

Title	Calculate yield, and identify and explain cost factors for a wood manufacturing operation		
Level	4	Credits	15

Purpose	People credited with this unit standard are able to: calculate yield for a selected wood manufacturing operation; and identify and explain cost factors affecting business profitability and sustainability for a wood manufacturing operation.
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Classification	Wood Manufacturing - Generic Skills > Wood Manufacturing Foundation Skills
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Available grade	Achieved
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Guidance Information

1 Definitions

Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider wood manufacturing industry as examples of best practice.

Down fall refers to something that is left over after the intended product has been made and could often be the excess materials left over after the initial manufacturing process. Examples may include low grade lumber, bark, wood blocks, chipper stock, wood chips, and savings.

Wood manufacturing refers to the conversion of logs into sawn timber and fibre products, and the secondary processing steps required to produce stable and saleable commodity products, semi-finished and finished products from commodity raw materials, which includes the pulp and paper, wood panels and solid wood manufacturing industries.

Workplace procedures refer to documented policies and procedures set by the organisation carrying out the work, and to documented or other directions provided to staff, and applicable to the tasks being carried out. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the wood manufacturing sector.

Yield refers to the percentage of saleable product as a proportion of the total raw material input.

2 Assessment information

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

Outcomes and performance criteria

Outcome 1

Calculate yield for a selected wood manufacturing operation.

Performance criteria

- 1.1 Cost components related to raw material, finished product, and down fall for processes within a selected wood manufacturing operation are identified and explained.
- 1.2 Yield results are calculated and expressed in percentages and validated.
- Range percentages may be based on but are not limited to – volume, lineal metres, weight, product value.

Outcome 2

Identify and explain cost factors affecting business profitability and sustainability for a wood manufacturing operation.

Performance criteria

- 2.1 Factors influencing production costs and yield are explained.
- Range factors may include but are not limited to – throughput volume, processing speed, capital cost, labour costs, down fall, value recovery, down time, run size, product parameters.
- 2.2 Factors influencing product market price are explained.
- Range factors may include but is not limited to – raw material costs, price fluctuations, exchange rates, supply and demand, transportation costs, competitor activities, alternative and substitute products.
- 2.3 Opportunities to optimise the production of primary and down fall to maximise business profitability and sustainability are explained.
- 2.4 The cost factors of production activities and materials are explained.
- Range materials may include not limited – chemicals, adhesives, packaging materials, wood residues; activities may include not limited – down fall on-selling, burning, recycling, composting.
- 2.5 Current international issues relating to wood manufacturing industries are identified and explained in terms of impact on the industry's profitability and sustainability.

Range issues may include but are not limited to – quality requirements, phytosanitary requirements, international standards for phytosanitary measures (ISPM), FSC (forest stewardship council), market acceptance of pinus radiata, pinus radiata competitors and substitute species, alternative wood based and non-wood based materials, trade economics; evidence of three issues is required.

2.6 Current national issues relating to wood manufacturing industries are identified and explained in terms of impact on the industry's profitability and sustainability.

Range issues may include but are not limited to – Treaty of Waitangi, environmental issues, health and safety issues and requirements, product certification, energy prices; evidence of three issues is required.

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	25 November 2000	31 December 2015
Review	2	18 December 2006	31 December 2015
Review	3	20 March 2014	N/A
Review	4	28 May 2020	N/A

Consent and Moderation Requirements (CMR) reference	0013
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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.