

## Grow and maintain plants in containers from seed

**Level** 1

**Credits** 5

**Purpose** This unit standard is for people working, or intending to work, in horticulture, and secondary school and gateway students. People credited with this unit standard are able to: identify parts of seeds and germinated seeds; sow and germinate seeds in containers; maintain and prick out seedlings; grow and maintain plants in containers; and keep a diary record of the growth of plants from sowing of seeds to the growing on stage.

**Subfield** Horticulture

**Domain** Production Horticulture

**Status** Registered

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**Entry information** Open.

**Accreditation** Evaluation of documentation by NZQA and industry.

**Standard setting body (SSB)** Primary Industry Training Organisation

**Accreditation and Moderation Action Plan (AMAP) reference** 0032

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

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### Special notes

- 1 *Industry practices* refer to accepted horticulture industry techniques, procedures, and standards.
- 2 The germinated seedlings must be used to produce the growing on stage of plants in containers.

## Elements and performance criteria

### Element 1

Identify parts of seeds and germinated seeds.

#### Performance criteria

- 1.1 External seed parts are identified.
- Range seed coat (testa), micropyle, scar (hilum).
- 1.2 Plant parts of a germinated seedling are identified.
- Range cotyledons, true leaves, stem, primary root.

### Element 2

Sow and germinate seeds in containers.

#### Performance criteria

- 2.1 Media for seed sowing are identified.
- Range may include but is not limited to – seed raising mix, vermiculite.
- 2.2 Seed sowing containers are identified.
- Range punnets, trays.
- 2.3 Seeds are sown in containers in accordance with industry practices.
- Range depth of seed, spacing, labels.
- 2.4 Seeds are germinated in containers in accordance with industry practices.

### Element 3

Maintain and prick out seedlings.

#### Performance criteria

- 3.1 Seedlings are maintained in accordance with industry practices until the pricking out stage.
- Range media moisture levels maintained, pest and disease free, cotyledons emerged, first true leaves formed.
- 3.2 Seedlings are hardened-off in accordance with industry practices prior to pricking out.

3.3 Seedlings are pricked out into seedling containers in accordance with industry practices.

Range minimum of 20 seedlings, even spacing, similar sized seedlings, no damage to seedlings, healthy seedlings.

3.4 Pricked out seedlings are grown and maintained in accordance with industry practices.

Range media moisture levels maintained, pest and disease free.

#### **Element 4**

Grow and maintain plants in containers.

#### **Performance criteria**

4.1 Seedlings are hardened-off in accordance with industry practices prior to potting up.

4.2 Seedlings are selected and individually potted into containers in accordance with industry practices.

Range containers may include but are not limited to – potting bags, pots.

4.3 Potted plants are maintained in accordance with industry practices.

Range media moisture levels maintained, pest and disease free.

4.4 Plants are presented when there is evidence of at least three new internodes of growth on each plant (growing on stage).

Range at least 12 plants.

#### **Element 5**

Keep a diary record of the growth of plants from sowing of seeds to the growing on stage (three new internodes of growth).

#### **Performance criteria**

5.1 A record is kept of the procedures undertaken in the preparation of the seeds for sowing and the sowing process.

5.2 A weekly record is kept describing care and maintenance of the seeds and seedlings up until the containerised plants reach the stage of three internodes of growth on each plant.

Range may include but is not limited to – watering, plant and root growth, pests and diseases, other environmental conditions.

### **Please note**

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

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### **Comments on this unit standard**

Please contact the Primary Industry Training Organisation [standards@primaryito.ac.nz](mailto:standards@primaryito.ac.nz) if you wish to suggest changes to the content of this unit standard.