

1XXXXX**Prepare for and execute machine-assisted tree felling as a tree feller**

Kaupae Level	4
Whiwhinga Credit	10
Whāinga Purpose	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.

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

SAMPLE

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Assess site and tree conditions for felling operations	a. Conduct a comprehensive inspection of the site, evaluating tree stability, terrain, weather conditions, and machine accessibility.
	b. Identify trees to be felled, considering environmental impact and operational safety.
	c. Document identified risks and recommended mitigation strategies.
2. Plan and position machine for safe felling	a. Develop and establish clear escape routes based on terrain, tree lean, and felling direction, ensuring retreat distance is determined and free and 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 team (Kotahitanga).
3. Coordinate machine assistance and felling cut techniques	a. Apply proper felling techniques, such as scarf cuts, back cuts, and wedges.
	b. Demonstrate the felling of a minimum of nine trees, three push, three pull with grapple and three pull with a rope.
	c. Coordinate (Rangatiratanga) closely with the machine operator to maintain stabilisation during the tree felling process.
	d. Adjust the plan in response to real-time conditions (e.g., wind changes or unexpected tree behaviour).
	e. Maintain effective, hands-free communication.
4. Conduct post-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 and accepted industry practice.

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

All activities must, 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.
- **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.
- **Rangatiratanga**: Signifies self-determination and leadership, emphasizing autonomy and the ability to make decisions for oneself or one's community.
- **Kotahitanga**: Denotes unity and collective action, promoting togetherness and solidarity within the community.

Recommended skills and knowledge

It is recommended that people hold credits for standard 28561, Plan and fell trees using advanced techniques in a commercial forest harvesting operation, 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

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

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Muka Tangata – People Food and Fibre Workforce Development Council
Whakaritenga Rārangī Paetae Aromatawai DASS classification	Agriculture, Forestry and Fisheries > Forestry > Forest Harvesting
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0173 This CMR can be accessed at: http://www.nzqa.govt.nz/framework/search/index.do

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	1	[dd mm yyyy]	N/A
Arotakenga Review	<type here>	[dd mm yyyy]	[dd mm yyyy]
Kōrero whakakapinga Replacement information	N/A		
Rā arotake Planned review date	[dd mm yyyy]		

Please contact Muka Tangata at qualifications@mukatangata.nz to suggest changes to the content of this skill standard.