Modification history

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

| FWPSAW4XXX | Optimise timber production for volume and value recovery |
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| Application | This unit of competency describes the skills and knowledge required to optimise the volume and value of sawn timber based on analysis of timber characteristics, machine capability and product demand.  The unit applies to individuals who optimise timber production for volume and value recovery in a timber sawmill.  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 occupational licensing, legislative or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | SAW |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Prepare to optimise timber production | 1.1 Review work order to determine job requirements and where required seek clarification from appropriate personnel  1.2 Identify and apply workplace health and safety requirements, including use of personal protective equipment and safe manual handling techniques, throughout the work  1.3 Identify, assess and take actions to mitigate risks and hazards associated with sawing operations  1.4 Identify and implement workplace procedures for minimising waste material and maximising energy efficiency  1.5 Consult with appropriate personnel to ensure that work is coordinated effectively with others in the workplace  1.6 Obtain tools, equipment and timber or boards needed for the work |
| 2. Plan to optimise the volume and value of timber production | 2.1 Identify cutting plan and output mix based on analysis of timber characteristics, machine capability and product demand  2.2 Identify processing constraints and potential solutions to ensure that production and quality requirements are met  2.3 Check input material against specification and production run requirements  2.4 Inspect timber for defects and identify potential impact on the cutting plan, production run and product quality  2.5 Finalise cutting plan based on inspection outcomes  2.6 Identify implications of poor decision making on volume and value of timber production and associated impacts on customers and saw centre efficiency  2.7 Check trial pieces to ensure compliance with production and product quality requirements  2.8 Communicate cutting plan, production rate and quality requirements to appropriate personnel |
| 3. Implement and report on the optimisation plan | 3.1 Implement cutting plan to optimise volume and value of timber production  3.2 Manage production rate to ensure compliance with optimisation objectives  3.4 Manage quality of cut timber to ensure compliance with optimisation objectives  3.5 Manage reuse, recycling or disposal of items that do not meet quality requirements  3.5 Manage product flow to optimise downstream processes according to workplace procedures |
| 4. Report on optimisation | 4.1 Review optimisation objectives in relation to timber volume and value recovery  4.2 Record production outcomes according to workplace procedures  4.3 Compare production outcomes with optimisation objectives  4.4 Report production outcomes and compliance with optimisation objectives to the appropriate person |

| 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. | |
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| Skill | Description |
| Reading | * Extract essential information from operational manuals regarding the capability of sawing machines |
| Writing | * Prepare routine written reports using the required format, language and structure |
| Oral Communication | * Employ active listening and questioning to clarify content of work orders |
| Numeracy | * Interpret graphical and statistical data to compare production output against optimisation objectives |
| Navigate the world of work | * Understand main tasks, responsibilities and boundaries of own role |
| Interact with others | * Use modes of communication suitable to purpose to confirm and clarify understanding |
| Get the work done | * Recognise and respond to routine problems |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| FWPSAW4XXX Optimise timber production for volume and value recovery | Not applicable | New unit | Not applicable |

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

| TITLE | Assessment requirements for FWPSAW4XXX Optimise timber production for volume and value recovery |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all the elements and performance criteria in this unit. There must be evidence that, on at least one occasion, the individual has:   * reviewed work order to determine job requirements * identified and applied workplace health and safety requirements throughout the work * identified, assessed and taken actions to mitigate risks and hazards associated with sawing operations * established and implemented a plan for optimising the volume and value recovery of timber production * recorded and reported on production outcomes and their compliance with optimisation objectives | |

| Knowledge Evidence |
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| 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:   * optimisation principles * cutting patterns * timber processing constraints: * markets * timber supply * preferred products * downstream processing options * determinants of product mix * timber characteristics * machine capability * product demand * optimisation software * influences on timber volume and value recovery * methods for reusing, recycling or disposing of items that do not meet quality requirements * timber defects * types * impact on volume and value of recovered timber * inspection methods * risks and hazards associated with sawing operations * safe work practices and procedures |

| Assessment Conditions |
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| Assessment of the skills in this unit of competency must take place under the following conditions:   * physical conditions * skills must be demonstrated in a sawmill or an environment that accurately represents workplace conditions * resources, equipment and materials: * optimisation software package and associated computing hardware * tools, equipment and timber or boards needed for the work * PPE for sawmill operations * specifications: * template documents for recording production outcomes * manufacturer instructions for optimisation software * work order with specific instructions for optimising timber production for volume and value recovery * workplace procedures for optimising timber production for volume and value recovery.   Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and / or standards. |

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