

ASSESSMENT GUIDELINES

Unit 834

Graft mature fruit plants

Level 4, Credit 10, version 5

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Unit standard 834

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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, PO Box 8638, Christchurch. Ph 03 9644 735, fax 03 9644 737, website www.hortito.org.nz

Special notes:

- 1 *Workplace procedures* refer to verbal or written instructions to staff on procedures for the worksite and equipment.
- 2 Legislation relevant to this unit standard includes but is not limited to the Health and Safety in Employment Act 1992, the Resource Management Act 1991, and the Hazardous Substances and New Organisms Act 1996.
- 3 Equipment may include but is not limited to paint or labels, electronic, hydraulic, pneumatic and hand secateurs, pruning saws, sharpening stone, file, scabbard or pouch, loppers, air compressors, chainsaws, grafting knife, tape, sealant.
- 4 This unit standard covers approximately a six month period, from marking plants prior to fruit harvest, collecting dormant scion wood, grafting plants in the spring and maintaining the growing graft.
- 5 Work may involve exposure to chemical, dangerous, or hazardous substances. Safety procedures are observed in accordance with NZS 8409:2004: *The Management of Agrichemicals*, available from Standards New Zealand <http://www.standards.co.nz>, or the NZ Agrichemical Education Trust <http://www.growsafe.co.nz>

Unit 834: Graft mature fruit plants (Apprentice copy)

ELEMENT	Competent	Range of evidence an assessor should consider
Element 1 Mark elite high health plants	Yes/No	<ul style="list-style-type: none"> • Select plants that have fruit recognised as true to cultivar type. • Recognise sustainable crop-loading levels for each cultivar. • Select plants that are free of major pest, diseases and disorders. • Select and mark elite plants so that the marks will last for at least four months and without damage to the plant, and according to workplace procedures.
Element 2 Store mature one-year-old wood	Yes/No	<ul style="list-style-type: none"> • Select materials, tools, and equipment appropriate to the task being undertaken. • Identify scion wood suitable for grafting. Scion wood needs to be of a suitable diameter and well exposed to the sun. • Cut sufficient scion wood from the dormant marked plants for the intended grafting purpose. • Label and store the wood in a suitable place so that it does not break dormancy, dry out or become diseased.
Element 3 Remove wood other than framework wood from the plants that are to be grafted	Yes/No	<ul style="list-style-type: none"> • Select materials, tools, and equipment appropriate to the task being undertaken. • Carry out pruning activities safely according to regulatory requirements and workplace procedures. • Identify non-framework wood and cut it off cleanly and safely with a hand or chainsaw, leaving room for grafts. • Dispose of prunings according to workplace procedures. • Clean and maintain tools, equipment and machinery according to manufacturers specifications and workplace procedures.
Element 4 Graft the plants	Yes/No	<ul style="list-style-type: none"> • Select materials, tools, and equipment appropriate to the task being undertaken. • Choose the optimum stage of plant growth and weather conditions for grafting the type of plant. • Make sure the equipment is sharp and held so that smooth cuts are made in the wood and the operation is carried out safely and according to workplace practices. • Make sure each framework member is grafted according to workplace procedures. Grafts include cleft or saddle graft, rind graft, side graft. • Ensure enough growth is left on large trees to take up excess vigour. • Plants are grafted to meet acceptable viability percentages according to workplace procedures. Viable grafts need to have compatibility, scions right way up, cambiums matching, two or three buds per scion, smooth cuts. • Secure grafts and make them waterproof according to workplace procedures and without disturbing the scion. • Wound dressing are used where necessary. • Clean and maintain tools, equipment and machinery according to manufacturers specifications and workplace procedures.
Element 5 Maintain the new grafts.	Yes/No	Plants are maintained for at least six weeks after grafting. <ul style="list-style-type: none"> • Remove interfering stock growths and grafting tape i without damage to stock or young scions. • Remove defective and unwanted scion growths without damage to the stock or remaining scions. Defective and unwanted scion growth can include as required - flowers, diseased growths, damaged, forking. • Monitor plant pest and disease levels according to workplace procedures. • Carry out pest and disease control programme according to workplace requirements. • Provide support for new scion growth, if needed, according to workplace procedures.

_____ (Name of Apprentice)

is **Competent / Not yet competent** in Unit Standard 834 (version 5)

Signed (Assessor): _____

WPA Registration Number: _____ Date: _____

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Element 1 Mark elite high health plants	Yes/No	<ul style="list-style-type: none"> • Select plants that have fruit recognised as true to cultivar type. • Recognise sustainable crop-loading levels for each cultivar. • Select plants that are free of major pest, diseases and disorders. • Select and mark elite plants so that the marks will last for at least four months and without damage to the plant, and according to workplace procedures.
Element 2 Store mature one-year-old wood	Yes/No	<ul style="list-style-type: none"> • Select materials, tools, and equipment appropriate to the task being undertaken. • Identify scion wood suitable for grafting. Scion wood needs to be of a suitable diameter and well exposed to the sun. • Cut sufficient scion wood from the dormant marked plants for the intended grafting purpose. • Label and store the wood in a suitable place so that it does not break dormancy, dry out or become diseased.
Element 3 Remove wood other than framework wood from the plants that are to be grafted	Yes/No	<ul style="list-style-type: none"> • Select materials, tools, and equipment appropriate to the task being undertaken. • Carry out pruning activities safely according to regulatory requirements and workplace procedures. • Identify non-framework wood and cut it off cleanly and safely with a hand or chainsaw, leaving room for grafts. • Dispose of prunings according to workplace procedures. • Clean and maintain tools, equipment and machinery according to manufacturers specifications and workplace procedures.
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Element 5 Maintain the new grafts.	Yes/No	<p>Plants are maintained for at least six weeks after grafting.</p> <ul style="list-style-type: none"> • Remove interfering stock growths and grafting tape i without damage to stock or young scions. • Remove defective and unwanted scion growths without damage to the stock or remaining scions. Defective and unwanted scion growth can include as required - flowers, diseased growths, damaged, forking. • Monitor plant pest and disease levels according to workplace procedures. • Carry out pest and disease control programme according to workplace requirements. • Provide support for new scion growth, if needed, according to workplace procedures.

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