



**Australian Government**

# **FWPCOT2274 Fell trees manually (basic)**

**Release: 1**

## FWPCOT2274 Fell trees manually (basic)

### Modification History

| Release   | Comments                                                                              |
|-----------|---------------------------------------------------------------------------------------|
| Release 1 | This version released with FWP Forest and Wood Products Training Package Version 8.0. |

### Application

This unit of competency describes the skills and knowledge required to assess and fell basic trees manually using a chainsaw, and to complete routine operator chainsaw maintenance.

Trees typical to the scope of this unit may have some of the following characteristics:

- lean and where distribution of the crown weight does not create a complex situation to assess, place the cut or fall
- no excessive lean
- no visible damage or defect
- uniform in structure
- species that are not prone to free splitting and adverse reactions during felling
- single stem or non-complex multi-stems
- small or medium diameter that can be safely felled using standard and basic felling techniques
- site characteristics that do not add significant complexity to the operation.

The unit applies to individuals who fell basic trees as part of arboriculture, forestry, agriculture, conservation and land management, local government, emergency services and other government agency operations. With the exception of minor forest produce, this unit does not apply to commercial harvesting operations.

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 licensing, legislative or certification requirements apply to this unit at the time of publication.

### Pre-requisite Unit

Nil

### Unit Sector

Common Technical (COT)

## 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.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 1. Prepare for felling                           | <p>1.1 Determine job requirements from work order or instruction and, where required, seek clarification from appropriate personnel</p> <p>1.2 Confirm workplace health and safety and environmental protection practices and/or procedures for task</p> <p>1.3 Identify, assess and take actions to mitigate risks and hazards associated with operation of chainsaws</p> <p>1.4 Identify, assess and determine felling requirements of trees to be felled according to work order or instruction</p> <p>1.5 Consult and maintain communication with team members and other appropriate personnel to ensure that work is coordinated effectively with others in the workplace</p> <p>1.6 Select, fit and use personal protective equipment</p> <p>1.7 Obtain tools and equipment needed for the work, and check for correct operation and safety</p> |
| 2. Assess site conditions and surroundings       | <p>2.1 Inspect site for conditions likely to affect safe implementation of felling activities</p> <p>2.2 Identify and report site environmental conditions to appropriate personnel</p> <p>2.3 Determine fall zone, and implement control measures to minimise risks and hazards in the zone according to safe work procedures</p> <p>2.4 Monitor location and activity of other personnel on worksite, and implement control measures according to workplace safety procedures</p>                                                                                                                                                                                                                                                                                                                                                                   |
| 3. Assess tree and plan felling                  | <p>3.1 Identify trees considered outside own skill level, and seek assistance from appropriate personnel where required</p> <p>3.2 Assess tree visually to identify felling characteristics, defects and stresses within tree</p> <p>3.3 Confirm that tree is safe to fell</p> <p>3.4 Assess and check required felling direction and possible deviation</p> <p>3.5 Plan sequence of cuts to fell tree according to workplace felling procedures</p> <p>3.6 Identify suitable escape routes, and clear routes of growth and other obstacles according to environmental care, workplace and regulatory requirements</p>                                                                                                                                                                                                                                |

| Elements                                         | Performance Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Elements describe the essential outcomes.</i> | <i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 4. Apply tree felling techniques                 | <p>4.1 Fell individual trees using selected cutting techniques according to current Australian Standards and industry codes of practice</p> <p>4.2 Adjust cutting technique in response to movement and condition of tree</p> <p>4.3 Use planned escape route when tree starts to fall, and monitor the fall of the tree until all movement has stopped</p> <p>4.4 Delay movement back into the felling area until all tree material, including material from adjacent tree crowns, has fallen or is stable enough to allow safe access back into felling area</p> <p>4.5 Report trees that are hung-up to appropriate personnel according to workplace procedures</p> <p>4.6 Dispose of waste materials according to workplace environmental protection practices and/or procedures</p> |
| 5. Maintain chainsaw and cutting attachments     | <p>5.1 Follow workplace health and safety procedures and manufacturer instructions to lock out equipment</p> <p>5.2 Inspect chainsaw on completion of activities</p> <p>5.3 Inspect for damage to chainsaw and cutting attachments, and tag for repair, service or replacement according to workplace requirements and manufacturer recommendations</p> <p>5.4 Remove, clean, adjust, sharpen or replace chain and other components according to workplace requirements and manufacturer recommendations</p>                                                                                                                                                                                                                                                                             |

