



Australian Government

Department of Education, Employment and Workplace Relations

FPICOT3247B Select timber for forestry operations

Release: 1

FPICOT3247B Select timber for forestry operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to select timber for use in a range of forestry operations by applying knowledge of timber technology

General workplace legislative and regulatory requirements apply to this unit; however there are no specific licensing or certification requirements at the time of publication

This unit replaces FPICOT3247A Select timber for forestry operations

Application of the Unit

Application of the unit

The unit involves selecting timber for forestry operations in a forest products factory setting

The skills and knowledge required for competent workplace performance are to be used within the scope of the person's job and authority

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Not Applicable

Employability Skills Information

Employability skills This unit contains employability skills

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for timber selection	1.1. Applicable occupational health and safety (OHS), environmental, legislative and organisational requirements relevant to selecting timber for forestry operations are identified and followed 1.2. Quality system procedures that apply to work are implemented and adhered to 1.3. Products are visually inspected before processing and completion 1.4. Product specifications are checked and followed 1.5. Communication with others is established and maintained in line with OHS requirements
2. Evaluate selected timber	2.1. Growth and durability of the timber are assessed in line with site procedures 2.2. Species, timber structure, features and characteristics are assessed and reported 2.3. Moisture content of selected timber is identified to ensure it meets production requirements 2.4. Density and working properties of timber are identified to ensure they meet production requirements 2.5. Faults and features in the timber are identified and strategies suggested to overcome or maximise them 2.6. Sawing patterns that best suit the selected timber are identified
3. Report on timber selection	3.1. Timber is assessed for quality and specification requirements 3.2. Timber is prepared for despatch in a manner that prevents or minimises further damage 3.3. Timber assessment outcomes are documented in line with organisational procedures 3.4. Timber selection procedures are recorded and reported in line with workplace procedures

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This describes the essential skills and knowledge and their level required for this unit.

REQUIRED SKILLS AND KNOWLEDGE

Required skills

- Technical skills sufficient to use and maintain relevant tools, machinery and equipment; select timber for forestry operations
- Communication skills sufficient to use appropriate communication and interpersonal techniques with colleagues and others; locate, record and report information
- Literacy skills sufficient to follow legislation, regulations, standards, codes of practice and established safe practices and procedures for selecting timber for forestry operations
- Numeracy skills sufficient to measure, estimate and calculate time required to complete a task
- Problem solving skills sufficient to review and identify work requirements; identify problems and equipment faults; demonstrate appropriate response procedures

Required knowledge

- Applicable commonwealth, state or territory legislation, regulations, standards, codes of practice and established safe practices relevant to the full range of processes for selecting timber for forestry operations
- Environmental protection requirements, including the safe disposal of waste material
- Organisational and site standards, requirements, policies and procedures for selecting and optimising timber for forestry operations
- Environmental risks and hazards
- Using energy effectively and efficiently
- Using material effectively and efficiently
- Quality systems and supply coordination
- Timber technology
- Established communication channels and protocols
- Problem identification and resolution strategies, and common fault finding techniques
- Types of tools and equipment, and procedures for their safe use and maintenance
- Appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks
- Procedures for recording and reporting workplace information

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

A person who demonstrates competency in this unit must be able to provide evidence that they can safely and efficiently select timber for forestry operations in line with organisational requirements

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to, and satisfy, all of the requirements of the elements of this unit and include demonstration of:

- following applicable commonwealth, state or territory legislative and regulatory requirements and codes of practice relevant to selecting timber for forestry operations
- following organisational policies and procedures relevant to selecting timber for forestry operations
- selecting timber for forestry operations in line with environmental legislation and workplace procedures

Context of and specific resources for assessment

- Competency is to be assessed in the workplace or realistically simulated workplace
- Assessment is to occur under standard and authorised work practices, safety requirements and environmental constraints
- Assessment of required knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to follow relevant regulatory or Australian Standards requirements
- The following resources should be made available:
 - workplace location or simulated workplace
 - materials and equipment relevant to undertaking work applicable to this unit
 - specifications and work instructions

Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI11 Training Package
- Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of required knowledge

EVIDENCE GUIDE

- Assessment must be by direct observation of tasks, with questioning on required knowledge and it must also reinforce the integration of employability skills
- Assessment methods must confirm the ability to access and correctly interpret and apply the required knowledge
- Assessment may be applied under project-related conditions (real or simulated) and require evidence of process
- Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances
- Assessment may be in conjunction with assessment of other units of competency
- The assessment environment should not disadvantage the candidate
- Assessment practices should take into account any relevant language or cultural issues related to Aboriginality, gender or language backgrounds other than English
- Where the participant has a disability, reasonable adjustment may be applied during assessment
- Language and literacy demands of the assessment task should not be higher than those of the work role

