requirements • Using technology - store and communicate information 						

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT411 A Supervise crop harvesting	
<p>Unit Descriptor This Unit of Competency is concerned with the supervision of crop harvesting activities.</p> <p>Harvest supervision is likely to be undertaken with only general guidance on progress sought by managers. Responsibility for and limited organisation of the work of others involved in the harvesting may be involved.</p> <p>Harvest supervision requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as enterprise quality programs, crop maturity and product quality, training seasonal workers, market requirements, postharvest procedures.</p>	
Element of Competency	Performance Criteria
411.1 Assess a crop for special requirements	411.1.1 Assessment reflects comprehensive analysis of crop being assessed against marketing plan, customer requirements and enterprise policy.
411.2 Supervise harvesting operations	411.2.1 Operational guidelines to achieve desired harvesting objectives are planned and communicated effectively. 411.2.2 Harvesting activities are supervised and monitored to ensure consistency with customer requirements and enterprise policy.
411.3 Supervise grading of crop	411.3.1 Grading requirements of the production plan, marketing plan and specific needs of customer are identified, and the implication for individual crops are defined. 411.3.2 Operational guidelines to achieve desired grading objectives are planned and communicated effectively. 411.3.3 The grading process is monitored and remedial action undertaken where necessary.
411.4 Coordinate storage facilities	411.4.1 Storage requirements are identified from the production plan, species requirements and customer needs. 411.4.2 Storage facilities are scheduled and priorities identified for the production cycle and plans communicated. 411.4.3 Storage and warehouse capacity of the enterprise are monitored and remedial action is taken where production capability is at risk. 411.4.4 Conditions likely to impact on business viability are identified, options documented and recommendations presented to management.
<p>A. RANGE OF VARIABLES</p> <p>Floriculture</p> <ul style="list-style-type: none"> Plant products may include flowers, foliage, bulbs, oils. Special requirements may include export, special events (for example Easter, Mothers Day). <p>Production</p> <ul style="list-style-type: none"> Plant products may include fruit, vegetables, herbs, mushrooms, nuts. <p>Special requirements may include specific stages of crop maturity, particular picking or processing treatments, special occasions.</p>	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> harvesting principles and practices for specific crops quality management principles in crop harvesting, grading and processing storage, warehousing and distribution of plant products 	

<p>An ability to</p> <ul style="list-style-type: none"> • assess a crop for special requirements • supervise harvesting activities • supervise grading of crop • coordinate storage facilities
<p>OHS issues that impact on the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with manager and members of the work team • Collecting, analysing & organising information - on the harvesting specifications of the crop • Planning & organising activities - of self and others • Working with teams & others - to harvest crops 						

- **Using mathematical ideas & techniques** - to calculate yields
- **Solving problems** - related to harvesting
- **Using technology** - pick, transfer, grade and store crops

Industry	Horticulture
Sector/s	Floriculture, Nursery, Parks & Gardens, Production, Turf

RUH HRT412 A Develop an integrated pest management program

Unit Descriptor

This Unit of Competency is concerned with the development of an integrated pest management program.

The development of an integrated pest management program is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for and limited organisation of the work of others involved in an integrated pest management program may be involved.

Developing an integrated pest management program requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as weed, pest and disease recognition and control, life cycles of predator and host, and crop health requirements.

Element of Competency	Performance Criteria
412.1 Assess weed, pest and disease infestations	412.1.1 Symptoms of weed, pest and disease infestation are identified in response to client needs. 412.1.2 Weed, pest and disease relationships and vectors are defined as key factors in program development. 412.1.3 Size and scope of infestation are assessed. 412.1.4 Business implications and urgency of action required are assessed according to published data and enterprise policy. 412.1.5 Conditions likely to impact on business viability are reported to management.
412.2 Plan appropriate integrated treatments for weeds, pests and diseases	412.2.1 Treatments selected include chemical and/or non-chemical in line with enterprise practice. 412.2.2 Integrated application of treatments is clearly outlined in planning documentation. 412.2.3 Treatments are chosen which provide a suitable response to infestations having regard to cost of damage, cost of infestation, marketing requirements, withholding periods and sustainable horticultural practices. 412.2.4 Professional assistance is sought as required.
412.3 Implement weed, pest and disease control measures	412.3.1 Control procedures reflect sound implementation of Integrated Pest Management strategy, marketing objectives and business imperatives. 412.3.2 Prevention program is monitored and remedial action is undertaken where necessary. 412.3.3 Control procedures are monitored and remedial action is undertaken where necessary.

A. RANGE OF VARIABLES

- Control procedures may include chemical, non-chemical.
- Weeds may include those occurring regionally, in the state and nationally which may present a high risk and that occur in regions of similar climatic and geographic conditions.
- Pests and diseases may include infestations occurring regionally, occurring statewide, not occurring but identified as high risk potential problems for the industry.

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • the concept and principles of Integrated Pest Management • weeds and pests of specific horticultural enterprises • the integration of weed, pest and disease control measures • sustainable horticultural practices • cost/benefit analysis relevant to selection of weed, pest and disease control measures • application techniques for chemical and non-chemical treatments • ecological impacts of different control treatments • crop and plant scouting and monitoring • lifecycles of hosts, predators and pests and diseases <p>An ability to</p> <ul style="list-style-type: none"> • assess weed, pest and disease infestations • implement weed, pest and disease control measures • plan appropriate integrated treatments for weeds, pests and diseases 																				
<p>OHS issues that impact on the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for storage, handling and transportation of hazardous substances, chemicals selected taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor</p> <p>Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment</p> <p>These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed?</p> <p>Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit</p> <p>Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>2</td> <td>3</td> <td>2</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with manager, consultants and members of the work team • Collecting, analysing & organising information - on pest control and management • Planning & organising activities - for scouting, sampling and collecting data • Working with teams & others - to complete pest management programs • Using mathematical ideas & techniques - to calculate infestation rates 							Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	3	3	2	3	2
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	2	3	2														

- **Solving problems** - related to crop or plant protection
- **Using technology** - measure infestations and apply treatments

Industry	Horticulture
Sector/s	Nursery
RUH HRT413 A Supervise nursery plant production	
<p>Unit Descriptor This Unit of Competency is concerned with the supervision of nursery plant production in production nurseries or in horticultural enterprises involved in the growing of horticultural crops.</p> <p>The production of plants is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for and limited organisation of the work of others involved in the production of plants.</p> <p>The work requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as supervision, quality assessment, production scheduling and crop requirements such as growing media, fertiliser and water requirements.</p>	
Element of Competency	Performance Criteria
413.1 Supervise growing-on of plants	<p>413.1.1 Growing media is selected according to enterprise guidelines and plant needs.</p> <p>413.1.2 Environmental parameters are selected and altered to meet plant needs, the enterprise and the production/sales plan.</p> <p>413.1.3 Planting depth and application of water is according to sound horticultural practice and production/sales plan.</p> <p>413.1.4 All growing-on and treatment processes and hygiene practices are carried out according to production/sales plan and enterprise policy.</p> <p>413.1.5 Staff are given clear directions concerning growing-on processes and treatments according to enterprise policy.</p>
413.2 Oversee and monitor plant maintenance	<p>413.2.1 Growing plant is monitored for quality according to published data and historical records.</p> <p>413.2.2 Treatment is modified as required for optimum growth according to enterprise guidelines.</p> <p>413.2.3 Growing plants are located to ensure that light and spacing requirements are according to plant needs and enterprise guidelines.</p>
413.3 Prepare plants for dispatch	<p>413.3.1 Plants are prepared for dispatch in line with crop development and production/sales plan.</p> <p>413.3.2 Poor quality plants are dealt with according to enterprise policy.</p> <p>413.3.3 Plants are appropriately packed with accurate labels for dispatch in the quantity determined by the production/sales plan.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture</p> <ul style="list-style-type: none"> • Dispatch refers to the preparation and delivery of plants for flower, foliage, oil or associated horticultural production. • Nursery plants may include seedlings, bulbs, divisions flowering plants, foliage plants, grafted plants, tissue culture plants, stock plants. • Environmental parameters may include light, temperature, humidity, airflow. • Media can include soil, soil-less mixes, water (hydroponics). • Further treatments while plants are growing may include growth retardants, fertiliser, staking, formative pruning. <p>Nursery</p> <ul style="list-style-type: none"> • Dispatch refers to the preparation and delivery of plants to retailers or consumers. • Nursery plants may include seedlings, bulbs, divisions, containerised plants, field grown plants, flowering plants, foliage plants, grafted plants, tissue culture plants, stock plants. • Environmental parameters may include light, temperature, humidity, airflow. 	

- Elements for potting-up planning may include pots are on-site, media is ready, plants are on-site, media is ready, growing-site is ready to receive newly potted plants.
- Media can include soil, soil-less mixes, water (hydroponics).
- Further treatments while plants are growing may include growth retardants, fertiliser, staking, formative pruning.
- Stage required for sale may include healthy foliage, size determined by the marketing plan, coming into bud, pots unbroken.

Production

- Dispatch refers to the preparation and delivery of plants for fruit, vegetable, nut or associated horticultural production.
- Nursery plants may include seedlings, bulbs, divisions, flowering plants, foliage plants, grafted plants, tissue culture plants, stock plants.
- Environmental parameters may include light, temperature, humidity, airflow.
- Media can include soil, soil-less mixes, water (hydroponics).
- Further treatments while plants are growing may include growth retardants, fertiliser, staking, formative pruning.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- optimal growing requirements of nursery plants
- staff supervision
- quality standards of production
- packing, dispatch and handling techniques of specific plants

An ability to

- supervise growing-on of plants
- oversee and monitor plant maintenance
- prepare plants for dispatch
- and skills has been integrated and applied in a workplace setting or other specified setting.

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - safe systems and procedures to reduce conditions that suit bacterial diseases such as *Legionella*.
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor
 Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment
 These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
 Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit
 Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	1	3	3

- **Communicating ideas and information** - with manager and members of the work team
- **Collecting, analysing & organising information** - on production requirements
- **Planning & organising activities** - of self and others in production team
- **Working with teams & others** - to effectively supervise daily plant production
- **Using mathematical ideas & techniques** - to calculate productivity
- **Solving problems** - related to supply of materials and placement of products
- **Using technology** - store and communicate data

Industry	Horticulture
Sector/s	Nursery
RUH HRT414 A Implement a promotional program	
<p>Unit Descriptor This Unit of Competency is concerned with the development and implementation of a promotional program for a horticultural enterprise.</p> <p>Promotion of plants, products and services is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for and limited organisation of the work of others involved in promotion may also be involved.</p> <p>The work requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as pricing, merchandising and the preparation of promotional displays.</p>	
Element of Competency	Performance Criteria
414.1 Plan sales strategy and presentation	<p>414.1.1 Assessment checks are developed and implemented and take account of all areas of operational need and external influencing factors according to enterprise guidelines.</p> <p>414.1.2 Presentation layout standards are defined and communicated to all staff according to enterprise marketing guidelines.</p> <p>414.1.3 Improvements are identified and communicated to relevant personnel and action is taken according to enterprise marketing guidelines.</p>
414.2 Present and maintain enterprise image	<p>414.2.1 Supplies for cleaning and related consumable materials are managed according to enterprise guidelines.</p> <p>414.2.2 Routines for cleaning and tidying, removal of unsold/damaged items and removal of packing materials are planned and delegated according to enterprise guidelines.</p>
414.3 Organise and evaluate merchandise presentation	<p>414.3.1 Presentation standards and methods are discussed with enterprise management and merchandise presentation and displays are coordinated according to enterprise marketing plan.</p> <p>414.3.2 Displays are visually balanced and signage and ticketing are implemented for greatest effect and impact according to enterprise marketing plan.</p> <p>414.3.3 Merchandise presentation, signage and ticketing is evaluated against items, sales turnover and enterprise standards.</p> <p>414.3.4 Pricing information and changes are made available to relevant personnel in accordance with enterprise guidelines.</p>
414.4 Implement client service standards policy	<p>414.4.1 Service standards and response to customer complaints are monitored and advice given where required to maintain service at the enterprise standard.</p> <p>414.4.2 Product knowledge is researched and communicated to staff according to enterprise guidelines and sound business practice.</p> <p>414.4.3 Enterprise trading practices on the selling floor are supervised to ensure compliance with consumer rights and trade practices legislation.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Promotion includes advertising, incentives, publicity, and enterprise service and presentation standards. 	

- Waste material may include used packaging materials, used cleaning materials, perishable waste.
- Routines may include cleaning, clearing away.
- Contingencies may include dealing with spillages, disposal of debris.
- Presentation variables may include stock availability, space availability, customer demand, displays may be to introduce new stock, to increase sales of existing stock, to inform customers of stock and services available, be seasonal.
- Pricing variables may include increases/decreases, special offers, manual or computerised systems, reference points may be product, ticket, price lists, fixture ticket.
- The following customer service variables may be present: enterprise policy, enterprise requirements, enterprise standards.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- organisational objectives and plans; previous targets achieved information; market position; local demographic and economic factors likely to affect targets; organisational policy or lay-out and presentation and comparison with competition.
- procedures regarding safety and cleanliness; location and use of cleaning equipment and protective clothing; safe lifting and carrying techniques; disposal of dangerous and hazardous materials; the reasons why it is necessary to deal with breakages and spillages promptly; responsibilities in regard to enterprise Occupational Health and Safety policies and procedures; enterprise procedures; range of responsibilities;
- adjustments/modifications that can be made to implement displays in the enterprise; relationship of space to sales ratio; organisation promotion timetable/plan; type and quality of resources required to erect displays; potential security and safety threats; sources of information on pricing and how they are used; documentation required to record price changes; process of increasing and decreasing the prices for goods.
- organisation standards of service; consumer rights guidelines; trade practices legislation.

An ability to

- plan sales strategy and presentation
- present and maintain enterprise image
- organise and evaluate merchandise presentation
- implement client service standards policy
- specified setting.

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a

person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	2	3	3

- **Communicating ideas and information** - with manager and members of the work team
- **Collecting, analysing & organising information** - on promotional programs
- **Planning & organising activities** - of self and others in promotion team
- **Working with teams & others** - to effectively supervise plant or product promotional activities
- **Using mathematical ideas & techniques** - to calculate performance
- **Solving problems** - related to venues, merchandise and clients
- **Using technology** - store and communicate data

Industry	Horticulture
Sector/s	Turf
RUH HRT415 A Develop a mowing program	
<p>Unit Descriptor This Unit of Competency is concerned with the development of a mowing program for sports turf areas.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
415.1 Determine mowing requirements	<p>415.1.1 Mowing requirements including defined presentation standards are determined according to management needs.</p> <p>415.1.2 Program is developed according to the requirements of the area, the variety, the use and the climatic conditions.</p>
415.2 Implement mowing operations	<p>415.2.1 Program is clearly communicated to staff in line with enterprise policy.</p> <p>415.2.2 Equipment and machinery is provided in sound working condition according to enterprise standards.</p> <p>415.2.3 Mowing operations conform to Occupational Health & Safety (OHS) and enterprise standards in respect to appropriate use of personal safety equipment and safe work practices.</p>
415.3 Monitor a mowing program	<p>415.3.1 Presentation of mowed area is monitored according to enterprise standards.</p> <p>415.3.2 Remedial action is taken where appropriate and variances notified to supervisor according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Program may include timing frequency, height of cut, pattern, mowing directions, equipment specified. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> turf species characteristics and cultivation requirements enterprise surface presentation standards correct and efficient use of enterprise mowers relevant Occupational Health & Safety (OHS) policies and guidelines <p>An ability to</p> <ul style="list-style-type: none"> determine mowing requirements implement mowing operations monitor a mowing program 	
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> Occupational Health and Safety Act of the state Regulations and/or Codes of Practice pertaining to Plant 	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	2

- **Communicating ideas and information** - with manager and members of the work team
- **Collecting, analysing & organising information** - on turf growth rates and user requirements
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to effectively maintain grassed areas
- **Using mathematical ideas & techniques** - to devise mowing programs
- **Solving problems** - related to weather conditions and user requirements
- **Using technology** - store and communicate data

Industry	Horticulture
Sector/s Landscape,	Arboriculture, Nursery, Parks & Gardens, Turf
RUH HRT416 A Recommend plants, products and treatments	
<p>Unit Descriptor This Unit of Competency is concerned with the recommendation to clients and others of specific plants, products and treatments.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in plant selection and knowledge, horticultural products availability and use and specific horticultural treatments.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the provision of information, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
416.1 Recommend plants for specific situations	<p>416.1.1 Plants are recommended for specific situations and uses according to industry standards..</p> <p>416.1.2 Botanical and common names are used to describe plants according to client needs.</p> <p>416.1.3 Growing and performance characteristics are provided with the recommendation.</p> <p>416.1.4 Particular cultural and maintenance requirements are outlined for each plant.</p> <p>416.1.5 Purchase options and availability of plants is outlined in advice provision.</p>
416.2 Recommend products for specific situations	<p>416.2.1 Products and services are recommended for specific situations and uses according to sound horticultural principles and practices.</p> <p>416.2.2 Use and performance characteristics are provided as part of structured recommendations.</p> <p>416.2.3 Purchase options and availability of products are outlined.</p> <p>416.2.4 Advice from management is sought when necessary.</p>
416.3 Recommend treatments for specific situations	<p>416.3.1 Treatments are recommended for specific situations and uses according to sound horticultural principles and practices.</p> <p>416.3.2 Use and performance characteristics of treatments are communicated to client.</p> <p>416.3.3 Purchase options and availability of treatments are outlined.</p> <p>416.3.4 Advice from management is sought when necessary.</p>
<p>A. RANGE OF VARIABLES</p> <p>Arboriculture</p> <ul style="list-style-type: none"> Plants includes trees and shrubs. Products includes those associated with arboricultural operations or tree care and management. Treatments relate to pruning, removal, pest control, soil amelioration, fertilising, cable and bracing, wound dressing, earth forming. <p>Landscape</p> <ul style="list-style-type: none"> Plants includes trees, shrubs, groundcovers, turf species, herbaceous species, indoor, bedding species. Products includes those associated with landscape operations, softscape and hardscape components. Treatments relate to pruning, removal, weed control, pest control, soil amelioration, fertilising, staking, earth forming. 	

Nursery

- Plants includes containerised and open grown trees, shrubs, groundcovers, turf species, herbaceous species, indoor, bedding species, aquatic species.
- Products includes those associated with propagation, growing-on, plant maintenance and management, softscape and hardscape domestic landscape components, tools and equipment.
- Treatments relate to planting, staking, mowing, pruning, turf renovation, cultural techniques, weed control, pest control, soil amelioration, chemical applications, fertilising, earth forming.

Parks & Gardens

- Plants includes trees, shrubs, groundcovers, turf species, herbaceous species, indoor, bedding species.
- Products includes those associated with parks and gardens operations, softscape and hardscape components.
- Treatments relate to planting, mowing, pruning, removal, cultural techniques, weed control, pest control, soil amelioration, chemical applications, fertilising, staking, earth forming.

Turf

- Plants includes turf species.
- Products includes those associated with sports turf operations, maintenance and management.
- Treatments relate to sowing, sprigging, sodding, mowing, renovation, scarification, rolling, aeration, removal, cultural techniques, weed control, pest control, soil amelioration, chemical applications, fertilising, staking, earth forming.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- plants, products and treatments for specific situations
- advanced horticultural principles and practices
- responsibilities and liabilities in respect to the provision of recommendations
- customer and client service principles
- innovation and recent practices in the horticulture industry

An ability to

- recommend plants for specific situations
- recommend products for specific situations
- recommend treatments for specific situations

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a

<p>minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>						
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p>						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with clients or customers and other members of the work team • Collecting, analysing & organising information - plants, products and treatments • Planning & organising activities - of self and others in work team • Working with teams & others - to solve problems of a horticultural nature • Using mathematical ideas & techniques - to calculate areas, volumes and application rates • Solving problems - associated with inadequate advice or inappropriate solutions • Using technology - to communicate and keep records 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT417 A Deliver on-the-job training	
Unit Descriptor This Unit of Competency is concerned with the provision of training on-the-job. This training focuses on assisting the learning of others in the workplace while they are engaged in productive work. Work is likely to be under limited supervision with checking related to overall progress. Discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
417.1 Prepare for training	417.1.1 Training needs and deficits are identified for all staff. 417.1.2 Resources, facilities, equipment and staff are organised, scheduled and contingencies established to meet the requirements of the training session. 417.1.3 Trainees are notified and coordinated in the training schedule, workplace requirements are catered for and contingency plans established to respond to changing workplace needs.
417.2 Deliver training	417.2.1 Trainees are prepared for instructional process with objectives established, lesson plan explained, application of learning to the work area defined and assessment process described. 417.2.2 Training is delivered in a systematic fashion, modification adopted where necessary, feedback provided and learning opportunities enhanced. 417.2.3 Practical application is provided for trainees, personal assessment encouraged and learning goals assessed. 417.2.4 Learning outcomes are assessed in trainees through effective evidence gathering process, trainees advised of performance achievements and relevant workplace personnel notified.
417.3 Review training	417.3.1 Training session is evaluated through trainee feedback on difficulties, applicability of learning outcomes, personal assessment in relation to session objectives. 417.3.2 Training records are maintained according to organisation guidelines, regulatory or legislative requirements and appropriate security on personal records is maintained. 417.3.3 Information on proposed training as well as current or completed training is provided to relevant individuals in a timely and efficient manner.
A. RANGE OF VARIABLES <ul style="list-style-type: none"> • Training may include one-to-one, small groups. • This unit applies to people who provide training in the workplace but for whom the training function is not a major part of their job. 	
B. EVIDENCE GUIDE Underpinning Knowledge and Skills A basic working knowledge of	

<ul style="list-style-type: none"> • adult learning styles and preferences • identifying training needs • integrating training into workplace activities <p>An ability to</p> <ul style="list-style-type: none"> • prepare for training • deliver training • review training 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – induction of new workers in OHS roles and responsibilities – the enterprise OHS risk management programs 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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3	3	3	3	1	2	2														

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT418 A Supervise staff	
Unit Descriptor This Unit of Competency is concerned with the supervision of staff in the workplace. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
418.1 Contribute to the planning of work activities	418.1.1 Contributions to the setting and up-dating of work objectives are made according to given areas of responsibility. 418.1.2 Work methods and activities are consistent with current enterprise priorities and objectives, legal requirements and codes of practice. 418.1.3 Plans of work methods and activities make cost effective use of available resources within the given time constraints. 418.1.4 Where legal requirements and enterprise objectives appear to conflict, the problem is identified and advice is sought from the appropriate personnel. 418.1.5 Relevant views are sought in a way which encourages each individual to offer suggestions.
418.2 Organise work and assist in the evaluation of work	418.2.1 Work allocation makes effective use of resources and is according to work objectives, plans and other requirements and constraints. 418.2.2 Individual responsibilities, limits of authority and standards of performance are clearly defined, communicated and recorded where necessary. 418.2.3 Personnel are encouraged to seek clarification of their allocated activities. 418.2.4 The degree of guidance required is assessed and used to best effect in overall work allocation. 418.2.5 The amount of detail of information provided is appropriate to the importance and scale of work allocated and evaluated. 418.2.6 Previously allocated work is evaluated against quality and resource requirements within given area of responsibility. 418.2.7 Results of evaluations are relayed to appropriate personnel. 418.2.8 Where work methods are inappropriate or company needs change, action is taken to minimise the impact on resources.
418.3 Provide feedback on work performance	418.3.1 Feedback given is appropriate to the individuals needs. 418.3.2 Feedback is given at regular intervals and at a time and place conducive to its reception. 418.3.3 Constructive suggestions and encouragement for improving future performance are given. 418.3.4 Feedback recognises performance and achievement in line with enterprise standards. 418.3.5 Details of any action to be taken are accurately recorded. 418.3.6 Personnel are encouraged and assisted to make suggestions on how systems/procedures could be improved.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Labour may include family labour, full time, part time, casual or permanent employees, contractors. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • supervisor responsibilities • leadership styles and characteristics • planning of work activities • workplace communication • relevant industrial awards and workplace agreements <p>An ability to</p> <ul style="list-style-type: none"> • contribute to the planning of work activities • organise work and assist in the evaluation of work • provide feedback on work performance <p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	1	3	2														

- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT419 A Supervise machinery maintenance	
<p>Unit Descriptor This Unit of Competency is concerned with the supervision of machinery maintenance including assessing maintenance requirements, scheduling and monitoring of maintenance activities.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills.</p> <p>Competencies are normally applied within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
419.1 Determine maintenance requirements	<p>419.1.1 Maintenance problems are identified from operational diaries, employees comments and/or personal testing and observation.</p> <p>419.1.2 Likely causes of problems are determined and appropriate action is taken according to enterprise procedures.</p>
419.2 Schedule resources	<p>419.2.1 Resources required to carry out maintenance are determined according to enterprise requirements.</p> <p>419.2.2 Maintenance supplies are purchased according to scheduled requirements.</p> <p>419.2.3 Maintenance is scheduled to suit total property operations.</p> <p>419.2.4 Maintenance requirements are communicated to staff for actioning in line with enterprise procedures.</p>
419.3 Monitor maintenance procedures	<p>419.3.1 Maintenance work is monitored to ensure property production operations are not interrupted.</p> <p>419.3.2 Costs are controlled to meet enterprise budgets.</p> <p>419.3.3 Documentation for maintenance is recorded according to enterprise requirements.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Appropriate action may include obtaining information from a variety of sources, solving problems, eliminating causes. • Resources may include labour, equipment, materials. • Maintenance may include preventative, corrective or breakdown. • Maintenance may be performed on property improvements, plant, machinery, equipment. • Maintenance requirements may include extent of work, parts to be used, quality of repair. • Staff may include self, family, full time, part time, casual or permanent employees, contractors, professionals. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • scope and range of enterprise machinery and equipment • maintenance needs and related activities • scheduling of maintenance works • communication systems for notification and recording of maintenance • techniques for evaluating maintenance procedures • cost benefit of out sourcing maintenance activities <p>An ability to</p> <ul style="list-style-type: none"> • determine maintenance requirements • schedule resources 	

<ul style="list-style-type: none"> monitor maintenance procedures 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> assessment of health risk of existing facilities, machinery and equipment, and of alternative systems and equipment. maintenance of safe systems of work safe manual handling systems and procedures safe operation and maintenance of machinery and equipment including hydraulics safe handling of hazardous substances protection from noise, dusts, solar radiation, dust and noise selection, provision and maintenance of relevant personal protective clothing 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Industry	Horticulture
Sector/s	Floriculture, Nursery, Production
RUH HRT420 A Implement a media preparation program	
<p>Unit Descriptor This Unit of Competency is concerned with the preparation of soil-less growing media for selected crops.</p> <p>Implementation of a media preparation program is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for, and limited organisation of, the work of others involved in media preparation may be involved.</p> <p>Implementing media preparation programs requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as crop nutrition requirements, soil and other growing media properties.</p>	
Element of Competency	Performance Criteria
420.1 Determine the characteristics and properties of growing media	<p>420.1.1 Requirements of a test are determined from requirements of species, environmental conditions and industry practice.</p> <p>420.1.2 Media testing program is developed which defines testing activities, task responsibilities, involvement of contractors and desired information outcomes.</p> <p>420.1.3 Testing tasks are monitored and liaison procedures with outside testing bodies are supervised and remedial action is taken where necessary.</p>
420.2 Prepare a media nutrition plan	<p>420.2.1 Additives required are determined from tests and species requirements.</p> <p>420.2.2 Seasonal issues are determined from published data on species, historical records, industry practice and enterprise policy.</p> <p>420.2.3 Crop nutrition plan is developed to achieve appropriate plant condition, and responds to different nutrition requirements during a range of conditions over the growing cycle of the crop.</p>
420.3 Prepare a media preparation program	<p>420.3.1 Requirements of soil preparation are determined from needs of species, enterprise policy and industry practice.</p> <p>420.3.2 Program specifies timing, techniques, methods, properties required, resources, cost elements and implementation tasks.</p> <p>420.3.3 Program is documented according to enterprise policy.</p>
420.4 Monitor the preparation of media	<p>420.4.1 Testing, treatment and preparation program are monitored to ensure requirements of production plan are achieved.</p> <p>420.4.2 Costs are monitored against the requirements of the production and business plans.</p> <p>420.4.3 Conditions likely to impact on business viability are identified, options documented and recommendations presented to management.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Media may include soil-less growing mixes and water (hydroponics). • Range of conditions affecting crop nutrition may include weather, seasonal influences, media characteristics, growing environment. • Crops may includes fruits, seedlings, vegetables, nuts, ornamental, flowers, foliage, seeds and essential oils. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • characteristics of media types, uses and additives for specific crops • aspects of media characteristics, properties and constituents • nutritional requirements for specific crops. <p>An ability to</p> <ul style="list-style-type: none"> • determine the characteristics and properties of growing media • prepare a media nutrition plan • prepare a media preparation program • monitor the preparation of media 																				
<p>OHS issues that impact on the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – systems and procedures for the safe operation and maintenance of machinery and equipment including hydraulics and guarding of exposed moving parts – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant 																				
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	3	3	3														

- **Using mathematical ideas & techniques** - to calculate quantities and costs
- **Solving problems** - related to media and nutrition requirements
- **Using technology** - store and communicate information

