

ASSESSMENT GUIDELINES

Unit 2805

Modify plant growth patterns.

Level 5, Credit 6, Version 4

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Unit standard 2805

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Level of performance required for this unit standard

This is a level 5 unit standard. At this level trainees are expected to demonstrate the following abilities when completing assessment tasks:

- To work within broad general guidelines; with responsibility for the achievement and standard of the outcome.
- To apply a wide range of technical skills, knowledge, and innovation to complete the task to the specified standard, in a variety of familiar and unfamiliar, routine and non-routine contexts.
- To analyse and interpret a wide range of data, and make an informed judgment.

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

Special notes:

1. Legislation relevant to this unit standard includes but is not limited to the Health and Safety in Employment Act 1992.

Entry Information:

Open, but it is recommended that before seeking credit for this unit standard learners gain skills and knowledge in the application of botany and plant physiology in horticulture.

**Unit 2805: Modify plant growth patterns.
(Apprentice copy)**

| ELEMENT | Competent | Range of evidence an assessor should consider |
|---|------------------|--|
| Element 1 Identify reasons for use of plant growth modification. | Yes/No | <ul style="list-style-type: none"> ▪ List the physiological reasons for adoption of plant growth modification practices. Range: pest susceptibility, disease susceptibility, lack of plant ability to meet defined growth requirements, produce requirements. ▪ List the economic and commercial reasons for adoption of plant growth modification practices. Range: out of season flowering and fruiting, early or late in season flowering and fruiting, characteristics required by the market, flexibility and management of multi-crop harvest schedules. |
| Element 2 Modify plant growth using environment controls, and document results. | Yes/No | <ul style="list-style-type: none"> ▪ Adjust the environmental characteristics to create environmental changes to modify plant growth. Range: light, temperature, air circulation and composition, available water. ▪ Document the information obtained from monitoring of environmental changes and plant response. ▪ Compare the documented results with the required plant performance targets, and make adjustments to the growing environment to redress the deviation from target performance. |
| Element 3 Modify plant growth using applied materials. | Yes/No | <ul style="list-style-type: none"> ▪ Identify the materials that change plant growth patterns and list the characteristics of changes produced by each materials. Range: hormones, nutrients, water, growth regulators. ▪ Ensure the procedures adopted in the application of growth modifying materials conforms with the requirements of the Health and Safety in Employment Act 1992. ▪ Monitor the outcomes achieved through the application of plant growth modification materials, and take action to redress deviation from set performance targets. |
| Element 4 Define applications and methods of genetic plant growth modification. | Yes/No | <ul style="list-style-type: none"> ▪ Identify the reasons for use of genetic plant modification. Range: removal of genetic weaknesses, transfer of genetic strengths from other plant sources, development of characteristics to make aesthetic changes sought by markets. ▪ Identify major methods of genetic plant modification, and outline the procedures used for each method. Range: plant evaluation and selection, hybridization, genetic engineering. ▪ Identify the current and likely future applications of genetic modification for a defined horticulture sector. Range: May include but not limited to – floriculture, fruit, nursery, vegetables, and viticulture |

_____ (Name of Apprentice)

is **Competent / Not yet competent** in Unit Standard 2805. (version 4)

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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