



Australian Government

Department of Education, Employment and Workplace Relations

FPIHAR2207A Trim and cut harvested trees

Release: 1

FPIHAR2207A Trim and cut harvested trees

Modification History

Not Applicable

Unit Descriptor

Unit descriptor

This unit describes the outcomes required to trim and cut harvested (felled) trees with a chainsaw for commercial production. The unit also includes equipment maintenance

General legislative, regulatory and workplace requirements apply to this unit; in some jurisdictions there may be licensing requirements related to the application of this unit

This unit replaces FPIHAR2201B Trim and cross cut harvested trees

Application of the Unit

Application of the unit

The unit involves trimming and cutting harvested (felled) trees with a chainsaw for commercial production, in a variety of work settings including a forest environment, as applicable to the unit

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 trimming and cutting	1.1. Applicable Occupational Health and Safety (OHS), environmental, legislative, organisational requirements and manufacturer's specifications relevant to trimming and cutting harvested trees are identified and followed 1.2. Site environmental protection measures and enterprise environmental management systems are identified and adhered to in line with relevant legislation and regulations 1.3. Job requirements are reviewed and checked with appropriate personnel 1.4. Trimming and cutting activities are planned in line with site procedures 1.5. Cutting procedures to achieve optimum utilisation of tree to be cut are identified 1.6. Tools and equipment are selected appropriate to job requirements and checked for operational effectiveness in line with organisational procedures and manufacturer's recommendations 1.7. Communication with others is established and maintained in line with OHS and organisational requirements
2. Visually assess trees	2.1. Environmental requirements are identified and used to plan the cutting of each tree 2.2. Tree, location and stability are assessed for conditions likely to affect safety of trimming and cutting activities 2.3. Tree is visually assessed for defects, grade and recovery status 2.4. Trees are assessed for extraction and transport method suitability 2.5. Trees unable to be cut safely are identified and referred to appropriate personnel
3. Plan cutting	3.1. Tree is moved or stabilised for safe cutting in line with site standards and regulations 3.2. Cutting pattern is selected to optimise time, maximise volume and quality of recovery in line with assessment and finished tree specifications

ELEMENT**PERFORMANCE CRITERIA**

- 3.3. **Sequence of cuts** is planned to maintain control of cut sections and minimise cutting problems
- 3.4. Cutting positions selected are measured and marked in line with job requirements and industry standard lengths
- 3.5. Debris is cleared from the work area to allow safe access and prevent saw damage or injury in line with OHS requirements
4. Conduct trimming and cutting
- 4.1. **Pre start-up checks** are carried out on equipment in line with site requirements
- 4.2. Movement and whereabouts of other personnel is monitored and work is modified to be in line with OHS regulations
- 4.3. Tree section on each side of planned cut is secured and potential movement is assessed and planned
- 4.4. Saw is operated to cut tree and **cutting technique** is adjusted in response to movement and condition of the tree
- 4.5. Cut is completed once initiated, minimising **capping and splitting**, in line with job requirements
- 4.6. Butts are square cut, accessible branches and knots trimmed, and **head of tree** removed in line with job requirements
- 4.7. Logs are prepared for extraction in line with site requirements
- 4.8. Trimming and cutting **records** are prepared and problems reported to the appropriate personnel
5. Conduct equipment **maintenance**
- 5.1. Equipment is inspected on completion of trimming and cutting activities
- 5.2. Damaged saws and cutting attachments are identified and dealt with according to site procedures and manufacturer's recommendations
- 5.3. Chain and other components are removed, cleaned, maintained, adjusted or replaced in line with manufacturer's recommendations
- 5.4. Tools and equipment are maintained in line with OHS requirements and manufacturer's recommendations

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- Technical skills sufficient to use and maintain relevant tools and equipment and safely trim and cut harvested trees with a chainsaw
- Assessment skills sufficient to visually assess tree defects, grade and recovery status
- Communication skills and interpersonal techniques sufficient to interact appropriately with colleagues and others in the workplace
- Literacy skills sufficient to review and accurately identify work requirements and to locate, record and report information
- Numeracy skills sufficient to estimate and measure tolerances and minimum diameter; and to calculate time required to complete a task
- Problem solving skills sufficient to identify problems and equipment faults and 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 trimming and cutting harvested trees
- Environmental protection requirements including the safe disposal of waste
- Organisational and site standards, requirements, policies and procedures for trimming and cutting harvested trees; organisational communication channels and protocols; and the recording and reporting of workplace information
- Characteristics of trees and types of timber defects that may affect cutting
- Cutting patterns, sequences and techniques
- Chainsaw operation, safety and maintenance procedures
- Chainsaw chain condition assessment
- Industry standard lengths and tolerances
- Log grades for timber grading
- Extraction methods
- Types of tools and equipment and procedures for their safe operation and maintenance
- Problem identification and resolution strategies

