



Australian Government

Department of Education, Employment and Workplace Relations

RTF2023A Support turf establishment

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This competency standard covers the process of supporting the establishment of turf by seed or sod for sporting, recreational, landscaping, community and private use. Supporting turf establishment is likely to be carried out under routine supervision with intermittent checking. Responsibility for some roles and co-ordination within a team may be required. Competency requires the application of knowledge and skills to a range of turf establishment tasks. Turf establishment is usually undertaken within established routines, methods and procedures.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

Not applicable.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Prepare to establish a planted area	1.1 The planting site, planting methods and turf plant species and cultivars are identified according to the site plan and enterprise work procedures. 1.2 Materials, tools, equipment and machinery are selected according to planted area design requirements and enterprise work procedures. 1.3 Pre-operational and safety checks are carried out on tools, equipment and machinery according to manufacturers specifications and enterprise work procedures. 1.4 The environmental implications of the turf establishment program are identified and the likely outcomes assessed and reported to the supervisor. 1.5 OHS hazards are identified, risks assessed and reported to the supervisor. 1.6 Suitable safety and personal protective equipment (PPE) is selected, used and maintained.
2 Prepare the planting area	2.1 Layout of services is recognised, depths checked against the site plan and discrepancies are reported to the supervisor. 2.2 Earthworks are undertaken according to OHS requirements. 2.3 All competing plants are treated according to enterprise work procedures. 2.4 Soil is assessed for moisture, tilth, compactness, depth and decaying plant material according to enterprise work procedures. 2.5 Soil additives are selected and applied according to enterprise work procedures. 2.6 The entire surface is raked out evenly to achieve a consistent texture and the area is uniformly levelled to defined contour requirements according to

enterprise work procedures.

2.7 The planting site is watered according to the planting method and enterprise work procedures.

2.8 Debris and pollutants are removed from the site and disposed of in an environmentally aware and safe manner according to enterprise work procedures.

3 Plant turf

3.1 All turf plant material is inspected prior to being planted and material with **major defects** is discarded according to enterprise work procedures.

3.2 Hygiene practices with use of tools and equipment are clarified with supervisor and observed in establishment work.

3.3 Turf plant material with **minor defects** is trimmed or treated to maintain health and vigour according to enterprise work procedures.

3.4 Seed spread by hand and mechanically is evenly distributed over the whole planting area with no overlap and no areas missed according to enterprise work procedures.

3.5 The entire sown surface is evenly raked and thoroughly watered according to enterprise work procedures.

3.6 Sods are correctly oriented, rolled evenly onto a moist surface and interlocked in the pattern and area according to enterprise work procedures.

3.7 Newly laid turf is watered thoroughly to encourage establishment according to enterprise work procedures.

4 Provide post-planting care

4.1 The planted site is protected from animals, pedestrian and vehicular traffic according to enterprise work procedures.

4.2 The planted site is rolled to a work pattern planned to cover the area evenly and efficiently and rolling is even, flat and uniform with no **disturbance** according to enterprise work procedures.

4.3 Turf is mown according to a pattern and height

specified in enterprise work procedures.

- 4.4 Top dressing is applied evenly to the required depth over the whole area and is worked or rubbed into the surface according to enterprise work procedures.
- 4.5 New turf is watered according to irrigation system manufacturers specifications and enterprise work procedures.
- 4.6 Water is applied by hand to dry or under-watered plants according to the requirements of the turf species and cultivar, and according to enterprise work procedures.
- 4.7 Watering patterns are checked for dry spots and blockages and faults are rectified according to manufacturers specifications and reported to the supervisor.
- 5 Monitor turf health
 - 5.1 Turf structure is observed for **quality** according to published data, enterprise work procedures and industry standards.
 - 5.2 **Damaged turf** is identified according to published data, suppliers specifications, historical data and enterprise work procedures.
 - 5.3 Plants incorrectly planted or situations that will prevent plants from reaching their full potential are identified, recorded and reported to the supervisor according to enterprise work procedures.
- 6 Complete establishment of the planted area
 - 6.1 Earthworks are finished off to plan specifications and enterprise work procedures.
 - 6.2 **Waste material** is removed from the planting site and disposed of in an environmentally aware and safe manner according to enterprise work procedures.
 - 6.3 Tools, equipment and machinery are cleaned, maintained and stored according to enterprise work procedures.
 - 6.4 A **clean and safe work area** is maintained throughout and on completion of work.

- 6.5 Work outcomes are recorded or reported to the supervisor according to enterprise work procedures.

Required Skills and Knowledge

Not applicable.

