

Title	Demonstrate knowledge of forest mechanised harvesting and processing		
Level	3	Credits	5

Purpose	<p>This unit standard is intended for people employed in a mechanised harvesting and/or processing operation.</p> <p>People credited with this unit standard are able to demonstrate knowledge of: mechanised harvesting; machines suitable for mechanised harvesting; and cutting and delimiting units and their operation.</p>
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Classification	Forestry > Forest Mechanised Harvesting
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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; the Resource Management (National Environmental Standards for Plantation Forestry) Amendment Regulations 2018; and any subsequent amendments.
- 2 References
Approved Code of Practice (ACOP) for Safety and Health in Forestry Operations, December 2012, available from <https://worksafe.govt.nz/>.
 New Zealand Forest Owners Association, *Forest Practice Guides* (2019), and any subsequent amendments, available from <https://www.nzfoa.org.nz>.
- 3 Mechanised harvesting and/or processing involves the use of machines to complete any one or any combination of felling, delimiting, processing, or bunching of plantation trees.
- 4 Definition
Accepted industry practice – approved codes of practice and standardised procedures accepted by the wider forestry industry as examples of best practice.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of mechanised harvesting.

Performance criteria

- 1.1 Functions of mechanised harvesting machines are described in accordance with accepted industry practice.
- Range thinning, felling, delimiting, bunching, processing.
- 1.2 The advantages of mechanised harvesting are explained in accordance with accepted industry practice.
- 1.3 The disadvantages of mechanised harvesting are explained in accordance with accepted industry practice.
- 1.4 Situations where mechanised harvesting machines would be suitable are described in accordance with accepted industry practice.
- 1.5 Mechanised harvesting felling cuts are described in accordance with accepted industry practice.
- 1.6 Operations that can improve the extraction process are described in accordance with accepted industry practice.
- Range shovelling, bunching.
- 1.7 The importance of calibration for machine performance is described in accordance with accepted industry practice.
- 1.8 The risks specific to mechanised processing and harvesting are identified, and methods to control them are explained in accordance with accepted industry practice.
- Range evidence of four risks and a control method for each is required.
- 1.9 The accepted forestry industry practice requirements relevant to mechanised harvesting are explained.
- Range mobile plant use, tree felling.

Outcome 2

Demonstrate knowledge of machines suitable for mechanised harvesting.

Performance criteria

- 2.1 Types of felling machines are described, and their functions explained in accordance with accepted industry practice.
- Range feller buncher, feller director.

2.2 Features of felling heads are explained in accordance with accepted industry practice.

Range shears, chainsaw, rotary disk.

2.3 Types of processing machines are described, and their functions explained in accordance with accepted industry practice.

Range stroke boom delimber, harvester, bed processor, static delimber, log-making processor.

2.4 Types of extraction machines used in mechanised harvesting operations are described and their functions explained in accordance with accepted forestry practice.

Range forwarder, grapple.

Outcome 3

Demonstrate knowledge of cutting and delimiting units and their operation.

Performance criteria

3.1 The importance of correct operation and maintenance of the felling and processing head is described in accordance with accepted industry practice.

Range production, damage, wear, safety.

3.2 Consequences of damage to the cutting unit and delimiting tools are described in terms of the impact on the mechanised harvesting operation in accordance with accepted industry practice.

Range financial consequences, non-financial consequences, safety.

Planned review date	31 December 2028
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	8 November 1996	31 December 2012
Revision	2	19 June 1998	31 December 2012
Review	3	5 December 2000	31 December 2012
Review	4	22 May 2008	31 December 2016
Review	5	19 March 2015	N/A
Review	6	26 March 2020	N/A
Rollover	7	26 April 2024	N/A

Consent and Moderation Requirements (CMR) reference

0173

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Muka Tangata - People, Food and Fibre Workforce Development Council qualifications@mukatangata.nz if you wish to suggest changes to the content of this unit standard.