

<b>Title</b>	<b>Describe the production and operation cycles of seedlings and cuttings in a forest nursery</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>10</b>

<b>Purpose</b>	People credited with this unit standard are able to: describe the annual production cycle for bare root or containerised seedlings and cuttings in a forest nursery, and describe the cycle of operations for container grown seedlings and cuttings in a forest nursery.
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<b>Classification</b>	Horticulture > Forest Nursery
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Legislation relevant to this unit standard includes but is not limited to:
  - Health and Safety in Work Act 2015; and any subsequent amendments.
- 2 Definition  
*Workplace procedures* – the policies and procedures on safety and operation set down by the employer or organisation.
- 3 All evidence presented in this unit standard must be in accordance with workplace procedures.

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### Outcomes and performance criteria

#### Outcome 1

Describe the annual production cycle for bare root or containerised seedlings in a forest nursery.

Range includes but is not limited to radiata pine, eucalypt species.  
evidence of one forestry species is required

**Performance criteria**

1.1 Describe the production cycle activities in terms of production objectives.

Range production cycle activities may include but are not limited to: cultivation, bed forming or tray preparation, seed pre-treatment, seed preparation, seed sowing, sowing depth, seed spacing, weed and pest control, competition, malformation, fertilising, seedling quality, conditioning, topping, lifting, culling, packing, transporting, storing;  
evidence of seven production cycle activities is required.

1.2 Describe timing of operations over the annual cycle in terms of seasonal biological activity.

Range seed sowing, emergence period, soil temperatures, under cutting, conditioning, carbohydrate transfer, autumn temperature patterns, frost, topping, lateral pruning, conditioning of seedlings,  
evidence of four activities is required.

**Outcome 2**

Describe the annual production cycle for bare root or containerised cuttings in a forest nursery.

**Performance criteria**

2.1 Describe the production cycle activities in terms of the production objectives.

Range production cycle activities include but are not limited to: bed forming or tray preparation, dibbling, cutting collection and setting, protection, weed and pest control, conditioning, lifting, culling, packing, storing, plant quality;  
evidence of four production cycle activities is required.

2.2 Describe the timing of operations over the annual cycle in terms of seasonal biological activity.

Range seasonal biological activities may include but are not limited to: cutting collection and setting, protection, lateral root pruning, conditioning, topping, lifting  
evidence of four activities is required

**Outcome 3**

Describe the cycle of operations for container grown seedlings in a forest nursery.

**Performance criteria**

- 3.1 Describe the production cycle activities in terms of production objectives
  - Range productions cycle activities may include but are not limited to: suitable container mix, sowing, pricking out, fertilising, growing on, hardening off, container types, spacing, conditioning; evidence of seven activities is required.
  
- 3.2 Describe the timing of operations during the growing cycle in terms of seasonal biological activity.
  - Range seasonal biological activities may include but are not limited to: sowing, fertilising, shading, hardening off, root trimming, poly house, growing period, conditioning, planting time, drought tolerance, frost tolerance; evidence of seven activities is required.

**Outcome 4**

Describe the cycle of operations for container grown cuttings in a forest nursery.

**Performance criteria**

- 4.1 Describe the production cycle in terms of production objectives
  - Range production cycle activities include but are not limited to: suitable container mix, collecting cuttings, setting cuttings, growing, hardening off, root trimming, container types evidence of seven activities is required.
  
- 4.2 Describe the timing of operations during the growing cycle in terms of seasonal biological activity.
  - Range seasonal biological activity includes but is not limited to collecting cuttings, setting cuttings, root trimming, transplanting of plug grown cuttings, topping; evidence of four activities is required

<b>Planned review date</b>	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	25 September 1997	31 December 2024
Revision	2	19 July 2001	31 December 2024
Revision	3	24 February 2006	31 December 2024
Review	4	28 April 2022	N/A

**Consent and Moderation Requirements (CMR) reference**

0052

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](mailto:qualifications@mukatangata.nz) if you wish to suggest changes to the content of this unit standard.