



Australian Government

FWPCOT2236 Fall trees manually (basic)

Release: 1

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Modification History

Release	Comment
1	Replaces equivalent unit FPICOT2236 Fall trees manually (basic), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format.

Application

This unit of competency describes the outcomes required to assess and manually fall small trees with a low level of complexity and to complete operator maintenance.

Basic trees typical to the scope of this unit may include the following characteristics:

- lean and distribution of the crown weight does not create a complex situation to assess or fell
- small dimensions relative to local forest size distribution
- no excessive lean
- no visible damage or defect
- species that are not prone to free splitting and adverse reactions during felling
- single stem or non-complex multi-stems
- diameter of tree is less than chainsaw bar length
- grown on terrain and slope that does not add significant complexity to the operation

The unit applies to those in a forest, agricultural, local council, emergencies services and other government agency environment. With the exception of minor forest produce, it is not relevant to commercial harvesting operations.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states & territories at the time of publication, and may differ according to jurisdiction.

Pre-requisite Unit

Nil

Unit Sector

Common Technical

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. Where bold italicised text is used, further information is detailed in the range of conditions.</i>
1. Prepare for felling	1.1 Identify and adhere to work specifications and site environmental protection measures relevant to felling basic trees in line with organisational requirements and relevant regulations 1.2 Review and check job requirements with appropriate personnel 1.3 Select tools and equipment appropriate to work requirements and check for operational effectiveness according to manufacturer recommendations 1.4 Identify trees to be retained and felled 1.5 Establish and maintain communication with others according to WHS requirements
2. Prepare for felling	2.1 Review location and stability for conditions likely to affect felling activities 2.2 Identify and report site environmental conditions to appropriate personnel 2.3 Identify and control potential and existing risks and hazards 2.4 Monitor and exclude location and activity of other personnel on the work site
3. Assess tree and plan felling	3.1 Assess limitations of own skills in safely felling trees, identify trees considered outside own skill level and seek assistance from appropriate personnel where required 3.2 Confirm that tree is safe to fell 3.3 Visually assess tree for felling characteristics, defects and stresses 3.4 Assess and check required falling direction and possible deviation 3.5 Plan sequence of cuts to fell tree according to standard felling procedures 3.6 Select suitable escape route and clear of growth and other obstacles according to environmental care principles and statutory requirements
4. Apply tree felling techniques	4.1 Fell individual trees using selected cutting techniques according to WHS and job requirements 4.2 Adjust cutting technique in response to movement and condition of tree

ELEMENTS	PERFORMANCE CRITERIA
	4.3 Use planned escape route when tree starts to fall and monitor the fall and movement of tree on ground until determined stable 4.4 Delay movement back into the felling area until all tree material, including from adjacent tree crowns, has fallen 4.5 Identify and implement procedures for removal of trees that are hung-up 4.6 Dispose of waste materials in line with environmental and operational requirements
5. Maintain equipment	5.1 Inspect equipment on completion of trimming and cutting activities 5.2 Identify damaged saws and cutting attachments for repair or replacement according to organisational requirements and manufacturer recommendations 5.3 Remove, clean, adjust or replace chain and other components according to manufacturer recommendations 5.4 Maintain tools and equipment according to WHS requirements and manufacturer recommendations

Foundation Skills

This section describes those core and employment skills that are essential to performance and are not explicit in the performance criteria.

Numeracy skills to:	- estimate tree dimensions, including height, length, diameter and volume - complete routine calculations and report on size, length, diameter of felled trees.
Oral communication skills to:	- select and use appropriate spoken communication strategies with work colleagues and other personnel on site when felling trees - interpret hand signals with other operators to ensure safe tree felling
Reading skills to:	- interpret: - workplace health and safety and other organisational procedures - work orders - manufacturers' maintenance recommendations.
Writing skills to:	complete accurate basic records for tree felling process, equipment faults and maintenance requirements.

Planning and organising skills to:	• identify an unsafe tree • efficiently and logically sequence the stages of preparation for and felling of trees using work order to guide activities.
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Range of Conditions

Not Applicable

Unit Mapping Information

FPICOT2236 Fall trees manually (basic)

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=0d96fe23-5747-4c01-9d6f-3509ff8d3d47>

Assessment Requirements for FWPCOT2236 Fall trees manually (basic)

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1	Replaces equivalent unit FPICOT2236 Fall trees manually (basic), which was first released with FPI11 Forest and Forest Products Training Package Version 2.2. This is the first release of this unit in the new standards format. Assessment requirements now specify the performance and knowledge evidence, as well as assessment conditions for this unit of competency. These sections simplify and replace components used in the previous unit format, including Required Skills and Knowledge, Evidence Guide and Range Statement.