Industry Sector/s Turf	Horticulture Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
RUH HRT421 A Supervise supplies and services	
Unit Descriptor This Unit of Competency is concerned with the coordination of supplies and services for a horticultural enterprise. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally applied within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
421.1 Monitor availability of consumables and equipment	421.1.1 Consumables are monitored for signs of deterioration and/or depletion, recommendations are made for orders to be placed and necessary records are kept according to enterprise guidelines. 421.1.2 Storage facilities for consumables are maintained according to manufacturers instructions and enterprise guidelines. 421.1.3 Equipment is checked for availability at time of anticipated use.
421.2 Obtain consumables and equipment	421.2.1 Consumables are re-ordered when needed or in anticipation of increased enterprise requirements according to enterprise guidelines and sound stock management principles. 421.2.2 Equipment and materials are priced and purchased according to enterprise purchasing plan. 421.2.3 Equipment is hired, leased or borrowed for the period of anticipated use in line with enterprise requirements.
421.3 Acquire contractor services	421.3.1 Contractors are engaged dependent on the size, scope and nature of the job, competence of available staff, and the requirements of the organisation. 421.3.2 Quotes are arranged, when appropriate, according to enterprise guidelines. 421.3.3 Contractors are engaged for the supply of a service according to enterprise guidelines and government regulation. 421.3.4 Documentation is completed according to enterprise requirements and mutual satisfaction.
A. RANGE OF VARIABLES <ul style="list-style-type: none"> • Contractor services may include refuse collection, specialist horticultural work, construction, carpentry, cleaning, electrical work, irrigation work, mechanical repairs. • Contractor services may include sub-contractors for horticultural project or production work. • Consumables may include pots, media and media components, twine, sanitation products, nutrients, ameliorants, stationery, labelling, ties, secateur blades, tools and associated parts, packaging material, fuel, oil and parts for vehicles and equipment., landscape supplies. • Situations that may lead to increased enterprise requirements may include seasonal needs, marketing changes. • Refuse may include sharps, toxic containers and residues, vegetative debris, litter, surplus and/or damaged potting and propagation consumables, papers, plastics, glass, metal, timber. 	
B. EVIDENCE GUIDE Underpinning Knowledge and Skills A basic working knowledge of <ul style="list-style-type: none"> • Occupational Health & Safety (OHS) requirements for handling and storage of stock materials 	

<p>including hazardous substances</p> <ul style="list-style-type: none"> • disposal options for refuse • emergency action procedures for fire, chemical spillage, and first aid • contract preparation and coordination • record keeping and filing • stock inventory and management principles <p>An ability to</p> <ul style="list-style-type: none"> • monitor availability of consumables and equipment • obtain consumables and equipment • acquire contractor services
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<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
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C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients or customers and other members of the work team
- **Collecting, analysing & organising information** - on stocks on hand, scheduled maintenance
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to maintain supplies and services
- **Using mathematical ideas & techniques** - to calculate details of stock and scheduled maintenance
- **Solving problems** - associated with product availability and interruption to production
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT422 A Operate within a budget framework	
<p>Unit Descriptor This Unit of Competency is concerned with operating in a horticultural enterprise within a defined budget framework.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills.</p> <p>Competencies are normally applied within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p> <p>This is equivalent to rural generic unit AG4204BM <i>Operate within a budget framework</i>.</p>	
Element of Competency	Performance Criteria
422.1 Participate in formulation of a budget	422.1.1 Budget consultation is followed in line with enterprise policy. 422.1.2 Budget variations are requested to suit enterprise needs.
422.2 Supervise financial transactions	422.2.1 Expenditure is arranged within budget delegations. 422.2.2 Transactions are recorded according to enterprise standards. 422.2.3 Enterprise budget and actual financial reports are checked to ensure operations are within forecast limits. 422.2.4 Expenditure is adjusted to meet financial targets as required. 422.2.5 Potential variations in budgeted income are reported to the manager according to enterprise requirements.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Budget elements may include projected expenditure by item, projected income by source, cash flow budgets, budget delegations, variation and review procedures, credit and credit limits, security measures, reporting mechanisms. Comparisons between planned and actual performance comprise actual budget cash flow and planned cash flow and similar statements from previous planning periods. Records may be paper or computer based. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> banking routines cash flow analyses and records costing mechanisms forecasting mechanisms recording systems records of receipts and expenditure work reports <p>An ability to</p> <ul style="list-style-type: none"> participate in formulation of a budget 	

- supervise financial transactions

OHS issues that impact upon the performance of this unit

- Not applicable.

C. ASSESSMENT GUIDE

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Registered Training Organisation (RTO)

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	2	3	3	3

- **Communicating ideas and information** - with management about budget preparation and delegations
- **Collecting, analysing & organising information** - for input to the budget process
- **Planning & organising activities** - getting data together for budget sessions
- **Working with teams & others** - with manager and staff for budget sessions
- **Using mathematical ideas & techniques** - budget calculations, financial transactions
- **Solving problems** - with management, excessive expenditure, lack of credit
- **Using technology** - office calculators, computers, office technology

Industry	Horticulture
Sector/s	Landscape, Parks & Gardens
RUH HRT423 A Supervise landscape planting works	
<p>Unit Descriptor This Unit of Competency is concerned with the supervision of landscape planting works.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
423.1 Establish scope of works	<p>423.1.1 Nature of project and extent of responsibilities are checked and recorded according to plans, specifications and documentation.</p> <p>423.1.2 Resources, expertise and labour required to undertake project are identified according to scope of project and enterprise guidelines.</p> <p>423.1.3 Project outline is developed in a sequential order to ensure proposed outcome can be implemented within designated time lines and according to enterprise guidelines.</p> <p>423.1.4 Standard of performance is agreed to with the client and recorded according to enterprise guidelines.</p> <p>423.1.5 Schedule is developed to allow for development of the site according to the needs of the client and enterprise guidelines.</p>
423.2 Coordinate the supply of materials/equipment	<p>423.2.1 Material quantities are calculated to ensure the on-going work schedule is maintained according to the requirements of the work contracts.</p> <p>423.2.2 Material quantities are ordered and stockpiled to ensure the on-going work schedule is maintained according to enterprise guidelines.</p> <p>423.2.3 Specific delivery instructions are conveyed and confirmed with suppliers to ensure materials are delivered according to work plans.</p> <p>423.2.4 Materials are checked for quality and quantity according to working documentation.</p> <p>423.2.5 Rejected material is sent back to the supplier and re-ordered according to enterprise guidelines.</p>
423.3 Monitor landscape works	<p>423.3.1 Service and construction items are monitored to ensure all work complies with the contract conditions.</p> <p>423.3.2 All items not complying with the contract conditions are rectified according to enterprise guidelines.</p> <p>423.3.3 Work schedules are monitored and adjusted to ensure project does not exceed the agreed time limits of the contract.</p> <p>423.3.4 Contract variations are checked and recorded according to the contract conditions and enterprise guidelines.</p> <p>423.3.5 Work area is cleared and site is maintained in a clean and tidy condition according to contract conditions and enterprise guidelines.</p> <p>423.3.6 Issues likely to cause delays to the agreed completion date of the project are identified and reported to management according to enterprise guidelines.</p>
423.4 Identify items not covered by project brief	<p>423.4.1 Contingencies beyond the scope of the project are identified and recorded according to enterprise guidelines.</p> <p>423.4.2 Damage is identified and nominated as a possible insurance</p>

	<p>claim or construction fault according to enterprise guidelines.</p> <p>423.4.3 Delays are identified and recorded according to enterprise guidelines.</p> <p>423.4.4 Project report is produced and recorded according to enterprise guidelines.</p>
423.5 Prepare site for completion	<p>423.5.1 Site is inspected prior to practical completion and/or handing over to ensure all contract items and conditions have been undertaken according to contract conditions.</p> <p>423.5.2 All items not complying are noted and rectified according to contract conditions.</p>

A. RANGE OF VARIABLES

- Working documentation may include plans, specifications, quotations, contracts, reports, computations.
- Contingencies may include inclement weather, material shortages, availability of labour and equipment.
- Delays to the project may include industrial disputes, inclement weather, site access, labour/material shortages, equipment breakdowns.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- scheduling landscape construction and maintenance works
- costings and work rates for activities required for a specific project
- possible causes of disruption to work programs and their effect on quality and time schedules
- responsibilities and requirements of landscape contracts
- statutory regulations relating to the use of hazardous chemicals
- symptoms of poor performance in plants, products and treatments

An ability to

- establish the scope of works
- coordinate the supply of materials/equipment
- monitor landscape works
- identify items not covered by project brief
- prepare site for completion

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
 - OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
- Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and other members of the work team
- **Collecting, analysing & organising information** - on the requirements of the project
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to deliver a finished project
- **Using mathematical ideas & techniques** - to calculate areas, volumes and application rates
- **Solving problems** - presented by the contingencies of the project
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Floriculture, Nursery, & Gardens,
Production,	Turf
RUH HRT424 A Manage irrigation, drainage and treatment systems	
Unit Descriptor	
This Unit of Competency is concerned with the management of irrigation, drainage and treatment systems for horticultural enterprises.	
The management of these systems is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for, and limited organisation of, the work of others involved in an irrigation management program may be involved.	
Management of irrigation, drainage and treatment systems requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as soils and plant nutrition and water requirements.	

Element of Competency	Performance Criteria
424.1 Oversee system construction, installation and modifications	424.1.1 Contractors and suppliers are briefed according to the system design plans, specifications and enterprise standards. 424.1.2 Materials, components and equipment are ordered and are on hand prior to commencement of works. 424.1.3 Workers are allocated tasks according to their experience and skills. 424.1.4 The works are implemented according to the design plan, specifications and enterprise standards. 424.1.5 The system is flushed and tested and all seepage, leaks, batter stability, pressure readings, flow rates and corrective actions are taken. 424.1.6 Appropriate notations are made where the installation differs from that shown on the plan. 424.1.7 Safety precautions are implemented and personal protective equipment issued where appropriate.
424.2 Oversee system operation	424.2.1 Water budgets are determined having regard to the evapotranspiration state of the crop/plants, soil moisture characteristics and cultural practices. 424.2.2 System started, operated and shut down efficiently in accordance with the system operation manuals. 424.2.3 Frequency and duration of system operation is programmed in accordance with irrigation schedules and cultural requirements. 424.2.4 Fertigation application via the system is implemented according to crop/plant requirements and enterprise standards. 424.2.5 Drainage water volumes determined, and data collected and measured on irrigation intensity, frequency, volumes, water table, run-off quality, relevant regulations and water analysis according to enterprise standards. 424.2.6 Drainage needs are identified having regard to the calculation of quantities, the impact of water quality on plants, the pre-treatment of drainage water prior to reuse or disposal and the requirements of disinfection systems. 424.2.7 Enterprise standards and specific responsibilities of operational elements are defined in the system program which is clearly communicated to all staff. 424.2.8 Irrigation program meets the management constraints of the business and the site according to the requirements of specific crops.
424.3 Oversee system maintenance	424.3.1 Routine oversight ensures that equipment, tools and skilled

	<p>staff are on site and maintenance activities are carried out according to the maintenance program and the manufacturers specifications.</p> <p>424.3.2 System structures, fittings, pipes and channels are maintained free of leaks, damage, silt and other blockages to ensure flow and distribution of water to targeted areas.</p> <p>424.3.3 Regular monitoring ensures that gradients and levels of system structures, fittings, pipes and channels do not disrupt water flow and distribution according to design specifications.</p>
424.4 Oversee system monitoring	<p>424.4.1 System pressures and water flow rates are measured and recorded according to enterprise guidelines.</p> <p>424.4.2 Variations in pressure, water flow and distribution are identified and recorded according to enterprise guidelines.</p> <p>424.4.3 Malfunctions and factors external to the system which may cause interference in the system are identified, fixed and actions recorded in system maintenance log book.</p> <p>424.4.4 Spare parts in store meet demand and purchases.</p> <p>424.4.5 Details of purchases are recorded in system maintenance log according to enterprise guidelines.</p> <p>424.4.6 Frequency and water usage is measured and recorded according to enterprise guidelines.</p> <p>424.4.7 Differences between estimated water use and actual water used are calculated and recorded to ensure that water allocation does not exceed the water schedule.</p> <p>424.4.8 Water quality including salinity, pH level and nutrient concentration is measured and recorded according to enterprise guidelines.</p> <p>424.4.9 Growth and water use efficiency is assessed and recorded according to enterprise guidelines.</p> <p>424.4.10 Soil moisture and soil chemical characteristics are measured and recorded according to enterprise guidelines.</p> <p>424.4.11 Climate and weather conditions are recorded according to enterprise guidelines.</p> <p>424.4.12 All appropriate recording and documentation systems are completed and periodically analysed to enable changes to be made to the operations manual, maintenance scheduling program, irrigation schedule, systematic testing procedures manual, and the design plans and specifications - enlisting expert assistance if required.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Appropriate personnel may include irrigation consultants, specialist contractors, tradespersons, labourers. • Test procedures may include pressure and flow rate calculations, leaf analysis, soil analysis, catch can tests, water analysis. • Irrigation systems may range from manual operation and monitoring to fully automated with computer control and monitoring. • Soil moisture may be measured by subjective means, tensiometers, enviroscan, gypsum disks, neutron probes, tail water storage. • Operations manual and maintenance program specifies all activities, calendar/schedule and the standards of performance for each activity. • Monitoring program includes procedures for recording pressure, distribution uniformity, flow variations, leaks etc, outside interference, system inefficiencies, water table level, pump run hours, replacement components used, hazardous substances and chemicals used etc. • Crop requirements may include allowance for wind conditions, disease susceptibility, shipping times, customer or employee presence, off-peak pumping times, limited water availability, soil and moisture monitoring and recording. • Drainage systems may include surface, sub-surface, mole, pipe and rubble drains, culverts, sumps, debris baffles, sedimentation pits, sand beds and/or filters, reed beds, dams, tanks, pumps and a range of disinfection equipment. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • interpreting plans and specifications • general irrigation, drainage and treatment systems • flow rates and pressure differentials • systematic testing procedures • irrigation usage calculations • interpretations and report structures • earth moving techniques and machinery capabilities 	

<ul style="list-style-type: none"> • supervising, negotiating and estimating and costing of resources • crop/plant water requirements • impact of maintenance program on running costs • pump performance <p>An ability to oversee</p> <ul style="list-style-type: none"> • system construction, installation and modifications • system operations • system maintenance • system monitoring 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	3	3	3														

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT425 A Maintain systems of communication	
<p>Unit Descriptor This Unit of Competency is concerned with the maintenance of systems of communication within a horticultural enterprise.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
425.1 Determine methods of communication	<p>425.1.1 Formal and informal lines of communication are developed and used appropriately for information transfer both within and outside the enterprise.</p> <p>425.1.2 Communication is clear and compatible with the needs of the situation.</p> <p>425.1.3 Barriers to effective communication are diagnosed and minimised.</p>
425.2 Communicate with individuals and groups	<p>425.2.1 Group dynamics are utilised in information sharing and development of communication links within the workplace framework and with outside agencies.</p> <p>425.2.2 Liaising with contractors is in accordance with enterprise requirements.</p> <p>425.2.3 Telephone and other appropriate communication systems are used to develop linkages and to provide clear and relevant advice and information.</p> <p>425.2.4 Body language and verbal cuing techniques are used in facilitating communication.</p>
425.3 Apply written skills	<p>425.3.1 Written material in the form of business letters, memoranda and summary reports are prepared in conformity with community standards and accepted convention.</p> <p>425.3.2 Structure and content of business correspondence both manually and with word processing reflect the requirements of current business practice.</p> <p>425.3.3 Spelling, grammar and punctuation are correct and used according to recognised standards of business English and communication.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Information transfer may include enterprise procedures and policy, Occupational Health & Safety (OHS) procedures and guidelines, codes of conduct, technical updates, work schedules, hazard identification, industry updates, industrial issues, plans, specifications, materials lists. Methods of communication may include group meetings, one-on-one discussions, seminars, workshops, written memos, reports, published articles, faxes, 2-way radios, phones, letters, e-mail, video-conference. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • different methods of communication • principles and practices of effective communication • meeting procedures and protocols <p>An ability to</p> <ul style="list-style-type: none"> • determine methods of communication • communicate with individuals and groups • apply written skills 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Not applicable. 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	3	3	3														

- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf.
RUH HRT426 A Develop teamwork	
Unit Descriptor This Unit of Competency is concerned with the development of teamwork in a horticultural workplace. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
426.1 Plan and lead workplace group activities	<p>426.1.1 Discussion groups are utilised in the process of information sharing, technology transfer and training.</p> <p>426.1.2 Regular meetings are planned, organised and conducted and clear, constructive outcomes are documented.</p> <p>426.1.3 Formal and informal meetings are chaired and conducted with barriers to effective discussion and meeting procedure minimised.</p> <p>426.1.4 Meeting procedure is used effectively according to standard practice and meeting outcomes are clearly summarised and recorded at the conclusion of the meeting.</p>
426.2 Operate within an organisational structure	<p>426.2.1 Organisational structure and lines of authority are maintained within the supervisors span of control to ensure work programs are coordinated.</p> <p>426.2.2 Line management requests are responded to promptly in line with enterprise guidelines.</p> <p>426.2.3 Issues out of the supervisors responsibility are conveyed to the appropriate authority.</p> <p>426.2.4 Staff contracts are monitored for compliance with enterprise policy.</p>
426.3 Motivate staff	<p>426.3.1 Existing workplace skills including leadership qualities are identified within work teams and extra abilities are identified for development.</p> <p>426.3.2 Staff improvement programs are implemented as appropriate to responsibly develop staff.</p> <p>426.3.3 Staff are encouraged to pursue self improvement training in line with company policy.</p>
426.4 Interact with groups	<p>426.4.1 Industry recognised leadership techniques are used in the supervision of work teams.</p> <p>426.4.2 Workplace groups are utilised to maximise the staff efficiency in the unit according to their structure and function.</p> <p>426.4.3 Group dynamics and individual personal interactions are utilised in problem solving and decision making in the workplace.</p> <p>426.4.4 Conflict resolution is facilitated assertively at the unit level with minimal disruption to work routines.</p>

A. RANGE OF VARIABLES						
<ul style="list-style-type: none"> Information transfer may include enterprise procedures and policy, Occupational Health & Safety (OHS) procedures and guidelines, codes of conduct, technical updates, work schedules, hazard identification, industry updates, industrial issues, plans, specifications, materials lists. 						
B. EVIDENCE GUIDE						
Underpinning Knowledge and Skills						
A basic working knowledge of						
<ul style="list-style-type: none"> motivation and group dynamics principles and practices of effective leadership organisational structure and work teams conflict management 						
An ability to						
<ul style="list-style-type: none"> plan and lead workplace group activities operate within an organisational structure motivate staff and promote self improvement interact with groups 						
OHS issues that impact upon the performance of this unit						
<ul style="list-style-type: none"> Not applicable. 						
C. ASSESSMENT GUIDE						
Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.						
The unit will be assessed according to the following guidelines and conditions:						
1. Authority managing and conducting assessment, and issuing qualifications						
Registered Training Organisation (RTO)						
2. Qualifications of Assessor						
Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:						
<ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. 						
Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.						
3. Measures to ensure consistency in assessment						
These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.						
4. Where is this unit assessed?						
Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.						
D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	1
<ul style="list-style-type: none"> Communicating ideas and information - with other members of the work team Collecting, analysing & organising information - appropriate to the needs of the team Planning & organising activities - of self and others in work team Working with teams & others - on a routine basis Using mathematical ideas & techniques - in the planning and development of workplace group activities Solving problems - associated with effective teams, team building Using technology - to communicate and keep records 						

Industry	Horticulture
Sector/s	Landscape
RUH HRT427 A Prepare a landscape design	
<p>Unit Descriptor This Unit of Competency is concerned with the preparation of a landscape design.</p> <p>The preparation of a landscape design is likely to be undertaken without supervision. Responsibility for the work of others may be involved.</p> <p>The preparation of a landscape design requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as plant selection, soils, landscape design principles, drafting techniques, and communication skills.</p>	
Element of Competency	Performance Criteria
427.1 Develop a design brief	<p>427.1.1 Client is consulted to establish purpose and requirements of design.</p> <p>427.1.2 Design brief is developed and agreed in consultation with the client.</p> <p>427.1.3 Cost structures and timelines are negotiated with the client.</p>
427.2 Undertake a site analysis	<p>427.2.1 Base plan of site is prepared or obtained from the client or other sources.</p> <p>427.2.2 Physical elements and features of the site are recorded on the base plan.</p> <p>427.2.3 Assessment of soil, topography, aspect, existing vegetation and climatic factors are recorded on the site plan.</p> <p>427.2.4 Functional analysis of the site is completed and recorded on the base plan.</p> <p>427.2.5 Other relevant data is assessed and recorded on the base plan.</p>
427.3 Develop a concept design	<p>427.3.1 Concept plan is prepared to illustrate the location and layout of proposed site works according to the design brief.</p> <p>427.3.2 Plant list is compiled of species and varieties suitable for the site according to design brief.</p> <p>427.3.3 Consultation with the client is undertaken to agree on options and approaches for development.</p> <p>427.3.4 Consistent graphic style is used to present the concept plan.</p>
427.4 Produce a final plan	<p>427.4.1 Detailed landscape design is produced according to the design brief.</p> <p>427.4.2 Design solutions and graphic representations are applied to a range of landscape development situations.</p> <p>427.4.3 Landscape plan is drafted according to enterprise standards.</p> <p>427.4.4 Information on the plan is relevant and precise and clearly communicates development works to be undertaken.</p> <p>427.4.5 Notes and specifications are included on the plan to assist in plan interpretation.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Other relevant data may include opportunities and constraints on development, historical and cultural factors, laws and regulations impacting on development, site for material storage and compound area, proximity to services and utilities. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- elements and principles of design
- landscape design process
- plan interpretation
- conventional symbols
- plant selection
- drafting techniques

An ability to

- develop a design brief
- undertake a site analysis
- develop a concept design
- produce a final plan

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the project
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to prepare a landscape design
- **Using mathematical ideas & techniques** - to measure and calculate project requirements
- **Solving problems** - related to the nature of the project site and requirements of the user
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT428 A Plan cable and bracing	
<p>Unit Descriptor This Unit of Competency is concerned with the planning and supervision of cable and bracing in a tree.</p> <p>Planning of cable and bracing is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the pruning program may be involved.</p> <p>Planning of cable and bracing requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as tree physiology, tree identification and tree pruning and maintenance.</p>	
Element of Competency	Performance Criteria
428.1 Undertake assessment of tree	<p>428.1.1 Tree is assessed to determine suitability for cable and bracing based upon the overall health and vigour of the specimen and the potential hazards or damage of unstable structure.</p> <p>428.1.2 Alternative structural treatments are determined and recorded according to enterprise guidelines.</p> <p>428.1.3 Site conditions are assessed for equipment, personnel and access requirements to ensure the cable and bracing can be safely implemented according to the needs of the client and Occupational Health & Safety (OHS) principles.</p>
428.2 Prepare for cable and bracing	<p>428.2.1 Branches are examined and their vitality and integrity of attachment ascertained to ensure the bracing can be safely implemented.</p> <p>428.2.2 Accompanying pruning strategies are developed with regard to mass energy ratios to ensure pruning is undertaken without damage to the operator, the tree and property.</p> <p>428.2.3 Cable and bracing is planned in a manner to cause minimal stress and according to compartmentalisation of decay in trees (CODIT) principles.</p> <p>428.2.4 Legislation, regulation and by-laws relating to cable and bracing are addressed in the planning and preparation of works.</p>
428.3 Supervise cable and bracing installation	<p>428.3.1 Materials and equipment required for installation of cable and bracing are obtained with adequate lead time for the proposed work.</p> <p>428.3.2 Cable and bracing plan is communicated to staff in a clear manner.</p> <p>428.3.3 Cable and bracing is implemented in line with plan and enterprise standards.</p> <p>428.3.4 Completed program is assessed to ensure cable and bracing has been undertaken according to identified plan.</p> <p>428.3.5 Pruning is carried out to ensure the tree is able to sustain its growth and is restored to its natural habit and form.</p>
<p>\A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Situations may include access, utilities, space, size, risk factors, position, structures, angle, shape and condition of the tree. • A pruning program may be designed for a range of situations influenced by the following factors: size, light, aesthetics, competition, structure, shape, density, growth re-direction, modification of flowering/fruiting behaviour, damage, general clearances, signage, sight lines. • Trees may be present in parks, streetscapes, domestic environment, rural, confined spaces, hazardous situations. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- tree pruning techniques
- principles and applications of risk assessment in tree structure
- Occupational Health & Safety (OHS) aspects of working in hazardous situations with trees
- implications of cable and bracing and the way trees respond
- tree morphological and physiological processes
- relevant legislation, regulations, by-laws and codes of practice.

An ability to

- undertake assessment of tree
- prepare for cable and bracing
- supervise cable and bracing installation

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with supervisor and members of the work team
- **Collecting, analysing & organising information** - on the health and condition limbs to be braced
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to brace weakened tree limbs
- **Using mathematical ideas & techniques** - to measure and calculate project requirements
- **Solving problems** - of tree structures to support cables

- **Using technology** - to brace tree limbs

Industry	Horticulture
Sector/s	Parks & Gardens, Turf
RUH HRT429 A Plan turf establishment	
<p>Unit Descriptor This Unit of Competency is concerned with the planning the establishment of recreational and sports turf areas.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
429.1 Determine project brief	<p>429.1.1 Client requirements in relation to turf establishment are clearly defined and agreed in line with the establishment plan.</p> <p>429.1.2 Plans and specifications for turf establishment are obtained from all sources.</p>
429.2 Conduct site analysis	<p>429.2.1 Soil characteristics are determined according to enterprise standards.</p> <p>429.2.2 Factors affecting turf establishment operations are identified and included as part of the establishment plan.</p>
429.3 Prepare a planting program	<p>429.3.1 Program defines variety, method, timing and treatments according to industry practice, use of the area and enterprise guidelines.</p> <p>429.3.2 Machinery and equipment requirements are identified and arranged in line with establishment plan.</p> <p>429.3.3 Quantities of materials for turf establishment are calculated and ordered.</p>
429.4 Plan juvenile turf maintenance program	<p>429.4.1 Program encourages optimum growth of juvenile turf according to the requirements of the species.</p> <p>429.4.2 Soil amendments are determined consistent with the enterprise nutrition program.</p> <p>429.4.3 Mowing program is defined based on plant maturity, base consolidation and turf function.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Factors affecting turf establishment operations can wind, topography, weather, seasonal variations, micro-climate, sub-surface water, physical objects. • Drainage efficiency may include pipe size, fall, type, hydraulics, water moved over period of time. • Irrigation systems may include pipe sizing, friction losses, wire sizing, remote locations, location, pump sizes, volumes, mains water pressure checks. • Soil characteristics can include pH, nutrients, soil structure, filtration, salts, moisture retention, particle size, bulk density, clay capacity, humidity, evaporation, infiltration rates. • Materials include seed, stolons, sprigs, sods, fertilisers, soil additives, fuels, pesticides, herbicides. • Prescriptions may include types of lime, fertilisers, soil amendments, gypsum. • Readiness for use may include root structure, health, vigour, leaf colour, resilience, quality of surface. 	
<p>B. EVIDENCE GUIDE</p>	

Underpinning Knowledge and Skills

A basic working knowledge of

- development of project briefs
- plant nutrition and fertilisers
- characteristics of soil types, uses and applications in turf
- turf species selection and characteristics
- scheduling of development and maintenance works
- watering systems and irrigation techniques
- weeds, pests and diseases control and biology

An ability to

- determine project brief
- conduct site analysis
- prepare a planting program
- plan juvenile turf maintenance program

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising	Planning and organising activities	Working with teams and others	Using mathematical ideas and	Solving problems	Using technology
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	information			techniques		
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with members of the work team • Collecting, analysing & organising information - on the requirements of the project • Planning & organising activities - of self and others • Working with teams & others - to establish turf • Using mathematical ideas & techniques - to measure and calculate project requirements • Solving problems - related to the nature of the project site and requirements of the user <p>Using technology - to communicate and keep records</p>						

