



**Australian Government**

# **FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment**

**Release: 1**

## FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment

### Modification History

| Release   | Comments                                                                              |
|-----------|---------------------------------------------------------------------------------------|
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 5.0. |

### Application

This unit of competency describes the skills and knowledge required to apply knowledge to identify the products, work processes and equipment in an operational sawmill. This includes identifying timber properties and defects and how these impact on sawing operations, timber volume and value recovery, process flow through a sawmill, quality requirements, the types, functions and capabilities of sawing machines and the regulatory arrangements that apply to sawmill operations.

The unit applies to individuals who work in various areas of sawmilling operations.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Common Technical (COT)

### Elements and Performance Criteria

| Elements                                         | Performance Criteria                                                                                                                          |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                        |
| 1. Identify timber properties and impact on      | 1.1 Identify species, grades and relative value of logs according to rules established by state forestry organisation, local forest owners or |

| Elements                                                            | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                    |
|---------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i>                    | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                  |
| sawmilling operations                                               | <p>purchasing sawmill for a specific or intended end use</p> <p>1.2 Outline methods used for measurement of logs</p> <p>1.3 Identify timber properties and potential impact on sawing, timber volume and value recovery</p> <p>1.4 Describe timber features, properties and defects and potential impact on sawing, timber volume and value recovery</p>                                                                |
| 2. Identify sawmill products and processes                          | <p>2.1 Identify processes involved in converting sawlogs to timber</p> <p>2.2 Describe process flow through sawmill</p> <p>2.3 Establish location of main processes in sawmill</p> <p>2.4 Identify type, grade, finish and value of sawn products and by-products</p>                                                                                                                                                   |
| 3. Identify types, functions and capabilities of sawing machines    | <p>3.1 Describe type, function and capability of sawing machines</p> <p>3.2 Distinguish between production (volume) sawing, grade (value) sawing, and combinations of both</p> <p>3.3 Distinguish between different types and functions of saw blades</p> <p>3.4 Assess impact of designed capability of sawing machines on timber volume and value recovery</p>                                                        |
| 4. Identify quality requirements                                    | <p>4.1 Assess impact of poor-quality sawn products on customers, profitability and compliance with industry standards</p> <p>4.2 Identify types, purpose and process for recording quality data</p> <p>4.3 Identify quality control processes</p>                                                                                                                                                                       |
| 5. Identify regulatory framework impacting on sawmilling operations | <p>5.1 Identify workplace health and safety legislation relating to sawmill operations and how this is reflected in workplace procedures</p> <p>5.2 Describe key features of environment protection legislation relating to sawmill operations and how this is reflected in workplace procedures</p> <p>5.3 Identify key features of industry codes of practice and how these are reflected in workplace procedures</p> |

## Foundation Skills

*This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.*

| Skill                      | Description                                                                                                                     |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Reading                    | <ul style="list-style-type: none"> <li>Extracts key information from workplace documents on timber properties</li> </ul>        |
| Writing                    | <ul style="list-style-type: none"> <li>Prepares sample quality reports using required format, language and structure</li> </ul> |
| Numeracy                   | <ul style="list-style-type: none"> <li>Reads graphical and statistical data used to monitor quality</li> </ul>                  |
| Navigate the world of work | <ul style="list-style-type: none"> <li>Understands main tasks, responsibilities and boundaries of own role</li> </ul>           |
| Get the work done          | <ul style="list-style-type: none"> <li>Recognises and responds to routine problems</li> </ul>                                   |

## Unit Mapping Information

| Code and title current version                                                                  | Code and title previous version | Comments | Equivalence status |
|-------------------------------------------------------------------------------------------------|---------------------------------|----------|--------------------|
| FWPCOT3290<br>Apply knowledge of timber properties, sawmill operations and sawmilling equipment | Not applicable                  | New unit | No equivalent unit |

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

# Assessment Requirements for FWPCOT3290 Apply knowledge of timber properties, sawmill operations and sawmilling equipment

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## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has, on at least one occasion, identified the types and properties of timber, sawmilling products and processes and sawmilling equipment used in a sawmill and has:

- identified types, defects and properties of timber and their impact on sawing, timber volume and value recovery
- identified sawmill products and processes
- described types, functions and capabilities of sawing machines
- described key features of quality requirements
- identified the regulatory framework impacting on sawmilling operations.

## Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- processes involved in conversion:
  - debarking
  - primary breakdown
  - secondary sawing
  - crosscutting
  - stacking
  - seasoning
  - residue removal
  - storage
- timber value and volume recovery:
  - definition
  - ways of measuring

- species, grades and relative value of logs
- methods used for measurement of logs
- timber features and properties and potential impact on sawing, timber volume and value recovery
- timber defects and potential impact on sawing, timber volume and value recovery
- processes involved in converting sawlogs to timber
- process flow through sawmill
- location of main processes in sawmill
- type, grade, finish and value of sawn products and by-products
- type, function and capability of sawing machines
- production (volume) sawing
- grade (value) sawing
- types and functions of saw blades
- designed capability of sawing machines
- defects in timber due to conversion processes in sawmill
- types, purpose and process for recording quality data
- quality control processes
- workplace health and safety legislation relating to sawmill operations, including the use of personal protective equipment
- environmental protection legislation relating to sawmill operations
- industry codes of practice relating to sawmill operations.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in a forest product factory setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - workplace documents that provide basic information on work practices, procedures, processes or equipment
  - workplace documents that provide basic information on quality control processes, workplace health and safety and environment protection procedures
  - reference materials on timber properties and defects and regulatory framework impacting on sawmilling operations.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>