

Title	Describe safety and process requirements, and fell and limb trees in arboriculture under supervision		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: describe safety and process requirements for felling and limbing trees; discuss and assess felling task in consultation with the supervisor; fell trees under supervision; and limb felled trees.
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Classification	Horticulture > Arboriculture
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Available grade	Achieved
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Prerequisites	Unit 6916, <i>Demonstrate knowledge of the rules relating to chainsaw use</i> ; and Unit 6917, <i>Demonstrate basic chainsaw operation</i> ; or equivalent knowledge and skills.
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Guidance Information

- 1 Legislation, standards, and references relevant to this unit standard include but are not limited to:
- Health and Safety at Work Act 2015;
 - Resource Management Act 1991;
 - BS 3998:2010, *Tree work. Recommendations*, available from www.britishstandard.org.uk;
 - ANSI A300, *Standards for Tree Care Operations* (Parts 1 – 7) and their subsequent amendments, available from www.isa-arbor.com;
 - WorkSafe New Zealand, *Approved Code of Practice Safety and Health in Arboriculture* (2012), available from www.worksafe.govt.nz/worksafe;
 - WorkSafe New Zealand, *Approved Code of Practice for Safety and Health in Tree Work Part 2: Maintenance of trees around power lines* (1996), available from www.worksafe.govt.nz/worksafe;
 - WorkSafe New Zealand, *Approved Code of Practice (ACOP) for safety and health in forest operations* (2012), available from www.worksafe.govt.nz/worksafe;
 - WorkSafe New Zealand, *A guide to safety with chainsaws* (2011), available from www.worksafe.govt.nz/worksafe;
 - New Zealand Arboricultural Association Inc. (NZ Arb), *Best Practice Guide (BPG) for Safety Requirements in New Zealand Arboricultural Operations* (2017), available from www.nzarb.org.nz; and any subsequent amendments.

2 Definitions

Felling area – area where trees are to be felled.

Under supervision – supervision of candidates carried out by an experienced arborist who holds the New Zealand Certificate in Horticulture Services (Level 4) Arboriculture strand [Ref: 2674]; or equivalent qualification.

Workplace procedures – the policies and procedures on safety and operation set down by the employer or organisation. Procedures should reflect industry best practice, the GPG, equipment manufacturers requirements, and current legislation.

3 Achievement of this unit standard means candidates have only been assessed on their ability to conduct a straightforward tree fell *under supervision*. All felling subsequent to achievement of this unit standard must continue to be conducted under supervision while in the role.

4 Candidates must hold a current first aid certificate before undertaking tree felling.

5 For the purposes of assessment:

- evidence must be presented in accordance with workplace procedures.
- evidence is required for a minimum of five trees directionally felled as directed under supervision. Trees must be reasonably straightforward to fell with a diameter less than the length of the guide bar and may include but is not limited to trees between 20 – 50 cm in diameter.

Outcomes and performance criteria

Outcome 1

Describe safety and process requirements for felling and limbing trees.

Performance criteria

1.1 Describe safety rules on approach to a felling area.

Range notifications, approach precautions.

1.2 Describe felling preparation.

Range supervision, safety, escape routes, overhead hazards, observer zone.

1.3 Describe tree felling work in terms of potential hazards and risk management, personal protective equipment, and first aid requirements.

Range potential hazards – chainsaw use, tree movement, wind and ground conditions, obstacles and other trees, site size and configuration, direction of fall, proximity of other people, inexperience of feller, overhead hazards, hazards specific to situation.

1.4 Describe equipment and felling aids in terms of their safe use.

- 1.5 Describe configuration and sequence of a conventional scarf and back cut using conventional methods, and possible consequences of incorrect cuts.
- Range possible consequences – overcut, cutting scarves that are too shallow.
- 1.6 Describe limbing in terms of potential hazards and actions to manage risks.
- Range potential hazards – kickback, tree movement, slope, weather and ground conditions, undergrowth, branches and/or stem under tension or compression stress, debris, log size, overhead hazards, hazards specific to situation.
- 1.7 Describe limbing technique for single, double and multileader trees.
- Range saw position, operator's body position, sequence.

Outcome 2

Discuss and assess felling task in consultation with the supervisor.

Performance criteria

- 2.1 Consult with the supervisor to assess and discuss felling areas and individual trees in terms of factors that affect felling direction and safety.
- Range may include but is not limited to – site, contour and conditions, tree conditions, weather, other trees, adjacent operations and structures, environmental factors, safety of observers and other workers, signs, boundaries, escape routes, overhead hazards.
- 2.2 Consult with the supervisor to assess individual trees for lean and weight distribution in order to determine felling direction.
- 2.3 Assess and identify trees that are beyond feller's capabilities.

Outcome 3

Fell trees under supervision.

Performance criteria

- 3.1 Check chainsaw and wedges meet task requirements, and use in a safe, controlled manner in accordance with manufacturer's recommendation.
- Range chainsaw condition and maintenance, bar length, cc rating, wedge size, number of wedges; chainsaw operation – ensure does not jam or become damaged during felling process.
- 3.2 Manage safety of self and others in the immediate felling area during felling.
- Range hazards, protective clothing, felling signs, observers.

- 3.3 Directionally fell trees as instructed by the supervisor using conventional scarf and back cut.
- 3.4 Produce regular scarves and horizontal back cuts.
- 3.5 Use safe observation points and escape routes.
- 3.6 Make felled trees on the ground safe and leave site in a safe condition.

Outcome 4

Limb felled trees.

Performance criteria

- 4.1 Assess and make felled trees safe.
- 4.2 Limb and prepare trees.
- 4.3 Leave site tidy and in a safe condition.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 January 2000	31 December 2019
Revision	2	24 February 2006	31 December 2019
Review	3	11 December 2009	31 December 2019
Review	4	26 April 2018	31 December 2023
Review	5	25 March 2021	N/A

Consent and Moderation Requirements (CMR) reference	0032
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Primary ITO standards@primaryito.ac.nz if you wish to suggest changes to the content of this unit standard.