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT430 A Plan garden restoration works	
<p>Unit Descriptor This Unit of Competency is concerned with the planning the restoration of gardens of historical or cultural significance involving horticultural analysis of the garden site, garden design and the preparation of maintenance plans. This unit is applicable to a site that incorporates non-indigenous species.</p> <p>Planning of garden restoration works is likely to be undertaken without supervision with only general guidance on progress sought by higher officers.</p> <p>This unit involves the application of underpinning knowledge with depth in some areas such as plant recognition and selection, plant cultural practices and garden design principles.</p>	
Element of Competency	Performance Criteria
430.1 Analyse site	<p>430.1.1 Site is analysed for topographical factors, plant species, historical and cultural attributes, environmental aspects, and site modifications.</p> <p>430.1.2 Research is conducted into historical and cultural values, heritage and local by-laws and restrictions.</p> <p>430.1.3 Analysis results are recorded according to enterprise guidelines.</p>
430.2 Design planting and hardscape components	<p>430.2.1 Design incorporates heritage issues and aims to recreate historical or cultural features, as required as set out in the project brief.</p> <p>430.2.2 Design allows for staged implementation and development, where appropriate, according to project brief, enterprise guidelines and site requirements.</p> <p>430.2.3 Design is prepared using horticultural conventions, and the intention is clear to any user.</p> <p>430.2.4 Concept designs are prepared, presented to and discussed with the client.</p>
430.3 Prepare a maintenance plan	<p>430.3.1 Recommendations are made in respect to maintenance of softscape and hardscape components of the garden.</p> <p>430.3.2 Time-lines, schedules and required resources are clearly stated in the maintenance plan.</p> <p>430.3.3 Access for future works is provided where staged development is planned.</p> <p>430.3.4 Plan is communicated clearly to those who will undertake the ongoing management of the area and documented according to enterprise guidelines.</p> <p>430.3.5 The maintenance plan is ratified by the client.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Available sources for research may include libraries, oral history, biological remains, local archives, educational institutions. • Environmental factors may include rainfall, sunlight, humidity. • Heritage issues may include period to be reinstated, significant plants, significant designers, significant period, protection of view lines, screening of visually obtrusive features. • Historical attributes may include historical importance of particular garden features, disturbance/changes to historical garden, existing causes of disturbance. • Local restrictions may include restricted plant species. • Provisions for plant health may include water; nutrition, weeds, pests and diseases control, guarding against damage by local fauna. • Topographical attributes may include slope, aspect, watercourses, outcrops, gross modifications. • Softscape components comprise plants, soils, mulches, fertilisers. • Hardscape components comprise paving, fencing, structures, site furniture. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • site assessment and analysis • historical and cultural garden construction, cultural practices and plant selection 	

<ul style="list-style-type: none"> • forward planning and scheduling of works • local legislation and ordinances pertaining to heritage sites and restoration works • maintenance requirements and practices • garden design principles and practices • project briefs and client consultation processes • principles and guidelines of historic garden management • Burra Charter principles (International Charter of Monuments and Sites) <p>An ability to</p> <ul style="list-style-type: none"> • assess and analyse a site • prepare concept plans • prepare a garden design to a project brief • prepare maintenance plans • meet and discuss works with clients
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Plant
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	2	1	3	2
<ul style="list-style-type: none"> • Communicating ideas and information - with members of the work team • Collecting, analysing & organising information - on the requirements of the project • Planning & organising activities - of self and others • Working with teams & others - to restore gardens • Using mathematical ideas & techniques - to measure and calculate project requirements • Solving problems - related to the nature of the project site and requirements of the user • Using technology - to communicate and keep records 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT431 A Promote plant health	
Unit Descriptor	
This Unit of Competency is concerned with the promotion and maintenance of plant and crop health.	
The promotion of plant health is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for and limited organisation of the work of others may be involved.	
Maintaining plant health at this level requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as weed, pest and disease recognition and control, irrigation systems and scheduling, soil management practices and plant nutrition requirements.	
Element of Competency	Performance Criteria
431.1 Monitor factors that influence plant health	<p>431.1.1 The plant species is identified to the lowest taxonomic level and its region of origin stated.</p> <p>431.1.2 The seasonal growth stages of the plant or crop are determined.</p> <p>431.1.3 Day to day cultural practices used on each species are recorded according to enterprise guidelines.</p> <p>431.1.4 Soil characteristics that affect the growth of a specific plant species are determined.</p> <p>431.1.5 Climatic data and environmental growing conditions are recorded according to enterprise guidelines.</p> <p>431.1.6 The presence (or numbers) of beneficial organisms is recorded according to enterprise guidelines.</p>
431.2 Diagnose plant health problems	<p>431.2.1 The factors that predispose plants to attack by pests and diseases are identified.</p> <p>431.2.2 The symptoms and signs of commonly occurring plant health problems in selected species are identified using accepted nomenclature.</p> <p>431.2.3 The severity and extent of the problem in a plant species are assessed.</p> <p>431.2.4 Observations are compared with published data, historical records and enterprise guidelines.</p> <p>431.2.5 The possible causes of the plant problem are determined.</p> <p>431.2.6 A decision is made as to when the complexity or severity of the problem or rapid onset requires specialist consultation, plant or soil specimens are sampled and dispatched for professional diagnosis according to enterprise guidelines.</p> <p>431.2.7 Plant or crop disorders and problems are recorded and reported according to enterprise requirements.</p>
431.3 Remedy plant health problems	<p>431.3.1 A weed, pest and disease control program is formulated in line with the enterprise Integrated Pest Management strategy and production plan.</p> <p>431.3.2 A range of plant growth modifications that could be considered in a specific situation are identified.</p> <p>431.3.3 Modifications to growing conditions for a specific crop or plant species are selected and implemented having regard to cost of damage, marketing requirements and sustainable horticultural practices.</p>
431.4 Evaluate treatment programs	<p>431.4.1 Crops or plants are monitored during treatment.</p> <p>431.4.2 Appropriate data is recorded according to enterprise guidelines.</p> <p>431.4.3 Observations are compared to expected results.</p> <p>431.4.4 Modifications to the treatment program are documented</p>

	and recommended to management according to enterprise policy.
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A. RANGE OF VARIABLES

- Plants include tree species flower, foliage and oil crops, containerised, field planted and stock specimens, indigenous and exotic species and varieties, fruit, vegetables, nuts and culinary herb crops, turf species.
- The growing environment may include soil, nutrition, light, water, humidity, temperature, wind, presence of weeds, pests and diseases.
- Weeds may include those occurring regionally, in the state or nationally which may present a high risk and that occur in regions of similar climatic and geographic conditions.
- Pests and diseases may include infestations occurring regionally, occurring statewide, not occurring but identified as high risk potential problems for the industry.
- Plant problems or disorders may include any damage or deficiency caused by physical, biological, chemical, cultural or environmental agents.
- Modifications to growing conditions may include Regulated Deficit Irrigation, canopy management, controlled environments, soil cultivation, nutrition programs, soil ameliorants, cover crops.
- Control procedures may include chemical, non-chemical.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- growing requirements of plants
- weeds and pests and diseases of specific horticultural plants
- Integrated Pest Management strategy
- soils and plant nutrition
- sustainable horticultural practices
- cost/benefit analysis relevant to selection of weed, pest and disease control measures
- application techniques for chemical and non-chemical treatments

An ability to

- monitor factors that influence plant health
- diagnose plant health problems
- remedy plant health problems
- evaluate treatment programs

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	2	3	2

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - on the health status of crops, plants and turf
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to monitor and maintain/improve plant health
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - presented by plant symptoms
- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture	
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,	
Turf		
RUH HRT432 A Manage and notify a chemical spillage and/or leakage		
Unit Descriptor		
This Unit of Competency is concerned with the management and notification of accidental chemical spillages or leakages.		
Chemical spillage or leakage management is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for and limited organisation of the work of others involved in the chemical spillage or leakage clean up may be involved.		
Management of this type of event requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as an understanding of a broad range of horticultural chemical and their management under these circumstances.		
This is equivalent to the rural generic unit AG2011CH <i>Manage chemical spill/leakage</i> and AG2012CH <i>Notify authorities</i> .		
Element of Competency	Performance Criteria	
432.1 Implement correct procedures following a chemical spillage or leakage	432.1.1 Chemical spillage is isolated from stock, vehicles and people as determined by industry or enterprise standards. 432.1.2 Chemical spill or leak is contained as determined by industry or enterprise standards or regulator authorities. 432.1.3 Chemical formulation is identified and appropriate decontamination method followed. 432.1.4 Chemical spill is decontaminated using approved methods. 432.1.5 Chemical is cleaned up and disposed of in approved manner. 432.1.6 Procedures follow Material Safety Data sheet information. 432.1.7 Advice is sought from appropriate authorities when necessary.	
432.2 Use personal protective equipment	432.2.1 Tools, equipment and personal protection equipment appropriate to the task are selected, calibrated and used as determined by label directions, Material Safety Data sheets or industry or enterprise standards.	
432.2 Notify authorities of chemical spill	432.3.1 Appropriate authorities are notified in line with enterprise policy. 432.3.2 Spillage extent is assessed and appropriate spill or leak report developed.	
A. RANGE OF VARIABLES		
<ul style="list-style-type: none"> • Appropriate authorities may include emergency services, government departments, local government agencies, chemical manufacturers. • Types of formulation may include emulsifiable concentrates, gases, baits, pellets, liquid concentrates, powders, granules, suspension concentrates. • Approved methods may include collection of waste by appropriate authorities. • Decontamination methods may include use of appropriate material to absorb spill, chemical treatment of spill areas, wash down of spill area. 		

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- the requirements and responsibilities in relation to relevant state legislation relating to the transport, use, storage and disposal of horticultural chemicals including the recognition of the label as a legal document.

The ability to

- calmly and efficiently deal with problems of spillage or leakage
- ensure that all safety and environmental considerations are observed
- operate within all legislative and environmental constraints.

OHS issues that impact on the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with staff and others regarding a spill
- **Collecting, analysing & organising information** - on the nature of the problem
- **Planning & organising activities** - to comply with legislative requirements

- **Working with teams & others** - in management of spill and to ensure all relevant parties notified
- **Using mathematical ideas & techniques** - to calculate volumes and dilutions
- **Solving problems** - associated with spillage management
- **Using technology** - to clean and manage contamination and to communicate with authorities

Industry	Horticulture
Sector/s	Nursery
RUH HRT433 A Implement a propagation plan	
<p>Unit Descriptor This Unit of Competency is concerned with the implementation of a propagation plan.</p> <p>The implementation of a propagation plan is likely to be undertaken without supervision with only general guidance on progress sought by others. Responsibility for and limited organisation of the work of others involved in an integrated pest management program may be involved.</p> <p>Implementing a propagation plan requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as propagation techniques, plant varieties and cultivars, weed, pest and disease recognition and control and plant health requirements.</p>	
Element of Competency	Performance Criteria
433.1 Develop schedule of propagation activities	<p>433.1.1 Schedule is prepared listing timelines and cultural interventions required for implementation of plan.</p> <p>433.1.2 Labour, materials, equipment and machinery needs are identified.</p> <p>433.1.3 Propagation techniques and materials are determined according to enterprise standards and market requirements</p> <p>433.1.4 Spatial requirements for propagation works and growing - on areas are arranged.</p> <p>433.1.5 Strategies to modify environmental conditions are determined.</p>
433.2 Implement propagation works	<p>433.2.1 Propagation plan and schedule of works are communicated clearly to staff.</p> <p>433.2.2 Propagation materials are assessed for health, quality and viability to achieve production targets.</p> <p>433.2.3 Appropriate propagation media are prepared in accordance with enterprise policy.</p> <p>433.2.4 Conditions likely to impact on the business viability are reported to the manager.</p> <p>433.2.5 Irrigation systems are prepared and appropriately programmed according to enterprise policy.</p>
433.3 Monitor performance and success of propagation activities	<p>433.3.1 Variances from plan and scheduled are identified and recorded.</p> <p>433.3.2 Remedial procedures reflect sound implementation of propagation strategy, marketing objectives and business imperatives.</p> <p>433.3.3 Treatments are chosen which provide a suitable response to problems having regard to cost of damage or losses, specific pest and disease problems, and marketing requirements.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Cultural interventions include fertilising, misting, tip/root pruning, spraying growth hormones, light manipulation, temperature changes, increased decreased humidity, tying, staking, taping. • Pests and diseases may include infestations occurring regionally, statewide, or not occurring but identified as high risk potential problems for the industry. 	

<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> weeds and pests of specific horticultural enterprises propagation techniques, equipment and materials plant varieties and cultivars weed, pest and disease recognition and control growing media and plant nutrition application techniques for chemical and non-chemical treatments scheduling of works <p>An ability to</p> <ul style="list-style-type: none"> develop schedule of propagation activities implement propagation works monitor performance and success of propagation activities 																				
<p>OHS issues that impact on the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for handling, transporting and storing chemicals and hazardous substances taking into account toxicity levels and environmental effects safe manual handling systems and procedures selection, use and maintenance of relevant personal protective clothing and equipment OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> Occupational Health and Safety Act of the state Regulations and/or Codes of Practice pertaining to Hazardous Substances Regulations and/or Codes of Practice pertaining to Plant 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	2	3	3														

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - on the propagation requirements of the plants
- **Planning & organising activities** - of self and others in propagation team
- **Working with teams & others** - to achieve production targets
- **Using mathematical ideas & techniques** - to calculate production records
- **Solving problems** - of poor germination or strike rate
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Landscape
RUH HRT434 A Supervise landscape construction works	
<p>Unit Descriptor This Unit of Competency is concerned with the supervision of hardscape construction and maintenance projects.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
434.1 Establish scope of works	<p>434.1.1 Nature of project and extent of responsibilities are checked and recorded according to plans, specifications and documentation.</p> <p>434.1.2 Resources, expertise and labour required to undertake project are identified according to scope of project and enterprise guidelines.</p> <p>434.1.3 Project outline is developed in a sequential order to ensure proposed outcome can be implemented within designated time lines according to enterprise guidelines.</p> <p>434.1.4 Standard of performance is agreed to with the client and recorded according to enterprise guidelines.</p> <p>434.1.5 Schedule is developed to allow for development of the site according to the needs of the client and enterprise guidelines.</p>
434.2 Coordinate the supply of materials/equipment	<p>434.2.1 Material quantities are calculated to ensure an on-going work schedule is maintained according to the requirements of the work contracts.</p> <p>434.2.2 Material quantities are ordered and stockpiled to ensure on-going work schedule is maintained according to enterprise guidelines.</p> <p>434.2.3 Specific delivery instructions are conveyed and confirmed with suppliers to ensure materials are delivered according to work plan.</p> <p>434.2.4 Materials are checked for quality and quantity according to working documentation.</p> <p>434.2.5 Any rejected material is sent back to supplier and re-ordered according to enterprise guidelines.</p>
434.3 Monitor landscape construction works	<p>434.3.1 Service and construction items are monitored to ensure all work complies with the contract conditions.</p> <p>434.3.2 All items not complying with the contract conditions are rectified according to enterprise guidelines.</p> <p>434.3.3 Work schedule is monitored and adjusted to ensure project does not exceed the agreed time limits of the contract.</p> <p>434.3.4 Variations to the contract are checked and recorded according to the contract conditions and enterprise guidelines.</p> <p>434.3.5 Work area is cleared and site is maintained in a clean and tidy condition according to contract conditions and enterprise guidelines.</p> <p>434.3.6 Issues likely to cause delays to the agreed completion date</p>

	of the project are identified and reported to management according to enterprise guidelines.
434.4 Identify items not covered by project brief	<p>434.4.1 Contingencies beyond the scope of the project are identified and recorded according to enterprise guidelines.</p> <p>434.4.2 Damage is identified and nominated as a possible insurance claim or construction fault according to enterprise guidelines.</p> <p>434.4.3 Delays are identified and recorded according to enterprise guidelines.</p> <p>434.4.4 Report is produced and recorded according to enterprise guidelines.</p>
434.5 Prepare site for completion	<p>434.5.1 Site is inspected prior to practical completion and/or handing over to ensure all contract items and conditions have been undertaken according to contract conditions.</p> <p>434.5.2 All items not complying are noted and rectified according to contract conditions.</p>

A. RANGE OF VARIABLES

- Working documentation includes plans, specifications, quotations, contracts, reports, computations.
- Contingencies may include inclement weather, material shortages, availability of labour and equipment.
- Materials may include hardscape components associated with landscape construction and maintenance
- Delays to the project may include industrial disputes, inclement weather, site access, labour/material shortages, equipment breakdowns.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- scheduling landscape construction and maintenance works
- costings and work rates for activities required for a specific project
- possible causes of disruption to work programs and their effect on quality and time schedules
- responsibilities and requirements of landscape contracts
- statutory regulations relating to the use of hazardous chemicals
- symptoms of poor performance in plants, products and treatments

An ability to

- establish the scope of works
- coordinate the supply of materials/equipment
- monitor landscape works
- identify items not covered by project brief
- prepare site for completion

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and other members of the work team
- **Collecting, analysing & organising information** - on the requirements of the project
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to deliver a finished project
- **Using mathematical ideas & techniques** - to calculate areas, volumes and application rates
- **Solving problems** - presented by the contingencies of the project
- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT435 A Cost a project	
Unit Descriptor	
This unit describes the process of estimating labour and materials to cost a project.	
Costing is likely to be under limited supervision from others with checking only related to overall progress. Costing involves the application of horticultural knowledge with depth in some areas and a broad range of horticultural skills. Costing is normally done within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
435.1 Obtain and calculate costs for material, equipment and labour	<p>435.1.1 Current and valid prices for materials, equipment and labour costs stated in the project plan are obtained from all sources.</p> <p>435.1.2 Add-on costs are taken into consideration as required by the project and the enterprise.</p> <p>435.1.3 Labour costs are estimated from a range of factors specific to the enterprise.</p> <p>435.1.4 Labour and price estimation is completed in an acceptable time with the minimum of waste and re-work</p> <p>435.1.5 Total material, equipment and labour costs are accurately and concisely recorded according to enterprise guidelines.</p>
435.2 Summarise costing	<p>435.2.1 The strict adherence to enterprise procedures for project costing provides cost effective project outcomes.</p> <p>435.2.2 All necessary and appropriate material, equipment and labour costs are interpreted in order to summarise the costing.</p> <p>435.2.3 Calculations are accurately and concisely recorded according to enterprise guidelines.</p> <p>435.2.4 Summary of costing is completed with the minimum of waste and re-work.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Material, equipment and labour costs may be recorded verbally, on printed schedules, in a project report, against the project plan. • Labour costs may be estimated from the following factors: the hours stated in the project plan, the hourly rate of individuals to be involved in the project, any additional rates to be paid for work done out of regular hours, any additional rates to be paid for work with specified substances or in specified locations as stated in the relevant labour award. • Sources for costings may include supervisor, enterprise records, suppliers, manufacturers, employment agencies, equipment hiring firms, labour hiring firms. • Add-on costs may include State and Federal taxes, workers' compensation levies, leave entitlements, public holiday implications. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of:	
<ul style="list-style-type: none"> • relevant awards, state, federal and management policies relating to hiring and use of labour • relevant suppliers and manufacturers • occupational health and safety implications • calculations performed to cost a project 	

An ability to:

- obtain and calculate costs for material, equipment and labour
- summarise costing

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
- OHS legislation, relevant regulations and codes of practice in each state, including:
 - Occupational Health and Safety Act of the state
 - Regulations and/or Codes of Practice pertaining to Hazardous Substances
 - Regulations and/or Codes of Practice pertaining to Plant

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with other members of work group
- **Collecting, analysing and organising information** - about the job at hand
- **Planning and organising activities** - for self and others in work group
- **Working with teams and others** - to achieve work schedules
- **Using mathematical ideas and techniques** - such as measuring and estimating to calculate costs
- **Solving problems** - associated with costing a project
- **Using technology** - to measure and estimate project costs

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT436 A Conduct comprehensive inspection of park facilities	
<p>Unit Descriptor This unit describes the comprehensive inspection and safety auditing of park facilities to identify non-conformities with Australian Standards, Occupational Health & Safety Standards and manufacturers standards.</p> <p>Work is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others may be involved. Conducting comprehensive inspections of park facilities requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as asset auditing and management, Playground Safety Management Systems and structural principles and practices.</p>	
Element of Competency	Performance Criteria
436.1 Prepare for comprehensive inspection	<p>436.1.1 According to operational request, specific facilities and equipment for inspection are determined.</p> <p>436.1.2 Appropriate checklists are obtained to suit the application.</p> <p>436.1.3 Different types of facilities are identified from checklist descriptions.</p> <p>436.1.4 Existing management systems are reviewed and improved in consultation with management.</p>
436.2 Undertake comprehensive inspection	<p>436.2.1 Modes of non-conformity with manufacturers guidelines, Australian Standards, and Occupational Health & Safety Standards are recorded.</p> <p>436.2.2 Inspections for structural integrity are undertaken in efficient and safe manner according to enterprise policy.</p> <p>436.2.3 Checklist entries are concise and accurate.</p> <p>436.2.4 Potential safety risks and hazards and situations are identified and detailed.</p>
436.3 Submit report and recommendations	<p>436.3.1 Situations requiring urgent action are addressed in accordance with enterprise standards.</p> <p>436.3.2 Concise and accurate report are prepared and submitted to management.</p> <p>436.3.3 Existing management systems are reviewed particularly regarding frequency of inspection.</p> <p>436.3.4 Recommendations for future action are consistent with industry standards and best practice.</p> <p>436.3.5 Collected data and information is submitted for inclusion on Asset Management System.</p>
436.4 Assess age and project effective lifespan of existing park facilities.	<p>436.4.1 The manufacturer of playground equipment and structures is recognised through reference to original plans and specifications.</p> <p>436.4.2 Age and future lifespan of park facilities are determined and recorded.</p> <p>436.4.3 Costs of repair or replacement are estimated and reported.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Facilities and equipment may include playgrounds, playground softfall and pathways, play equipment, parks and street furniture and structures, fences, bollards and tree/grass protection devices, and paved, turf and/or grassed recreational areas. The selection of appropriate checklists may include a clarification of the specific terminology used and an identification of the tools and equipment used for testing. Visible hazards may include damaged parts, broken glass, loss of soft surfacing, protruding nails, bolts and splinters, sudden changes in surface levels such as holes and trip points, and worn, rusted and 	

<p>weathered components.</p> <ul style="list-style-type: none"> • Non-conformities may include obvious or hidden hazards, worn or damaged components such as bearings and moving joints, and structural instability, and defective operation of equipment. • Structural integrity may include above or below assessment for damage, wear, rot, corrosion ground of posts, decks, load bearing beams, fasteners, canopies, edging. • Management systems may include Playground Safety Management Systems, asset registers, physical resource, human resource, and budget-related information systems.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • range of park facilities and equipment including installation methods • terminology used to describe different components of facilities • different modes of non-conformity • reporting requirements • auditing processes and procedures • facility use and safety parameters • relevant national industry standards (eg AS4486.1, AS4422, AS1924.1 & AS1924.2.) • information management systems (eg AS4456) <p>An ability to</p> <ul style="list-style-type: none"> • prepare for comprehensive inspection • conduct comprehensive inspection • submit reports and recommendations • assess age and project effective lifespan of existing facilities
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> • Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> – systems to ensure that workers undertake OHS induction – systems to ensure that workers safety skills are assessed and training provided – systems to ensure that workers are involved in the identification and reporting of hazards to health and safety – systems to ensure that risks are assessed by relevant workers – systems to ensure that effective short term and long term OHS risk control measures are implemented – safe systems and procedures for handling, transporting and storing chemicals and hazardous substances – systems and procedures for the safe operation and maintenance of machinery and equipment – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Special outcomes of assessment for purposes of licensing by a government or other authority There are no licensing requirements for this unit</p> <p>3. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and

- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
1	2	1	1	2	2	2

- **Communicating ideas and information** - with the supervisor and others in the work team
- **Collecting, analysing & organising information** - auditing of facilities
- **Planning & organising activities** - planning schedule of site visits and required equipment
- **Working with teams & others** - to complete specified tasks
- **Using mathematical ideas & techniques** - calculation of costs and time associated with repair
- **Solving problems** - recommendations address non-conformities
- **Using technology** - electronic data systems

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT437 A Establish and maintain the enterprise occupational health and safety program	
Unit Descriptor	
This Unit of Competency is concerned with the establishment of occupational health and safety policies and guidelines in a horticultural workplace and/or work site.	
Establishment of these policies is likely to be under limited supervision from others and with checking only related to overall progress. This process involves the application of horticultural knowledge with depth in some areas. The work is normally done within routines, methods and procedures.	
This unit is equivalent to the rural generic unit AG4021BM <i>Establish and maintain the enterprise OHS program</i> .	
Element of Competency	Performance Criteria
437.1 Establish and maintain procedures for identifying occupational health and safety hazards, assessing risk and maintaining the most appropriate control measures	<p>437.1.1 Existing and potential OHS hazards are correctly identified and confirmed in accordance with good OHS practice in horticulture, and with relevant OHS legislation and codes of practice.</p> <p>437.1.2 Risks associated with identified hazards are assessed in accordance with safe work practice in horticulture, with information derived from enterprise OHS records and industry wide information, and with relevant OHS legislation and codes of practice.</p> <p>437.1.3 Work processes and procedures are designed to reduce exposure to OHS hazards, where possible eliminating or substituting hazards. Where elimination of a hazard is not possible, systems are designed to reduce risk and administrative arrangements to ensure safe OHS work practice are put in place.</p> <p>437.1.4 Where measures to effectively control a risk are not immediately practicable, short term solutions are implemented until a more effective measure can be put in place.</p> <p>437.1.5 Suitable procedures to implement and monitor ongoing OHS risk management are adopted in the enterprise.</p> <p>437.1.6 Work practice in the enterprise is adequately monitored to ensure compliance with safety procedures.</p> <p>437.1.7 In modification of the enterprise structures, machinery and work processes and effective OHS risk management measures are set in place.</p> <p>437.1.8 A process of ongoing hazard identification and risk assessment and review of effectiveness of control programs is developed and integrated into enterprise management arrangements.</p>
437.2 Establish and maintain an occupational health and safety induction and training program	437.2.1 An occupational health and safety induction and training program is developed as part of the workers general training program to meet the occupational health and safety needs of all workers and supervisors.
437.3 Establish and maintain arrangements to ensure the involvement of all workers the management of OHS	<p>437.3.1 Arrangements which allow and encourage workers at all levels to have input into OHS issues is developed.</p> <p>437.3.2 Issues raised through involvement and consultation with workers are addressed promptly.</p>
437.4 Establish and maintain a system for	437.4.1 Records of:

occupational health and safety records	<ul style="list-style-type: none"> • OHS audits and inspections • action taken to control OHS risk • OHS induction and training of workers • registers of hazardous substances, including pesticides • workers use of hazardous substances and health surveillance results • workers occupational injury and illness • MSDS of hazardous substances • other relevant records <p>are maintained and used to evaluate effectiveness of the OHS program</p>
437.5 Establish and maintain a health and safety plan and program	<p>437.5.1 An occupational health and safety program is developed for the workplace.</p> <p>437.5.2 Occupational health and safety responsibilities for the workplace are clearly defined and included in the job and duty statements of all workers.</p> <p>437.5.3 Financial and human resources are made available to implement the enterprise OHS program in a timely and consistent manner.</p>
437.6 Establish and maintain procedures for dealing with occupational health and safety emergencies in the workplace	<p>437.6.1 Potential emergencies posing risk to health and safety of persons associated with work in the workplace are identified.</p> <p>437.6.2 Procedures to control the level of risk associated with hazardous events are developed in consultation with appropriate emergency services.</p> <p>437.6.3 Appropriate information and training is provided to workers to enable implementation of correct emergency procedures.</p>

A. RANGE OF VARIABLES

This OHS competency involves management of the application of horticultural health and safety principles, relevant OHS health and safety legislation and codes of practice in each state, including the duties and responsibilities of all parties.