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 trim and cut harvested trees and conduct operator maintenance within 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, including OHS and environmental, relevant to trimming and cutting harvested trees
 - following organisational policies and procedures relevant to trimming and cutting harvested trees
 - compliance with applicable licensing or certification requirements
 - effective communication and safe working practices
 - planning cutting to optimise volume, quality and recovery
 - trimming and cutting of harvested trees in line with the job requirements and within prescribed organisational tolerances
 - maintenance on a chainsaw
- 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 undertaking work applicable to this unit
 - specifications and work instructions

EVIDENCE GUIDE

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 underpinning knowledge
- Assessment must be by direct observation of tasks, with questioning on underpinning 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 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

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

RANGE STATEMENT

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
- safety equipment
- first aid equipment
- fire fighting equipment
- communication systems
- hazard and risk control
- fatigue management
- elimination of hazardous materials and substances
- safe forest practices including required actions relating to forest fire
- awareness of danger zone for kickback
- manual handling including shifting, lifting and carrying
- erection of warning signs
- potential falling objects
- procedures for cutting on slopes
- location of other workers

Legislative requirements:

are to be in line with applicable Commonwealth, State or Territory legislation, regulations, certification requirements and codes of practice and may include:

- Australian Standards
- OHS
- the environment
- equal opportunity
- relevant industry codes of practice
- award and enterprise agreements
- industrial relations
- confidentiality and privacy
- duty of care
- heritage and traditional land owner issues

Organisational requirements may include:

- legal
- organisational and site guidelines
- policies and procedures relating to own role

RANGE STATEMENT

- and responsibility
- quality assurance
- procedural manuals
- quality and continuous improvement processes and standards
- OHS
- emergency and evacuation procedures
- fire prevention procedures
- communication systems
- recording and reporting requirements
- equipment use and maintenance and storage requirements
- environmental management requirements (waste disposal, recycling and re-use guidelines)
- access and equity principles and practices
- hardwood trees
- softwood trees

Trees may include:

for production purposes

Environmental protection measures may include:

- action to limit the impact of noise, wind speed and direction, fallen trees, ground slope, ground hazards and obstacles, general forest lean
- action to limit the impact to ground growth, canopy, density of trees

and may relate to:

- soil and water protection, contingencies for modifying operations during wet or other adverse weather conditions
- the safe disposal of waste material

Job requirements:

may be determined by a coupe plan, operation plan or cutting schedules and may include:

- environmental and safety
- silviculture
- instructions for the trimming, cutting and despatch of harvested trees from the work site
- type, size, length, quantity and grade of product
- planned standard tolerances for length and angle relative to the log centre line

RANGE STATEMENT

	• minimum diameter, damage, shape and known length requirements • maintenance of sharpened equipment
Trimming may relate to:	• branches • burls and other small growths • delimbing
Tools and equipment may include:	• chainsaws • Personal Protective Equipment (PPE) • maintenance tools • fuel and oil containers • chainsaw maintenance kit and may include ancillary equipment such as: • hammer • axe • wedges • cant hook or breaking bar • first aid kit • fire control equipment • tool belt • loggers tape • warning signs • chainsaw maintenance kit
Communication may include:	• verbal and non-verbal language • hand or other agreed signals • eye contact with other operators or personnel • use of electronic devices
Environmental requirements	may be assessed in relation to: • ground growth • ground slope • ground hazards and obstacles
Defects may include:	• shakes • insect defects • knots and resin pockets • pipe • branches • lumps • bumps • drysides

RANGE STATEMENT

- Grade** may include:
- an evaluation of the log for defects, quality and size of log return
- Extraction** refers to:
- methods of removing the log from the worksite with mechanical equipment and cables, considering site conditions and specific log location
- Cutting pattern** refers to:
- the plan of cuts to optimise time and recovery of product from the tree
- Sequence of cuts** refers to:
- the order in which individual cuts are made to address issues of compression and tension and product quality and may include single or multiple cuts
- Pre start-up checks** may include checking:
- equipment has been set up correctly
 - the systems are performing accurately
 - equipment is operating to optimum performance
- Cutting technique** may include:
- bridging cuts
 - swinging cuts
 - side bind cuts
 - delimbing
 - boring
 - wedge cut
 - use of wedges
- Capping and splitting** refers to:
- defects caused by cutting activities
- Head of tree** refers to:
- the waste section of the tree containing the smaller branches and heavy foliage
- Records** may include:
- quality outcomes; hazards, incident reports, equipment malfunctions and damage
 - may be compiled using a computer-based system or other appropriate organisational communication system to record and report
- Maintenance** must include:
- sharpening
- and may include:
- refuelling
 - inspection, identification and replacement of bar, chain, drive sprockets
 - bar oil checks and top up
 - air filter check, clean and replacement

RANGE STATEMENT

- cleaning of saw body, air intake vents and cooling fans
- fitting spare chain and tension chain

Unit Sector(s)

Not Applicable

Competency field

Competency field Harvesting and Haulage