Title	Fell trees safely using a chainsaw		
Level	3	Credits	15

Purpose	People completing this unit standard will have the skills required to safely fell individual trees using basic techniques.
	People credited with this unit standard are able to: prepare for felling trees with a chainsaw; assess the site around the tree to be felled; assess the tree to be felled; prepare the work area and escape route; safely fell trees using basic felling techniques; retreat and observe the tree falling; and demonstrate alternative back-cutting techniques.

Classification	Forestry > Tree Felling

Available grade	Achieved

Prerequisites	Unit 17763, *Demonstrate knowledge of tree felling*; and Unit 6917, *Demonstrate basic chainsaw operation in a non-forestry production environment*; or demonstrate equivalent knowledge and skills.

Guidance Information

1   This unit standard must be assessed against on-job.

2   Sufficient trees must be felled to demonstrate consistent, methodical, efficient, and safe felling.

3   This unit standard is not intended to cover the felling or clearing of hazardous trees, which is covered in Unit 28562, *Fell and clear hazardous trees*.

4   Definitions
     Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.
     Hazardous trees refer to trees which, because of physical damage, butt, stem or crown rot, malformation, growth characteristics, or specific characteristics of the tree species, constitute a serious risk to the worker.
     PPE refers to personal protective equipment as required for the task in accordance with accepted industry practice and worksite procedures. This may include but is not limited to high-visibility clothing, protective clothing, gloves, face and eye protection, safety helmet, approved footwear, chaps, hearing protection, and safety devices.

Worksite procedures refer to documented procedures used by the organisation carrying out the work and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site safety procedures, equipment operating procedures, quality assurance procedures, housekeeping standards, procedures to comply with legislative and local body requirements.

Outcomes and performance criteria

Outcome 1

Prepare for felling trees with a chainsaw.

Performance criteria

1.1   PPE is selected and worn in accordance with accepted industry practice.

1.2   Felling equipment and accessories required for tree felling are selected in accordance with accepted industry practice.

　　　　Range   may include but is not limited to – chainsaw suited to the operation, fuel and oil containers, felling aids, files and maintenance tools.

Outcome 2

Assess the site around the tree to be felled.

Performance criteria

2.1   Risks within a minimum of two tree lengths of tree to be felled are assessed and controlled in accordance with accepted industry practice.

Outcome 3

Assess the tree to be felled.

Performance criteria

3.1   Factors in the immediate vicinity of the tree that may impact on felling are assessed in accordance with accepted industry practice.

　　　　Range   may include but is not limited to – weather, terrain, hindrance, ground conditions, overhead hazards, other trees.

3.2   The tree is assessed, and felling planned in accordance with accepted industry practice.

　　　　Range   may include but is not limited to – lean, crown weight, branching, malformation, multi leaders, rot, intertwined branches, tree species.

Outcome 4

Prepare the work area and escape route.

Performance criteria

4.1   The tree and work area are prepared for felling in accordance with accepted industry practice.

        Range   removal of low branches, clearing work area.

4.2   The escape route is located and prepared in accordance with accepted industry practice.

        Range   may include but is not limited to – safer side of tree, 45 degree angle (or as close as practicable) to the rear of the fall direction, clearance, distance from stump.

Outcome 5

Safely fell trees using basic felling techniques.

Performance criteria

5.1   The conventional scarf method is demonstrated in accordance with accepted industry practice.

        Range   cut sequence, fall direction, angle and depth of top cut, horizontal bottom cut, cuts meet cleanly.

5.2   The back-cut is correctly positioned and started in accordance with accepted industry practice.

        Range   horizontal, above the level of the bottom cut back of the scarf, opposite the line of fall.

5.3   The back-cut is progressed in accordance with accepted industry practice.

        Range   hingewood, back-cut step, tree head movement.

Outcome 6

Retreat and observe the tree falling.

Performance criteria

6.1   Retreat and observation as the tree is falling is undertaken in accordance with accepted industry practice.

        Range   looking up, use of the escape route, overhead hazards, equipment.

Outcome 7

Demonstrate alternative back-cutting techniques.

Performance criteria

7.1   Alternative back-cutting techniques are demonstrated in accordance with accepted industry practice.

Range   split level, quarter cut, use of wedges.

Planned review date	31 December 2028

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	5 December 2000	31 December 2012
Review	2	22 May 2008	31 December 2013
Revision	3	15 September 2011	31 December 2016
Review	4	19 March 2015	N/A
Review	5	26 March 2020	N/A
Revision	6	23 July 2020	N/A
Rollover	7	26 April 2024	N/A

Consent and Moderation Requirements (CMR) reference	0173

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.