

40725**Prepare for and execute machine-assisted felling of small trees as a tree faller**

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| Kaupae Level | 3 |
| Whiwhinga Credit | 10 |
| Whāinga Purpose | <p>People with this skill standard will be able to perform machine-assisted felling of small trees (under 20 metres in height and with a diameter under 200mm) using a limited range of smaller machines. Emphasis is placed on conducting site and tree assessments, planning safe operations, applying basic felling techniques, and ensuring safety and environmental protection through teamwork and adherence to accepted industry standards and worksite procedures.</p> <p>This skill standard aligns with the New Zealand Certificate in Tree Felling and Clearing (Non-Production) (Level 3) [Ref: 2336] with optional strand in Hazardous Tree Felling.</p> |

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

| Hua o te ako Learning outcomes | Paearu aromatawai Assessment criteria |
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| 1. Conduct a broad pre-felling inspection of the trees and the surrounding site to determine suitability for felling. | a. Evaluate tree health, lean, stability, and hazards specific to small trees. |
| | b. Inspect the site for terrain irregularities, access issues, and environmental constraints. |
| | c. Identify all risks and document the management of those risks before commencing the tree felling operation. |

| Hua o te ako Learning outcomes | Paearu aromatawai Assessment criteria |
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| 2. Develop and communicate a safe and effective plan for felling small trees with machine assistance. | a. Establish clear escape routes and ensure adequate retreat distances for the small tree scale. |
| | b. Select and position a smaller machine effectively to support the felling operation. |
| | c. Communicate the felling plan, including machine positioning and safety procedures, to the operator and team members. |
| | d. Select rigging components that will create a safe and effective system for felling the tree. |
| | e. Describe the requirements for rope construction when using to assist in felling small trees with machine assistance. |
| 3. Apply appropriate felling techniques tailored to small trees using the selected machine. | a. Demonstrate the use of basic felling cuts (e.g., back cuts, wedges) suitable for trees under 20 metres. |
| | b. Collaborate with the machine operator to maintain control and stability during the felling process. |
| | c. Adjust the felling plan in response to real-time conditions such as wind or unexpected tree behaviour. |
| 4. Perform a post-felling inspection to ensure the fall zone is free of hazards and the site remains safe. | a. Inspect the fall zone to verify that no secondary hazards exist. |
| | b. Record any deviations from the planned operation and propose corrective actions for future events. |
| | c. Secure the site by marking or eliminating residual risks and adjusting safety zones as required. |

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

Akōnga/learners must be assessed against this standard in a work environment, using naturally occurring evidence.

All activities and evidence must meet the requirements of worksite procedures, accepted industry practice (Best Practice Guides, BPG) and any subsequent amendments to legislation and Approved Code of Practice (ACOP).

Rope construction the rope's working load limit (WLL) should not exceed 20% of the rope's breaking strength to account for factors like age, wear, and environmental conditions.

Rigging components include rope, cable and strops all within safe working load limits for the tree being felled and configured to minimise strength loss.

Smaller machine must be two-tree lengths from tree being felled.

Machines must be heavier than the tree being felled with adequate traction.

All activities relevant to this standard should reflect ngā kaupapa (the principles) o te Tiriti o Waitangi.

All activities should, as relevant to candidates and/or this standard, reflect the peoples of the Pacific and other cultures, and their world views.

Definitions:

Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider tree felling industries as examples of best practice.

Smaller machines refer to mini excavator, skid steer, tractor, small truck.

Small trees are typically up to 20 metres in height with a diameter of up to 200 mm. They are generally suitable for manual felling using basic techniques, have a lighter crown and overall mass, present lower risk to the tree faller and are often younger or smaller species.

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.

Recommended skills and knowledge:

It is recommended that people hold credits for standard 28560, *Fell trees in a commercial forest harvesting operation*, or 28562, *Fell and clear hazardous trees*, or demonstrate equivalent skills and knowledge, before being assessed against this standard.

Ngā momo whiwhinga | Grades available

Achieved.

Ihirangi waitohu | Indicative content

Site and Tree Assessment:

- Evaluation of small tree stability, health, and environmental factors.
- Identification of hazards specific to trees under 20m and diameters under 200mm.

Machine Positioning and Planning:

- Development of safe fall plans and escape routes using smaller machines.

Consideration:

- Of terrain, machine capability, effective operator communication, machine positioning and worksite procedures, to the operator and team members.

Metal and textile components:

- Including knots used in the rigging system must be configured to minimise strength loss within the rigging system.

Felling Techniques:

- Application of appropriate cuts (back, wedge, etc.) for small trees.
- Techniques for maintaining control and adjusting to real-time changes.

Communication:

- Use of reliable, hands-free communication devices to coordinate with the machine operator and team.

Post-Felling Inspection:

- Verification that the fall zone is hazard-free and documentation of any deviations from the plan.

Rauemi | Resources

Legislation relevant to this skill standard includes but is not limited to:

- New Zealand Forest Owners Association, Forest Practice Guides (2019), and any subsequent amendments, available from www.nzfoa.org.nz.
- Safetree wellbeing and safety resources and initiatives for the plantation forestry industry, available from www.safetree.nz/.
- Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations, December 2012, available from www.worksafe.govt.nz.
- Health and Safety at Work (HSW) Act 2015.
- Heritage New Zealand Pouhere Taonga Act 2014.
- Resource Management Act 1991.
- Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018.

and any subsequent amendments or replacements.

Pārongo Whakaū Kouna | Quality assurance information

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| Ngā rōpū whakatau-paerewa Standard Setting Body | Muka Tangata – People Food and Fibre Workforce Development Council |
| Whakaritenga Rārangi Paetae Aromatawai DASS classification | Agriculture, Forestry and Fisheries > Forestry > Tree Felling |
| Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR | 0052 |

| Hātepe Process | Putanga Version | Rā whakaputa Review Date | Rā whakamutunga mō te aromatawai Last date for assessment |
|---|-------------------|----------------------------|---|
| Rēhitatanga Registration | 1 | 29 May 2025 | N/A |
| Kōrero whakakapinga Replacement information | N/A | | |
| Rā arotake Planned review date | 31 December 2030 | | |

Please contact Muka Tangata – People Food and Fibre Workforce Development Council at qualifications@mukatangata.nz to suggest changes to the content of this skill standard.