- It involves:
 - general duty of care
 - regulations and codes of practice including those relating to plant, hazardous substances, manual handling and noise
 - maintenance of records of occupational injury and disease
 - provision of information and training
 - occupational health and safety committees in larger horticultural enterprises
 - issue resolution
- The following range statement for Rural OHS Generic competencies for AQF 1 and 2 also pertain:
 - hazards in the workplace
 - hazards for which protective clothing or equipment is require
 - hazardous manual handling tasks
 - risks associated with bystanders
 - levels of health and fitness
 - OHS emergencies in workplaces
- The hierarchy of risk control defined for Rural OHS generic competencies AQF 3 and 4 also pertains.
- Procedures for dealing with OHS emergencies in the workplace include provision of clear directions to the location of the emergency using relevant national, state and local references
- Monitoring of activities may include review of:
 - written reports
 - performance appraisal of workers
 - auditing and review of procedures
- Workers include:
 - permanently employed workers
 - casual workers
 - seasonal workers such as contract workers and people resident on or visiting the workplace
- Specific commodity production processes require individual analysis of OHS hazards and risks to ensure that competencies address key OHS issues

B. EVIDENCE GUIDE

<p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> evidence of working knowledge of good OHS horticultural practice and safe work practice is required as well as all relevant occupational health and safety legislation and codes of practice evidence of understanding the hierarchy of OHS risk control and its implementation for hazards in horticulture is required evidence of knowledge of literacy levels and communication skills of workers, including seasonal workers and suitable communication techniques is required <p>An ability to</p> <ul style="list-style-type: none"> readily identify hazards demonstrate a mature approach to the daily application of safe working practices 																				
<p>OHS issues that impact upon the performance of this unit</p> <ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> OHS risk management is the basis of this unit OHS legislation, relevant regulations and codes of practice in each state 																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> Conduct assessment in accordance with an established assessment procedure; and Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Communicating ideas and information - with the enterprise and OHS network Collecting, analysing & organising information - on safety audits and legislative requirements Planning & organising activities - of audit teams Working with teams & others - to achieve a safe workplace Using mathematical ideas & techniques - to calculate statistics Solving problems - of safety procedures Using technology - to communicate and analyse data 							Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	3	3	3	3	3
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	3	3	3														

Industry	Horticulture
Sector/s	Floriculture, Parks & Gardens, Nursery, Production, Turf
RUH HRT438 A Develop a plant nutrition program	
<p>Unit Descriptor: This Unit of Competency is concerned with the development of a plant nutrition program in the horticultural industry.</p> <p>Development of a plant nutrition program is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others involved in the plant nutrition program may be involved.</p> <p>Developing plant nutrition programs at this level requires a broad range of Level 3 skills and involves the application of underpinning knowledge with depth in some areas such as plant biology, crop nutrition requirements, soil and other growing media properties.</p>	
Element of Competency	Performance Criteria
438.1 Determine additives required by performing soil and plant testing	<p>438.1.1 Requirements of soil and plant tests are determined from requirements of species, climatic conditions, prevailing soil and plant conditions, industry practice and enterprise policy.</p> <p>438.1.2 Soil and plant testing program is developed which defines field testing activities, task responsibilities, involvement of contractors and desired information outcomes.</p> <p>438.1.3 Testing tasks are implemented and monitored, liaison procedures with outside testing agencies are supervised and remedial action is undertaken where necessary.</p> <p>438.1.4 Data and readings are compiled and presented in a form that can be easily read and interpreted.</p> <p>438.1.4 Seasonal issues are determined from published data on species, historical records, industry practice and enterprise policy.</p> <p>438.1.5 Collected data is analysed and compared to accepted standards, nutritional status of crop is determined.</p>
438.2. Plan a plant nutrition program	<p>438.2.1 Plan is developed to achieve the appropriate plant condition in line with the enterprise production plan.</p> <p>438.2.2 Plan responds to different nutrition requirements during a range of conditions over the growing cycle of the crop.</p> <p>438.2.3 The most cost effective approach to applying the required nutrients is determined.</p> <p>438.2.4 Plan ensures selected nutrients have no toxic side effects on the soil or crop.</p>
438.3. Monitor the plant nutrition program	<p>438.3.1 Implementation of the program is monitored by soil and plant testing to ensure requirements of the enterprise production plan are achieved.</p> <p>438.3.2 The nutrition program is reviewed and monitored to ensure it remains responsive to changing conditions.</p> <p>438.3.3 Appropriate courses of action are implemented to alleviate or overcome identified shortcomings in the program.</p> <p>438.3.4 Remedial action undertaken is documented and reported to management according to enterprise policy.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Soil may include existing cropped areas, new areas to be cropped, water (hydroponics), soil-less growing mixes. • Range of conditions affecting crop nutrition may include weather, seasonal influences, soil 	

characteristics, crop load, cropping and fertiliser history, irrigation methods and scheduling, spraying program, soil management practices.

- Soil and plant tests may include on site, off site, pH test kits/meters, hand held EC/salinity meters, commercial plant tissue analysis kits.
- Crops include flowers, foliage, essential oils, fruits, vegetables, nuts.
- Remedial action may include adjustments to irrigation scheduling and nutrient application rates and methods, foliar sprays, soil management practices.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- the relationship between soil characteristics and nutrient availability to plants
- macro and micro elements
- nutrient cycling
- sources of plant nutrients
- nutrient uptake by plants
- nutrient deficiency/toxicity symptoms
- characteristics of soil types, uses and additives for specific crops
- nutritional requirements of specific crops.

An ability to

- determine additives required by performing soil and plant testing
- develop a plant nutrition program
- monitor the plant nutrition program

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Special outcomes of assessment for purposes of licensing by a government or other authority

There are no licensing requirements for this unit

3. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

4. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

5. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	1	2	2

- **Communicating ideas and information** - with management and others in the work team
- **Collecting, analysing & organising information** - associated with the development of a plant nutrition program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to implement a plant nutrition program
- **Using mathematical ideas & techniques** - to calculate program requirements
- **Solving problems** - on a daily and seasonal basis associated with a plant nutrition program
- **Using technology** - to measure nutritional requirements

Industry	Horticulture
Sector/s	Floriculture, Production
RUH HRT439 A Develop canopy management and crop regulation programs	
<p>Unit Descriptor: This Unit of Competency is concerned with developing canopy management and crop regulation programs for horticultural crops.</p> <p>The development of programs is likely to be undertaken without supervision with only general guidance on progress sought by higher officers. Responsibility for and limited organisation of the work of others may be involved.</p> <p>Development of canopy management and crop regulation programs at this level requires a broad range of level 3 skills and involves the application of underpinning knowledge with depth in some areas such as pruning, training, crop thinning, irrigation systems and scheduling and plant nutrition requirements.</p>	
Element of Competency	Performance Criteria
439.1 Assess canopy management and crop regulation methods	<p>439.1.1 The methods available for managing plant canopies of specified crops are identified and their benefits and limitations assessed.</p> <p>439.1.2 The methods available for regulating specified crops are identified and their benefits and limitations assessed.</p>
439.2 Develop a canopy management program	<p>439.2.1 The required outcomes of a canopy management program for a specified crop are established in line with the enterprise production plan.</p> <p>439.2.2 The growth, flowering and fruiting characteristics of a specified plant which will influence its canopy management are identified.</p> <p>439.2.3 The environmental factors which will influence the canopy management of a specified plant are identified.</p> <p>439.2.4 The most cost effective strategy for canopy management is determined according to the enterprise production plan.</p> <p>439.2.5 Procedures are developed for implementing the canopy management program.</p> <p>439.2.6 Procedures are integrated into the enterprise production plan.</p> <p>439.2.7 Required human and physical resources are identified and their availability ensured.</p> <p>439.2.8 Procedures are developed and documented for evaluating the effectiveness of the canopy management program.</p> <p>439.2.9 Canopy management procedures are documented for relevant staff to ensure no confusion.</p>
439.3 Develop a crop regulation program	<p>439.3.1 The required outcomes of a crop regulation program for a specified crop are established in line with the enterprise production plan.</p> <p>439.3.2 The potential yield of the specified crop is estimated.</p> <p>439.3.3 The extent of crop regulation required is estimated.</p> <p>439.3.4 Groups of chemical plant growth regulants are classified.</p> <p>439.3.5 The health of the crop is assessed to establish the suitability of crop regulation.</p> <p>439.3.6 The viability of selected crop regulation methods is determined and an appropriate method of crop regulation is selected.</p> <p>439.3.7 The most appropriate timing for the selected method is determined.</p> <p>439.3.8 For chemical regulation, the rate and extent of spraying, timing and application method are determined.</p>

	<p>439.3.9 The most cost effective strategy for crop regulation is determined according to the enterprise production plan.</p> <p>439.3.10 Procedures are developed for implementing the crop regulation program.</p> <p>439.3.11 Procedures are integrated into the enterprise production plan.</p> <p>439.3.12 Required human and physical resources are identified and their availability ensured.</p> <p>439.3.13 Procedures are developed and documented for evaluating the effectiveness of the crop regulation program.</p> <p>439.3.14 Crop regulation procedures are documented for relevant staff to ensure no confusion.</p>
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A. RANGE OF VARIABLES

- Canopy management methods and procedures may include training, summer and winter pruning, hedging, skirting, topping, trimming, Regulated Deficit Irrigation, nutrition programs.
- Crop regulation methods and procedures may include chemical thinning, manual thinning, selective harvesting, training, summer and winter pruning, hedging, skirting, topping, trimming, Regulated Deficit Irrigation, nutrition programs.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- growing requirements of plants
- canopy management principles and practices
- crop regulation principles and practices
- sustainable horticultural practices
- cost/benefit analysis relevant to canopy management and crop regulation methods

An ability to

- assess canopy management and crop regulation methods
- develop a canopy management program
- develop a crop regulation program

OHS issues that impact upon the performance of this unit

- Relevant OHS hazards identification, risk assessment and risk control measures. These include:
 - safe systems and procedures for handling, transporting and storing chemicals and hazardous substances
 - systems and procedures for the safe operation and maintenance of machinery and equipment
 - safe manual handling systems and procedures
 - safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise
 - selection, use and maintenance of relevant personal protective clothing and equipment

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO).

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas & information	Collecting analysing & organising information	Planning & organising activities	Working with teams & others	Using mathematical ideas & techniques	Solving problems	Using technology
2	2	2	2	1	2	2

- **Communicating ideas and information** - with others in the work team
- **Collecting, analysing & organising information** - for others about pruning, training, crop thinning, irrigation systems and scheduling and plant nutrition requirements
- **Planning & organising activities** - of self and others to develop crop regulation programs
- **Working with teams & others** - to implement crop regulation programs
- **Using mathematical ideas & techniques** - to calculate crop requirements
- **Solving problems** - associated with crop regulation on a daily and seasonal basis
- **Using technology** - associated with pruning, training, crop thinning, irrigation systems and scheduling and plant nutrition requirements

LEVEL

5

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT501 A Manage parks and reserves	
Unit Descriptor	
This Unit of Competency is concerned with the management of parks, gardens and open spaces.	
Park management work is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Park management involves the self directed application of knowledge with substantial depth in some areas such as recreational land use and resource management, and a range of technical and other skills such as communication, negotiation organisation and coordination.	
Element of Competency	Performance Criteria
501.1 Implement business, marketing, personnel and financial plans	501.1.1 Actions required to achieve plans are identified and work objectives determined. 501.1.2 Requirements of staff and work groups are communicated to all personnel.
501.2 Monitor, review and report on changing conditions to management	501.2.1 Systems are established to monitor work objectives, record and manage assets, identify variance from plan and adjust actions where necessary. 501.2.2 Variances likely to affect the achievement of business, marketing, personnel and financial plans are identified and reported to management in a timely fashion. 501.2.3 Records are maintained, reports provided and reviews documented according to enterprise requirements.
501.3 Make recommendations for improvement to operations	501.3.1 Operations are reviewed and possible improvements affecting business planning, personnel morale, productivity and systems efficiency are identified. 501.3.2 Improvements to operations are documented, rationale is effectively supported with information and recommendations made. 501.3.3 Asset management reports are prepared and asset databases are established to suit the enterprise.
501.4 Implement and monitor a purchasing plan	501.4.1 Purchasing plan is communicated to responsible personnel, systems initiated and monitored, inventories maintained according to requirements. 501.4.2 Quantity, quality and timing of supply of each input and service is determined from production plans and cash-flow budgets and compiled into a form that facilitates selecting suppliers and arranging orders. 501.4.3 Inefficiencies, stock outs and system problems are isolated, solutions identified and systems modified according to enterprise requirements.
501.5 Schedule park operations	501.5.1 Operations are monitored to ensure work is according to plans. 501.5.2 Quantity, quality and timing of supply of each input and service is identified and coordinated according to the requirements of the operation and the equipment involved. 501.5.3 Operations are coordinated to ensure that available labour matches quantity and type of work required. 501.5.4 Performance monitoring standards are established to measure performance of all park operations. 501.5.5 Benchmarking undertaken according to enterprise policy. 501.5.6 Coordination inefficiencies and problems are isolated, solutions identified and systems modified.
501.6 Determine office functions and implement relevant office procedures	501.6.1 Systems and communications necessary to the well ordered running of a business enterprise are developed and implemented. 501.6.2 Innovations in office procedures are assessed and

	<p>implemented, where appropriate.</p> <p>501.6.3 Equipment relevant to the well ordered running of a business office is acquired, where appropriate, and is cost effective.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • External agencies may include taxation commissioner, financing agencies, business organisations, industry bodies, other government bodies. • Systems may include incoming and outgoing mail, financial transactions, wage employee records (tax, workers compensation, superannuation, leave entitlements) filing/archiving statutory statistics. • Operations may include organising special events, organising restoration of a site, landscaping an area, changing use of site, maintenance, revegetation, aquatic management, turf renovation, playground and playground equipment inspection. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • budgeting • management information systems • management policies/statutory and legislative requirements • monitoring budget expenditure and allocation of monetary resources • asset and resource management • performance management and benchmarking • staff training and development principles, practices and techniques • use of computers as management tools • sports and recreational land use • Australian Standards as they apply to Parks & Gardens (AS/NZS 4486.1:1997) <p>An ability to:</p> <ul style="list-style-type: none"> • implement business, marketing, personnel and financial plans • monitor, review and report on changing conditions to management • make recommendations for improvement to operations • implement and monitor a purchasing plan • schedule park operations • determine office functions and implement relevant office procedures 	
<p>OHS issues that impact upon the performance of this unit Consideration should be given to the health and safety of workers who will be involved working in parks and reserves in respect to the application of hazardous chemicals and/or treatments, and the use of machinery and equipment. Management has a duty of care for the health and safety of the workplace.</p>	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p>	

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with staff and others
- **Collecting, analysing & organising information** - for the preparation of management plans
- **Planning & organising activities** - to effectively manage maintenance and development programs
- **Working with teams & others** - to achieve the outcomes of the management plan
- **Using mathematical ideas & techniques** - to calculate budgets, income and expenditure
- **Solving problems** - of a complex nature relating to all aspects of management
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Landscape, Parks & Gardens
RUH HRT502 A Manage landscape projects	
<p>Unit Descriptor This Unit of Competency is concerned with the management of landscape projects.</p> <p>Project management work is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Landscape project management involves the self directed application of knowledge with substantial depth in some areas such as regulations having possible bearing on landscape projects and techniques for preparing project outlines, and a range of technical and other skills such as the contractual requirements of landscape contracts.</p>	
Element of Competency	Performance Criteria
502.1 Program work schedule	<p>502.1.1 Work schedules are sequenced according to contract requirements to ensure project is cost, asset and resource effective.</p> <p>502.1.2 Time allocations for each work program section are calculated and recorded according to sound work principles and construction practices.</p> <p>502.1.3 Work program is monitored and variances to the schedule responded to according to the requirements of the contract and enterprise policy.</p>
502.2 Maintain effective client liaison	<p>502.2.1 Contract responsibilities and procedures are clarified in respect of all parties involved in the contract according to sound legal principles.</p> <p>502.2.2 Emergency and variation procedures are clarified to the satisfaction of all parties to the project according to contract terms and conditions.</p> <p>502.2.3 Communication obligations in respect of the works program are adhered to according to contractual obligations and sound business practice.</p>
502.3 Manage contractors	<p>502.3.1 Standard contracts are prepared for specific works in line with enterprise standards.</p> <p>502.3.2 Progress of works against contract are monitored according to enterprise standards.</p> <p>502.3.3 Variations and non-conforming elements of contract are identified and recorded.</p> <p>502.3.4 Progress payments and final payments are initiated according to terms of contract.</p>
502.4 Submit works for hand over	<p>502.4.1 Site inspection is undertaken with relevant personnel at completion of works and prior to hand over according to enterprise guidelines.</p> <p>502.4.2 All items below specification are noted, recorded and rectified according to enterprise guidelines and contract terms and conditions.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Resources may include finance, materials, equipment, labour. Personnel may include client and specified representatives, subcontractors and staff, third parties. Documents may include specifications, computations, contracts, plans, bills of quantity. Project types may include domestic and commercial landscaping, garden restoration, pruning, draining a water body, turf renovation, revegetation, changing use of site, organising site for a special event, earthworks and earth-forming activities. Standard contract includes general and technical specifications, special conditions, schedule of rates, payment details, timelines. 	

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

- A basic working knowledge of:
- contract preparation and administration
 - tender process
 - project management principles
 - regulations having possible bearing on landscape projects
 - public liability and legal responsibilities
 - personal and professional liability
 - duty of care
 - landscape machinery and equipment
 - earthmoving and earth forming machinery and equipment
- An ability to
- program work schedules
 - maintain effective client liaison
 - manage contractors
 - submit works for hand-over

OHS issues that impact upon the performance of this unit
 Consideration should be given to the health and safety of workers who will be involved in landscape work implementation in respect to the application of hazardous chemicals and/or treatments, and the use of machinery and equipment. Managers have a duty of care for the health and safety of the work site.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients, staff and others
- **Collecting, analysing & organising information** - for the management of landscape projects
- **Planning & organising activities** - to effectively manage landscape projects
- **Working with teams & others** - to achieve the outcomes of the project
- **Using mathematical ideas & techniques** - to calculate budgets, income and expenditure
- **Solving problems** - of a complex nature relating to all aspects of management
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,
Turf	
RUH HRT503 A Prepare estimates, quotes and tenders	
Unit Descriptor	
This unit describes the work involved in the preparation of estimates, quotes and tenders in a horticultural enterprise.	
The work is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Estimating, quoting and tendering involves the self directed application of knowledge with substantial depth in some areas such as a range of technical and other skills associated with the enterprise.	
Element of Competency	Performance Criteria
503.1 Plan for estimating and quoting	<p>503.1.1 Availability of all necessary and appropriate plans, drawings and text is established to allow the completion of the work.</p> <p>503.1.2 Detailed project information and monetary sums are interpreted and recorded from tender specifications.</p> <p>503.1.3 An inspection of the project site is arranged with all necessary and appropriate personnel to allow the commencement of work.</p> <p>503.1.4 The project document author is consulted with regarding tender specifications.</p> <p>503.1.5 All Occupational Health & Safety standards, statutory requirements, Australian standards, codes of practice, quality assurance requirements, manufacturers specifications and enterprise procedures are interpreted.</p> <p>503.1.6 All necessary and appropriate plans, drawings and texts are interpreted in order to identify the correct size, type and quantity of material and equipment for estimation.</p> <p>503.1.7 All additional plant and/or machinery and skills needed but lacking within the enterprise are estimated as part of job estimation.</p> <p>503.1.8 The sequence of work is appropriately prioritised and documented in the tender document.</p> <p>503.1.9 Conversion of all quantities of materials and labour categories are determined from scaled drawings.</p> <p>503.1.10 All necessary and appropriate contingency sums to complete the quote are interpreted.</p> <p>503.1.11 The tender is planned to be completed and submitted by the closing time and date.</p>
503.2 Estimate material requirements	<p>503.2.1 All Occupational Health & Safety standards, statutory requirements, Australian standards, codes of practice, quality assurance requirements, manufacturers specifications and enterprise procedures are allowed for.</p> <p>503.2.2 All necessary and appropriate plans, drawings and texts are selected and interpreted to carry out material estimation.</p> <p>503.2.3 Drawing scales are confirmed against on site measurements.</p> <p>503.2.4 All necessary and appropriate measuring equipment is selected and used for converting the correct size, type and quantity of materials from plans, drawings and texts.</p> <p>503.2.5 All estimated materials and equipment are accurately and concisely recorded on schedules.</p> <p>503.2.6 Materials and equipment estimation is completed in an acceptable time with the minimum of waste and re-work.</p>
503.3 Estimate labour requirements	<p>503.3.1 All Occupational Health & Safety standards, statutory requirements, Australian standards, codes of practice, quality assurance requirements, manufacturers specifications and</p>

	<p>enterprise procedures are allowed for.</p> <p>503.3.2 All necessary and appropriate plans, drawings and text are selected and interpreted to carry out labour estimation.</p> <p>503.3.3 Labour hours required for the project are estimated in accordance with enterprise resources and policies.</p> <p>503.3.4 All labour requirements are accurately and concisely recorded on schedules.</p> <p>503.3.5 Labour estimation is completed in an acceptable time with the minimum of waste and re-work.</p>
503.4 Cost material, equipment and labour	<p>503.4.1 The strict adherence to enterprise procedures for project costing provides cost effective project outcomes.</p> <p>503.4.2 All necessary and appropriate plans, drawings and text are selected and interpreted to estimate material, labour and equipment costs.</p> <p>503.4.3 Estimated material, equipment and labour costs are totalled for the project.</p> <p>503.4.4 Total material, equipment and labour costs are accurately and concisely recorded on schedules.</p> <p>503.4.5 Material, equipment and labour cost schedules are completed with the minimum of waste and re-work.</p>
503.5 Summarise quotation	<p>503.5.1 The strict adherence to enterprise procedures for project costing provides cost effective project outcomes.</p> <p>503.5.2 All necessary and appropriate plans, drawings and text are selected and interpreted in order to summarise the tender.</p> <p>503.5.3 Tender price for the project is calculated and checked according to enterprise policy.</p> <p>503.5.4 Calculations are accurately and concisely recorded on a price summary sheet.</p>
503.6 Quote and submit tender	<p>503.6.1 All quality assurance requirements and enterprise procedures are strictly followed in tender preparation.</p> <p>503.6.2 Summaries are compiled in order of tender documentation.</p> <p>503.6.3 Quotation is completed for inclusion into the tender.</p> <p>503.6.4 The tender is completed accurately and concisely.</p> <p>503.6.5 The tender is completed with the minimum of waste and re-work.</p> <p>503.6.6 The tender is submitted before the closing time and date.</p>
<p>A. RANGE OF VARIABLES</p> <p>Arboriculture</p> <ul style="list-style-type: none"> • Projects may include works relating to tree planting, pruning, transplanting, maintenance and protection. • An inspection of the project site is arranged with client, agent, or other appropriate authorities to determine site access; conditions and work requirements. • Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet. • Estimates, quotes and tenders may be produced in hand written, typed and computer generated work. • Drawings may refer to schematic, detailed drawings. • Plant/machinery may refer to arboriculture equipment and machinery. • Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums. • Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists. <p>Floriculture</p> <ul style="list-style-type: none"> • Projects may include works relating to contract flower, foliage or oil crop production or supply. • Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet. • Plant/machinery refers to equipment and machinery commonly used in floriculture enterprises. • Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums. • Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists. 	

Landscape

- Projects may include works relating to landscape construction and maintenance works.
- An inspection of the project site is arranged with client, agent, or other appropriate authorities to determine site access; conditions and work requirements.
- Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet.
- Drawings may refer to schematic, detailed drawings.
- Plant/machinery refers to tools, equipment and machinery commonly used in landscape project works.
- Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums.
- Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists.

Nursery

- Projects may include works relating to contract plant production or supply.
- Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet.
- Plant/machinery refers to equipment and machinery commonly used in nursery enterprises.
- Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums.
- Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists.

Parks & Gardens

- Projects include works relating to parks and gardens construction and maintenance.
- An inspection of the project site is arranged with client, agent, or other appropriate authorities to determine site access; conditions and work requirements.
- Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet.
- Drawings may refer to schematic, detailed drawings.
- Plant/machinery refers to tools, equipment and machinery commonly used in parks, gardens and reserves.
- Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums.
- Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists.

Turf

- Projects include works relating to sports turf construction, maintenance works and services, and turf growing and supply.
- An inspection of the project site is arranged with client, agent, or other appropriate authorities to determine site access; conditions and work requirements.
- Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet.
- Drawings may refer to schematic, detailed drawings.
- Plant/machinery refers to tools, equipment and machinery commonly used in sports turf industry.
- Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums.
- Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists.

Production

- Projects include works relating to contract fruit, vegetable, mushroom and herb crop production or supply.
- Detailed project information can refer to specified items that are allocated by the project document author and is recorded on title sheet.
- Plant/machinery refers to equipment and machinery commonly used in production horticulture enterprises.
- Summary may refer to collation of materials, equipment, labour and preliminary costs and abstract sums.
- Text can refer to tender specifications, manuals, information sheets, technical data, catalogues, price lists.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- computing applications in relation to costing
- Occupational Health & Safety implications
- relevant awards, state, federal and management policies relating to the hiring and use of labour
- relevant suppliers and manufacturers
- materials, equipment and labour requirements involved in specific enterprises activities

An ability to:

- plan for estimation and quotation
- carry out material estimation

<ul style="list-style-type: none"> • carry out labour estimation • cost material, equipment and labour • summarise quotation • quote and submit tender 																				
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with others in management team • Collecting, analysing & organising information - for the preparation of estimates, quotes and tenders • Planning & organising activities - to develop estimates, quotes and tenders • Working with teams & others - to develop estimates, quotes and tenders • Using mathematical ideas & techniques - to estimate materials and labour requirements • Solving problems - to meet time lines • Using technology - to communicate and record data 							Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	3	3	3	3	3
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	3	3	3														

Industry	Horticulture
Sector/s	Turf
RUH HRT504 A Plan sports turf establishment	
<p>Unit Descriptor This Unit of Competency is concerned with planning the establishment of sports turf playing surfaces.</p> <p>Sports turf establishment planning is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning the establishment of sports turf involves the self directed application of knowledge with substantial depth in some areas such as basic hydraulics, soil types, sports turf grass selection, and a range of technical and other skills such as planning and the preparation of work plans.</p>	
Element of Competency	Performance Criteria
504.1 Establish scope of works	<p>504.1.1 Nature of project and extent of responsibilities are checked and recorded according to plans, specifications and documentation.</p> <p>504.1.2 Resources, expertise and labour required to undertake the project are identified according to scope of project and enterprise guidelines.</p> <p>504.1.3 Project outline is developed in a sequential order to ensure proposed outcomes can be implemented within designated time lines according to enterprise guidelines.</p> <p>504.1.4 Standard of performance is agreed to with the client and recorded according to enterprise guidelines.</p> <p>504.1.5 Schedule is developed to allow for development of the site according to the needs of the client and enterprise guidelines.</p>
504.2 Conduct site analysis	<p>504.2.1 Analysis requirements of soil are determined from requirements of species, climatic conditions, prevailing soil conditions and industry practice.</p> <p>504.2.2 The climatic influences on a soil profile for the area are determined according to industry practice.</p>
504.3 Design a soil profile	<p>504.3.1 Design takes into account the turf use, the soil characteristics and the local environmental factors.</p> <p>504.3.2 Drainage and irrigation pipes are included in the design to accord with enterprise irrigation and drainage plans.</p>
504.4 Plan a planting program	504.4.1 Planting program defines variety, method, timing, and treatments according to industry practice, use of the area, and enterprise guidelines.
504.5 Plan juvenile plant management program	<p>504.5.1 Plant management program encourages optimum growth of juvenile turf according to the requirements of the species.</p> <p>504.5.2 Soil amendments are determined consistent with the enterprise nutrition program.</p> <p>504.5.3 Mowing program is defined based upon characteristics and health of plant, season, use and historical data.</p> <p>504.5.4 Readiness of turf for use is determined based upon plant maturity, base consolidation and turf function.</p>

A. RANGE OF VARIABLES

- Non-basic soil analysis may include testing for salts, pH, nutrients, soil structure, filtration, moisture retention, particle size, bulk density, clay capacity.
- Prescriptions may include types of lime, fertilisers, soil amendments, gypsum.
- Readiness for use may include root structure, health, vigour, leaf colour, resilience, quality of surface.
- Climatic influences on a soil profile may include shade, wind, topography, solstice charts, climate, seasonal variations, sub-surface.
- Drainage efficiency may include pipe size, fall, type, hydraulics, water moved over period of time.
- Irrigation systems may include pipe sizing, friction losses, wire sizing, satellites, location, pump sizes, volumes, mains water pressure checks.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of:

- soil analysis techniques
- soil structure and treatments
- characteristics of soil types, uses and applications in turf

An ability to:

- establish scope of works
- conduct site analysis
- design a soil profile
- plan a planting program
- plan juvenile plant management program

OHS issues that impact upon the performance of this unit

Consideration should be given at the planning phase to the health and safety of workers who will be involved in sports turf establishment in relation to machinery and equipment operation; the use, handling and storage of hazardous chemicals; and manual lifting techniques. Provision of and correct use of appropriate safety equipment is the responsibility of the manager.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with clients and others in management team • Collecting, analysing & organising information - about the scope of works and the site • Planning & organising activities - of others in a work team • Working with teams & others - to produce an effective plan • Using mathematical ideas & techniques - in designing facility components • Solving problems - to meet time lines • Using technology - to communicate and record data 						

Industry	Horticulture
Sector/s	Turf
RUH HRT505 A Develop turf surface preparation standards	
<p>Unit Descriptor This Unit of Competency is concerned with the development of turf playing surface standards.</p> <p>The development of turf surface preparation standards is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Preparation of standards involves the self directed application of knowledge with substantial depth in some areas such as basic hydraulics, soil types, sports turf grass selection, and a range of technical and other skills such as planning and the preparation of work plans.</p>	
Element of Competency	Performance Criteria
505.1 Define presentation standards	<p>505.1.1 Mowing heights and patterns for fine and coarse turf are clearly defined according to the requirements of the establishment and determined by the committee of management.</p> <p>505.1.2 Basic principles for appearance of turfed areas are outlined according to industry practice.</p> <p>505.1.3 Marking and equipment to be used and final appearance desired are clearly defined according to enterprise guidelines.</p> <p>505.1.4 Specification of the procedures to be undertaken before a major event are detailed according to industry practice and clearly are understood by staff.</p>
505.2 Monitor and review presentation standards	<p>505.2.1 Presentation of facility is monitored relative to requirements of the presentation plan and requirements of stakeholders.</p> <p>505.2.2 Modifications are made where appropriate and required according to the plan.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Presentation standards may include appearance, presentation, special characteristics, requirements for special functions. • Stakeholders may include clients, committees of management, and other end users. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of:</p> <ul style="list-style-type: none"> • requirements for turf use in regard to: height, texture, colour, strength. • presentation standards for turf and methods of achievement <p>An ability to:</p> <ul style="list-style-type: none"> • define presentation standards • monitor and review presentation standards 	
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	1	2	3	3

- **Communicating ideas and information** - with clients and others in management team
- **Collecting, analysing & organising information** - about user requirements
- **Planning & organising activities** - of others in a work team
- **Working with teams & others** - to produce turf surface preparation standards
- **Using mathematical ideas & techniques** - in developing standards
- **Solving problems** - such as limitations of the site
- **Using technology** - to communicate and record data

