

RTC2026A**Unit Descriptor****Unit Sector****Undertake propagation activities**

Undertake propagation activities

No sector assigned

ELEMENT**PERFORMANCE CRITERIA**

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|------------------------------------|---|
| 1. Prepare for plant propagation | <p>1.1 Workplace information is interpreted and clarified according to instructions.</p> <p>1.2 OHS hazards in the work area are identified, rectified and/or reported.</p> <p>1.3 Suitable personal protective equipment (PPE) is selected, used, maintained and stored.</p> <p>1.4 Tools and equipment appropriate to the task being undertaken are selected and prepared according to enterprise guidelines.</p> <p>1.5 Propagation material is collected using the appropriate method for the species and according to enterprise guidelines.</p> <p>1.6 Propagation material is maintained and stored to ensure maximum viability.</p> |
| 2. Propagate plants | <p>2.1 Pre-treatment is applied and/or carried out appropriate to the propagation method and species.</p> <p>2.2 Propagation techniques are carried out according to the requirements of the species.</p> <p>2.3 Propagation material is handled in a way that minimises damage and maximises viability.</p> <p>2.4 Water and nutrients are applied to suit the media conditions, plant requirements and propagation techniques employed.</p> <p>2.5 Labels are applied according to enterprise guidelines.</p> <p>2.6 Plant health is monitored and remedial action is taken according to enterprise guidelines.</p> <p>2.7 Propagation activities are carried out according to OHS requirements.</p> |
| 3. Complete propagation activities | <p>3.1 Records are completed accurately and at the required time according to enterprise guidelines.</p> <p>3.2 Tools and equipment are cleaned and stored according to manufacturer specifications and enterprise guidelines.</p> <p>3.3 Waste is removed and hygiene practices are followed according to enterprise and OHS requirements.</p> |

KEY COMPETENCIES

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.

Key Competency	Example of Application	Performance Level
Communicating ideas and information	Ideas and information relating to work issues, completion and problems encountered, may need to be reported or discussed with the supervisor and others in the work team.	1
Collecting analysing and organising information	Work instructions, such as the daily planting program, should be located, interpreted and applied, with further clarification sought as necessary. Information relating to propagation activities, such as production statistics, should be noted and recorded at the completion of work tasks.	1
Planning and organising activities	Undertaking propagation activities involves organising equipment and materials for plant propagation, and planning activities around daily work routines. Discussions with the supervisor and other team members may be required in order to complete tasks efficiently in a logical sequence and in a timely manner.	1
Working with others and in teams	Propagation activities may involve working with other members of the work team to coordinate operations. For example, the collection and preparation of equipment and planting materials may be organised with another team member who acts in a support capacity.	1
Using mathematical ideas and techniques	Skills in counting, tallying and estimation are required to calculate basic production statistics, quantities and personal production rates.	1
Solving problems	Problems relating to propagation activities may arise during daily work routines that require corrective action or consultation with supervisor.	1
Using technology	Technology may be applied in the use of heat sterilisation equipment and computer databases and calculators.	1

RANGE STATEMENT

What workplace information may be relevant when undertaking propagation activities?	Planting program, Production Statistics, Standard Operating Procedures (SOPs), specifications, work notes, Material Safety Data Sheets (MSDSs), Nursery Industry Accreditation Scheme of Australia (NIASA) Guidelines, manufacturers instructions, product labels, or verbal directions from manager, supervisor, or senior operator.
What OHS hazards may be identified in the work area?	Hazards may include manual handling, hazardous substances, moving equipment and vehicles, sharp hand tools, solar radiation, slippery or uneven surfaces, and insect and spider bites.
What personal protective equipment (PPE) may be needed to undertake propagation activities?	Personal protective clothing and equipment may include respirators, overalls, boots, gloves, sun hat and sunscreen lotion.
What tools and equipment may be required for supporting propagation activities?	Tools and equipment may include secateurs, knives and other cutting instruments, plastic containers and trays, wheelbarrow, trolley, mechanical trolley, shovel, water spray container, dibblers and rubbish bins.
How might propagation materials be collected?	Collection procedures for propagation materials may include taking leaf or stem or root cuttings, gathering seeds, lifting bulbs, and dividing clumps.
What maintenance and storage procedures may apply to collected propagation materials?	Maintenance and storage procedures may include controlling environmental parameters such as moisture, air, humidity and temperature by methods such as refrigeration, wrapping in wet hessian or plastic, drenching, placing in water and burying in sawdust or other media.
What pre-treatments may be relevant to this standard?	Pre-treatments may include hormones, fungicides, cold/moist stratification, rehydration, heat or chemical disinfestation, breaking seed coat, cleaning, division and sterilisation.
What propagation techniques may be relevant to this standard?	Propagation techniques 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-cultured plants, division or splitting, spores.

What label information may be required when propagating plants?

Label information may include date of propagation, species, variety, batch number and cultivar, treatments applied, strike rate.

What remedial action may be taken to control pests and diseases?

Remedial action may include applying preventative fungicides, fertilisers, removing and disposing of damaged plant material, irrigation.

What OHS requirements apply to this standard?

OHS requirements may include identifying hazards, assessing and reporting risks, cleaning, maintaining and storing tools and equipment, appropriate use of personal protective equipment including sun protection, safe operation of tools and equipment, safe handling, use and storage of chemicals and hazardous substances, correct manual handling; basic first aid, personal hygiene and reporting problems to supervisors.

What records may need to be maintained in regard to propagation activities?

Records may include date of propagation, type of propagation carried out, number of plants carried out, source of propagation material, treatments carried out, spray records

What waste may be relevant to this standard?

Waste may include unused propagation material, potting media wastage, damaged plants, and damaged pots.

What hygiene practices may apply to this standard?

Hygiene practices may include removing all dirt and organic matter from production surfaces, tools and equipment, disinfecting production surfaces, tools and equipment, disinfestation and removal of plant and media waste, hand washing, footbaths, access restrictions and handling practices which minimise cross contamination.

EVIDENCE GUIDE

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:

- Maintenance requirements of tools and equipment used for propagation.
- OHS requirements of employees.
- Quality specifications/characteristics of a range of parent plants and propagation materials.
- Basic plant nutrition.
- Record keeping relevant to the work function.
- Enterprise requirements for handling and disposal of nursery wastes.
- Enterprise hygiene requirements.
- Common problems that may occur while performing propagation activities in a controlled environment.
- Propagation methods required for a range of plants.
- OHS legislative requirements and Codes of Practice.
- OHS procedures.

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:

- Read and interpret instructions.
- Participate in teams and contribute to team objectives.
- Communicate effectively with fellow team members.
- Carry out a variety of propagation techniques.

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.

Essential Assessment Information

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 both the **Assessment Guidelines** and the relevant **Sector Booklet**.