

Title	Bud and graft young plants		
Level	4	Credits	10

Purpose	People credited with this unit standard are able to: collect scion wood; graft plants; bud plants; care for plants after grafting or budding; keep records of propagation by budding and grafting.
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Classification	Horticulture > Nursery Production
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Available grade	Achieved
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Guidance Information

- 1 Definition
Workplace procedures refer to oral or written instructions to staff on procedures for the worksite and equipment.
- 2 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, the Plant Variety Rights Act 1987; and their subsequent amendments.
- 3 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://standards.co.nz>, or the NZ Agrichemical Education Trust <http://growsafe.co.nz/>.
- 4 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.
- 5 It is recommended that people hold credits for Unit standard 27707, *Demonstrate knowledge of plant propagation by budding, grafting, layering and tissue culture*, or demonstrate equivalent knowledge and skills, before being assessed against this unit standard.

Outcomes and performance criteria

Outcome 1

Collect scion wood from a minimum of three species and/or cultivars.

Performance criteria

- 1.1 Scion wood is marked when its characteristics are most obvious, or sourced from reputable supplier.
- 1.2 Scion wood selected and cut is appropriate for the species and/or cultivar, and in accordance with workplace procedures.
- Range from marked plants or reputable supplier, pest and disease free, suitable diameter and growth stage, exposed to the sun, labelled with species and/or cultivar name.
- 1.3 Scion wood is bundled, and stored until needed, in conditions that maintain viability.

Outcome 2

Graft plants.

Performance criteria

- 2.1 The time selected for grafting is appropriate for plant species and/or cultivar, and the techniques used.
- 2.2 Root stock plants are prepared for grafting in the field or in the greenhouse as appropriate for plant species.
- 2.3 Plants are root grafted or top grafted in accordance with workplace procedures.
- Range two of – whip, whip and tongue, cleft, machine, side.
- 2.4 Each graft is completed in a manner that promotes success.
- Range compatibility, sufficient buds per scion, scions right way up, smooth cuts, cambium layers matching, firmly tied or secured, cut surfaces weatherproof.

Outcome 3

Bud plants.

Performance criteria

- 3.1 The time selected for budding is appropriate for plant species and/or cultivar, and the technique used.
- 3.2 Root stock plants are prepared for budding as appropriate for plant species.
- 3.3 Plants are budded in accordance with workplace procedures.
- Range one of – T-bud or inverted T-bud, chip bud.

3.4 Each bud is completed in a manner that promotes success.

Range compatibility, buds right way up, smooth cuts, cambium layers matching, firmly secured in place.

Outcome 4

Care for plants after grafting or budding.

Performance criteria

4.1 For grafted plants held indoors, the environment is maintained to encourage callusing, graft union formation, and plant growth.

4.2 Field grafted plants are maintained in accordance with workplace procedures to maximise growth, and to prevent competition from pests, diseases, and weeds.

4.3 Tapes, patches, or other holding devices are removed where necessary after the bud or graft has taken in order to prevent restriction of plant stem scion growth.

4.4 Budded plants are cut back to the bud, and the cut surface is treated in accordance with workplace procedures.

4.5 Scion growth is supported if necessary, and competing root stock growths are removed, in accordance with workplace procedures.

Outcome 5

Keep records of propagation by budding and grafting.

Performance criteria

5.1 Propagated plant material is labelled and identified in accordance with workplace procedures.

Range may include plant species or cultivar name, date, operators.

5.2 Records of plants propagated are kept in accordance with workplace procedures.

Range may include species and/or cultivar name, source of scion material, date scion material collected, date scion material used, budding or grafting technique, heading back of rootstock.

Replacement information	This unit standard replaced unit standard 819.
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This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 February 2004	31 December 2014
Revision	2	24 February 2006	31 December 2014
Review	3	19 April 2012	31 December 2023
Review	4	2 March 2023	31 December 2023

Consent and Moderation Requirements (CMR) reference

0032

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.