Industry	Horticulture	
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production,	
Turf		
RUH HRT506 A Negotiate with clients and others		
Unit Descriptor		
This Unit of Competency is concerned with the negotiation that takes place with clients and others for contracted works and/or financial transactions.		
Negotiation is likely to be undertaken alone or under broad guidance only. Responsibility for the planning and management of the work of others may be involved. Negotiation involves the self directed application of knowledge with substantial depth in some areas such as tendering, contracts .		
Element of Competency	Performance Criteria	
506.1 Establish agreements with sources external to the enterprise	506.1.1	The enterprise requirements of a business relationship with external sources are identified and the range of acceptable outcomes from a negotiation are established.
	506.1.2	Contact is made with individuals, bodies or corporations, the appropriate individual is identified and requirements of an agreement are discussed and mutually acceptable terms agreed.
	506.1.3	Sound practice and procedure for business meetings are maintained and all agreements are documented.
506.2 Monitor the performance of contracts	506.2.1	The rights and obligations of parties to a contract are identified and appropriate methods of addressing non-performance are implemented.
	506.2.2	Professional and regulatory bodies available to support commercial grievance processes are identified and consulted when required.
A. RANGE OF VARIABLES		
<ul style="list-style-type: none"> External sources may include banks, accountants, legal representatives, sub-contractors, suppliers of services, suppliers of capital equipment items, government departments. 		
B. EVIDENCE GUIDE		
Underpinning Knowledge and Skills		
A basic working knowledge of:		
<ul style="list-style-type: none"> legal requirements of contracts negotiation skills 		
An ability to:		
<ul style="list-style-type: none"> establish agreements with sources external to the enterprise monitor the performance of contracts 		
OHS issues that impact upon the performance of this unit		
Not applicable		
C. ASSESSMENT GUIDE		
Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.		
The unit will be assessed according to the following guidelines and conditions:		

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	2	2	3	3

- **Communicating ideas and information** - with clients and others in management team
- **Collecting, analysing & organising information** - about the scope of works
- **Planning & organising activities** - of others in a work team
- **Working with teams & others** - to achieve a negotiated result
- **Using mathematical ideas & techniques** - according to requirements
- **Solving problems** - to meet time lines
- **Using technology** - to communicate and record data

Industry Sector/s	Horticulture Arboriculture
RUH HRT507A Assess trees	
<p>Unit Descriptor This Unit of Competency is concerned with the evaluation and assessment of trees.</p> <p>Tree assessment is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Tree assessment involves the self directed application of knowledge with substantial depth in some areas such as tree identification, tree evaluation techniques and reporting methods.</p>	
Element of Competency	Performance Criteria
507.1 Determine tree survey program requirements	<p>507.1.1 Scope of survey is identified in line with client needs.</p> <p>507.1.2 All current data relevant to survey requirements is identified, sourced and recorded according to enterprise guidelines.</p> <p>507.1.3 Processes for data capture are identified in line with budgetary constraints.</p>
507.2 Inspect and assess trees	<p>507.2.1 Trees are inspected to determine their location, condition and hazard status according to survey requirements.</p> <p>507.2.2 Tree locations are accurately plotted on a scale drawing according to the size and extent of the project.</p> <p>507.2.3 Individual trees are assessed and their value nominated and recorded according to established industry practice, enterprise guidelines and historical data.</p>
507.3 Compile a tree inspection report	<p>507.3.1 The name, age and health condition of each tree is determined and recorded according to enterprise guidelines.</p> <p>507.3.2 All hazardous trees are identified and appropriate remedial action is recommended according to the condition of the survey.</p> <p>507.3.3 Tree inspection report is produced identifying and describing each tree including a recommended course of action to rectify all hazards and any identified problem according to enterprise guidelines.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Surveys to be undertaken for parks, gardens, streetscapes, rural. • Access routes may include pedestrian, vehicular. • Inspections may be undertaken for maintenance, treatment programs, damage control, valuations. • Inspections may be visual, infra-red photography, photographs. • Equipment may include tree climbing apparatus, computers and appropriate software, photographic equipment, potentiometer, tape measure. • Valuation considerations may include size, condition, location, historic significance, rarity, convertible timber content. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • principles and methods of identifying tree species and cultivars • indications of instability, decay, damage and stress in trees and their possible causes • principles and methods of determining tree heights • application of current tree valuation formulae • legal requirements relating to the proximity of trees to buildings, services and access routes <p>An ability to</p> <ul style="list-style-type: none"> • determine tree survey program requirements • inspect and assess trees • compile a tree inspection report 	
OHS issues that impact upon the performance of this unit	

Care should be observed where tree assessment requires access to trees for evaluation purposes. Use of equipment and machinery should conform to industry and enterprise policies and guidelines on Occupational Health & Safety (OHS).

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with clients and others
- **Collecting, analysing & organising information** - from tree surveys and collected field data
- **Planning & organising activities** - of others in a work team
- **Working with teams & others** - to compile assessment reports
- **Using mathematical ideas & techniques** - to compile tree data
- **Solving problems** - to meet time lines
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Arboriculture
RUH HRT508 A Plan tree reduction and removal	
<p>Unit Descriptor This Unit of Competency is concerned with the planning process for the reduction or removal of trees.</p> <p>Planning is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning the reduction or removal of trees involves the self directed application of knowledge with substantial depth in some areas.</p>	
Element of Competency	Performance Criteria
508.1 Undertake a site assessment	<p>508.1.1 Risk management factors are assessed and analysed according to Occupational Health & Safety (OHS) implications, historical data and industry practice.</p> <p>508.1.2 Required conventional and specialised equipment necessary to implement a safe and efficient removal process according to industry practice and enterprise guidelines.</p> <p>508.1.3 Quotation of proposed works is calculated and prepared according to enterprise guidelines.</p>
508.2 Develop removal program	<p>508.2.1 Program is developed which integrates the site conditions, condition of the tree, access, risks involved and removal method proposed.</p> <p>508.2.2 Implementation plan is developed which incorporates labour and materials resources according to enterprise guidelines and budgetary constraints.</p> <p>508.2.3 Detailed costing and quotations are developed and presented according to enterprise guidelines and industry practice.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Site conditions may include structurally unsound trees, dangerous sites, confined spaces, dangerous trees due to growth habit, or any tree which through its state or condition represents a significant danger to climber and on-site personnel. • Conventional equipment may include climbing ropes and harness, EWP, chipper, chainsaws, ropes, safety equipment, climbing spurs. • Specified equipment may include custom designed equipment, rigging apparatus, lowering gear, winches. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • legal requirements when felling and removing trees • indications of damage and stress in trees and their possible causes • designing custom built removal equipment • principles and methods of rigging • identification and evaluation of structural defects in trees <p>An ability to</p> <ul style="list-style-type: none"> • undertake a site assessment • develop a removal program 	
<p>OHS issues that impact upon the performance of this unit Consideration should be given at the planning stage to the health and safety of workers who will be involved in activities associated with tree removal in respect to machinery and equipment operation in hazardous situations</p>	
C. ASSESSMENT GUIDE	

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with client and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve the project outcomes
- **Using mathematical ideas & techniques** - to calculate project resources and costs
- **Solving problems** - related to planning and specifications
- **Using technology** - store and communicate information

Industry	Horticulture
Sector/s	Nursery
RUH HRT509 A Develop a plant sales program	
<p>Unit Descriptor This Unit of Competency is concerned with the planning process required for plant sales in a retail or wholesale nursery.</p> <p>Planning is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning plant sales involves the self directed application of knowledge with substantial depth in some areas.</p>	
Element of Competency	Performance Criteria
509.1 Determine the sales requirements of the marketing program	<p>509.1.1 Sales planning for enterprise planning period is undertaken and is coordinated with enterprise marketing plan, business plan and sales facility.</p> <p>509.1.2 Scheduling takes enterprise production variables into consideration, according to sound business practice.</p> <p>509.1.3 Possibilities for add-on sales are considered and calculated according to enterprise marketing and business plans.</p>
509.2 Develop a sales program	<p>509.2.1 Timing within the plan ensures the available enterprise space is filled at all times.</p> <p>509.2.2 Policy concerning below-quality goods and scheduling is determined in line with other enterprise policies.</p> <p>509.2.3 Marketing and advertising is planned and scheduled in line with sales schedule and marketing plan.</p>
509.3 Review the sales program	<p>509.3.1 Sales results, activities and program are continuously monitored and modifications made when and where appropriate in line with enterprise business, and marketing plans.</p> <p>509.3.2 Program is compared with feedback and projections from clients according to sound business practice.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Sales results and activities may include what sells when, how much at what price, merchandising activities. • Enterprise sales variables may include flowering calendars, previous sales, previous shrinkage ratios, space available, future expectations, marketplace, core business. • Influences on sales schedule may include season, peak retailing times for example, Mothers Day, fashion. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • the influence of local growing groups and individual growers • architects, interior designers, and the ways that they work • emerging trends (for example xeriscaping, landscape fashions, move to conifers and cottage gardens) • records required for sales planning • marketing client needs; marketplace, client communication <p>An ability to</p> <ul style="list-style-type: none"> • determine the sales requirements of a marketing program • develop a sales program • review the sales program 	
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>	

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with the manager and other members of the sales team
- **Collecting, analysing & organising information** - on sales programs
- **Planning & organising activities** - of self and others in sales team
- **Working with teams & others** - to effectively supervise sales activities
- **Using mathematical ideas & techniques** - to calculate performance
- **Solving problems** - related to sales and clients
- **Using technology** - store and communicate data

Industry	Horticulture
Sector/s	Floriculture, Nursery, Production
RUH HRT510 A Plan growing media preparation	
Unit Descriptor	
This Unit of Competency is concerned with the planning process for the preparation of growing media. Planning is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Planning the preparation of a growing medium involves the self directed application of knowledge with substantial depth in some areas.	
Element of Competency	Performance Criteria
510.1 Research the media requirements of a species	510.1.1 Research defines media requirements, applications of each specific to the needs of the species as it relates to marketing, production and business plans. 510.1.2 Cost benefit analysis of each media is developed, business implications are determined relative to marketing, business and production plans.
510.2 Determine the requirements for a soil analysis	510.2.1 Nutrition requirements of species are determined and behaviour in a range of soil conditions is identified. 510.2.2 Program is developed which defines scope of soil analysis and test schedule according to enterprise requirements. 510.2.3 Performance of on-site soil testing procedures is supervised.
510.3 Interpret the results of comprehensive media analysis	510.3.1 Results are analysed against requirements of the species, historical data and enterprise policy. 510.3.2 Conclusions are drawn from relevant information and based on reasoned argument and appropriate evidence. 510.3.3 Recommendations are developed on soil treatment and preparation, requirements are documented and communicated effectively.
510.4 Interpret the results of plant tissue analysis	510.4.1 Results are analysed against published characteristics of healthy plant tissue and historical data. 510.4.2 Conclusions are drawn from published data, expert advice and historical data are based on reasoned argument and appropriate evidence. 510.4.3 Recommendations developed on nutrition requirements and pest and disease control are documented and communicated effectively.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Media may include soil, water (hydroponics). Complex soil analyses may include tests required to determine both simple and trace element constituents. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> characteristics of all growing media relative to performance, production capacity, application and cost/benefit biological aspects of plant tissue analysis, relevance of analysis data and remedies, treatments and procedures relevant to production and quality requirements sources of ground water, characteristics of availability and application in crop production 	
An ability to	
<ul style="list-style-type: none"> research the media requirements of a species determine the requirements for a soil analysis interpret the results of comprehensive media analysis interpret the results of plant tissue analysis 	
OHS issues that impact upon the performance of this unit	
<ul style="list-style-type: none"> Relevant OHS hazards identification, risk assessment and risk control measures. These include: <ul style="list-style-type: none"> safe systems and procedures for handling, transporting and storing chemicals and hazardous 	

<ul style="list-style-type: none"> – substances taking into account toxicity levels and environmental effects – safe manual handling systems and procedures – safe systems and procedures for outdoor work, including protection from solar radiation, dust and noise – selection, use and maintenance of relevant personal protective clothing and equipment • OHS legislation, relevant regulations and codes of practice in each state, including: <ul style="list-style-type: none"> – Occupational Health and Safety Act of the state – Regulations and/or Codes of Practice pertaining to Hazardous Substances – Regulations and/or Codes of Practice pertaining to Plant
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C. ASSESSMENT GUIDE

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The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - on media preparation
- **Planning & organising activities** - to prepare media preparation plans
- **Working with teams & others** - to achieve workplace outcomes
- **Using mathematical ideas & techniques** - to calculate media requirements
- **Solving problems** - related to nutrition, plant or crop requirements
- **Using technology** - to store and communicate data

Industry	Horticulture
Sector/s	Floriculture, Nursery, Production
RUH HRT511 A Develop a planting program	
<p>Unit Descriptor This Unit of Competency is concerned with the development of a planting program for crop or nursery production.</p> <p>The development of a planting program is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. The development of a planting program involves the self directed application of knowledge with substantial depth in some areas.</p>	
Element of Competency	Performance Criteria
511.1 Determine the propagation methods	<p>511.1.1 Propagation methods available for species and suited to enterprise resources and capabilities are identified.</p> <p>511.1.2 Propagation methods selected are consistent with crop quality requirements of the marketing plan, productivity requirements of the business plan and sound cost/benefit analysis.</p>
511.2 Receive plant materials	<p>511.2.1 Incoming stock is checked against orders.</p> <p>511.2.2 Compliance with relevant quarantine and quality certification is checked and recorded.</p> <p>511.2.3 Plant materials are handled and stored in an appropriate manner according to enterprise standards.</p>
511.3 Plan growing-on of plants	<p>511.3.1 Growing media is selected according to enterprise guidelines and plant needs.</p> <p>511.3.2 Environmental parameters are selected and altered to meet plant needs, the enterprise and the production/sales plan.</p> <p>511.3.3 Planting depth and application of water is according to sound horticultural practice and the production plan.</p> <p>511.3.4 All growing-on and treatment processes and hygiene practices are carried out according to the production plan and enterprise policy.</p> <p>511.3.5 Staff are given clear directions concerning growing-on processes and treatments according to enterprise policy.</p>
511.4 Establish monitoring procedures	<p>511.4.1 Monitoring procedures outline standards of quality according to published data and historical records.</p> <p>511.4.2 Monitoring procedures outline scope and frequency of treatment required for optimum growth according to enterprise guidelines.</p> <p>511.4.3 Direction is provided to ensure light and spacing requirements are according to plant needs and enterprise guidelines.</p>
511.5 Plan dispatching of plants	<p>511.5.1 Enterprise guidelines for plants ready to be dispatched are in line with crop development and the production plan.</p> <p>511.5.2 Enterprise policy for dealing with poor quality plants is established.</p> <p>511.5.3 Standards for packaging and labelling of plants are set consistent with the production plan.</p>

A. RANGE OF VARIABLES**Floriculture**

- Dispatch refers to the preparation and delivery of plants for flower, foliage, oil or associated horticultural production.
- Plants may include seedlings, bulbs, divisions flowering plants, foliage plants, grafted plants, tissue culture plants, stock plants.
- Environmental parameters may include light, temperature, humidity, airflow.
- Media may include soil, soil-less mixes, water (hydroponics).
- Further treatments while plants are growing may include growth retardants, fertiliser, staking, formative pruning.
- Plant materials received may include seeds, cuttings, tubers, tissue cultured plantlets, runners, bulbs, grafted plants, fruits, potted specimens.

Nursery

- Dispatch refers to the preparation and delivery of plants to retailers or consumers.
- Nursery plants may include seedlings, bulbs, divisions, containerised plants, field grown plants, flowering plants, foliage plants, grafted plants, tissue culture plants, stock plants.
- Environmental parameters may include light, temperature, humidity, airflow.
- Elements for potting-up planning may include pots are on-site, media is ready, plants are on-site, media is ready, growing-site is ready to receive newly potted plants.
- Media may include soil, soil-less mixes, water (hydroponics).
- Further treatments while plants are growing may include growth retardants, fertiliser, staking, formative pruning.
- Stage required for sale may include healthy foliage, size determined by the marketing plan, coming into bud, pots unbroken.
- Plant materials received may include seeds, cuttings, tubers, tissue cultured plantlets, runners, bulbs, grafted plants, fruits, potted specimens.

Production

- Dispatch refers to the preparation and delivery of plants for fruit, vegetable, nut or associated horticultural production.
- Plants may include seedlings, bulbs, divisions, flowering plants, foliage plants, grafted plants, tissue culture plants, stock plants.
- Environmental parameters may include light, temperature, humidity, airflow.
- Media may include soil, soil-less mixes, water (hydroponics).
- Further treatments while plants are growing may include growth retardants, fertiliser, staking, formative pruning.
- Plant materials received may include seeds, cuttings, tubers, tissue cultured plantlets, runners, bulbs, grafted plants, fruits, potted specimens.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- production planning
- market requirements in respect to standards of produce or plants, packaging and labelling
- propagation and growing-on requirements of plants

An ability to

- determine the propagation method of a crop
- plan growing-on of plants
- establish monitoring procedures
- plan dispatching of plants

OHS issues that impact upon the performance of this unit

Consideration should be given at the planning stage to the health and safety of workers who will be involved in activities associated plant production particularly in relation to chemical use. Care should be taken to avoid conditions that suit bacterial diseases such as *Legionella*.

C. ASSESSMENT GUIDE

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The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - for the planting program
- **Planning & organising activities** - to planting plans
- **Working with teams & others** - to achieve workplace outcomes
- **Using mathematical ideas & techniques** - to calculate areas and planting rates
- **Solving problems** - related to seasons and adverse weather conditions
- **Using technology** - to store and communicate data

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT512 A Prepare and monitor budgets and financial reports	
<p>Unit Descriptor This Unit of Competency is concerned with the preparation of budgets and financial reports and the implementation and monitoring of budgets in a horticultural enterprise.</p> <p>Work is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Responsibility and defined accountability for the work of others may be involved. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Competencies are usually used independently and are substantially non-routine. Significant judgement is required in planning design, technical or supervisory functions related to products, services, operations or processes.</p>	
Element of Competency	Performance Criteria
512.1 Prepare a budget	<p>512.1.1 Information on past receipts and payments is obtained from previous records, compared to current prices and cost trends and compiled in a form that enables projections of future receipts and expenditures.</p> <p>512.1.2 A plan is prepared for a period which allows for expected expenditure and financial reporting requirements, using the 'most likely' prices and costs.</p>
512.2 Implement and monitor a budget	<p>512.2.1 Receipts and payments are monitored and reconciled against the original budget.</p> <p>512.2.2 Variances against the original plan are identified and the impact on overall profit/loss and cash flow is calculated.</p> <p>512.2.3 Adjustments are made where necessary to respond to unacceptable variations.</p>
512.3 Prepare financial reports	<p>512.3.1 Information with source documents is assembled according to the requirements of the report recipient.</p> <p>512.3.2 Documentation is forwarded in a timely and efficient manner.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Budgets may include recurrent operating or project based funds. • Report recipients may include Taxation Commissioner, financing agencies, boards of management, committees, councils, executive management. • Records and reports may be paper or computer based. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • budget formulation • financial information systems • business transactions • banking and reconciliation <p>An ability to</p> <ul style="list-style-type: none"> • prepare a budget • implement and monitor a budget • prepare financial reports 	

OHS issues that impact upon the performance of this unit

Not applicable.

C. ASSESSMENT GUIDE

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Registered Training Organisation (RTO)

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with others in management team
- **Collecting, analysing & organising information** - for the preparation of budgets and financial reports
- **Planning & organising activities** - to gather relevant financial data
- **Working with teams & others** - with others in a management team
- **Using mathematical ideas & techniques** - to calculate components of budgets and financial reports
- **Solving problems** - to meet time lines
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT513 A Manage business operations	
<p>Unit Descriptor This Unit of Competency is concerned with managing the business operations of a horticultural enterprise.</p> <p>Work is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Responsibility and defined accountability for the work of others may be involved. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Competencies are usually used independently and are substantially non-routine. Significant judgement is required in planning design, technical or supervisory functions related to products, services, operations or processes.</p>	
Element of Competency	Performance Criteria
513.1 Implement the business, marketing, personnel and financial plans	<p>513.1.1 Actions required to achieve plans are identified and work objectives are determined from enterprise documentation.</p> <p>513.1.2 Requirements of staff and work groups are defined and communicated.</p>
513.2 Monitor changing conditions in the business environment	<p>513.2.1 Systems are established to monitor work objectives, identify variance from plans and adjust actions where necessary.</p> <p>513.2.2 Variances likely to affect the achievement of business, marketing, personnel and financial plans are identified from a range of business reports and reported to management according to enterprise guidelines.</p> <p>513.2.3 Records are maintained, reports provided and reviews documented according to enterprise guidelines.</p>
513.3 Make recommendations for improvement to operations	<p>513.3.1 Operations are reviewed, improvements affecting business planning, personnel morale, productivity and systems efficiency are identified.</p> <p>513.3.2 Operational manuals are updated and distributed to staff on a regular basis.</p> <p>513.3.3 Improvements to operations are documented, rationale effectively supported with information and recommendations made according to enterprise policy.</p>
513.4 Implement a purchasing plan	<p>513.4.1 The purchasing plan is communicated to responsible personnel, systems initiated and monitored and inventories maintained according to requirements.</p> <p>513.4.2 Quantity, quality and timing of supply of each input and service are determined from production plans and cash-flow budgets, and compiled into a form that facilitates selecting suppliers and arranging orders according to enterprise policy.</p> <p>513.4.3 Inefficiencies, stock outs and system problems are isolated, solutions identified and systems modified.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Business reports may include budgets, production reports, customer feedback. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- production, staffing, resource and business issues relative to marketing and business planning
- inventory management and planning

An ability to

- implement the business, marketing, personnel and financial plans
- monitor changing conditions in the business environment
- make recommendations for improvement to operations
- implement a purchasing plan

OHS issues that impact upon the performance of this unit

Not applicable.

C. ASSESSMENT GUIDE

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Registered Training Organisation (RTO)

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with others in the management team
- **Collecting, analysing & organising information** - for effective business management
- **Planning & organising activities** - on a daily basis
- **Working with teams & others** - to achieve specified outcomes
- **Using mathematical ideas & techniques** - to monitor changing business conditions
- **Solving problems** - to manage a business effectively
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT514 A Administer the business	
<p>Unit Descriptor This Unit of Competency is concerned with the administration of the business of a horticultural enterprise.</p> <p>Work is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Responsibility and defined accountability for the work of others may be involved. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Competencies are usually used independently and are substantially non-routine. Significant judgement is required in planning design, technical or supervisory functions related to products, services, operations or processes.</p>	
Element of Competency	Performance Criteria
514.1 Determine the information needs of management	<p>514.1.1 Management information needs in planning, implementing, monitoring, controlling and evaluating the business operations are identified.</p> <p>514.1.2 Required records, records analysis and information filing systems are defined.</p>
514.2 Determine office functions and implement relevant office procedures	<p>514.2.1 Systems necessary to the well-ordered running of a business enterprise are developed and implemented.</p> <p>514.2.2 Innovations in office procedures are assessed and implemented where appropriate.</p> <p>514.2.3 Equipment relevant to the well-ordered running of a business office are acquired where appropriate and cost effective.</p>
514.3 Communicate with various audiences in a business context	<p>514.3.1 Information and ideas are conveyed verbally and in writing in various business situations in a manner which ensures audience understanding and is likely to result in the desired response.</p> <p>514.3.2 Verbal messages and written information are correctly interpreted and responses suitable to the situation are provided.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> External agencies may include Taxation Commissioner, financing agencies, Australian Bureau of Statistics, business organisations, industry bodies, other government bodies. Systems may include incoming and outgoing mail, financial transactions, wages, employee records (tax, workers compensation, superannuation, leave entitlements), filing, archiving, statutory statistics, production management. Audiences may include workforce, business and industry associates, relevant professionals. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> administrative systems Occupational Health & Safety (OHS) responsibilities of business managers responsibilities in respect to taxation, superannuation, and employment of staff. management information systems business communications <p>An ability to</p> <ul style="list-style-type: none"> determine the information needs of management determine office functions and implement relevant office procedures 	

- communicate with various audiences in a business context

OHS issues that impact upon the performance of this unit

Relevant OHS hazards identification, risk assessment and risk control measures. These include:

- repetitive strain injury
- correct seating and posture
- lifting
- computer usage
- workplace layout

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with others in management team
- **Collecting, analysing & organising information** - for management information needs
- **Planning & organising activities** - mail systems, banking, and records on a daily basis
- **Working with teams & others** - to achieve specified outcomes
- **Using mathematical ideas & techniques** - to monitor changing business conditions
- **Solving problems** - of systems, filing, recording, staff, to manage a business effectively
- **Using technology** - office equipment to communicate and record data

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT515 A Design irrigation, drainage and water treatment systems	
<p>Unit Descriptor This Unit of Competency is concerned with the design of drainage and irrigation systems for horticultural enterprises and facilities.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
515.1 Determine design requirements	<p>515.1.1 Water is predicted to be available in sufficient quantity and quality for the particular crop or situation at the time it is needed by the enterprise.</p> <p>515.1.2 Water transfer, recharge, reuse and harvesting systems are designed to conserve natural resources.</p> <p>515.1.3 The process of collecting or storing water does not degrade the water quality for the enterprise or the environment.</p> <p>515.1.4 Design calculations and decisions are documented to enterprise requirements and construction specifications define the work required to make suitable water available to the enterprise.</p> <p>515.1.5 Environmentally sensitive areas are identified and protected according to local, state and national legislation and land degradation issues are identified.</p>
515.2 Define pumping and power systems	<p>515.2.1 Pumps are selected to deliver water efficiently from the water storage when needed, at the flow and pressure required to operate the distribution system to the design specifications.</p> <p>515.2.2 The pump motor combinations are efficient, the pumps are reliable, functional, serviceable and flexible for the intended application.</p> <p>515.2.3 Energy requirements are determined and layout of electricity lines are determined and checked with local authority.</p> <p>515.2.4 The relationship between capital and operational costs are optimised including a comparison of energy sources.</p> <p>515.2.5 Structures, valves, accessories and performance indicators are selected and integrated into a functional system that can be monitored and maintained according to enterprise guidelines.</p> <p>515.2.6 Design calculations and decisions are documented according to enterprise guidelines.</p> <p>515.2.7 Construction specifications define work required to make suitable pumping and power system available to enterprise.</p> <p>515.2.8 Power supply design specification is checked with power authorities.</p>

515.3 Design a distribution system	<p>515.3.1 Detailed topographic survey is conducted or an accurate map is obtained showing extent, planting layout, physical constraints and contours with suitable interval.</p> <p>515.3.2 Detailed soil survey is conducted at suitable intervals and mapped to show variation in readily available water.</p> <p>515.3.3 Water budgets are determined having regard to the evapotranspiration state of the crop/plants, soil moisture characteristics and cultural practices.</p> <p>515.3.4 Distribution systems are evaluated and designed with respect to a range of key variables.</p> <p>515.3.5 Pipes, valves and fittings are sized according to design system specifications so that capital cost is balanced against operation costs over the anticipated system life.</p> <p>515.3.6 Flows, water levels and pressures are calculated and documented to be within the acceptable tolerances for optimum performance.</p> <p>515.3.7 Flows, water levels and pressures are achievable by the pumps and with optimum efficiency according to enterprise standards.</p> <p>515.3.8 Mechanisms for controlling and adjusting pressure are included and isolation valves direct water to areas with different irrigation schedules.</p> <p>515.3.9 Channel systems and attendant structures are designed according to industry recommendations and channel flow velocities are calculated according to enterprise standards.</p> <p>515.3.10 Soil types have been compared for erodeability and suitable fill has been selected for construction according to enterprise standards.</p> <p>515.3.11 Construction plans and specifications define work required to achieve the required standards of uniformity and efficiency of water application according to industry standards.</p>
515.4 Design a drainage, storage and treatment system	<p>515.4.1 Regional geology and geography is investigated to predict sustainability of irrigation and storage.</p> <p>515.4.2 Site investigations determine depth of clay, depth of ground water, soil and water salinity and structural or chemical impediments and calculations and costings will determine the most cost effective storage system.</p> <p>515.4.3 Predictions of leaching fractions and salt movements are documented and soil amelioration and drainage management plans are developed.</p> <p>515.4.4 The need for leachate interception and dewatering system is determined and if required construction specification prepared for interception and collection, water treatment, disposal, reuse or recycle.</p> <p>515.4.5 Drains and structures are capable of carrying the design water volumes and intensities according to enterprise standards.</p> <p>515.4.6 Damage from water logging is minimised according to enterprise standards.</p> <p>515.4.7 Hydrological calculations predict volumes and rates of surface run-off according to enterprise standards.</p>

515.5 Determine capital expense budget	<p>515.5.1 Design calculations and decisions are documented and relevant information is communicated clearly through plans, specifications and manuals.</p> <p>515.5.2 Design output is checked by a competent designer against enterprise objectives.</p> <p>515.5.3 Materials requirements are determined and documented from plans and specifications.</p> <p>515.5.4 Labour requirements are estimated, based upon documented work schedule with reasonable allowance for variances in work schedules.</p> <p>515.5.5 Costing attributed to each component is based upon quoted information from suppliers, or sound analysis of individual elements.</p>
515.6 Determine operating expense budget.	515.6.1 Operating expense budget indicates all expenses applicable to the completed irrigation system.