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

OHS requirements:

are to be in line with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:

- personal protective equipment and clothing

RANGE STATEMENT

	• safety equipment • first aid equipment • fire fighting equipment • hazard and risk control • fatigue management • elimination of hazardous materials and substances • safe forest practices, including required actions relating to forest fire • manual handling including shifting, lifting and carrying
Environmental requirements may include:	• legislation • organisational policies and procedures • workplace practices
Legislative requirements:	are to be in line with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice and may include: • award and enterprise agreements • industrial relations • Australian Standards • confidentiality and privacy • OHS • the environment • equal opportunity • anti-discrimination • relevant industry codes of practice • duty of care
Organisational requirements may include:	• legal • organisational and site guidelines • policies and procedures relating to own role and responsibility • quality assurance • procedural manuals • quality and continuous improvement processes and standards • OHS, emergency and evacuation procedures • ethical standards • recording and reporting requirements • equipment use, maintenance and storage requirements

RANGE STATEMENT

- environmental management requirements (waste minimisation and disposal, recycling and re-use guidelines)
- Timber** may include:
- trees
 - logs
 - planks
 - panels
 - board
 - chips
 - flake
 - flitches
 - cants
- and may be:
- native or imported timber
 - hardwood or softwood
- Quality systems** may include:
- enterprise-based systems
 - second-party certification
 - third-party certification
 - ISO9000 series
 - other regulatory systems
- Visual inspection** may include: assessing the appropriateness of:
- defects
 - contamination
 - timber colours
 - insect attack
 - surface finishes
 - loose surfaces
 - bubbles
 - holes
 - breakages
 - machine caused defects
- Product specifications** may include:
- available resources
 - customer requirements
 - industry standard cross sections and lengths
 - enterprise standards
- Communication** may include:
- verbal and non-verbal language
 - constructive feedback
 - active listening
 - questioning to clarify and confirm

RANGE STATEMENT

- understanding
 - use of positive, confident and cooperative language
 - use of language and concepts appropriate to individual social and cultural differences
 - control of tone of voice
- Growth** may include:
- growth patterns
 - make-up of a tree, including bark (cortex)
 - phloem
 - cambium layer
 - sapwood (xylem)
 - heartwood (truewood)
 - pith (medulla)
 - medullary rays
 - earlywood
 - latewood
 - growth rings
 - cellulose
 - hemicelluloses
 - lignin
 - extractives
- Durability** may include:
- strength
 - hardness and rating for use
 - classification and measurement
- Species** may include:
- native species
 - imported species
- Timber structures** may include:
- hardwood (pored wood) or softwood (non-pored wood)
 - cell structured timber, including:
 - vessels
 - fibres
 - ray cells
 - pits
 - tracheids
 - texture
 - seasoning methods
- Characteristics** may include:
- colour
 - density
 - texture
 - grain

RANGE STATEMENT

- figure
 - qualities
 - uses
- Moisture content:**
- is the amount of moisture maintained in timber or timber products after kiln drying or to avoid cracking and deforming
 - in Australia, generally ranges between 10% in warmer, more humid climates to 14% in cooler climates
 - includes the consideration of free water, bound water and water vapour
- Density may include:**
- closeness and size of the timber cells
 - green density
 - air dried density
 - basic density
 - strength and durability
 - swell pressures
- Working properties may include:**
- timber shrinkage
 - effects of light
 - moisture content
 - density and deterioration of the timber
 - compressive and tensile stresses
 - modulus of elasticity
 - modulus of rupture
 - deformation
 - creep
 - surface hardness
- Faults and features may include:**
- bow
 - spring
 - twist
 - warp
 - wane
 - cupping
 - shakes
 - insect defects
 - fungi
 - knots
 - resin pockets
 - wild grain
 - sloping grain

RANGE STATEMENT

Sawing patterns may include:

- live-sawn
- back sawn
- quarter sawn

Despatch is to include:

- sending out products relating to a customer order via various means of transport

and may include:

- stacking
- stripping
- strapping
- storing and despatching product

Records and reports may include:

- conducting visual inspection and timber selection
- risks
- hazards
- incidents
- equipment malfunctions

and may be:

- manual
- a computer-based system
- other appropriate organisational communication system

Unit Sector(s)

Not Applicable

Competency field

Competency field

Common Technical