Performance Evidence

A person demonstrating competency in this unit must satisfy all of the elements, performance criteria and foundation skills of this unit. If a specific volume or frequency is not stated below, then evidence must be provided that the following requirements have been performed on at least one occasion:

- comply with applicable federal, state or territory legislative and regulatory requirements and codes of practice including WHS, environmental and organisational policies and procedures relevant to felling trees at a basic level
- comply with organisational policies and procedures relevant to felling trees manually at a basic level
- comply with applicable licensing or certification requirements relevant to felling trees manually
- effectively communicate and use safe working practices, including maintaining an awareness of activity by other personnel in the work area
- assess site conditions, by applying environmental protection measures, detecting hazards and own skill level for felling trees at a basic level
- conduct a tree assessment
- identify structural defects and stresses in trees and the impact on felling, including exclusion of trees from hand felling due to hazardous and difficult situations for assessment, monitoring and safe falling including a crown that contains dead or broken material, entanglement or malformation
- plan a felling sequence for individual trees and preparing surroundings including escape route

- fell basic trees using a appropriate cuts safely without damage to personnel, equipment and surrounding environment
- identify trees that are hung up
- select, prepare and maintain chainsaw equipment including recognising faults, problems and malfunctions
- assess, plan and safely operate chainsaw equipment to manually fell trees at a basic level in forest, rural and community environments
- use tree felling techniques including scarf cutting , back cutting to provide hinge-wood and the use of wedges to assist in controlling falling direction.

Knowledge Evidence

A person competent in this unit must be able to demonstrate knowledge of:

- Workplace health and safety (WHS) requirements including:
 - PPE and clothing
 - safety equipment
 - first aid equipment
 - firefighting equipment
 - hazard and risk control procedures
 - fatigue management procedures
 - appropriate signage
 - elimination of hazardous materials and substances procedures
 - safe forest practices, including required actions relating to fire
 - techniques for manual handling, including shifting, lifting and carrying
- types and purposes of cuts to fell trees, including scarf cutting and back cutting to provide hinge-wood and maintain control of tree
- typical tree defects and how these affect tree felling activities:
 - shakes
 - insect defects
 - knots and resin pockets
 - pipe
 - drysides
- identifying trees:
 - that contain hazards and are deemed unsafe to fell
 - considered outside own skill level
 - trees where cuts made may lead to loss of control of tree in felling
- hazards and related risks and the impact on felling trees of:
 - uneven and unstable terrain
 - unsafe trees
 - fires
 - overhead and underground services

- excavations
- traffic
- structures
- hazardous materials
- insects and animals
- other personnel and machinery
- methods used to remove trees that are hung up and procedures for removal
- methods for assessing chain condition
- environmental protection measures to follow when felling trees related to:
 - native vegetation
 - soil and water
 - heritage and archeological artefacts
 - flora and fauna
 - geomorphologic features
 - landscape
 - external site pollution
 - recreational opportunities
 - regeneration opportunities
 - cleaning plant, tools and equipment
 - disposing of, recycling and reusing timber and other waste
- key features of these varying environmental conditions and their effects on basic tree felling activities:
 - general forest lean
 - ground growth
 - ground hazards and obstacles
 - ground slope
 - gullies
 - presence and density of seed and habitat trees
 - water courses
 - wet and adverse weather conditions
 - wind speed and direction
- the use of types of tools and equipment for felling trees manually, and the procedures for their safe use, operation and maintenance including:
 - warning signs
 - chainsaw and components
 - PPE and clothing
 - first aid equipment
 - maintenance requirements
 - support tools.

Assessment Conditions

The following resources must be made available:

- workplace location or simulated workplace of a forest environment that contains small trees with a low level of falling complexity
- PPE and clothing including:
 - safety helmet
 - safety gloves
 - protective footwear
 - eye protection
 - hearing protection
 - high visibility clothing
 - leg protection (trousers or chaps)
- materials and equipment including;
 - warning signs
 - chainsaw and components
 - first aid equipment
 - maintenance tools and equipment
 - support tools
 - manufacturers' instructions for use and maintenance of equipment
 - radio or communication device
 - fire fighting equipment (if prescribed)
- specifications and work instructions, including
 - information and instructions relevant to tree-felling operations, including processing location details and trees to be felled and retained
 - policy and procedures for work health and safety (WHS)
 - risk assessment plan
 - general and specific environmental requirements
 - relevant state or territory logging code of practice
 - emergency and evacuation procedures
 - fire protocols
- relevant personnel for the purposes of communicating information

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessor requirements

Assessors must:

- hold the appropriate assessor competency standards as outlined in regulations; and
- be able to demonstrate vocational competencies at least to the level being assessed; and
- be able to demonstrate how they are continuing to develop their VET knowledge and skills as well as maintaining their industry currency and assessor competence.

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