## 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.*

| Skill   | Description                                                                                                                                                      |
|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reading | <ul style="list-style-type: none"> <li>Interpret workplace documentation to determine requirements</li> </ul>                                                    |
| Writing | <ul style="list-style-type: none"> <li>Use technical and workplace specific vocabulary to accurately and legibly complete workplace records and forms</li> </ul> |

| Skill              | Description                                                                                                                                                                                                                                                       |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Oral communication | <ul style="list-style-type: none"> <li>Select and use appropriate spoken communication strategies with work colleagues and other personnel on site when felling trees</li> <li>Interpret hand signals with other operators to ensure safe tree felling</li> </ul> |
| Numeracy           | <ul style="list-style-type: none"> <li>Complete routine calculations and report on size, length and diameter of felled trees</li> </ul>                                                                                                                           |

## Unit Mapping Information

| Code and title current version         | Code and title previous version        | Comments                                                                                                  | Equivalence status |
|----------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------|--------------------|
| FWPCOT2274 Fell trees manually (basic) | FWPCOT2253 Fell trees manually (basic) | Changes to the volume/frequency of Performance Evidence and other minor changes to address industry needs | Equivalent         |

## Links

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

# Assessment Requirements for FWPCOT2274 Fell trees manually (basic)

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## Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has:

- demonstrated a standard scarf and a standard back cut appropriate for felling a tree with basic characteristics on four occasions
- planned and felled two trees with basic characteristics and, in performing this task, has used a standard scarf cut facing the direction of intended fall and ensured that:
  - the scarf cut includes a top cut angled at 30° to 45° and a depth of ¼ to 1/3 of the tree diameter and a horizontal flat bottom cut that meets precisely with the lowest part of the top cut
  - the back cut is parallel to and above the scarf line by 1/10 (or 10%) of the tree diameter
  - a minimum 1/10 (or 10%) of the tree diameter remains uncut, leaving hinge wood
  - in felling these two trees, the individual has followed workplace policy and procedures and current workplace health and safety legislation and regulations and ensured that the felling techniques used for each tree were consistent with current Australian Standards and industry codes of practice applicable to felling basic trees
- inspected and carried out routine maintenance on one chainsaw and its cutting attachments, on one occasion, according to manufacturer requirements.

## Knowledge Evidence

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:

- Australian Standards and codes of practice applicable to tree felling operations
- hazards and risks related to felling trees with chainsaws, and methods to minimise associated risks, including:
  - physical conditions of the site
  - unsafe/hazardous trees

- fire and other emergency situations
- overhead and underground services
- nearby structures
- standing vegetation in the intended direction of fall
- falling branches
- weather conditions
- impediments of escape routes
- vehicle and traffic access
- people on or near worksite
- machinery on or near worksite
- carrying and transporting a chainsaw
- user fatigue
- hazards related to maintaining chainsaws, and methods to minimise associated risks
- features of unsafe/hazardous basic trees and defects of trees and how they affect tree felling activities
- characteristics of basic trees
- methods used to identify basic trees:
  - that contain hazards and are deemed unsafe to fell
  - that are considered outside own skill level
  - where cuts made may lead to loss of control of tree in felling
- types and purposes of cuts to fell basic trees, including scarf cutting and back cutting using different methods to provide hinge wood and wedges to maintain control of tree
- methods for assessing chain condition
- types, safe use, operation and maintenance of chainsaws, support tools and attachments
- workplace procedures specific to felling trees with chainsaws, including:
  - workplace health and safety, with particular emphasis on equipment lock-out, use of personal protective equipment (PPE), safe manual handling and fire prevention measures
  - communication reporting lines
  - recording and reporting repairs, maintenance activities and equipment faults
- environmental protection requirements and practices that meet legal obligations and requirements of the industry, state and local standards and/or codes of practice for felling trees with chainsaws, including:
  - protection of natural and cultural assets
  - cleaning plant, tools and equipment
  - disposing of, recycling and reusing materials
  - disposing of hazardous substances.

## Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
  - skills must be demonstrated in the workplace or an environment that accurately represents workplace conditions
- resources, equipment and materials:
  - chainsaw and accessories
  - suitable trees to fell
  - PPE required in tree felling operations
  - communication system
- specifications:
  - workplace safety and environmental policies and/or procedures applicable to tree felling and chainsaw operations
  - site emergency procedure
  - workplace standard operating procedures or operator manual for chainsaws.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

## Links

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