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| Title | Demonstrate knowledge of pruning plantation trees and prune plantation trees under supervision | | |
| Level | 2 | Credits | 10 |

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| Purpose | <p>This unit standard is intended for people employed in a pruning role in a forestry operation or people seeking to enter the forest industry.</p> <p>People credited with this unit standard are able to: demonstrate knowledge of pruning plantation trees; demonstrate knowledge of equipment used for pruning plantation trees; demonstrate knowledge of pruning faults; and prune plantation trees under supervision.</p> |
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| Classification | Forestry > Forest Foundation Skills |
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| Available grade | Achieved |
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Guidance Information

- 1 Legislation relevant to this unit standard includes the: Health and Safety at Work (HSW) Act 2015, Resource Management Act 1991; the Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018; and the Heritage New Zealand Pouhere Taonga Act 2014, and any subsequent amendments.
- 2 References
New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <http://www.nzfoa.org.nz>.
Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations, December 2012, available from <http://www.worksafe.govt.nz>.
- 3 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.
Forest harvesting refers to the felling and extraction of stems, landing operations, log making, and loading.
Forestry operations include land preparation, planting, releasing, pruning and thinning to waste.
Job prescription refers to any written instructions for the operation and may include maps, harvest plans or cut plans.
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.

4 Assessment information

This unit standard must be assessed on-job.

All activities and evidence must meet worksite procedures and accepted industry practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of pruning plantation trees.

Performance criteria

1.1 Basic pruning terminology is defined.

Range branch collar, branch stub, defect core, diameter over stubs (DOS), coat hanger, clear wood, regime, lift, variable lift, ramicorn, form pruning, crown depth, gauge, tree form, spacing, bark damage.

1.2 The purpose of pruning is explained in terms of the effect on the final crop.

1.3 Characteristics of tree physiology are described.

Range internodal length, whorl, crown shape and density, dominance, branch size and angle, multi-leader, ramicorn, epicormic.

1.4 The lifts of pruning are described.

Range fixed height, variable height, ultra high pruning.

1.5 Factors affecting the timing of pruning are described.

1.6 The interrelationships between pruning and other operations are described.

Range impact of first lift pruning on other pruning lifts, impact of pruning on thinning operations.

1.7 The consequences of incorrect pruning are described in terms of the quality and value of the final crop.

Range heights, collar damage, coat hangers, epicormics.

Outcome 2

Demonstrate knowledge of equipment used for pruning plantation trees.

Performance criteria

- 2.1 Equipment used for pruning is named and its function explained.
- 2.2 Factors affecting the choice of equipment for pruning are described.
- Range pruning lift, stand factors.

Outcome 3

Demonstrate knowledge of pruning faults.

Performance criteria

- 3.1 Pruning faults in a pruned stand are identified.
- 3.2 Ways to prevent and rectify the identified pruning faults are explained.

Outcome 4

Prune plantation trees under supervision.

Performance criteria

- 4.1 Personal protective equipment and pruning equipment is selected and used.
- Range pruning equipment may include but is not limited to – loppers, epicormic tool, jack saw, callipers and/or gauge, chains, steps, ladder, water supply, spare parts, height pole;
personal protective equipment may include but is not limited to – gloves, leggings, wet weather gear, high visibility gear, safety boots, hard hat, harness.
- 4.2 Pruning height is determined in accordance with the job prescription.
- Range may include but is not limited to – crown is visually measured, calliper is used to determine pruned height, reach of equipment is estimated.
- 4.3 The tree is opened up.
- Range low prune – remove branches that block access, prune from bottom up, circle the tree once;
medium prune – check for overhead hazards, correct ladder placement.
- 4.4 Tree is pruned using ergonomic techniques.
- Range may include – correct body position, correct ladder position and angle.
- 4.5 Branch is cut flush with the stem in accordance with the job prescription.

- 4.6 Epicormics are removed.
- 4.7 Large branches are removed in accordance with the job prescription and worksite procedures.

Range double cut, scarf cut, no tearing, no draw wood.

- 4.8 Pruned trees are correctly tallied and are reported to the supervisor.
- 4.9 Pruning hazards are identified, and a method of control for each hazard is explained.

Range hazards may include but are not limited to – cuts, trips, falls, hit by branch, hyperthermia, hypothermia, dehydration, stand or block hazards, working at heights, use of tools, slash, other workers, surrounding vegetation, terrain, ground conditions, weather conditions; evidence relating to six hazards is required.

- 4.10 The need for on-going hazard identification and assessment is explained.
- 4.11 Factors that affect hazard assessment and may introduce new hazards to the operation are explained.

Range may include – weather, terrain, hindrance.

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| Replacement information | This unit standard and unit standard 23000 replaced unit standard 1241. This unit standard also replaced unit standard 6949. |
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| Planned review date | 31 December 2024 |
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Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|---------------|--------------------------|
| Registration | 1 | 22 May 2008 | 31 December 2013 |
| Revision | 2 | 16 July 2010 | 31 December 2016 |
| Review | 3 | 19 March 2015 | N/A |
| Review | 4 | 28 May 2020 | N/A |

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| Consent and Moderation Requirements (CMR) reference | 0173 |
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.