

40727**Prepare for and execute machine-assisted tree felling as a tree faller**

Kaupae Level	4
Whiwhinga Credit	10
Whāinga Purpose	<p>People with this skill standard will be able to conduct comprehensive site and tree assessments, prepare sites for machine-assisted tree felling operations, and execute felling techniques with machine assistance. Emphasis is placed on safety, teamwork, environmental protection, acceptable industry practices, and adherence to worksite procedures.</p> <p>This skill standard aligns with the New Zealand Certificate in Forest Harvesting Operations (Level 4) [Ref: 4175] with strands in Cable Extraction, Ground Based Extraction, Mobile Cable Yarder, Head Breaker Out, Loading, Log Making, Mechanised Felling, Mechanised Processing, Spotting, Swing Yarder Extraction, and 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
1. Assess site and tree conditions for tree felling operations.	a. Conduct a comprehensive site inspection and evaluate the weather conditions.
	b. Identify trees to be felled, considering environmental impact and operational safety.
	c. Identify all risks and document the management of those risks before commencing the tree felling operation.
2. Plan and direct machine positioning for safe tree felling.	a. Develop and establish clear escape routes based on terrain, tree lean, and felling direction, ensuring retreat distance is determined and free from hazards.
	b. Direct safe positioning of the machine to support the tree's fall, maintaining clear escape routes and avoiding hazards.
	c. Communicate plans effectively to the machine operator and the team.
3. Coordinate machine assistance and tree felling cut techniques.	a. Apply proper felling techniques, such as scarf cuts, back cuts, and wedges.
	b. Demonstrate the felling of nine trees, minimum of three pushes, minimum of three pulls with grapple and/or three pulls with a rope.

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	c. Describe the differences between using a grapple to pull trees to the ground verses using a rope to pull trees to the ground.
	d. Coordinate closely with the machine operator to maintain stabilisation during the tree felling process.
	e. Adjust the plan in response to real-time conditions (e.g., wind changes or unexpected tree behaviour).
	f. Maintain primary communication system, ensure backup communications system is available and understood.
4. Conduct post-tree felling inspection and safety.	a. Inspect the fall zone to confirm it is free of hazards and ensure the site is safe for continued work.
	b. Document any deviations from the felling plan and unexpected outcomes to inform future operations.
	c. Secure the area by addressing remaining risks and adjusting safety zones based on ongoing conditions.

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).

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.

Comprehensive site inspections involve assessing tree stability, terrain, hazards, machine access, and escape routes to ensure safe and effective machine-assisted felling operations.

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:

- Evaluating tree lean, stability, hazards, and machine accessibility.

Machine Positioning:

- Developing escape routes, positioning machines for support, and avoiding hazards.

Felling Techniques:

- Applying proper cuts, stabilising trees, and responding to real-time conditions.

Equipment assisting operation:

- Excavator, skidder, bulldozer, hauler fitted with FOPS, ROPS, OPS or COPS.

Attachments:

- Fixed/swinging grapple (push/pull), felling head (push/pull), winch (pull), blade (push), arche (push), rope (pull), bucket (push).

Communication:

- Using reliable, hands-free devices and documenting deviations or adjustments.

Post-Felling Inspection:

- Inspecting fall zones, securing areas, and addressing residual risks.

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

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.