Evidence Guide

What evidence is required to demonstrate competence for this standard as a whole?

Competence in supporting turf establishment requires evidence that a person is able to prepare for establishment activities, prepare the site, install plants, provide post-planting care of the planted area and monitor the health of the newly established turf.

The skills and knowledge required to support turf establishment must be **transferable** to a different work environment. For example, a person who can support turf establishment for a domestic garden should be able to transfer that knowledge, and those skills, to another workplace where they are required to support the establishment of a turf surface in a recreational park for public use, following induction to the new workplace.

What specific knowledge is needed to achieve the performance criteria?

Knowledge and understanding are essential to apply this standard in the workplace, to transfer the skills to other contexts, and to deal with unplanned events. The knowledge requirements for this competency standard are listed below:

- the purpose of the turf establishment program in relation to enterprise presentation standards and the end use of the turf surface

- the characteristics of enterprise turf species and cultivars, including growth rates, and their planting and post-planting cultural requirements

- irrigation and drainage system design and operational techniques to deliver maximum benefits to the planted area while minimising detrimental environmental impacts

- the effect of adverse outdoor climatic conditions (e.g., rain, hail, total fire ban days, or very high ultraviolet radiation), which may prevent or impede turf establishment activities, or influence the selection of tools, machinery and safety equipment to minimise the hazards presented

- the potential public nature of turf establishment work sites and the hazards and responsibilities associated with working in a

publicly accessible situation.

What specific skills are needed to achieve the performance criteria?

To achieve the performance criteria, appropriate literacy and numeracy levels as well as some complementary skills are required. These include the ability to:

participate in teams and contribute to team objectives

communicate orally with work team members and supervisors

utilise proforma recording, reporting and work procedure documents

interpret site plans and turf establishment specifications

measure quantities, calculate material requirements, area, volume, ratios and application rates, and calibrate machinery

co-ordinate own activities with the work group

minimise noise, dust, high activity vehicle traffic and water run-off to prevent nuisance-level environmental disturbance.

What processes should be applied to this competency standard?

There are a number of processes that are learnt throughout work and life, which are required in all jobs. They are fundamental processes and generally transferable to other work functions. Some of these are covered by the **key competencies**, although others may be added. The questions below highlight how these processes are applied in this competency standard. Following each question a number in brackets indicates the level to which the key competency needs to be demonstrated where 0 = not required, 1 = perform the process, 2 = perform and administer the process and 3 = perform, administer and design the process.

1. How can **communication of ideas and information (1)** be applied?

Ideas and information relating to turf establishment activities and problems encountered should be discussed with other members of the work team and the supervisor.

2. How can **information be collected, analysed and organised (1)**?

The turf establishment site and surrounding area should be inspected visually and the information gained discussed with the work team and supervisor.

Enterprise work procedures and site and establishment plans should be consulted, interpreted and applied to co-ordinate turf establishment activities, with further clarification sought from the supervisor where necessary.

3. How are **activities planned and organised (1)**?

Equipment, materials and work procedures for turf establishment activities will need to be arranged before and between work periods and there will be some responsibility for co-ordinating work with others.

4. How can **team work (1)** be applied?

Supporting the turf establishment program will involve working with other members of a team to complete the program.

5. How can the use of **mathematical ideas and techniques (1)** be applied?

Measuring distance, calculating areas and volumes, calibrating machinery, estimating quantities of materials and marking out will require mathematical application.

6. How can **problem-solving skills (1)** be applied?

Problems relating to the site and environmental conditions, establishment techniques, processes, workplace safety and other team members may arise during the establishment of turf surfaces.

7. How can the **use of technology (1)** be

Technology may be applied in the

applied?

preparation, use and maintenance of turf establishment tools, equipment and machinery.

Are there other competency standards that could be assessed with this one?

This competency standard **could** be assessed on its own or in combination with other competencies relevant to the job function.

There is essential information about **assessing this competency standard for consistent performance** and **where and how it may be assessed**, in the Assessment Guidelines for this Training Package. All users of these competency standards must have **access** to the **Assessment Guidelines**. Further advice may also be sought from the relevant **sector booklet**.

Range Statement

Range of Variables

The Range of Variables explains the contexts within which the performance and knowledge requirements of this standard may be assessed. The scope of variables chosen in particular training and assessment requirements may depend on the work situations available

What **planting sites** may be relevant to this standard?

Planting sites may include sports turf or recreational turf surfaces, parks, gardens, landscaped areas and recreational reserves.

What **planting methods** are relevant to this standard?

Planting methods may include hand and machine-assisted sowing, installing sod, stolons, plugs and hydro mulching.

