

ASSESSMENT GUIDELINES

Unit 22194

Explain how plant structures, functions and processes adapt to different environments

Level 4, Credit 5, Version 1

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Unit standard 22194

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Level of performance required for this unit standard

This is a level 4 unit standard. At this level trainees are expected to demonstrate the following abilities when completing assessment tasks:

- To work under broad guidance, independently; with complete responsibility for the standards of the outcome achieved.
- To apply technical skills, knowledge, and innovation to complete the task to the specified standard, in a variety of familiar and unfamiliar contexts.
- To analyse and interpret information, 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, P O Box 8638, Christchurch. Ph 03 9644 735, fax 03 9644 737, website www.hortito.org.nz

Special notes:

None.

**Unit 22194: Explain how plant structures, functions and processes adapt to different environments
(Apprentice copy)**

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Demonstrate knowledge of plant anatomy and morphology.	Yes/No	<ul style="list-style-type: none"> ▪ Identify plant cell types and their functions, and how they inter-relate in plant growth. ▪ Demonstrate knowledge of the inter-relationship of plant tissue structure and functions between cell types. Range: phloem, xylem, meristematic tissue, epidermis, storage tissues. ▪ Describe morphological structures of plant organs. Range: roots, stems, leaves, fruit. ▪ Describe the importance of management and care for plants when carrying out horticulture practices. Range: propagation, planting, training and pruning, growing, harvesting, and storage of crops.
Element 2 Explain how plants achieve maximum plant growth in specific environments. Range: temperature, tropical, arid, and saline.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the inter-relationships between plant growth processes for optimum plant growth. Range: photosynthesis, respiration, water movement, nutrient uptake, cell division. ▪ Describe plants adaptations demonstrating how they can maximize plant growth in their growing environments. Range: xerophytes, mesophytes, hydrophytes, halophytes, shade and sun plants. ▪ Describe the distribution of vegetation in New Zealand in terms of plant growth in different climatic conditions.

_____ (Name of Apprentice)

is **Competent / Not yet competent** in Unit Standard 22194, version 1

Signed (Assessor): _____

WPA Registration Number: _____ Date: _____

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