

40724**Plan and fell trees using advanced techniques in a tree felling operation**

Kaupae Level	4
Whiwhinga Credit	20
Whāinga Purpose	<p>People with this skill standard will be able to work safely and effectively in situations requiring advanced tree felling techniques. It is designed for ākonga/learners to assess individual trees, plan and carry out felling operations, manage hazards, and apply advanced techniques while ensuring team safety.</p> <p>This skill standard pathways from 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
1. Assess tree felling area.	a. Evaluate the site for hazards, including terrain, overhead obstacles, and tree stability.
	b. Determine the optimal felling sequence based on site conditions, tree characteristics, and surrounding hazards.
	c. Verify compliance with relevant worksite procedures and acceptable industry practices.
2. Develop a plan for tree felling.	a. Develop a comprehensive felling plan specifying direction, pattern, and required assistance.
	b. Identify and control hazards within two tree lengths of the trees to be felled.
3. Develop a plan for each individual tree being felled.	a. Evaluate individual trees for factors such as lean, weight distribution, and wind conditions.
	b. Create a detailed felling plan addressing escape route, retreat distances, and required techniques.
	c. Prepare trees and work areas, ensuring equipment readiness and safety.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
4. Prepare work area and escape route.	a. Identify and mitigate hazards in the intended tree fall line.
	b. Clear obstacles and low branches, ensuring safe escape routes appropriate to the terrain.
	c. Establish safe distances and zones for workers.
5. Apply advanced tree felling techniques to fell trees.	a. Demonstrate the use of wedges, scarf cuts, and alternative back-cutting techniques to control tree falls.
	b. Fell trees on steep terrain and in challenging conditions, adapting techniques to manage risks.
	c. Perform tree driving operations safely and effectively, managing unsuccessful drives appropriately.
6. Manage removal of individual windthrown trees.	a. Assess risks and implement strategies to manage tension and compression in windthrown trees.
	b. Develop and execute safe techniques for removing root plates and handling instability.
	c. Address unique challenges posed by windthrown trees, including environmental and safety considerations.
7. Describe non-pine species tree characteristics and felling techniques.	a. Describe non-pine species tree characteristics including wood density, growth patterns, and potential decay.
	b. Describe non-pine species-specific methods, including appropriate scarf cuts and wedges.
	c. Describe safety considerations and environmental impacts of felling non-pine species trees.

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
8. Conduct post tree felling inspection and evaluations of the tree felling site.	a. Inspect the site after felling to identify and address remaining hazards.
	b. Document deviations from the plan and unexpected outcomes to inform future operations.
	c. Verify that the site is prepared for continued work, ensuring safety zones and environmental integrity.

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.

Advanced tree felling techniques refer to specialized methods employed by trained professionals to safely and efficiently fell trees in complex or high-risk scenarios. These techniques go beyond basic felling practices and are essential when dealing with challenging conditions such as leaning trees, storm-damaged trees, non-pine species, tree drives, steep slope felling or trees located near structures or other hazards.

Non-pine species refers to tree species that do not belong to the *Pinus* genus. This category encompasses a wide range of both coniferous and broadleaf (hardwood) trees.

Kaitiakitanga signifies guardianship and stewardship, highlighting the responsibility to protect and preserve the natural environment for future generations.

Rangatiratanga signifies self-determination and leadership, emphasizing autonomy and the ability to make decisions for oneself or one's community.

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**Planning and Preparation:**

- Rangatiratanga, developing felling, assessing site and tree conditions, and managing risks.

Advanced Tree Felling Techniques:

- Performing cuts and tree driving, adapting to steep terrain, and managing windthrown trees.

Safety and Communication:

- Establishing safety zones, using hands-free communication tools, and documenting deviations from plans.

Environmental Considerations:

- Kaitiakitanga, addressing environmental impacts, preserving minor species, and complying with relevant legislation.

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.