

ASSESSMENT GUIDELINES

Unit 20557

Propagate plants from seed

Level 4, Credit 10, version 2

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Unit standard 20557

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Level of performance required for this unit standard

This is a level 4 unit standard. At this level trainees are expected to demonstrate the following abilities when completing assessment tasks:

- To work under broad guidance, independently; with complete responsibility for the standards of the outcome achieved.
- To apply the technical skills, supporting knowledge, and innovation to complete the task to the specified standard, in a variety of familiar and unfamiliar contexts.
- To analyse and interpret information, and make an informed judgement.

Assessors may consider linking the assessment of this unit standard with assessment for:

20556 Demonstrate knowledge of plant propagation

20558 Propagate plants by cuttings

20559 Propagate herbaceous plants by division

20572 Bud and graft young plants

Workplace assessment:

For guidelines on Workplace Assessment, please refer to the NZHITO Workplace Assessors Manual, and for further information, please contact: NZHITO, PO Box 8638, Christchurch, Ph 03 9644 735, Fax 03 9644 737, Website: www.hortito.org.nz

Entry information:

Recommended: Unit Standard 20556, *Demonstrate knowledge of plant propagation*, or demonstrate equivalent knowledge and skills.

Special notes:

This unit standard replaces unit standard 815.

Workplace procedures refers to verbal or written instructions to staff on procedures for the worksite and equipment.

Legislation relevant to this unit standard includes, but is not limited to, the Health and Safety in Employment Act 1992, the Resource Management Act 1991, and their subsequent amendments.

Work may involve exposure to chemical, dangerous or hazardous substances. Safety procedures are observed in accordance with NZS 8409:2004, *Management of Agrichemicals*, available from Standards New Zealand <http://www.standards.co.nz> or the NZ Agrichemical Education Trust, <http://www.growsafe.co.nz>.

Learners should recognise the rights of plant breeders and licensed growers under the Plant Variety Rights Act 1987, trademarks, copyright, patents or any other protection method, and understand the responsibilities of propagators to observe those rights.

**Unit 20557: Propagate plants from seed
(Apprentice copy)**

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Source and store seed	Yes/No	<ul style="list-style-type: none"> • Where ripe seed is collected in the field, it is done in accordance with workplace practices and without damage to the parent plant and the environment. • Where seed is bought in, it is obtained from a reputable supplier. • Where seed is extracted from fruit, it is done in accordance with workplace practices, and with minimal damage to the seed. • Store seed in suitable containers, and use techniques that will maintain the seed's viability.
Element 2 Treat seed to enhance germination	Yes/No	<ul style="list-style-type: none"> • Apply treatment to one seed species to break dormancy. Use one of: stratification, scarification, water soak, dry storage, low temperature germination. • Treat seeds in accordance with workplace practices, to reduce damping off for susceptible species.
Element 3 Produce seedling lines	Yes/No	<p>For three plant species carry out the following:</p> <ul style="list-style-type: none"> • Select and prepare an appropriate propagating medium. • Use a suitable seed sowing technique appropriate for each species and accordance with workplace practices • Select suitable conditions for the germination of each species. These include: growing medium temperature, air temperature, growing medium moisture content, humidity, light levels before and after germination • Monitor and adjust the germination environment as required in order to maintain the optimum conditions for seed germination. • Monitor seedling germination, emergence and development for progress and for likely problems. Take corrective action as required and in accordance with workplace practices. • Make appropriate and timely decisions on hardening off, containerising, or planting out for each of the three species.
Element 4 Keep records of propagation from seed.	Yes/No	<ul style="list-style-type: none"> • Label and identify propagated plant material, in accordance with workplace practices. Label may include plant name, date, and seed source. • Keep records of plants propagated in accordance with workplace practices. Records may include: species, seed source, collection date, storage time, pre-germination treatments, quantities, medium, sowing date, environment, emergence date, hardening off, containerising or planting out date.

_____ (Name of Apprentice)

is **Competent / Not yet competent** in Unit Standard 20557 (version 2)

Signed (Assessor): _____

WPA Registration Number: _____ Date: _____

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Please send this page to your NZHITO Regional Manager, who will forward it to National Office to register the credits on your NZQA Record of Learning.

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