

ASSESSMENT GUIDELINES

Unit 21956

Demonstrate knowledge of grapevine
physiology, morphology and phenology

Level 3, Credit 10, version 1

Demonstrate knowledge of grapevine physiology, morphology and phenology.

Unit standard 21956

Level 3, Credit 10

Level of performance required for this unit standard

This is a level 3 unit standard. At this level trainees are expected to demonstrate the following abilities when completing assessment tasks:

- To work under general supervision, with some independence; with significant responsibility for the standard of the outcome achieved.
- To apply technical skills and knowledge to complete the task to the specified standard, in a familiar context.
- To interpret available information, and use discretion and 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. Phone: 03 9644 735, Fax: 03 9644 737,
Website: www.hortito.org.nz

Special notes:

None.

**Unit 21956: Demonstrate knowledge of grapevine physiology, morphology and phenology
(Apprentice copy)**

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Demonstrate knowledge of grapevine physiology.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the process of photosynthesis in grapes. Range: inputs, outputs, influence of environmental factors, site. ▪ Describe the process of grapevine transpiration. Range: influence of environmental factors, plant water relations, vascular tissues, varietal difference. ▪ Describe the processes of translocation in grapevines. Range: influence of environmental factors, vascular tissues, energy requirement. ▪ Describe the four grapevine root functions. Range: anchorage, storage, hormones, absorption. ▪ Describe how canopy management practices improve grapevine physiology. Range: leaf removal, shoot thinning, water management, pruning, trimming/topping.
Element 2 Demonstrate knowledge of grapevine morphology.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the structure of grapevine roots and factors that affect them. ▪ Describe grapevine vegetative morphology and its function. Range: buds, leaves, shoots, tendrils, permanent wood. ▪ Describe grapevine reproductive morphology and grapevine varietal differences. Range: inflorescence primordial, buds, flowers, berries, clusters. ▪ Grapevine varietal ampleography differences are described. Range: leaves, tendril, clusters, growth habit. ▪
Element 3 Demonstrate knowledge of grapevine phenology.	Yes/No	<ul style="list-style-type: none"> ▪ Identify and describe factors affecting grapevine phenology. Range: environmental factors, hormones. ▪ Describe the 18-month vegetative cycle of a grapevine. ▪ Describe the 18-month reproductive cycle of a grapevine. ▪ Describe the annual carbohydrate storage cycle of a grapevine.

_____ (Name of Apprentice)

is **Competent / Not yet competent** in Unit Standard 21956. (version 1)

Signed (Assessor): _____

WPA Registration Number: _____ Date: _____

**Unit 21956: Demonstrate knowledge of grapevine physiology, morphology and phenology
(Assessors copy)**

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Demonstrate knowledge of grapevine physiology.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the process of photosynthesis in grapes. Range: inputs, outputs, influence of environmental factors, site. ▪ Describe the process of grapevine transpiration. Range: influence of environmental factors, plant water relations, vascular tissues, varietal difference. ▪ Describe the processes of translocation in grapevines. Range: influence of environmental factors, vascular tissues, energy requirement. ▪ Describe the four grapevine root functions. Range: anchorage, storage, hormones, absorption. ▪ Describe how canopy management practices improve grapevine physiology. Range: leaf removal, shoot thinning, water management, pruning, trimming/topping.
Element 2 Demonstrate knowledge of grapevine morphology.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the structure of grapevine roots and factors that affect them. ▪ Describe grapevine vegetative morphology and its function. Range: buds, leaves, shoots, tendrils, permanent wood. ▪ Describe grapevine reproductive morphology and grapevine varietal differences. Range: inflorescence primordial, buds, flowers, berries, clusters. ▪ Grapevine varietal ampleography differences are described. Range: leaves, tendril, clusters, growth habit. ▪
Element 3 Demonstrate knowledge of grapevine phenology.	Yes/No	<ul style="list-style-type: none"> ▪ Identify and describe factors affecting grapevine phenology. Range: environmental factors, hormones. ▪ Describe the 18-month vegetative cycle of a grapevine. ▪ Describe the 18-month reproductive cycle of a grapevine. ▪ Describe the annual carbohydrate storage cycle of a grapevine.

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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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