

ASSESSMENT GUIDELINES

Unit 19928

Demonstrate knowledge of grapevine biology and physiology.

Level 5, Credit 10, version 2

Demonstrate knowledge of grapevine biology and physiology

Unit standard 19928

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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:

None.

**Unit 19928: Demonstrate knowledge of grapevine biology and physiology.
(Apprentice copy)**

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Structure, functions and processes of a grapevine are described.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the structure and function of the vegetative grapevine. Range: shoot system, root system, leaves, buds. ▪ Describe the structure and function of the grapevine flower and berry. Range: inflorescence, berry, bud. ▪ Describe the growth processes of a grapevine. Range: bud initiation, pollination, fertilization, berry development, photosynthesis, respiration, translocation. ▪ Describe the annual growth cycle of the grapevine. Range: bud dormancy, bud initiation, bud break, shoot and leaf growth, root growth, flowering, fruit set, berry growth, leaf fall.
Element 2 Explain the factors which influence the growth processes in grapevines.	Yes/No	<ul style="list-style-type: none"> ▪ Describe the internal plant processes in terms of how they affect grape growth. Range: photosynthesis, respiration, transpiration, translocation and carbohydrate accumulation, nutrient uptake, berry development. ▪ Describe the environmental influences that impact on the internal processes of the grapevine. Range: temperature, water, humidity, light, shade, nutrition, wind.
Element 3 Demonstrate knowledge of plant physiology in the manipulation of grapevine growth or production cycles.	Yes/No	<ul style="list-style-type: none"> ▪ Ensure the identification of perceived change in growth or production cycle provides basis for determining manipulation requirements. Range: early maturity, late maturity, improved yield, improved quality, grapevine balance. ▪ Describe the internal plant processes in terms of how they can be manipulated to achieve the desired results. ▪ Ensure the planning determines which influences will be altered and by what amount to manipulate each growth process to meet the desired result. ▪ Describe the practical methods used to meet the desired result. Range: rootstocks, cultivars, site selection, row orientation and spacing canopy manipulation, soil management, pest and disease control, irrigation, frost control, weed control and shelter.

_____ (Name of Apprentice)

is **Competent / Not yet competent** in Unit Standard 19928 (version 2)

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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