A. RANGE OF VARIABLES

- The design may include compliance with the standard specification legislation and regulations of the relevant state or territory water and power authorities.
- Micro-irrigation systems may include drip, mains pressure, low pressure, below surface, above surface, emitter trickle, t-tape, and mini-sprinklers, capillary, ebb and flow, flood systems.
- Spray irrigation systems may include travelling irrigators (soft hose, hard hose boom type) centre pivot, linear move, powered side roll hand shift permanent (installed), bike shift/easy shift.
- Surface irrigation systems may include border check, contour irrigation, furrow irrigation, hillside flooding, basin irrigation.
- System may range from manual operation and monitoring to fully automated with computer control and monitoring.
- Standards of uniformity and efficiency may vary from system to system.
- Key variables may include ability to target like soils and crops, efficiency of water use in various crop/weather situations, wind breaks to support irrigation where appropriate, uniformity of distribution, specialist irrigation consultant.
- Documentation may vary according to budget, environmental constraints, owner preferences and quoting procedures.
- Reuse systems may include disinfection and filtering equipment.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- latest irrigation technology
- contractual developments and obligations
- design processes
- drainage and storage development technology
- latest treatment technology and Environmental Protection Agency regulations
- automatic control and monitoring systems
- budgeting, waste management and environmental issues

An ability to

- determine design requirements
- define pumping and power systems
- design a distribution system
- design a drainage, storage and treatment system
- determine capital expense budget
- determine operating expense budget

OHS issues that impact upon the performance of this unit

Consideration should be given at the design stage to the health and safety of workers who will be involved in activities associated with irrigation installation in respect to machinery and equipment operation and chemical use

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with other members of the work team
- **Collecting, analysing & organising information** - on drainage and irrigation requirements
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to effectively drain or deliver water
- **Using mathematical ideas & techniques** - to calculate areas, volumes and application rates
- **Solving problems** - of water use and availability and breakdowns with systems components
- **Using technology** - to analyse systems and communicate and keep records

Industry	Horticulture
Sector/s	Turf
RUH HRT516 A Design sports turf playing surfaces	
<p>Unit Descriptor This Unit of Competency is concerned with the design of sports turf playing surfaces.</p> <p>The design of sports turf playing surfaces is likely to be undertaken without supervision. Responsibility for the work of others may be involved.</p> <p>The design of sports turf playing surfaces requires a broad range of Level 4 skills and involves the application of underpinning knowledge with depth in some areas such as turf selection, soils, turf design principles, playing surface standards, drafting techniques, and communication skills.</p>	
Element of Competency	Performance Criteria
516.1 Develop a design brief	516.1.1 Client is consulted to establish the purpose and requirements of design. 516.1.2 Design brief is developed and agreed with the client. 516.1.3 Cost structures and timelines are negotiated with the client.
516.2 Undertake a site analysis	516.2.1 Base plan of site is prepared or obtained from the client or other sources. 516.2.2 Physical elements and features of the site are recorded on the base plan. 516.2.3 Assessment of soil, topography, aspect, existing vegetation and climatic factors are recorded on site plan. 516.2.4 Functional analysis of site is completed and recorded on the base plan. 516.2.5 Other relevant data is assessed and recorded on the base plan.
516.3 Develop a concept design	516.3.1 Concept plan is prepared to illustrate location and layout of the proposed site works according to the design brief. 516.3.2 Plant list is compiled of species and varieties suitable for the site according to the design brief. 516.3.3 Consultation with the client is undertaken to agree on options and approaches for development. 516.3.4 Consistent graphic style is used to present the concept plan.
516.4 Produce a final plan	516.4.1 Detailed design is produced according to the design brief. 516.4.2 Design solutions and graphic representations are applied to a range of landscape development situations. 516.4.3 Plan is drafted according to enterprise standards and design concepts. 516.4.4 Information on plan is relevant and precise and clearly communicates development works to be undertaken. 516.4.5 Notes and specifications are included on plan to assist in plan interpretation.
516.5 Prepare bill of quantities and estimates	516.5.1 Bill of quantities (BOQ) is prepared listing scope and extent of works. 516.5.2 Cost estimate is prepared for the client covering items in BOQ, labour and machinery and equipment costs.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Sports turf playing surfaces may include golf course surfaces, bowling greens, cricket wickets, turf tennis courts, sports grounds. • Other relevant data may include opportunities and constraints on development, laws and regulations impacting on development, site for material storage and compound area, proximity to services and utilities. • Plans drafted may include hand drafted or computer aided design documentation. • Bill of quantities include unit costs, sub-contractor estimates, quantity calculations, brief specification of materials, contingency items, prime cost items, development and/or consolidation works. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • sports turf design process • playing surface standards 	

- turf selection
- drafting techniques
- cost estimate
- calculations of materials, labour, machinery and equipment

An ability to

- develop a design brief
- undertake a site analysis
- develop a concept design
- produce a final plan
- prepare bill of quantities and estimates

OHS issues that impact upon the performance of this unit

Consideration should be given at the planning stage to the health and safety of workers who will be involved in activities associated with sports turf development works in relation to chemical use, and equipment and machinery operation.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and others in management team
- **Collecting, analysing & organising information** - about user requirements
- **Planning & organising activities** - of others in a work team
- **Working with teams & others** - to produce sports turf playing surfaces
- **Using mathematical ideas & techniques** - in design calculations
- **Solving problems** - such as limitations of the site
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Nursery, Parks & Gardens, Production, Turf
RUH HRT517 A Manage plant health	
Unit Descriptor	
This Unit of Competency is concerned with the management of plant and crop health.	
Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
517.1 Develop a plant health and management program	517.1.1 Plant health issues are identified from published data, historical records and industry consultation. 517.1.2 Management issues are defined relative to desired quality, quantity and productivity requirements of marketing and production plans. 517.1.3 The program is developed which defines enterprise guidelines and specific responsibilities of operational elements to achieve required outcomes. 517.1.4 The program is communicated effectively and systems are established to monitor business goals. 517.1.5 Professional assistance is sought where appropriate.
517.2 Develop a plant maintenance program	517.2.1 Plant maintenance requirements are defined having regard to health, production, marketing, seasonal and environmental influences. 517.2.2 The program defines enterprise guidelines and specific responsibilities of operational elements to achieve required outcomes. 517.2.3 The program is communicated effectively and systems are established to monitor business goals. 517.2.4 Professional assistance is sought where appropriate.
517.3 Develop a plant nutrition program	517.3.1 Nutrition requirements of plants prior to planting, and at planting, post-planting and growing phase are identified from published data, historical records and industry consultation. 517.3.2 Remedial treatments to respond to quality variations are defined according to enterprise requirements. 517.3.3 The plant nutrition program defines enterprise guidelines and specific responsibilities of operational elements to achieve required outcomes. 517.3.4 Plant nutrition program is communicated effectively and systems are established to monitor business goals. 517.3.5 Professional assistance is sought where appropriate.

A. RANGE OF VARIABLES**Floriculture**

- Ground water may include surface water table, subterranean water table.
- IPM strategy may include application of chemical, biological and environmental strategies for the control of weeds, pests and diseases in fashion which supports sustainable horticultural practices.
- Plants may include flower, foliage and oil crops.

Nursery

- IPM strategy may include application of chemical, biological and environmental strategies for the control of weeds, pests and diseases in fashion which supports sustainable horticultural practices.
- Plants may include species and cultivars that are containerised and open-grown.

Production

- IPM strategy may include application of chemical, biological and environmental strategies for the control of weeds, pests and diseases in fashion which supports sustainable horticultural practices.
- Plants may include fruit, vegetable and herb crops.

Turf

- IPM strategy may include application of chemical, biological and environmental strategies for the control of weeds, pests and diseases in fashion which supports sustainable horticultural practices.
- Plants may include turf grasses and broad-leaf species and varieties.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- strategic aspects of managing plant quality, performance and nutrition
- management of weed, pest and disease infestations
- planning water budgets and irrigation strategies
- plant growth processes such as photosynthesis, respiration, nutrient uptake, solute transport, and metabolism, water balance, osmotic pressure,
- plant growth and development and growth regulators

An ability to

- develop a plant health and management program
- develop a plant maintenance program
- undertake a ground water analysis
- develop an irrigation program
- develop a nutrition program

OHS issues that impact upon the performance of this unit

Consideration should be given to the health and safety of workers who will be involved in activities associated with maintaining plant health particularly in relation to chemical use, and equipment and machinery operation.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment
These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?
Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - on the health status of crops, plants and turf
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to monitor and maintain/improve plant health
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - presented by plant symptoms
- **Using technology** - to gather information, communicate and keep records

Industry Horticulture	
Sector/s Landscape, Parks & Gardens	
RUH HRT518 A Conserve natural resource areas	
Unit Descriptor This Unit of Competency is concerned with the conservation of natural resource areas. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
518.1 Assess the area to identify the need for a conservation or reinstatement program	518.1.1 Natural flora and fauna are identified and evaluated according to conservation principles and relevant legislation. 518.1.2 Factors likely to impinge on natural flora and fauna are evaluated according to established conservation practice. 518.1.3 Damage to the land and soil is identified and causes established according to defined land management principles. 518.1.4 Priorities for protection, conservation and restoration work are determined according to land management and conservation principles, and relevant legislation. 518.1.5 Site assessment report is developed according to enterprise guidelines.
518.2 Develop site conservation management plan	518.2.1 Conservation management plan is consistent with site assessment report, available resources and sound conservation practices. 518.2.2 Conservation management plan incorporates on-going assessment of area and effectiveness of program. 518.2.3 Conservation management plan addresses bushfire management issues. 518.2.4 An ongoing maintenance plan is developed according to sound conservation principles.
518.3 Reinstatement indigenous flora	518.3.1 Weeds, exotic species and other invasive species are removed with minimal disturbance to the environment according to management plan. 518.3.2 Local provenance forms of indigenous species are maintained through appropriate propagation techniques. 518.3.3 Appropriate species are established according to the management plan. 518.3.4 Ongoing maintenance is implemented according to plan.
518.4 Restore damaged land	518.4.1 Erosion control program is implemented according to the management plan. 518.4.2 Area regeneration is undertaken according to the management plan. 518.4.3 Drainage is checked and corrected where damage is likely to occur according to sound land management principles.
518.5 Institute fauna management program	518.5.1 Environment is maintained conducive to natural fauna survival according to the needs of the species. 518.5.2 Feral animals which provide a threat to native fauna are managed according to regulations and legislation.
518.6 Control pedestrian traffic	518.6.1 Walking tracks are established and maintained to minimise pedestrian damage to the area according to the management program. 518.6.2 Signs are erected to ensure safety of the public and appropriate to conservation objectives according to legislative requirements.

A. RANGE OF VARIABLES

<ul style="list-style-type: none"> • Land/soil may be damaged by erosion, increased salinity, land compaction. • Propagation may include seed collection and germination, propagation by cuttings, controlled firing for regeneration. • Invasive species of flora may include native flora not indigenous to the area. • Walking tracks and pathways may include unimproved paths, constructed pathways, constructed pathways with possible steps and drainage constructions, and constructed wooden board walks.
<p>B . EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • fauna and flora identification and biology • principles of catchment management • fire management and control • principles and methods of erosion control • principles and practices relating to weed and pest control • regeneration techniques • conservation ecology and economics • environmental legislation and policy • environmental assessment • wildlife and habitat management principles <p>An ability to</p> <ul style="list-style-type: none"> • assess the area to identify the need for a conservation/reinstatement program • develop site conservation management plan • reinstate indigenous flora • restore damaged land • institute fauna management program • control pedestrian traffic
<p>OHS issues that impact upon the performance of this unit</p> <p>Consideration should be given to the health and safety of workers who will be involved in implementing conservation works requiring application of hazardous chemicals and/or treatments, equipment and machinery.</p>
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with members of the work team • Collecting, analysing & organising information - to develop a conservation management plan • Planning & organising activities - of self and others • Working with teams & others - to conserve natural resource areas • Using mathematical ideas & techniques - analyse data from external agents • Solving problems - presented by the status of the areas • Using technology - to gather information, communicate and keep records 						

Industry	Horticulture
Sector/s	Floriculture, Nursery, Productio
RUH HRT519 A Manage controlled growing environments	
<p>Unit Descriptor This Unit of Competency is concerned with the management of controlled growing environments.</p> <p>The management of controlled growing environments is likely to be undertaken without supervision. Responsibility for the work of others may be involved.</p> <p>Management of controlled growing environments requires a broad range of Level 4 skills and involves the application of underpinning knowledge with depth in some areas such as plant nutrition, plant physiology and growing needs, pest management and forward planning.</p>	
Element of Competency	Performance Criteria
519.1 Determine environmental requirements of plants	<p>519.1.1 Plant growing requirements are determined to suit enterprise needs.</p> <p>519.1.2 Environmental parameters that need to be manipulated to meet requirements of marketing plans are outlined.</p> <p>519.1.3 Options available to manipulate the environment are determined in accordance with available resources.</p> <p>519.1.4 Optimal environmental growing conditions are selected to meet growing parameters and market requirements.</p>
519.2 Develop a production plan for a controlled environment system	<p>519.2.1 Harvesting dates to meet market deadlines are determined in line with enterprise practice.</p> <p>519.2.2 Growth requirements of plants from planting to harvesting are defined.</p> <p>519.2.3 Scope and timing of cultural practices to meet market requirements are outlined in accordance with enterprise policy.</p> <p>519.2.4 Staff comfort and effect of the environment on productivity and health is considered in the production plan.</p> <p>519.2.5 Production plan is documented for implementation by staff.</p>
519.3 Monitor environmental and cultural factors of a controlled environment system	<p>519.3.1 Environmental and cultural factors to be monitored are determined.</p> <p>519.3.2 Format for recording factors is established in line with enterprise procedures.</p> <p>519.3.3 Frequency of monitoring is determined in line with enterprise procedures.</p> <p>519.3.4 Threshold for remedial action is defined according to industry best practice.</p> <p>519.3.5 Required remedial action is documented for implementation by staff.</p> <p>519.3.6 Effectiveness of monitoring system is reviewed on a regular basis.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Controlled environment systems may include glasshouses, poly-houses, conservatories, tunnels. Environmental factors may include water, air, light, humidity, growing media, temperature. Cultural factors may include fertilising, weed control, light manipulation, watering, staking, tying, pruning, de-budding, use of growth hormones and retardants, potting-on. Remedial action may include watering, pest and disease control, weed control, manipulation of environmental factors. Plants may include flower, foliage or oil crops, vegetables, fruit, nuts, mushroom crops, containerised, open-rooted grown plants. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p>	

<ul style="list-style-type: none"> • optimal growing conditions for specific plants • manipulation techniques for optimal production • market requirements • quality production methods • production planning • plant nutrition and physiology • soils and growing media • monitoring and recording systems <p>An ability to</p> <ul style="list-style-type: none"> • determine environmental requirements of plants • develop a production plan for a controlled environment system • monitor environmental and cultural factors of a controlled environment system 														
<p>OHS issues that impact upon the performance of this unit</p> <p>Consideration should be given to the health and safety of workers who will be involved in activities associated with controlled growing environment systems particular in relation to chemical use, and equipment and machinery operation. Staff should be made aware of possible disease risks that may be associated with humid growing conditions and air conditioning systems.</p>														
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor</p> <p>Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment</p> <p>These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed?</p> <p>Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>														
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit</p> <p>Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with members of the work team • Collecting, analysing & organising information - on environmental conditions and crop requirements • Planning & organising activities - of self and others • Working with teams & others - to optimise growing conditions • Using mathematical ideas & techniques - analyse data from instruments and external agents • Solving problems - presented by plant symptoms • Using technology - to gather information, communicate and keep records 	Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	3	3	3	3	3
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology								
3	3	3	3	3	3	3								

Industry Sector/s	Horticulture Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT520 A Implement sustainable horticultural practices	
Unit Descriptor This Unit of Competency is concerned with the implementation of sustainable horticultural practices in the workplace. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
520.1 Prepare and implement strategies	520.1.1 Financial resources are identified and allocated for environmental management within the enterprise. 520.1.2 Environmental management strategies are developed using available resources and according to management policies and legislative requirements. 520.1.3 Strategies are assessed for their effectiveness in reducing waste disposal from the enterprise according to management policies and sound environmental management practice. 520.1.4 Changes to environmental management strategies are implemented to take advantage of newly available technologies and to ensure ongoing waste reduction and energy and water efficiency.
520.2 Minimise waste	520.2.1 Materials and consumables obtained by the enterprise are from recycled or re-useable materials, where appropriate. 520.2.2 Materials and consumables are obtained in amounts that result in packaging and waste reduction. 520.2.3 Composting, shredding, re-using and recycling are used as and when appropriate, according to enterprise guidelines.
520.3 Conserve energy resources	520.3.1 Machinery is operated and used efficiently, reducing fuel usage and emissions or discharges. 520.3.2 Energy used for heating, lighting and operation of remote appliances, is efficient and uses alternative sources where appropriate to the use and to management practices. 520.3.3 Design of buildings and structures takes into consideration the use of passive energy for lighting, heating, and shelter, where possible, and is in line with management policies.
520.4 Manage water use	520.4.1 Water is sourced from locations other than mains water, where possible and where appropriate for its use according to management policies and legislative guidelines. 520.4.2 Run-off water is managed to optimise its use and minimise pollutants entering river and drainage systems, where appropriate and sound environmental management practice. 520.4.3 Retarding basins are planned for where possible and used appropriately according to management policies. 520.4.4 Planting strategies are developed to efficiently use available water supply, and take into consideration run-off implications. 520.4.5 Watering strategies are developed to minimise evaporation, run-off and inaccurate delivery of water according to management policies and sound environmental management practice. 520.4.6 Contamination of water runoff with chemicals is minimised through sound watering strategies.
520.5 Undertake an environmental audit	520.5.1 Environmental audit takes into consideration relevant factors topography, water use, current policies and practices, waste emissions and materials, energy use, noise control, characteristics of area and legal obligations. 520.5.2 A report is prepared according to industry practice and client and management requirements.

A. RANGE OF VARIABLES

- Alternate energy sources may include wind generators, solar generators, solar tubing, water generators, airflow.
- Appropriate bodies for consultation may include statutory bodies, council, consultants, governments.
- Characteristics of area may include climate, heritage, geology, ambience, vegetation.
- Elements for inclusion in buildings and structures may include self-composting toilets, windbreaks, location and construction of windows, building materials, orientation of building or structure, planting surrounding the building or structure, use of colour, cavity sizes.
- Waste types may include paper, plastics, metals, green waste, chemical, glass, construction waste.
- Waste water management systems may include self-composting toilets, septic tanks, sewerage lagoons.
- Legal obligations may include local government, state, federal government, regulations, by-laws, body corporate agreements, title restrictions or encumbrances.
- Emissions and discharges may include noise, light, odour, gas, smoke, vapour, liquids and solids, particulates, fumes.
- Run-off may be from watering, irrigation systems, rain, stormwater, inefficient or defective drains, cooling systems.
- Management plan may include provision for the evaluation of environmental assets for insurance purposes.

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- energy flows and food webs
- nutrient cycling
- noise control
- principles of sustainable agriculture systems
- principles of composting and waste management
- environmental control standards
- legislative requirements including Occupational Health & Safety (OHS), HAZCHEM, duty of care, dangerous goods
- soil testing processes and procedures and results interpretation
- pesticide and herbicide resistance

An ability to

- prepare and implement strategies
- minimise waste
- conserve energy resources
- manage water use
- undertake an environmental audit

OHS issues that impact upon the performance of this unit

Consideration should be given to the health and safety of workers who will be involved in activities associated with implementing sustainable horticultural strategies particularly in relation to chemical use, waste handling, composting, and equipment and machinery operation.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

<p>2. Qualifications of Assessor</p> <p>Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment</p> <p>These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed?</p> <p>Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit</p> <p>Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with members of the work team • Collecting, analysing & organising information - on sustainable horticultural practices • Planning & organising activities - of self and others • Working with teams & others - to achieve projected outcomes • Using mathematical ideas & techniques - analyse data from external agents • Solving problems - presented by plant symptoms • Using technology - to gather information, communicate and keep records 							Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	3	3	3	3	3
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3	3	3	3	3	3	3														

Industry	Horticulture
Sector/s	Floriculture, Nursery, Production
RUH HRT521 A Develop a production plan	
<p>Unit Descriptor This Unit of Competency is concerned with the development of a production plan for a horticultural enterprise.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
521.1 Determine the production requirements of the marketing program	<p>521.1.1 Preparation for production planning period is undertaken for all crops including scheduling of major production activities and methods according to enterprise requirements.</p> <p>521.1.2 Scheduling takes enterprise production variables into consideration, according to sound business practice.</p>
521.2 Develop a production program	<p>521.2.1 Production plan ensures coordination with enterprise marketing plan, business plan and production facility.</p> <p>521.2.2 Timing within the plan ensures that available enterprise space is filled at all times.</p> <p>521.2.3 Policy concerning below-quality goods and scheduling is determined in line with other enterprise policies.</p> <p>521.2.4 Marketing and advertising is planned and scheduled in line with production schedule and marketing plan.</p>
521.3 Monitor the production program	<p>521.3.1 Production activities and plan are continuously monitored and modifications made when and where appropriate in line with enterprise business and marketing plans.</p> <p>521.3.2 Production program is compared with feedback and projections from clients according to sound business practice.</p>
521.4 Plan growing-on process	<p>521.4.1 Requirements of growing-on processes are determined from marketing and production/sales plans and historical and published data, and are clearly indicated in the plan.</p> <p>521.4.2 Environmental conditions, media and container sequences for crops are stipulated according to enterprise guidelines and sound management practices.</p>
521.5 Review growing-on processes	<p>521.5.1 Processes are monitored throughout the growing-on stage by comparison against the plan.</p> <p>521.5.2 Modifications are made to the process when required in line with enterprise production/sales, marketing and business plans based on sound horticultural judgement and are clearly indicated/broadcast.</p> <p>521.5.3 Plant batch requirements for sale take historical data, crop information and current trends into consideration in line with enterprise production/sales, marketing and business plans.</p>

<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Major production activities may include propagation, potting, growing-on, intervention, crop planting. • Influences on production scheduling may include date, temperature, season, light, photoperiod, environment, intervention. • Enterprise production variables may include flowering calendars, previous sales, previous shrinkage ratios, space available, future expectations, market place, core business. • Environmental conditions may include light, temperature, humidity, airflow. • Plants may include ornamental, fruit, vegetable, nut, flower, foliage, oil crops. • Historical data may include sales history, production history, previous strike rates, regular buyers. • Crop information may include shrinkage factors, space required, potting sizes.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • production sequencing • records required for production planning • marketing: client needs, market place, client communication • previous growing-on history for crop, enterprise, season and situation • relationship between growing-on plan and all other management planning • clear communication methods between staff and management <p>An ability to</p> <ul style="list-style-type: none"> • determine the production requirements of the marketing program • develop a production plan • monitor the production program • plan growing-on process • review growing-on process
<p>OHS issues that impact upon the performance of this unit</p> <p>Not applicable.</p>
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces</p>

horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - for the production program
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to achieve production targets
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - due to contingencies
- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks and Gardens, Production, Turf
RUH HRT522 A Collect and manage data	
Unit Descriptor	
This Unit of Competency is concerned with the collection and management of data for a horticultural enterprise or operation.	
Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
522.1. Determine the type and extent of data to be collected.	522.1.1 Information requirements are clearly defined and communicated to all staff involved in data collection. 522.1.2 Relevant data sources are identified. 522.1.3 Type and extent of data required is clearly defined.
522.2. Access and collate data	522.2.1 Data collection sheets are formatted to assist collection. 522.2.2 Data is researched and/or collected from field sources according to enterprise guidelines. 522.2.3 Data is collated by appropriate electronic means. 522.2.4 Appropriateness of data is evaluated during collection. 522.2.5 Information is researched using appropriate methods and technologies. 522.2.6 Sources of information are regularly reviewed for usefulness, reliability and cost. 522.2.7 Channels and sources of information are used effectively. 522.2.8 Opportunities are taken to establish and maintain contacts with those who may provide useful information.
522.3. Evaluate data	522.3.1 Information collected is relevant and sufficient. 522.3.2 Where information is unclear or difficult to understand, clarification and assistance is sought. 522.3.3 Where information is inadequate, additional information is obtained. 522.3.4 Information is assessed for its validity and reliability and is organised into a suitable form to aid decision making. 522.3.5 Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence.
522.4. Manage and retrieve data	522.4.1 Data is stored by appropriate electronic means. 522.4.2 Data is assembled and provided to the manager/client as required. 522.4.3 Data is retrieved as required. 522.4.4 New methods of recording and storing information are suggested/introduced as needed.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> • Sources of data may include field work, research materials, published books, academic reports, industry reports, colleagues, computer software, internet, newspapers, journals, industry publications, industry specialists and experts. • Recording techniques may include written, audio, video, computers. • Methods of information storage may include hard copy files, electronic databases, file systems, library collections. 	
B. EVIDENCE GUIDE	
Underpinning Knowledge and Skills	
A basic working knowledge of	
<ul style="list-style-type: none"> • data collection techniques and procedures 	

- data recording and evaluation techniques
- data storage and retrieval methods

An ability to

- determine the type and extent of data to be collected
- access and collate data
- evaluate data
- manage and retrieve data

OHS issues that impact upon the performance of this unit

Not applicable.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	2	3	3	3	3

- **Communicating ideas and information** - with staff and information sources external to the business
- **Collecting, analysing & organising information** - on all aspects of a horticultural enterprise
- **Planning & organising activities** - planning tasks for the day and prioritising them
- **Working with teams & others** - to achieve enterprise outcomes
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - with people, office systems, technology, records, of sourcing information
- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture
Sector/s	Floriculture, Nursery, Production, Turf
RUH HRT523 A Trial plants, products and treatments	
<p>Unit Descriptor This Unit of Competency is concerned with the trialing of plants products and treatments.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
523.1 Establish criteria for trials	<p>523.1.1 Problems and/or opportunities that support undertaking a trial are defined according to enterprise guidelines and industry practice.</p> <p>523.1.2 Criteria are set according to the characteristics of the area and the conditions of the site that will be affected.</p> <p>523.1.3 Data gathering requirements are established according to industry practice and enterprise guidelines.</p>
523.2 Establish conditions for trial	<p>523.2.1 Requirements are defined according to the design of the trial.</p> <p>523.2.2 Requirements of the site are established according to the nature of the trial.</p>
523.3 Determine use for trial results	<p>523.3.1 Trial results are audited and proper conventions and controls are followed to eliminate variables according to sound clinical practice.</p> <p>523.3.2 Outcomes are comprehensively analysed based on sound criteria and drawing on all available data from internal and external sources.</p> <p>523.3.3 Conclusions are drawn from relevant information and are based on reasoned argument and appropriate evidence.</p>
<p>A. RANGE OF VARIABLES</p> <p>Floriculture, Nursery, Production</p> <ul style="list-style-type: none"> • Trials may include crops, species, treatments, applications, products. • Problems or opportunities may include cost efficiency, new products and equipment, environmental problems, tolerance levels, Occupational Health & Safety (OHS), new species, creative use of old product. • Criteria may include soil profile, species, environments, growing environment or climate, propagation system, growing system. • Data gathering requirements may include comprehensive, extensive, accurate, include audit guidelines. • Nature of the trial - seed, variety, fertiliser, treatments, media. • Conditions may include environmental factors, season, geography, topography. • Audit may include confirming key results, processes, key observations, costing. • Decision on whether or not to use the trial outcomes is based on cost effectiveness, how effectively user requirements are met, compatibility, response to identified problem or opportunity. • Records may include costs, relationship between test plants, feasibility, chemical balances. • Principles of genetic engineering and population genetics. <p>Turf</p> <ul style="list-style-type: none"> • Trials may include species, treatments, applications. • Problems or opportunities may include cost efficiency, playing surface, new products or equipment, environmental problems, tolerance levels, Occupational Health & Safety (OHS), new species, creative use of old product. • Criteria may include soil profile, species, environments, growing environment or climate, propagation 	

system, growing system,.

