ASSESSMENT GUIDELINES

Unit 22188

Demonstrate knowledge of irrigation systems used in horticulture

Level 2, Credit 5, Version 1

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Unit standard 22188
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Level of performance required for this unit standard

This is a level 2 unit standard. At this level trainees are expected to demonstrate the following abilities when completing assessment tasks:

- To work under general supervision, as directed; with some responsibility for the standard of the outcome achieved.
- To complete tasks that are established and familiar, with a moderate range of skill and knowledge.
- To apply basic operational knowledge, use readily available information and known solutions to solve familiar problems.

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:

1. Regulations on water permits and water consents should be sought from local authorities.
2. Legislation relevant to this unit standard includes but is not limited to the Resource Management Act 1991.

Unit 22188: Demonstrate knowledge of irrigation systems used in horticulture. (Apprentice copy)

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Demonstrate knowledge of the importance of irrigation in horticulture production.	**Yes/No**	▪ Identify how important plant water requirements are in relationship to plant growth and plant processes. ▪ Describe seasonal rainfall variation within New Zealand, and explain the importance of water storage and availability. ▪ Describe the effect of over watering on plant growth. ▪ Describe how to use water budgets in terms of how much irrigation should be applied to horticulture crops.
Element 2 Identify and describe the range of irrigation systems used in New Zealand horticulture. Range: mist, trickle, overhead, capillary, hand, rain gun, low pressure and high pressure systems.	**Yes/No**	▪ Describe the characteristics of each of the mentioned systems in terms of how they function. ▪ Compare the advantages and disadvantage of each of the systems as a horticulture irrigation method. ▪ Identify irrigation systems used in each sector of production horticulture. Range: horticulture sectors may include but not limited to – amenity, floriculture, fruit, landscape, nursery, vegetable and viticulture.
Element 3 Descibe a typical irrigation system.	**Yes/No**	▪ Describe and explain the layout of typical irrigation system. Range: water source, filter (two types), water flow valve, water tank, headers, laterals, emitters (three types), joiners. ▪ Identify materials and equipment suitable for an irrigation system and explain how they are used. Range: may include but are not limited to – pumps, filters, header line; valves; lateral lines. ▪ Describe irrigation system maintenance.
Element 4 Identify the water sources for irrigation systems. Range: river/stream, city water supply, lake, dam, artesian bore, roof, springs.	**Yes/No**	▪ Identify the advantages and disadvantages of each water source. ▪ Describe water permit regulations in terms of their importance to the environment. ▪ Identify methods of water conservation in terms of how they can apply to horticultural practices. Range: water recycling and water storage.

_____ *(Name of Apprentice)*

is **Competent / Not yet competent** in Unit Standard 22188, version 1

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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