

Title	Describe plant propagation by budding, grafting, tissue culture and layering		
Level	2	Credits	5

Purpose	People credited with this unit standard are able to: describe the propagation of plants by budding, grafting, tissue culture, and layering.
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Classification	Horticulture > Nursery Production
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Available grade	Achieved
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Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
 - The Plant Variety Rights Act 1987; and any subsequent amendments.
- 2 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.

Outcomes and performance criteria

Outcome 1

Describe the propagation of plants by budding and grafting.

Performance criteria

- 1.1 Describe budding and grafting in terms of the methods, and give examples of plants propagated by each method.

Range methods may include but are not limited to – chip bud, T-bud, whip and tongue graft, cleft graft.
evidence of two plants is required.
- 1.2 Describe the selection of budding or grafting methods in terms of the plant species, and timing.
- 1.3 Describe the selection of scion material and rootstocks and their compatibility in terms of the plants to be propagated.

1.4 Describe budded and grafted plants in terms of their aftercare.

1.5 Describe reasons for growing plants by budding and grafting.

Range evidence of two reasons is required

Outcome 2

Describe the propagation of plants by tissue culture.

Performance criteria

2.1 Describe tissue culture in terms of the methods, and give examples of plants propagated by each method.

Range methods may include but are not limited to – meristem culture, embryo culture.
evidence of two plants is required.

2.2 Describe the selection of the plant parts, the culture medium, and timing, in terms of the plants to be propagated and the culture method used.

2.3 Describe the tissue culture in terms of the process.

Range process includes but is not limited to – hygiene, parent material, dissection, culture, exflasking/deflasking, hardening off.

2.4 Describe reasons for propagating plants by tissue culture.

Range evidence of two reasons is required

Outcome 3

Describe the propagation of plants by layering.

Performance criteria

3.1 Describe plant layering in terms of the methods used and give examples of plants propagated by each method.

Range simple layering, mound layering, tip layering, air layering.
evidence of one plant is required.

3.2 Describe the layering method selection in terms of plant species propagated and timing.

3.3 Describe layered material in terms of establishment and after care.

3.4 Describe the reasons for propagating plants by layering.

Range evidence of two reasons is required.

Replacement information	This unit standard and unit standard 27708 replaced unit standard 20556.
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Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 April 2012	31 December 2024
Review	2	28 April 2022	N/A

Consent and Moderation Requirements (CMR) reference	0052
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.