

Title	Plan for and monitor production and quality of a forestry operation		
Level	5	Credits	6

Purpose	People credited with this unit standard are able to: describe factors that influence forestry production; describe features of an effective production record system; establish a production record system for a forestry operation; complete planning and set-up of a forestry operation; carry out production monitoring of a forestry operation; identify operational tactics to control variation from target production; and carry out a quality control audit of a forestry operation.
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Classification	Forestry > Forest Operations Management
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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

Environmental Code of Practice refers to the *New Zealand Environmental Code of Practice for Plantation Forestry* published by the New Zealand Forest Owners Association, available at <http://www.nzfoa.org.nz>.

Colley, M. *Forestry handbook / New Zealand Institute of Forestry Inc.* (4th ed). (2005). Christchurch: New Zealand Institute of Forestry Inc.

McLaren, J.P. *Radiata Pine Growers Manual*. (1993). FRI Bulletin 184. Rotorua, New Zealand: New Zealand Forest Research Institute.

New Zealand Forest Owners Association. *Forest Practice Guides* (2019), and any subsequent amendments, available at <https://www.nzfoa.org.nz>.

Riddle, A. *Business Management for Logging*. (1994). New Zealand. Rotorua, NZ: Logging Industry Research Organisation, available from Scion, Te Papa Tipu Innovation Park, 49 Sala Street, Private Bag 3020, Rotorua 3046, New Zealand.
- 3 Definitions

Accepted industry practice – approved codes of practice and standardised procedures accepted by the wider forestry industry 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.

- 4 Recommended for entry: Unit 6960, *Prepare job prescriptions for forest operations*, or demonstrate equivalent knowledge and skills.

Outcomes and performance criteria

Outcome 1

Describe factors that influence forestry production.

Performance criteria

- 1.1 Description identifies factors that influence forestry production in accordance with the reference texts.

Range factors include – market, mechanical, environmental, stand, human, other.

Outcome 2

Describe features of an effective production record system.

Performance criteria

- 2.1 The management applications for an effective production record system are described in accordance with the reference texts.

Range monitoring current performance against target, estimating and negotiating production targets, costing future work, business planning.

- 2.2 The basis of an effective production record system is described in accordance with the reference texts.

Range defined procedures and responsibilities for information recording, established format, system clarity and simplicity.

- 2.3 Information sources used for an effective production record system are identified and described in accordance with the reference texts.

Outcome 3

Establish a production record system for a forestry operation.

Performance criteria

- 3.1 A format for a production record system is established in accordance with the reference texts.
- Range layout, indexing, information storage.
- 3.2 Production specifications used to establish production targets for the forestry operation are determined from the prescription provided by the forest manager, in accordance with the reference texts.
- 3.3 Procedures for measuring production results and factors influencing production are established in accordance with the reference texts.
- Range production control period, units of measure, market factors, mechanical factors, environmental factors, stand factors, human factors, other factors.
- 3.4 The likely production rate for the operation is determined using information from the production record system to compare the current operational area with areas with similar characteristics.

Outcome 4

Complete planning and set-up of a forestry operation.

Range one of – land preparation, planting, releasing, pruning, thinning to waste, production thinning, harvesting.

Performance criteria

- 4.1 The job prescription for the operation is reviewed and relevant information communicated to the crew in accordance with worksite procedures.
- Range health and safety, environmental, quality, prescribed treatment.
- 4.2 A daily operational plan is developed for the operation and communicated to the crew in accordance with worksite procedures.
- 4.3 Planning ensures the operational, health and safety, and environmental aspects of the operation are carried out in accordance with accepted industry practice, and the Environmental Code of Practice.

Outcome 5

Carry out production monitoring of a forestry operation.

Range one of – land preparation, planting, releasing, pruning, thinning to waste, production thinning, harvesting.

Performance criteria

- 5.1 Production information is recorded in accordance with the reference texts.
- 5.2 Information is collated for ready comparison between production and set targets in accordance with the reference texts.
- 5.3 Variation of production achievement from set targets, including the reasons for the variations, is analysed in accordance with the reference texts.

Outcome 6

Identify operational tactics to control variation from target production.

Performance criteria

- 6.1 Options for operational tactics to correct production variation are identified in accordance with the reference texts.
- 6.2 A plan for implementation of operational tactics that enables targets to be achieved is developed in accordance with the reference texts.
- 6.3 Recommendations on production improvement are presented to the crew and other relevant parties in accordance with worksite procedures.
- 6.4 Feedback loop for monitoring levels of achievement after implementation of operational tactics is identified in accordance with the reference texts.

Outcome 7

Carry out a quality control audit of a forestry operation.

Range one of – land preparation, planting, releasing, pruning, thinning to waste, production thinning, harvesting.

Performance criteria

- 7.1 The quality features for the operation are identified in accordance with the job prescription and accepted industry practice.
- 7.2 The quality of an operation is assessed using a predetermined data collection method in accordance with the reference texts.
- 7.3 Quality control data collected are analysed and recommendations made based on the results in accordance with the reference texts.
- 7.4 Results of the quality control audit are communicated to the crew and other relevant parties in accordance with worksite procedures.

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	16 October 2009	31 December 2017
Review	2	10 December 2015	N/A
Rollover and Revision	3	28 May 2020	N/A
Rollover	4	26 April 2024	N/A

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 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.