- Data gathering requirements may include comprehensive, extensive, accurate, include audit guidelines.
- Nature of the trial - seed, variety, fertiliser, treatments, media.
- Conditions may include environmental factors, season, geography, topography.
- Audit may include confirming key results, processes, key observations, costing.
- Decision on whether or not to use the trial outcomes is based on cost effectiveness, how effectively user requirements are met, compatibility, response to identified problem or opportunity.
- Physical and mechanical tests may include wear, compaction or rolling, heat, water, cutting heights.
- Turf properties may include wear tolerance, density, vigorous growth, colour, stress tolerance, plant profile, root establishment.
- Records may include costs, relationship between test plots, feasibility, chemical balances.
- Principles of genetic engineering and population genetics.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- general growth habits of plants, products and treatments involved in the trial
- trialing techniques and procedures
- business planning for the enterprise

An ability to

- establish criteria for trials
- establish conditions for trial
- determine use for trial results

OHS issues that impact upon the performance of this unit

Care should be taken when using chemicals and/or machinery and equipment as part of a trial.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with managers, consultants and researchers • Collecting, analysing & organising information - problems or opportunities that support conducting a trial • Planning & organising activities - of self and others in work team • Working with teams & others - to draw conclusions from relevant information • Using mathematical ideas & techniques - analyse data from the trial • Solving problems - of a technical nature as the trial proceeds • Using technology - to gather information, communicate and keep records 						

Industry	Horticulture
Sector/s Nursery,	Arboriculture, Landscape, Parks & Gardens, Turf
RUH HRT524 A Provide specialist advice on plants, products & treatments	
<p>Unit Descriptor This Unit of Competency is concerned with the provision of specialist advice to clients and others in respect to specific plants, products and treatments.</p> <p>The provision of specialist advice to clients and others is likely to be undertaken alone or under broad guidance involving the self directed application of knowledge with substantial depth in some areas such as plant selection, and a range of technical and other skills such as plant selection and knowledge, horticultural products use and availability and application of specific horticultural treatments.</p> <p>Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the provision of information, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
524.1 Provide specialist advice on plants	524.1.1 Specialist advice is provided for specific situations and uses. 524.1.2 Botanical and common names are used to describe plants according to client needs. 524.1.3 Growing and performance characteristics are provided as an integral part of specialist advice. 524.1.4 Particular cultural and maintenance requirements are outlined for each plant. 524.1.5 Purchase options and availability of plants is outlined. 524.1.6 Specialist advice on plants is provided to clients, customers and consultants in complex and/or difficult circumstances.
524.2 Provide specialist advice on products	524.2.1 Specialist advice is provided on products and services for specific situations and uses according to sound horticultural principles and practices. 524.2.2 Use and performance characteristics of products are provided to clients as required. 524.2.3 Purchase options and availability are outlined. 524.2.4 Specialist advice on products is provided to clients, customers and consultants in complex and/or difficult circumstances.
524.3 Provide specialist advice on treatments	524.3.1 Specialist advice is provided on horticultural for specific situations and uses according to sound horticultural principles and practices. 524.3.2 Use and performance characteristics of treatments are communicated to clients as required. 524.3.3 Purchase options and availability are outlined. 524.3.4 Specialist advice on treatments is provided to clients, customers and consultants in complex and/or difficult circumstances.
<p>A. RANGE OF VARIABLES</p> <p>Arboriculture</p> <ul style="list-style-type: none"> Plants may include trees and shrubs. Products may include those associated with arboricultural operations or tree care and management. Treatments relate to complex arboricultural situations, tree assessments, pruning, removal, pest control, soil amelioration, fertilising, cable bracing, wound dressing, earthforming. Complex and/or difficult circumstances includes project management meetings, legal representation, conflict and confrontational situations, guest speaking to industry groups, community groups. <p>Landscape</p> <ul style="list-style-type: none"> Plants may include trees, shrubs, groundcovers, turf species, herbaceous species, indoor, bedding species. Products may include those associated with landscape operations, softscape and hardscape 	

components.

- Treatments relate to complex landscape situations, pruning, removal, weed control, pest control, soil amelioration, fertilising, staking, earthforming.
- Complex and/or difficult circumstances includes project management meetings, legal representation, conflict and confrontational situations, guest speaking to industry groups, community groups.

Nursery

- Plants may include containerised and open grown trees, shrubs, groundcovers, turf species, herbaceous species, indoor, bedding species, aquatic species.
- Products may include those associated with propagation, growing-on, plant maintenance and management, softscape and hardscape domestic landscape components, tools and equipment.
- Treatments relate to complex plant management situations, planting, staking, mowing, pruning, turf renovation, cultural techniques, weed control, pest control, soil amelioration, chemical applications, fertilising, earthforming.
- Complex and/or difficult circumstances includes project management meetings, legal representation, conflict and confrontational situations, guest speaking to industry groups, community groups.

Parks & Gardens

- Plants may include trees, shrubs, groundcovers, turf species, herbaceous species, indoor, bedding species.
- Products may include those associated with parks and gardens operations, softscape and hardscape components.
- Treatments relate to complex park and garden management situations, planting, mowing, pruning, removal, cultural techniques, weed control, pest control, soil amelioration, chemical applications, fertilising, staking, earthforming.
- Complex and/or difficult circumstances includes project management meetings, legal representation, conflict and confrontational situations, guest speaking to industry groups, community groups.

Turf

- Plants may include turf species.
- Products may include those associated with sports turf operations, maintenance and management.
- Treatments relate to complex sports turf situation, sowing, sprigging, sodding, mowing, renovation, scarification, rolling, aeration, removal, cultural techniques, weed control, pest control, soil amelioration, chemical applications, fertilising, staking, earthforming.
- Complex and/or difficult circumstances includes project management meetings, legal representation, conflict and confrontational situations, guest speaking to industry groups, community groups.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- specialist plants, products and treatments for specific situations
- advanced horticultural principles and practices
- responsibilities and liabilities in respect to the provision of specialist advice
- customer and client service principles
- project management meeting and public speaking protocols
- innovation and recent practices in the horticulture industry

An ability to

- provide specialist advice on plants
- provide specialist advice on horticultural products
- provide specialist advice on horticultural treatments

OHS issues that impact upon the performance of this unit

Care should be exercised where specialist advice involves machinery and equipment or use of hazardous chemicals.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with customers, clients, suppliers and others
- **Collecting, analysing & organising information** - plants, products and treatments
- **Planning & organising activities** - to update knowledge of plants, products and treatments
- **Working with teams & others** - at the workplace
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - of a horticultural nature presented by clients customers and others
- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture
Sector/s	Parks & Gardens
RUH HRT525 A Conserve heritage areas	
<p>Unit Descriptor This Unit of Competency is concerned with the conservation and management of heritage areas.</p> <p>Conservation work is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Heritage area conservation involves the self directed application of knowledge with substantial depth in some areas such as plant selection, and a range of technical and other skills such as garden restoration techniques, referencing and researching techniques and designing management specifications.</p>	
Element of Competency	Performance Criteria
525.1 Assess the area to identify the need for a conservation / restoration program	<p>525.1.1 Original plantings are identified and evaluated according to conservation/restoration principles and relevant legislation.</p> <p>525.1.2 Factors likely to impinge on restoration of plantings are evaluated according to established conversation/restoration practice.</p> <p>525.1.3 Alterations from the significant period in the gardens use are identified and causes established according to established management principles and policy.</p> <p>525.1.4 Priorities for protection, conservation and restoration work are determined according to site management and conservation/restoration principles, and relevant legislation.</p> <p>525.1.5 Site assessment report is developed according to management guidelines.</p>
525.2 Develop site conservation/restoration management plan	<p>525.2.1 Conservation/restoration management plan is consistent with site assessment report, available resources and sound conservation/restoration practices.</p> <p>525.2.2 Conservation/restoration management plan incorporates on-going assessment of area and effectiveness of program.</p> <p>525.2.3 An on-going maintenance plan is developed and instituted according to sound conservation/restoration principles.</p>
525.3 Restore altered site	<p>525.3.1 Site restoration is undertaken according to management plan.</p> <p>525.3.2 Propagation from remnant stock plants where possible is undertaken.</p> <p>525.3.3 Soil structure is checked and corrected according to site management principles.</p> <p>525.3.4 Replanting is initiated and completed according to sound horticultural and site management principles and practice.</p> <p>525.3.5 Paths are reinstated to accord with significant period and management guidelines.</p>
525.4 Control pedestrian traffic	525.4.1 Signs and barriers are erected to ensure safety of the public and appropriate to conservation objectives according to legislative and management requirements.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Heritage areas may include sites of historic, religious and cultural importance. • Propagation may include seed collection and germination, propagation by cuttings, separation/division, spores, grafting, budding, rhizomes tubers, corms, bulbs, stolons, plantlets. • Weeds, pests and diseases may include all weeds, pests and diseases encountered in the enterprise. • Paths may include the use of plinthing, edges, gravel, scoria, pavers, embedded rocks. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- advanced plant identification and biology
- designing management specifications
- site management
- local fauna identification and biology
- principles and practices relating to weed and pest control techniques
- properties and application of restoration techniques
- soil analysis
- specialist plant collections
- Burra Charter principles (International Charter of Monuments and Sites)
- referencing and researching historic photographs and documents

An ability to

- assess the area to identify the need for a conservation/restoration program
- develop site conservation/restoration management plan
- restore altered site
- control pedestrian traffic

OHS issues that impact upon the performance of this unit

Consideration should be given to the health and safety of workers who will be involved in implementing restoration and maintenance works requiring application of hazardous chemicals and/or treatments, and the use of machinery and equipment. Management has a duty of care for the health and safety of the workplace.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

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3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - to develop a heritage area conservation plan
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to conserve heritage areas
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - presented by the status of the areas

- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture
Sector/s	Landscape, Parks and Gardens
RUH HRT526 A Prepare landscape documentation	
<p>Unit Descriptor This Unit of Competency is concerned with the preparation of landscape documentation that accompanies a landscape design.</p> <p>The preparation of landscape documentation is likely to be undertaken without supervision. Responsibility for the work of others may be involved.</p> <p>The preparation of landscape documentation requires a broad range of Level 4 skills and involves the application of underpinning knowledge with depth in some areas such as plant selection, soils, landscape design principles, drafting techniques, and communication skills.</p>	
Element of Competency	Performance Criteria
526.1 Prepare specifications and bills of quantities	<p>526.1.1 General clauses of the project brief are documented in line with enterprise standards.</p> <p>526.1.2 Contractor's responsibilities are documented in accordance with project details.</p> <p>526.1.3 Technical clauses are outlined according to work sequencing.</p> <p>526.1.4 Schedule of quantities and rates for all items in the specifications is completed in line with project specifications.</p> <p>526.1.5 Planting schedule for softscape components is documented.</p>
526.2 Program a work schedule	<p>526.2.1 Construction sequencing is identified and recorded.</p> <p>526.2.2 Work schedule reflects adequate time allocations for each sequence.</p> <p>526.2.3 Processes to be undertaken singularly are identified in the work schedule.</p> <p>526.2.4 Processes to be undertaken concurrently are identified in the work schedule.</p> <p>526.2.5 Progress charts for all trades are produced.</p> <p>526.2.6 Critical path schedules are prepared.</p>
526.3 Develop a system for recording landscape projects	<p>526.3.1 All elements to be included are identified.</p> <p>526.3.2 Portfolio of standard documentation forms is produced.</p> <p>526.3.3 Portfolio of customised documentation forms is produced.</p> <p>526.3.4 Legislative requirements impacting on landscape project are researched and reported to the contractor and the client.</p> <p>526.3.5 Checklist of documents required by on-site personnel is developed.</p> <p>526.3.6 Records management system is maintained.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Technical clauses may include level of workmanship, quality and specifications of materials for soft and hard landscape components. • Construction sequencing may include labour, materials and equipment requirements. • Progress charts indicate time allowance for each phase. • Elements include on-site and off-site components. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • landscape design process and associated documents • tender processes • general and technical specifications 	

- recording systems
- cost estimating
- calculations of materials, labour, machinery and equipment

An ability to

- prepare specifications and bills of quantities
- program a work schedule
- develop a system for recording landscape projects

OHS issues that impact upon the performance of this unit

Consideration should be given to ensuring that Occupational Health & Safety (OHS) matters are covered in the general clauses of landscape documentation.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - to prepare landscape documents
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to prepare landscape documents
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - of work schedules and recording systems
- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture
Sector/s	Landscape
RUH HRT527 A Design landscape structures and features	
<p>Unit Descriptor This Unit of Competency is concerned with the design of landscape structures and features.</p> <p>The design of landscape structures and features is likely to be undertaken without supervision. Responsibility for the work of others may be involved.</p> <p>The design of landscape structures and features requires a broad range of Level 4 skills and involves the application of underpinning knowledge with depth in some areas such as plant selection, soils, landscape design principles, drafting techniques, and communication skills.</p>	
Element of Competency	Performance Criteria
527.1 Develop a design brief	<p>527.1.1 Client is consulted to establish the purpose and requirements of design.</p> <p>527.1.2 Design brief is developed and agreed with the client.</p> <p>527.1.3 Cost structures and timelines are negotiated with the client.</p>
527.2 Undertake a site analysis	<p>527.2.1 Site where the structure or feature is to be located is inspected.</p> <p>527.2.2 Physical elements and features of the site are recorded.</p> <p>527.2.3 Assessment of soil, topography, aspect, existing vegetation and climatic factors is analysed and recorded.</p> <p>527.2.4 Other relevant data is assessed and recorded.</p> <p>527.2.5 Legal requirements and constraints on development are assessed.</p>
527.3 Develop a concept design	<p>527.3.1 Concept plan is prepared to illustrate location and layout of proposed structure/feature according to the design brief.</p> <p>527.3.2 Consultation with the client is undertaken to establish agreement on options and approaches for development.</p> <p>527.3.3 Consistent graphic style used to present the concept plan.</p>
527.4 Produce a final plan	<p>527.4.1 Detailed is plan produced according to the design brief.</p> <p>527.4.2 Design is prepared according to enterprise standards.</p> <p>527.4.3 Information on the plan is relevant and precise and clearly communicates development works to be undertaken.</p> <p>527.4.4 Notes and specifications are included on the plan to assist in plan interpretation.</p> <p>527.4.5 Appropriate construction and engineering principles are applied to landscape plan according to industry standards.</p>
527.5 Prepare bill of quantities and estimates	<p>527.5.1 Bill of quantities (BOQ) is prepared listing scope and extent of works.</p> <p>527.5.2 Cost estimate is prepared for the client covering items in BOQ, labour and machinery and equipment costs.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Structures and features may be constructed of timber, metal, masonry, concrete, brick, block, wire, plastic, water, paint, plants. Other relevant data may include opportunities and constraints on development, historical and cultural factors, laws and regulations impacting on development, site for material storage and compound area, proximity to services and utilities. BOQ may include unit costs, sub-contractor estimates, quantity calculations, brief specification of materials, contingency items, prime cost items, development and/or consolidation works. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- landscape design process
- construction and engineering principles
- drafting techniques
- cost estimating
- calculations of materials, labour, machinery and equipment

An ability to

- develop a design brief
- undertake a site analysis
- develop a concept design
- produce a final plan
- prepare bill of quantities and estimates

OHS issues that impact upon the performance of this unit

Consideration should be given at the planning stage to the health and safety of workers who will be involved in activities associated with landscape development works in relation to chemical use, and equipment and machinery operation.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - on the requirements of the project
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to prepare a landscape design
- **Using mathematical ideas & techniques** - to measure and calculate project requirements
- **Solving problems** - related to the nature of the project site and requirements of the user

- **Using technology** - to communicate and keep records

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT528 A Prepare reports	
<p>Unit Descriptor This Unit of Competency is concerned with the preparation of reports.</p> <p>The preparation of reports is likely to be undertaken without supervision. Responsibility for the work of others may be involved. The preparation of reports requires a broad range of Level 4 skills and involves the application of underpinning knowledge with depth in some areas such as horticultural techniques, written communication and word processor computer applications.</p>	
Element of Competency	Performance Criteria
528.1 Research material	528.1.1 Topic of the report is identified and described. 528.1.2 Sources of information are determined. 528.1.3 Information appropriate to the task is collected and organised according to enterprise standards.
528.2 Evaluate information	528.2.1 Information collected is relevant and sufficient to provide a full report. 528.2.2 Where information is unclear or difficult to understand, clarification and assistance is sought. 528.2.3 Where available information is inadequate, additional information is obtained. 528.2.4 Information is assessed for its validity and reliability and is organised into a suitable form to aid decision making. 528.2.5 Conclusions drawn from relevant information are based on reasoned argument and appropriate evidence.
528.3 Produce a document	528.3.1 Language is applicable to the task and audience. 528.3.2 The document is organised logically, is structured and balanced according to purpose, audience and context. 528.3.3 The document is formatted and presented according to business and enterprise standards. 528.3.4 Conclusions reached reflect the stated objectives of the report. 528.3.5 Preparation is completed within the specified timeframe.
528.4 Deliver an oral presentation	528.4.1 Language is applicable to the task and audience. 528.4.2 Presentation is organised logically, is structured and balanced according to purpose, audience and context. 528.4.3 Concise and well professional presented support materials are used in oral presentations to reflect industry standards. 528.4.4 Efficient time use allows clear presentation of the desired topic. 528.4.5 Oral presentation is delivered within a specified time.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Materials researched may include published books, academic reports, industry reports, colleagues, computer software, internet, newspapers, journals, industry publications, industry specialists and experts. • Recording techniques may include written, audio, video, computers. • Methods of information storage may include hard copy files, electronic databases, library collections. • Documents may be paper or computer based. 	
B. EVIDENCE GUIDE	

Underpinning Knowledge and Skills

A basic working knowledge of

- information and research sources
- report structure and presentation
- public speaking

An ability to

- research material
- evaluate information
- produce a document
- deliver an oral presentation

OHS issues that impact upon the performance of this unit

Not applicable.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	1	1	3	3

- **Communicating ideas and information** - with clients and members of the work team
- **Collecting, analysing & organising information** - according to the needs of the report
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to prepare a report
- **Using mathematical ideas & techniques** - as required in the content of the report
- **Solving problems** - related to the production and delivery of the report
- **Using technology** - to deliver, communicate and record the report

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT529 A Manage weed, pest and disease infestations	
<p>Unit Descriptor This Unit of Competency is concerned with the management of weed, pest and disease infestations.</p> <p>Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.</p>	
Element of Competency	Performance Criteria
529.1 Investigate weed, pest and disease infestations	<p>529.1.1 Weed, pest and disease infestations are identified from observation, published data, historical records and industry consultation.</p> <p>529.1.2 Management issues are defined relative to extent and scope of weed, pest and disease infestations and the impact on enterprise and environmental imperatives.</p> <p>529.1.3 Professional assistance is sought where appropriate.</p>
529.2 Develop a control program	<p>529.2.1 The program is developed which defines enterprise guidelines and specific responsibilities of operational elements to achieve required outcomes.</p> <p>529.2.2 The program is communicated effectively and systems are established to monitor business goals.</p> <p>529.2.3 Control treatments are defined having regard to health, production, marketing, seasonal and environmental influences.</p> <p>529.2.4 Professional assistance is sought where appropriate.</p>
529.3 Monitor control program	<p>529.3.1 The impact of the program on weed, pest and disease infestations is monitored in respect to required outcomes.</p> <p>529.3.2 Control treatments are monitored and remedial action taken having regard to health, production, marketing, seasonal and environmental influences.</p> <p>529.3.3 Professional assistance is sought where appropriate.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Control treatments may include application of chemical, biological and environmental strategies for the control of weeds, pests and diseases in fashion which supports sustainable horticultural practices. Infestations may include weed, pest and disease problems with natural vegetation, turf, ornamental plantings, fruit, vegetable, flower, foliage, seed and oil crops. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> developing project brief and objectives recognition of weeds, pests and diseases management of weed, pest and disease infestations monitoring of treatments principles and practice in weed, pest and disease control strategies <p>An ability to</p> <ul style="list-style-type: none"> investigate weed, pest and disease infestations develop a control program monitor control program 	

OHS issues that impact upon the performance of this unit

Consideration should be given to the health and safety of workers who will be involved in activities associated with maintaining plant health particularly in relation to chemical use, and equipment and

machinery operation.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - on the status of weeds, pests and disease infestations
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to monitor and implement control strategies
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - dealing with infestations and developing control strategies
- **Using technology** - to gather information, communicate and keep records

Industry Horticulture	
Sector/s Parks & Gardens	
RUH HRT530 A Manage Wetlands	
Unit Descriptor This Unit of Competency is concerned with the management of wetlands. Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
530.1 Undertake a resource analysis of a wetland	530.1.1 Natural flora and fauna are identified and evaluated according to conservation principles and relevant legislation. 530.1.2 Factors likely to impinge on wetland management are evaluated according to established conservation practice. 530.1.3 Damage to the land and soil is identified and causes established according to industry recognised wetland management principles. 530.1.4 Priorities for protection, conservation and restoration work are determined according to natural resource management and conservation principles, and relevant legislation. 530.1.5 Site assessment report is developed according to enterprise guidelines.
530.2 Develop a wetland management plan	530.2.1 Wetland management plan is consistent with site assessment report, available resources and sound conservation practices. 530.2.2 Plan incorporates on-going assessment of area and effectiveness of program. 530.2.3 Plan addresses relevant management issues. 530.2.3 An ongoing maintenance plan is developed according to sound conservation principles.
530.3 Reinstate indigenous flora	530.3.1 Weeds, exotic species and other invasive species are removed with minimal disturbance to the environment according to management plan. 530.3.2 Local provenance forms of indigenous species are maintained through appropriate propagation techniques. 530.3.3 Appropriate species are established according to management plan. 530.3.4 Ongoing maintenance is implemented according to plan.
530.4 Restore damaged areas	530.4.1 Erosion control program implemented is carried out according to management plan. 530.4.2 Regeneration is undertaken according to management plan. 530.4.3 Drainage is checked and corrected where damage is likely to occur according to sound land management principles.
530.5 Institute fauna management program	530.5.1 Environment is maintained conducive to natural fauna survival according to the needs of the species. 530.5.2 Feral animals which provide a threat to native fauna are managed according to regulations and legislation.
530.6 Control pedestrian traffic	530.6.1 Walking tracks are established and maintained to minimise pedestrian damage to the area according to the management program. 530.6.2 Signs are erected to ensure safety of the public and appropriate to water bodies and other hazardous areas according to legislative requirements.

A. RANGE OF VARIABLES

- Relevant management issues may include bushfires, visitor control, feral pests, weed infestation, wildlife management, water quality, aesthetic, cultural and recreational values.
- Land/soil may be damaged by erosion, increased salinity, land compaction.

<ul style="list-style-type: none"> • Propagation may include seed collection and germination, propagation by cuttings, division. • Invasive species of flora may include native flora not indigenous to the area. • Walking tracks and pathways may include unimproved paths, constructed pathways, constructed pathways with possible steps and drainage constructions, and constructed board walks.
<p>B . EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • fauna and flora identification and biology • principles of wetland management • hydrological events, cycles and principles • fire management and control • surface and groundwater management • principles and methods of erosion control • principles and practices relating to weed and pest control • regeneration techniques • water quality standards and legislation • wildlife and habitat management principles <p>An ability to</p> <ul style="list-style-type: none"> • undertake a resource analysis of a wetland • develop a wetland management plan • reinstate indigenous flora • restore damaged areas • institute fauna management program • control pedestrian traffic
<p>OHS issues that impact upon the performance of this unit</p> <p>Consideration should be given to the health and safety of workers who will be involved in implementing conservation works requiring application of hazardous chemicals and/or treatments, equipment and machinery.</p>
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural</p>

workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with members of the work team
- **Collecting, analysing & organising information** - to develop a wetland management plan
- **Planning & organising activities** - of self and others
- **Working with teams & others** - to conserve wetland areas
- **Using mathematical ideas & techniques** - analyse data from external agents
- **Solving problems** - presented by the threats to the wetland habitat
- **Using technology** - to gather information, communicate and keep records

Industry	Horticulture
Sector/s	Landscape, Parks and Gardens
RUH HRT531 A Conduct vegetation surveys	
<p>Unit Descriptor This Unit of Competency is concerned with the survey and assessment of natural vegetation.</p> <p>Vegetation assessment is likely to be undertaken alone or under broad guidance. Responsibility for the planning and management of the work of others may be involved. Surveying vegetation involves the self directed application of knowledge with substantial depth in some areas such as plant identification, ecology and reporting procedures.</p>	
Element of Competency	Performance Criteria
531.1 Determine vegetation survey requirements	531.1.1 Survey scope is identified in line with client needs. 531.1.2 All current data relevant to survey requirements is identified, sourced and evaluated according to enterprise guidelines. 531.1.3 Processes for data capture are identified in line with budgetary constraints.
531.2 Inspect and assess vegetation	531.2.1 Previous studies are researched and results are collated and reviewed. 531.2.2 Current local and state government policy and practices affecting vegetation in area of study is reviewed. 531.2.3 Field visits are conducted to verify and consolidate previously collected data and to gather further information on species frequency, distribution, health and habitat values. 531.2.4 Plant communities are assessed and their location and health is recorded in accordance with project brief and enterprise guidelines.
531.3 Compile a vegetation assessment report	531.3.1 The location, health and condition of vegetation surveyed is recorded according to enterprise guidelines. 531.3.2 Assessment report is produced identifying and describing vegetation and actions required as per objectives of the study. 531.3.3 Report conforms to industry standards of presentation, structure and content.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Vegetation may include natural plant communities in parks, along roadsides and on rural properties. • Access routes may include pedestrian, vehicular. • Inspections may include visual, infra-red photography, photographs, aerial photography. • Equipment may include computers and appropriate software, photographic equipment, potentiometer, tape measure. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • vegetation classifications systems • environmental factors that influence vegetation • ecological principles and terminology • energy flows and trophic structures of communities • legal requirements relating to the protection and clearance of vegetation • plant identification <p>An ability to</p> <ul style="list-style-type: none"> • determine vegetation survey requirements • inspect and assess vegetation • compile a vegetation assessment report 	
<p>OHS issues that impact upon the performance of this unit Care should be observed where tree assessment requires access to trees for evaluation purposes. Use of</p>	

equipment and machinery should conform to industry and enterprise policies and guidelines on Occupational Health & Safety (OHS).

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
1	1	1	1	1	1	1

- **Communicating ideas and information** - with clients and others
- **Collecting, analysing & organising information** - from vegetation surveys and collected field data
- **Planning & organising activities** - of others in a work team
- **Working with teams & others** - to compile assessment reports
- **Using mathematical ideas & techniques** - to compile vegetation data
- **Solving problems** - to meet time lines
- **Using technology** - to communicate and record data

Industry	Horticulture
Sector/s	Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT532 A Maintain, monitor and evaluate irrigation systems	
Unit Descriptor	
This Unit of Competency is concerned with the assessment of irrigation systems for horticultural enterprises and facilities.	
Work is likely to be under limited supervision with checking related to overall progress. Responsibility for the work of others may be involved and team coordination may be required. Competency involves the application of knowledge with depth in some areas and a broad range of skills. Competencies are normally used within routines, methods and procedures where some discretion and judgement is required in the selection of equipment, work organisation, services, actions and achieving outcomes within time constraints.	
Element of Competency	Performance Criteria
532.1 Design a system maintenance program	<p>532.1.1 Resources needed to perform maintenance tasks are specified in the program outline.</p> <p>532.1.2 Repairs, replacements and servicing requirements for all equipment and machinery are specified in the program outline.</p> <p>532.1.3 Activities required to maintain the irrigation site, system hardware and water quality are specified according to enterprise needs.</p> <p>532.1.4 Manufacturers operating manuals are obtained and used as guidance to specify maintenance activities, schedule and skills required.</p> <p>532.1.5 Timing and frequency of maintenance activities is scheduled to coordinate with other enterprise activities.</p> <p>532.1.6 System maintenance program activities relate to water supply authority constraints and requirements for water and maintenance.</p> <p>532.1.7 Labour requirements for each activity are determined and recorded in the system maintenance program.</p> <p>532.1.8 Weed control, water storage and treatment maintenance form an integral part of the system maintenance program.</p>
532.2 Design a monitoring and scheduling program	<p>532.2.1 Procedures for monitoring and recording system hardware performance are included in the monitoring and scheduling program.</p> <p>532.2.2 Procedures for monitoring and recording use of system hardware form an integral part of the program.</p> <p>532.2.3 Procedures for monitoring and recording water use form an integral part of the monitoring and scheduling program.</p> <p>532.2.4 Procedures for monitoring and recording operating costs are included in the program.</p> <p>532.2.5 Contingency plans in the event of water restrictions being imposed are developed for inclusion in the monitoring and scheduling program.</p>
532.3 Collate all available data	<p>532.3.1 Data on equipment usage, water quality and usage, crop yield or plant growth, climatic trends and soil physical and chemical properties are collated.</p> <p>532.3.2 Data is assessed against benchmarks of specifications, predictions and budgets for water distribution, collection and treatment, crop production and yield, resources used, production costs and net profit.</p> <p>532.3.3 A report is compiled on the evaluation highlighting good and poor performance indicators and reasons for and conclusions about performance in relation to crop production and business performance.</p> <p>532.3.4 Recommendations are made to modify the system to eliminate causes of poor performance or enhance current performance.</p>
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Maintenance program may include site activities, hardware, quality collection and treatment. 	