What **enterprise work procedures** may apply to this standard?

Work procedures will be based on sound horticultural principles and practices and may include supervisors oral or written instructions, the turf establishment program, irrigation scheduling, enterprise standard operating procedures (SOPs), specifications, routine maintenance schedules, work notes; product labels and Material Safety Data Sheets (MSDS); manufacturers service specifications and operators manuals; waste disposal, recycling and re-use guidelines; and OHS procedures.

What **materials** may be required to support turf establishment?

Materials may include soil additives, materials for protecting planted areas, and weed, pest and disease control chemicals and materials.

What **tools, equipment and machinery** may be required to support turf establishment?

Hand tools may include knives, trowels, spades, forks, rakes, hoes, shovels, buckets, brooms, wheelbarrows, hoses and hose fittings, secateurs or snips, seeders, spreaders, turf spades, rollers and backpack spray equipment.

Equipment and machinery may include trailed or motorised seeders, spreaders, spray equipment, pumps and pump fittings, mechanical rollers, brush cutters, edge clippers, edge slicers, renovating equipment, scarifiers, de-thatchers, coring machines and core harvesters, bobcats, ditch witches, backhoes, front-end loaders, graders, trucks, hydraulic trailers, tractors and 3-point

	linkage equipment, and irrigation and drainage systems and components.
	Mowers may include cylinder, rotary, flail, hand, hand-operated cylinder mowers, greens mowers, large ride-on fairway mowers, triplex greens mowers and 4-wheel drive machinery.
What OHS hazards may be associated with supporting turf establishment?	Hazards may include disturbance or interruption of services, solar radiation, dust, noise, soil, water and air-borne micro-organisms, chemicals and hazardous substances, sharp hand tools and equipment, manual handling, moving vehicles, machinery and machinery parts, uneven surfaces and flying objects.
What safety equipment may be required?	Safety equipment may include signage and barriers.
What personal protective equipment (PPE) may be required to support turf establishment?	PPE may include hat, boots, overalls, gloves, goggles, respirator or face mask, face guard, spray jacket or suit, hearing protection, sunscreen lotion and hardhat.
What services may need to be located?	Services may include water supply, gas, power (electricity), telecommunications, irrigation, stormwater and drainage.
What earthworks may be required when establishing a turf surface?	Earthworks may include ripping and cultivating the area to be planted, and supporting the construction of soil profiles for sports turf playing surfaces and the installation of irrigation and drainage systems.
What OHS requirements may be relevant to this standard?	OHS requirements may include identifying hazards, assessing and reporting risks, cleaning, maintaining and storing tools, equipment and machinery; appropriate use of PPE including sun protection, drinking to avoid dehydration, safe operation of tools, equipment and machinery; safe handling, use and storage of chemicals and hazardous substances, correct manual handling, basic first aid, personal hygiene and reporting problems to supervisors.
What competing plants may require control	Competing plants may include established

before establishing turf?	plants that require pruning back or weed species that require control techniques such as manual removal, herbicide application, laying weed mats and mulching.
What soil additives may be required for the successful establishment of turf surfaces?	Soil additives may include lime, gypsum, emollients, fertilisers, organic materials and fungal and disease control agents.
What major defects may require the rejection of turf plant material?	Major defects include any condition that will prevent the turf plant from reaching its full potential, including wilt, stunted growth and root damage.
What minor defects may be repairable in required turf plant material?	Minor defects that may be repaired may include damage sustained by turf plant material that can be trimmed or treated so that the plants can still reach their desired potential.
What disturbance should be avoided when rolling new turf?	Disturbance may include overlapping sods or parting sods.
What factors may indicate level of turf quality ?	Factors may include upright growth, apparent stress and uniformity or variation in the growing pattern.
What properties of damaged turf may be identified?	Properties of damaged turf may include strength, wear tolerance, growth rate, colour and recovery rate.
What waste material may be relevant to this standard?	Waste material may include unused earthworks materials, and plant debris, litter and broken components. Plant-based material may be mulched or composted, plastic, metal, paper-based materials may be recycled, re-used, returned to the manufacturer or disposed of according to enterprise work procedures.
What tasks may be undertaken to maintain a clean and safe work area ?	Tasks may include disabling unused tools, equipment and machinery and storing neatly out of the way of turf establishment activities, safely storing materials on site, using signage and safety barriers during and removing after turf establishment activities are completed, and swiftly and efficiently removing and processing debris and waste

from the work area.

For more information on contexts, environmental implications and variables for training and assessment, refer to the Sector Booklet.

Unit Sector(s)

Not applicable.