



## **FPICOT3247A: Select timber for forestry operations**

### ***Description***

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

### ***Application of unit***

This unit supports the attainment of skills and knowledge required for competent workplace performance in forest and forest products operations of all sizes. The unit applies to a factory environment and involves application of skills and knowledge at a production worker level. These skills and knowledge are to be used within the scope of the person's job and authority

### ***Performance criteria***

#### **1. Prepare for timber selection**

- 1.1 Applicable Occupational Health and Safety (OHS), legislative and organisational requirements relevant to selecting timber are identified and complied with
- 1.2 Quality system procedures are applied to work, implemented and adhered to
- 1.3 Products are visually inspected before processing or completion
- 1.4 Product specifications are checked and conformed with
- 1.5 Communication with others is established and maintained in accordance with OHS requirements

#### **2. Evaluate selected timber**

- 2.1 Growth and durability of the timber is assessed in accordance 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 compliance with production requirements
- 2.4 Density and working properties of timber are identified to ensure compliance with production requirements
- 2.5 Faults or features in the timber are identified and strategies suggested to overcome or maximise them
- 2.6 Sawing patterns which 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 which will prevent or minimise further damage

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- 3.3 Timber assessment outcomes are documented in accordance with organisational procedures.
- 3.4 Timber selection procedures are recorded and reported in accordance with workplace procedures

### Key competencies

The seven key competencies represent generic skills considered necessary for effective participation by an individual in the workplace

Performance Level 1 at this level, the candidate is required to undertake tasks effectively

Performance Level 2 at this level, the candidate is required to manage tasks

Performance Level 3 at this level, the candidate is required to use concepts for evaluating and reshaping tasks

Key Competency	Example of Application	Performance Level
Communicating ideas and information	By communicating in simple language to confirm work requirements, convey information and requests to colleagues, and report and record outcomes	2
Collecting analysing and organising information	By collecting, organising and understanding information required to undertake the selection of timber	2
Planning and organising activities	By organising work activities in the correct sequence for timber selection to be completed within the designated timeframes	2
Working with others and in teams	By using effective communication and interpersonal techniques with colleagues and others to maximise confidence, satisfaction and productivity	1
Using mathematical ideas and techniques	By calculating time to complete tasks and estimating tools, equipment and material requirements including quantities and quality specifications	2
Solving problems	By evaluating timber against production and quality requirements	2
Using technology	By selecting and using timber handling equipment to assist in the selection of timber	1

## ***Skills and Knowledge***

### **Required skills include:**

- comply with legislation, regulations, standards, codes of practice and established safe practices and procedures for selecting timber for forestry operations
- review and accurately identify work requirements
- use and maintain relevant tools, machinery and equipment
- identify problems and equipment faults and demonstrate appropriate response procedures
- use appropriate communication and interpersonal techniques with colleagues and others
- accurately locate, record and report information
- efficiently and safely select timber for forestry operations

### **Required knowledge and understanding includes:**

- basic knowledge and understanding of applicable Commonwealth, State or Territory legislation, regulations, standards and codes of practice relevant to the full range of processes for selecting timber for forestry operations
- organisational and site standards, requirements, policies and procedures for selecting timber for forestry operations
- principles of cultural diversity and access and equity
- environmental protection requirements, including the safe disposal of waste material
- established communication channels and protocols
- problem identification and resolution
- types of tools and equipment and procedures for their use, operation and maintenance
- selection and optimisation of timber
- quality systems and supply coordination
- timber technology
- procedures for recording and reporting workplace information
- appropriate mathematical procedures for estimating and measuring, including calculating time to complete tasks

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### ***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.

OHS requirements are to be in accordance with Commonwealth, State or Territory legislation and regulations, and organisational safety policies and procedures.

Requirements may include:

- the use of personal protective equipment and clothing
- safety equipment
- first aid equipment
- fire fighting equipment
- hazard and risk control
- elimination of hazardous materials and substances
- manual handling including shifting, lifting and carrying

Legislative requirements are to be in accordance with applicable legislation from all levels of government that affect organisational operation. Requirements 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, ethical standards, recording and reporting, access and equity principles and practices, equipment use, maintenance and storage, environmental management (waste disposal, recycling and re-use guidelines)

Timber

- may include trees, logs, planks, panels, board, chips, flake, flitches, cants and may be hardwood or softwood and may include native or imported timbers

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### Quality systems

- may include enterprise based systems, second party certification, third party certification, ISO9000 series and other regulatory systems

### Visual inspection

- may include assessing the appropriateness of defects, contamination, timber colours, insect attack, surface finishes, loose surfaces, bubbles, holes, breakages and machine caused defects

### Product specifications

- may include specifications set for optimisation of timber set in accordance with the available resource, customer requirements, industry standard cross sections and lengths and enterprise standards

### Communication

- may include verbal and non-verbal language, constructive feedback, active listening, questioning to clarify and confirm 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 and body language

### Growth

- may include growth patterns, the make up of a tree including bark (cortex), phloem, cambium layer, sapwood (xylem), heartwood (truewood), pith (medulla), medullary rays, earlywood, latewood, growth rings, cellulose, hemicellulose, lignin and extractives

### Durability

- may include strength, hardness and rating for use, its classification and measurement

### Species

- may include native or 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 and seasoning methods

### Characteristics

- may include colour, density, texture, grain, figure, qualities and 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 this generally ranges between 10% in warmer, more humid climates to 14% in cooler climates. It includes the consideration of free water, bound water and water vapour

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### Density

- may include the closeness and size of the timber cells, green density, air dried density, basic density, strength, durability and 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 and surface hardness

### Faults and features

- may include bow, spring, twist, warp, wane, cupping, shakes, insect defects, fungi, knots, resin pockets, wild grain, sloping grain,

### Sawing patterns

- may include live-sawn, back-sawn and quarter-sawn

### Despatch

- is to include the sending out of products relating to a customer order via various means of transport
- may include stacking, striping, strapping and store/dispatch of product

### Records and reports

- may include conducting visual inspection and timber selection, risks, hazards, incidents or equipment malfunctions
- may be manual, using a computer-based system or another appropriate organisational communication system

## ***Evidence guide***

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this 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 according to organisational requirements

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

- Comply with applicable Commonwealth, State or Territory legislative and regulatory requirements and codes of practice, including OHS, environmental and organisational policies and procedures, relevant to selecting timber for forestry operations
- Communicate effectively and work safely with others in the work area
- Efficiently select timber for forestry operations in accordance with environmental legislation and workplace procedures

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### 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 essential underpinning knowledge, other than confirmatory questions, will usually be conducted in an off-site context
- Assessment is to comply with relevant regulatory or Australian Standards requirements
- The following resources should be made available:
  - workplace location or simulated workplace
  - materials and equipment relevant to selecting timber for forestry operations
  - specifications and work instructions

### Method of assessment

- Assessment must satisfy the endorsed Assessment Guidelines of the FPI05 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 underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning knowledge and it must also reinforce the integration of key competencies
- Assessment methods must confirm the ability to access and correctly interpret and apply the essential underpinning 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