- Timing and frequency may include daily, weekly, monthly, pre-season, during season and post-seasonally.
- Guidelines for maintenance include design plans and specifications, mechanical specifications, site specifications and Occupational Health & Safety considerations.
- Monitoring program may include computer or manual log books, operators and operational manuals, maintenance scheduling log books, irrigation schedule, systematic testing procedures, manufacturers specifications.
- Calculations may include pressure variations, flow rates and distribution, water budgeting and use including predicted plant growth stages.
- Factors affecting scheduling may include evapotranspiration data for stages of the crop, weather conditions, soil types, new technologies, storage capacity and treatment lag times, information from relevant regulatory authorities.
- Water table monitoring may include installation of test wells, water quality testing, analysis and calculations.
- Data may be documented in enterprise records and reports, irrigation records, crop production records, maintenance records, climatic and financial records.
- Benchmarks may include statistics from industry sources, records and reports from similar enterprises in the region, meteorological records and reports from regulatory authorities.
- Analysis and reporting techniques may vary according to individual preferences, and consultants advice and indicators of performance may vary between systems and context.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- manufacturers specifications and parameters
- site requirements
- earthworks
- crop/plant culture
- drainage and water treatment maintenance
- data gathering and analysis skills
- soil management and plant physiology

An ability to

- design system maintenance program
- design monitoring and scheduling program
- collate all available data

OHS issues that impact upon the performance of this unit

Consideration should be given at the design stage to the health and safety of workers who will be involved in activities associated with irrigation installation in respect to machinery and equipment operation and chemical use

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with other members of the work team
- **Collecting, analysing & organising information** - on drainage and irrigation requirements
- **Planning & organising activities** - of self and others in work team
- **Working with teams & others** - to effectively drain or deliver water
- **Using mathematical ideas & techniques** - to calculate areas, volumes and application rates
- **Solving problems** - of water use and availability and breakdowns with systems components
- **Using technology** - to analyse systems and communicate and keep records

LEVEL

6

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT601 A Develop staff training plans	
<p>Unit Descriptor This unit describes the development of training and development plans for staff in the workplace.</p> <p>The development of staff training and development plans is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Human resource management competencies are usually used independently and are substantially non-routine. Significant judgement is required.</p>	
Element of Competency	Performance Criteria
601.1 Identify the need for training	<p>601.1.1 The skills requirement of the enterprise is determined consistent with marketing, production and business plan requirements.</p> <p>601.1.2 The skills inventory of work force is determined and analysed against identified skills requirements and training strategies are defined.</p> <p>601.1.3 Individual training requirements are defined consistent with needs of the enterprise, and capabilities and skill base of the individuals.</p>
601.2 Organise training resources	<p>601.2.1 Training methods most suitable for the needs of the enterprise, work environment, individual and learning experience are selected.</p> <p>601.2.2 Resources, staff and facilities are organised according to training methods are selected.</p>
601.3 Manage training	<p>601.3.1 A training plan is developed which allows for cash flow requirements, work load, skill needs of the enterprise, availability of providers and needs of the trainees.</p> <p>601.3.2 The training plan is monitored and the achievement of candidates compared with the needs of the enterprise and the plan is modified where and when appropriate.</p>
<p>A. RANGE OF VARIABLES</p> <p>Training methods may include formal off-the-job class room, informal off-the-job, formal on-the-job, informal on-the-job.</p>	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • adult training principles • constructing training programs • assessing training needs • training delivery methodologies <p>An ability to</p> <ul style="list-style-type: none"> • identify the need for training • organise training resources • manage training 	
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>	

<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
<p>D. KEY COMPETENCIES</p> <p>Utilisation of key competencies in the performance of this unit Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)</p> <table border="1"> <thead> <tr> <th>Communicating ideas and information</th> <th>Collecting analysing and organising information</th> <th>Planning and organising activities</th> <th>Working with teams and others</th> <th>Using mathematical ideas and techniques</th> <th>Solving problems</th> <th>Using technology</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Communicating ideas and information - with clients and members of the work team • Collecting, analysing & organising information - on the requirements of the project • Planning & organising activities - of self and others • Working with teams & others - to prepare a landscape design • Using mathematical ideas & techniques - to measure and calculate project requirements • Solving problems - related to the nature of the project site and requirements of the user • Using technology - to communicate and keep records 							Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology	3	3	3	3	3	3	3
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology														
3	3	3	3	3	3	3														

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT602 A Develop a business plan	
Unit Descriptor	
This Unit of Competency is concerned with the development of a business plan for a horticultural enterprise.	
The development of a business plan is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Business planning competencies are usually used independently and are substantially non-routine. Significant judgement is required.	
Element of Competency	Performance Criteria
602.1 Review the strategic direction of the business	602.1.1 Viable directions and desired outcomes are examined, environmental influences assessed and aspirations of stakeholders defined. 602.1.2 Resources and other strategic factors available for use in production are identified and assessed and their special characteristics or relevance to the current and potential business activities is determined. 602.1.3 Options for growth and/or diversification of feasible enterprises are assessed to determine long term viability and stability of the business. 602.1.4 Enterprises are selected which are both feasible and offer opportunities for growth and/or diversification, decisions are made using reasoned argument and appropriate evidence.
602.2 Specify business objectives and targets	602.2.1 Explicit objectives and targets which reflect the managers preference for feasible enterprise performance and development and which are consistent with the overall purposes of the business are prepared, in a form that enables progress towards them to be observed and measured.
602.3 Assess financial implications of the business, marketing, purchasing and personnel plans	602.3.1 Financial analysis is prepared defining all aspects of financial behaviour for the enterprise and market conditions with best case/worst case sensitivity defined. 602.3.2 Various plans are examined in light of historical records and management experience, and recommendations are prepared based upon reasoned argument and sound evidence.
602.4 Evaluate alternative plans	602.4.1 Range of variables likely to impact on plan performance are identified based upon historical data, experience, industry trends, expert advice and market conditions. 602.4.2 Evaluation is based upon reasoned argument and appropriate evidence.
602.5 Identify assets to be purchased and sold during the planning period	602.5.1 Enterprise production processes are analysed to determine asset requirements. 602.5.2 Capital costs of asset requirements are assessed and compared with enterprise returns and with total business investment to determine optimum levels of investment in assets. 602.5.3 Machinery innovations are monitored and assessed and machines replaced when it is beneficial and cost effective. 602.5.4 Costs and benefits of alternatives to the purchase of new assets are analysed and assessed to determine best acquisition strategies.
602.6 Develop risk management strategies	602.6.1 Sources and types of risks are identified and the probability of their occurrence assessed. 602.6.2 Alternative management strategies to reduce production, market and financial risks are identified, assessed and applied as required. 602.6.3 The need for formal insurance cover on assets, personal accident and sickness, and public risk is assessed and cover

	taken out where risk or loss cannot be reduced to an acceptable level by effecting protection through management practices.
602.7 Implement a business plan	<p>602.7.1 Selection of a business plan using the results of financial plans and the assessment of risks in the production and marketing of products is based on reasoned argument and appropriate evidence.</p> <p>602.7.2 All required inputs and improvements and developments for operations are specified in the business plan.</p> <p>602.7.3 Requirements of business departments are defined, planning periods determined and work objectives established.</p>

A. RANGE OF VARIABLES

- Viable directions may include suitable business applications relative to the property, assets, facilities and capabilities of resources available.
- Risks may include market variations, supplier viability, distribution channels, natural disaster, competition.

B. EVIDENCE GUIDE

Underpinning Knowledge and Skills

A basic working knowledge of

- business planning
- risk management strategies
- strategic planning

An ability to

- review the strategic direction of the business
- specify business objectives and targets
- assess financial implications of the business, marketing, purchasing and personnel plans
- evaluate alternative plans
- identify assets to be purchased and sold during the planning period
- develop risk management strategies
- implement a business plan

OHS issues that impact upon the performance of this unit

Not applicable.

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES

Utilisation of key competencies in the performance of this unit

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with banker, accountant, consultant, staff, office personnel
- **Collecting and analysing and organising information** - last year's actuals, price forecasts
- **Planning and organising activities** -labour requirements, inputs to buy, alternatives
- **Working with others and in teams** -staff, banker, accountant, consultant
- **Using mathematical ideas and techniques** - cash flow, development & partial budgets
- **Solving problems** - technical, financial, alternative strategies
- **Using technology** - office equipment, computers, communications technology

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT603 A Promote the business	
<p>Unit Descriptor This unit describes the work of promoting a horticultural business.</p> <p>Business promotion is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Business promotion competencies are usually used independently and are substantially non-routine. Significant judgement is required.</p>	
Element of Competency	Performance Criteria
603.1 Determine the promotion strategy	<p>603.1.1 Alternative and innovative promotion strategies for the business are identified and compared with the existing system.</p> <p>603.1.2 Marketing services organisations are identified and services accessed where appropriate.</p> <p>603.1.3 A plan is developed detailing products, markets, channels of distribution, promotion strategies and pricing strategies and which responds to the defined business strategies and plans.</p>
603.2 Implement the promotion strategy	603.2.1 The promotion strategy is monitored for effectiveness in relation to the plan and responses suitable to the requirements of the business are developed.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> Marketing strategies may include, price, promotion. Marketing techniques may include vertical integration. Selling may include direct sales, blind quotations. Market environment may include consumer trends. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> marketing principles and practice <p>An ability to</p> <ul style="list-style-type: none"> determine the promotion strategy implement the promotion strategy 	
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>	
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p>	

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with clients and customers
- **Collecting and analysing and organising information** - that contributes to business promotion
- **Planning and organising activities** - for business promotion
- **Working with others and in teams** - to establish effective promotional strategies
- **Using mathematical ideas and techniques** - as they apply to promotional activities
- **Solving problems** - of promotion
- **Using technology** - to gather, record and store data

Industry Sector/s	Horticulture Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT604 A Manage human resources	
Unit Descriptor This unit describes the management of human resources in a horticultural enterprise. Human resource management is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Human resource management competencies are usually used independently and are substantially non-routine. Significant judgement is required.	
Element of Competency	Performance Criteria
604.1 Determine the staffing needs of the business	604.1.1 Business, marketing and production plans are reviewed to determine number, type and working patterns of staff required for the enterprise. 604.1.2 Local, regional, economic and social environments are analysed to identify external influences on availability of suitable staff. 604.1.3 Staffing strategy is developed which responds to enterprise needs and recognises possible external influences likely to impact on such plans.
604.2 Engage staff	604.2.1 Job specifications are prepared by identifying and describing the tasks to be performed and the range of conditions under which the performance may occur. 604.2.2 The profile of the type of person required to meet the job specification is prepared having regard to Equal Opportunity regulations and relevant Occupational Health & Safety (OHS) regulations. 604.2.3 Information on relevant Industrial Awards is obtained and the rights of employer and employee are defined. 604.2.4 Sources of available labour are identified and actions necessary to access these sources are undertaken. 604.2.5 Applicants are interviewed and the assessment and the selection process is undertaken having regard to guidelines on equal opportunity and anti-discrimination employment practices. 604.2.6 A Contract of Employment is developed according to sound industrial and employee relations principles and is discussed with the new employee.
604.3 Set work objectives	604.3.1 Objectives are clear, accurate, contain all relevant details (including measures of performance) and conform to the business plan. 604.3.2 Achievement of the objectives is practicable within the set period given other work commitments. 604.3.3 Objectives are explained in sufficient detail and in a manner and at a level and pace appropriate to all the relevant individuals. 604.3.4 Objectives are updated regularly with the relevant individuals to take into account individual and business changes. 604.3.5 Individuals are encouraged to seek clarification of any areas of which they are unsure.
604.4 Plan work methods	604.4.1 The degree of direction required by individuals is accurately assessed and used to best effect in overall work planning. 604.4.2 Relevant views are sought in a way which encourages each individual to offer suggestions. 604.4.3 Work methods and activities are consistent with current enterprise priorities and objectives and may include opportunities for individual development when possible. 604.4.4 Work methods and activities optimise the use of available material, capital and people. 604.4.5 Where possible, decisions on work and methods may include suggestions from those involved. 604.4.6 Agreed work methods and activities are designed to ensure

	that enterprise objectives are achieved. 604.4.7 Potential hazards are identified and safe systems of work are adopted.
604.5 Allocate work	604.5.1 Allocations optimise the use of resources and the existing competencies of staff. 604.5.2 Individual responsibilities and limits of authority are clearly defined and recorded where necessary. 604.5.3 Where applicable, work activities allocated to individuals provide suitable learning opportunities for the objectives identified in their development plans. 604.5.4 Sufficient information is provided in a manner and at a level and pace appropriate to the individuals concerned and they are encouraged to seek clarification of their allocated activities. 604.5.5 Where allocations prove to be untenable or unrealistic or organisational demands change, adjustments minimise impact on time and cost. 604.5.6 Previous allocations are evaluated and used to improve current practice.
604.6 Manage industrial relations issues	604.6.1 Policies and procedures are developed which reflect the implications of industrial issues on enterprise efficiency, productivity and work practices. 604.6.2 Employees are educated in the rights and obligations of awards and related regulations on industrial matters. 604.6.3 Workplace issues impacting on industrial relations are recognised and dealt with efficiently, effectively, in a timely manner and in a manner which protects the rights of the parties and reflects the needs of the enterprise.
604.7 Ensure the adoption of safe working practices	604.7.1 All staff are trained in the Occupational Health & Safety (OHS) requirements of the enterprise. 604.7.2 Adoption of safe work practices by all staff is regularly checked and staff not adopting safe work practices are counselled. 604.7.3 All Occupational Health & Safety (OHS) records are completed accurately and legibly according to requirements of legislation and enterprise policy.
604.8 Provide feedback to individuals on their performance	604.8.1 Feedback is given in sufficient detail and in a manner and at a level and pace appropriate to the individual(s). 604.8.2 Feedback to staff is given at an appropriate time and place. 604.8.3 Feedback provides constructive suggestions and encouragement for improving future performance against work and development objectives. 604.8.4 Feedback recognises performance and achievement and encourages individuals to contribute to their own assessment. 604.8.5 Details of any action to be taken are accurately recorded for future reference. 604.8.6 Individuals are encouraged and assisted to make suggestions on how systems or procedures could be improved.
604.9 Terminate employment of staff	604.9.1 Relevant counselling processes are used according to industrial and industry guidelines. 604.9.2 Legal requirements are identified and implemented. 604.9.3 Employee departure is facilitated according to enterprise guidelines.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Human resources may include, family labour, full time, part time, permanent and casual employees, contractors. • Work allocation and evaluation may include work undertaken by self and subordinates. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • work planning • employee and industrial relations • legal obligations in the employment of staff 	

- conflict resolution
- Occupational Health & Safety (OHS) responsibilities and practices
- staff selection practices

An ability to

- determine the staffing needs of the business
- engage staff
- set work objectives
- plan work methods
- allocate work
- manage industrial relations issues
- ensure the adoption of safe working practices
- provide feedback to individuals on their performance
- terminate employment of staff

OHS issues that impact upon the performance of this unit

Relevant OHS hazards identification, risk assessment and risk control measures. These include systems to ensure that:

- workers undertake OHS induction
- workers safety skills are assessed and training provided
- workers are involved in the identification and reporting of hazards to health and safety
- risks are assessed by relevant workers
- effective short term and long term OHS risk control measures are implemented

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

d. KEY COMPETENCIES**Utilisation of key competencies in the performance of this unit**

Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)

Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3

- **Communicating ideas and information** - with applicants for jobs, staff, industrial officers, unions
- **Collecting and analysing and organising information** - awards, employment contracts
- **Planning and organising activities** - interviews, advertisements, work schedules
- **Working with others and in teams** - work routines every working day
- **Using mathematical ideas and techniques** - calculating wages, workcover, superannuation
- **Solving problems** - people, productivity, morale
- **Using technology** - communications especially two-way radio, telephone, computerised wages packages

Industry Sector/s	Horticulture Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT605 A Manage physical resources	
Unit Descriptor This unit describes the management of physical resources used in a horticultural business. Physical resource management is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Physical resource management competencies are usually used independently and are substantially non-routine. Significant judgement is required.	
Element of Competency	Performance Criteria
605.1 Develop plans to supply machinery and equipment services	605.1.1 Business, marketing and production plans are reviewed to determine enterprise requirements for machinery and equipment. 605.1.2 Plans are developed to make machinery and equipment available to the enterprise which reflects needs, capacity to pay, utilisation and long term capital acquisition strategies of the enterprise.
605.2 Select machinery and equipment	605.2.1 Additional and replacement machinery identified in the business plan is selected and acquired and relevant details are recorded for taxation purposes. 605.2.2 Cost/benefit value of machinery innovations to the business are assessed and implemented where sound.
605.3 Ensure machinery and equipment is maintained at economic operating point	605.3.1 A maintenance program for machinery is developed according to manufacturers guidelines, seasonal work requirements and sound financial planning. 605.3.2 The economic point to purchase new equipment is identified and purchase made where finances and business plan permit.
605.4 Ensure machinery and equipment is operated safely	605.4.1 Occupational Health & Safety (OHS) hazards are discussed with staff and their views on minimising hazards are sought according to sound consultative procedures. 605.4.2 Occupational Health & Safety (OHS) concerns raised by staff are dealt with promptly. 605.4.3 Accidents are investigated promptly and preventative measures are instituted. 605.4.4 Measures to minimise hazards are developed as the need arises. 605.4.5 Supervisors duty of care and responsibility are carried out according to relevant Occupational Health & Safety (OHS) legislation. 605.4.6 All Occupational Health & Safety (OHS) records are completed accurately and legibly according to legislative and enterprise requirements.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Physical resources may include land, natural water, natural vegetation, improvements to the land, water supplies, laneways, roads and tracks, soil conservation works, trees, shrubs and improved plant species, shelters, land-forming and irrigation and drainage structures, plant, vehicles, machinery and equipment, yards, sheds, houses and storage facilities. Legal requirements may include Acts and regulations governing soil and water management, land ownership and use, trespass and theft, land tenure, use of motor vehicles and equipment on public roads, leasing, control of weeds, pests and diseases, use of chemicals, product quality assurance, trade practices, Occupational Health and Safety. 	

B. EVIDENCE GUIDE**Underpinning Knowledge and Skills**

A basic working knowledge of

- enterprise machinery and equipment requirements
- property improvement strategies and maintenance
- legislative requirements governing physical resources

An ability to

- develop plans to supply machinery and equipment services
- select machinery and equipment
- ensure machinery and equipment is maintained at economic operating point
- ensure machinery and equipment is operated safely

OHS issues that impact upon the performance of this unit

Relevant OHS hazards identification, risk assessment and risk control measures. These include:

- assessment of health risk of existing facilities, machinery and equipment, and of alternative systems and equipment.
- maintenance of safe systems of work
- safe manual handling systems and procedures
- safe operation and maintenance of machinery and equipment including hydraulics
- safe handling of hazardous substances
- protection from noise, dusts, solar radiation, dust and noise
- selection, provision and maintenance of relevant personal protective clothing

C. ASSESSMENT GUIDE

Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.

The unit will be assessed according to the following guidelines and conditions:

1. Authority managing and conducting assessment, and issuing qualifications

Registered Training Organisation (RTO)

2. Qualifications of Assessor

Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:

- Conduct assessment in accordance with an established assessment procedure; and
- Plan and review assessment.

Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.

3. Measures to ensure consistency in assessment

These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.

4. Where is this unit assessed?

Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with supervisors and others in the work place • Collecting and analysing and organising information - on physical resources in the enterprise • Planning and organising activities - to arrange for maintenance and replacement • Working with others and in teams - to manage physical resources of an enterprise • Using mathematical ideas and techniques - to calculate depreciation and capital equipment expenditure • Solving problems - of selecting and replacing equipment • Using technology - information technology, computers and accessing data bases 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT606 A Market products and services	
<p>Unit Descriptor This Unit of Competency is concerned with the marketing of horticultural products and services.</p> <p>Product and services marketing is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Product and services competencies are usually used independently and are substantially non-routine. Significant judgement is required.</p>	
Element of Competency	Performance Criteria
606.1 Evaluate relevant markets	606.1.1 Markets for existing products or new product opportunities for the enterprise are identified, researched and analysed for possible entry and/or development.
606.2 Develop marketing strategies and plans	606.2.1 Alternative and innovative marketing strategies for the business are identified and compared with the existing system. 606.2.2 Marketing services organisations are identified and services accessed where appropriate. 606.2.3 A plan is developed detailing products, markets, channels of distribution, promotion strategies and pricing strategies and which responds to the defined business strategies and plans.
606.3 Implement the marketing strategy	606.3.1 Task requirements of the marketing plan are documented and communicated to relevant groups and individuals. 606.3.2 The marketing strategy is monitored for effectiveness in relation to the plan and responses suitable to the requirements of the business are developed. 606.3.3 Marketing outcomes are recorded, analysed and compared with targets, and utilised to review and revise plans.
606.4 Determine requirements of import/export strategies	606.4.1 Requirements of import/export activities are identified and enterprise responsibilities and obligations determined. 606.4.2 Business strategies, procedures and practices for import/export activities are identified, documented and integrated into business, marketing and production plans.
606.5 Sell products	606.5.1 Relevant buyers in target markets are identified, sales plans developed and selling strategies are implemented in line with business, marketing and production capacity.
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Relevant markets may include wholesalers, retailers, exporters, international customers. • Marketing strategies may include price, promotion, product quality, distribution channels. • Marketing techniques may include vertical integration, exporting, targeting seasonal windows, niche marketing. • Selling may include direct sales, consignment, auctions, supply contracting. • Market environment may include consumer trends, harvesting, handling and marketing methods, export opportunities, trade policies, seasonal influences. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills A basic working knowledge of</p> <ul style="list-style-type: none"> • marketing principles and practice • import and export strategies 	

<p>An ability to</p> <ul style="list-style-type: none"> • evaluate relevant markets and market opportunities • develop marketing strategies and plans • implement the marketing strategy • determine requirements of import/export strategies • sell products
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with agents, buyers, staff • Collecting and analysing and organising information - market information, transport • Planning and organising activities - marketing options and alternative systems • Working with others and in teams - agents, buyers, staff • Using mathematical ideas and techniques - analyse prices, seasonal trends, sales data • Solving problems - quality management systems, logistics, losses • Using technology - computers, communications technology 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT607 A Manage business capital	
Unit Descriptor	
This Unit of Competency is concerned with the management of business capital in a horticultural enterprise.	
Business capital management is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Business capital management competencies are usually used independently and are substantially non-routine. Significant judgement is required.	
Element of Competency	Performance Criteria
607.1 Determine the financing needs of the business	607.1.1 Business working capital levels are established as an integral part of business management. 607.1.2 Capital required for purchase of assets and business development is determined and reasons for possible additional finance are identified. 607.1.3 Existing mortgage agreements are examined and available security determined. 607.1.4 Present level of owners equity is calculated and the impact of additional debt or equity finance on business viability is determined.
607.2 Assess the alternative sources of finance	607.2.1 All potential sources of finance, including innovative financing packages and methods, are identified. 607.2.2 Terms and conditions relating to all appropriate sources of finance are assessed and the most suitable sources identified. 607.2.3 Risks associated with debt and with equity finance are assessed and compared and least risk finance is identified. 607.2.4 Actual, effective and forecast interest levels are analysed and assessed for impact on business viability. 607.2.5 The decision on funding sources reflects sound use of information and is based on reasoned argument and appropriate evidence.
607.3 Apply for additional finance	607.3.1 Appropriate professional advice is obtained in preparing proposals and in planning to negotiate the finance, and applications are prepared using a format acceptable to the financing organisation. 607.3.2 The most favourable terms and conditions that can be negotiated with each financier are obtained and conditions are defined in writing.
607.4 Manage loans and borrowing to meet contractual obligations	607.4.1 Borrowed funds are monitored and controlled within agreed limits and used for agreed purpose(s). 607.4.2 Changes in the use or repayment of funds are negotiated with financiers to avoid incurring penalties.
607.5 Decide on alternative investments on and off-enterprise	607.5.1 Opportunities for on and off-farm investments are identified and examined to determine compatibility with the objectives of the business, estate plans and the need for enhanced business stability and viability. 607.5.2 Investment alternatives are compared using appropriate criteria and decisions are based on reasoned argument.
607.6 Monitor and evaluate the performance of business capital and investments	607.6.1 Existing financing arrangements are monitored and evaluated and re-financed as appropriate. 607.6.2 Performance of investments is monitored and evaluated using appropriate criteria. 607.6.3 Investment portfolio is reviewed and revised as required.
A. RANGE OF VARIABLES	
<ul style="list-style-type: none"> Advice may be sought from Taxation Commissioner, financing agencies. 	

<ul style="list-style-type: none"> • Range of sources of finance may include debt financing for example bank overdraft, term loan, bridging finance, hire purchase, and equity financing for example shareholders funds, leasing.
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p> <p>A basic working knowledge of</p> <ul style="list-style-type: none"> • business capital management principles and practice • financial markets • debt management • investment opportunities <p>An ability to</p> <ul style="list-style-type: none"> • determine the financing needs of the business • assess the alternative sources of finance • apply for additional finance • manage loans and borrowing to meet contractual obligations • decide on alternative investments on and off-enterprise • monitor and evaluate the performance of business capital and investments
<p>OHS issues that impact upon the performance of this unit</p> <p>Not applicable.</p>
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor</p> <p>Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment</p> <p>These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed?</p> <p>Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>

D. KEY COMPETENCIES						
Utilisation of key competencies in the performance of this unit						
Level of utilisation of Key Competencies (1 perform; 2 administer; 3 design)						
Communicating ideas and information	Collecting analysing and organising information	Planning and organising activities	Working with teams and others	Using mathematical ideas and techniques	Solving problems	Using technology
3	3	3	3	3	3	3
<ul style="list-style-type: none"> • Communicating ideas and information - with bankers, consultants, partners • Collecting and analysing and organising information - terms and conditions of loans • Planning and organising activities - bank interviews, advisers appointments • Working with others and in teams - partners, consultants, bankers • Using mathematical ideas and techniques - estimating finance required, interest repayments • Solving problems - lack of finance, poor seasons and prices crises • Using technology - office equipment, computers, communications technology 						

Industry	Horticulture
Sector/s	Arboriculture, Floriculture, Landscape, Nursery, Parks & Gardens, Production, Turf
RUH HRT608 A Establish a horticultural enterprise	
<p>Unit Descriptor This Unit of Competency is concerned with the establishment of a horticultural business or enterprise.</p> <p>The establishment of a horticultural enterprise is likely to be undertaken alone or under limited guidance in line with a broad plan, budget or strategy. Competency involves the self-directed development of knowledge with substantial depth across a number of areas with a range of skills. Business planning and management competencies are usually used independently and are substantially non-routine. Significant judgement is required.</p>	
Element of Competency	Performance Criteria
608.1 Define enterprise requirements	<p>608.1.1 Target market is defined based on appropriate evidence, industry practice and sound analysis.</p> <p>608.1.2 Business plans are analysed for optimum features of an enterprise based on reasoned argument, appropriate evidence, and sound business practice.</p> <p>608.1.3 Legal requirements impacting on a proposed horticultural enterprise are identified.</p>
608.2 Choose a worksite	<p>608.2.1 Property market is scanned for purchase or leasing possibilities, site is decided upon and necessary legal arrangements made based on sound business practices.</p> <p>608.2.2 Contractual arrangements are entered into based on legal requirements, sound business practice and marketing planning.</p>
608.3 Develop a worksite plan	<p>608.3.1 Features of the site are communicated to a building consultant for plan preparation according to industry convention.</p> <p>608.3.2 The construction plan, including works schedule, takes into consideration the seasonal changes and core business, is in sympathy with existing style and develops optimum aesthetic value for the area according to sound design principles and enterprise requirements.</p>
608.4 Coordinate construction	<p>608.4.1 Works plans are drawn up in consultation with consultant, taking business planning, strategic directions, scheduling and staffing arrangements into consideration.</p> <p>608.4.2 Contractors, consultants and construction work are monitored against drawings and works plans and negotiations are undertaken where necessary.</p> <p>608.4.3 The site is commissioned, ensuring all systems are operational and according to plans and specifications.</p>
<p>A. RANGE OF VARIABLES</p> <ul style="list-style-type: none"> • Works plans consider the following: seasonal variations, marketing requirements, production amounts. • Worksites may include depots, workshops, growing facilities, storage areas, fields and growing areas. • Legal requirements may include Acts and regulations governing soil and water management, land ownership and use, building structures, trespass and theft, land tenure, use of motor vehicles and equipment on public roads, leasing, control of weeds, pests and diseases, use of chemicals, product quality assurance, trade practices, Occupational Health and Safety. 	
<p>B. EVIDENCE GUIDE</p> <p>Underpinning Knowledge and Skills</p>	

<p>A basic working knowledge of</p> <ul style="list-style-type: none"> • management and employment of contracts and consultants • contract laws and regulations • project and budget management • site plans and working drawings <p>An ability to</p> <ul style="list-style-type: none"> • define site requirements • choose a work site • develop a site plan • coordinate construction 																				
<p>OHS issues that impact upon the performance of this unit Not applicable.</p>																				
<p>C. ASSESSMENT GUIDE</p> <p>Assessment of this unit is to be conducted in accordance with this Assessment Guide and the endorsed 'Assessment Guidelines' for the Qualifications in Horticulture.</p> <p>The unit will be assessed according to the following guidelines and conditions:</p> <p>1. Authority managing and conducting assessment, and issuing qualifications Registered Training Organisation (RTO)</p> <p>2. Qualifications of Assessor Assessors are to be qualified as competent against the Competency Standards for Assessment. As a minimum this is to be in the two units:</p> <ul style="list-style-type: none"> • Conduct assessment in accordance with an established assessment procedure; and • Plan and review assessment. <p>Only qualified assessors engaged or auspiced by a Registered Training Organisation are able to assess a person against this unit of competency. This assessment is to be conducted by an assessor who is qualified as workplace competent, or in cooperation with an individual or group of people who are competent in this Unit.</p> <p>3. Measures to ensure consistency in assessment These measures are described in the Assessment Guidelines of the industry-endorsed Training Guide.</p> <p>4. Where is this unit assessed? Competency is to be demonstrated in a horticultural workplace or situation which reproduces horticultural workplace conditions.</p>																				
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