Modification history

Release	Comments
Release 1	This version released with FWP Forest and Wood Products Training Package Version 6.0.

FWPCOT2XXX	Fall trees manually (basic)
Application	This unit of competency describes the skills and knowledge required to assess and fall basic trees manually using a chainsaw and to complete routine operator chainsaw maintenance. Basic trees typical to the scope of this unit have some of the following characteristics: • lean and distribution of the crown weight does not create a complex situation to assess, place the cut or fall • up to 15 metres in height • no excessive leanno 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 • 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.
Prerequisite Unit	FWPCOT2239 Trim and cut felled trees or equivalent
Unit Sector	Common Technical (COT)

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Prepare for felling	1.1 Review work order or instruction to determine job requirements and, where required, seek clarification from appropriate personnel 1.2 Review workplace health and safety procedures, including the use of personal protective equipment, operation and maintenance of chainsaws, equipment lock-out and safe manual handling techniques 1.3 Identify, assess and take actions to mitigate risks and hazards associated with operation of chainsaws 1.4 Identify workplace environmental protection procedures for felling basic trees, minimising and disposing of waste material, cleaning tools and equipment, and minimising impact of tree felling on environmental assets 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 1.6 Obtain tools and equipment needed for the work and check for correct operation and safety 1.7 Identify, assess and determine felling requirements of trees to be felled according to work order or instruction
2. Visually assess site conditions and surroundings	2.1 Inspect site for conditions likely to affect safe implementation of felling activities 2.2 Identify and report site environmental conditions to appropriate personnel 2.3 Determine fall zone and implement control measures to minimise risks and hazards in the zone according to safe work procedures 2.4 Monitor location and activity of other personnel on the worksite and implement control measures according to workplace safety procedures
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 workplace felling procedures 3.6 Identify suitable escape routes and clear routes of growth and other obstacles according to environmental care, workplace and regulatory requirements
4. Apply tree felling techniques	4.1 Fell individual trees using selected cutting techniques according to current Australian Standards and industry codes of practice 4.2 Adjust cutting technique in response to movement and condition of tree 4.3 Use planned escape route when tree starts to fall and monitor the fall of the tree until all movement has stopped 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 the felling area 4.5 Report trees that are hung-up to appropriate personnel according to workplace procedures 4.6 Dispose of waste materials according to environmental and workplace requirements
5. Maintain chainsaw and cutting attachments	5.1 Follow workplace health and safety procedures and manufacturer instructions to lock out equipment 5.2 Inspect chainsaw on completion of cutting activities 5.3 Identify damage to chainsaw and cutting attachments and tag for repair, service or replacement according to workplace requirements and manufacturer recommendations 5.4 Remove, clean, adjust or replace chain and other components according to workplace requirements and manufacturer recommendations 5.5 Maintain chainsaw and cutting attachments according to workplace and manufacturer requirements

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	• Read workplace documentation and understand requirements
Writing	• Complete basic written records for tree felling process, equipment faults and maintenance requirements
Oral communication	• 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
Numeracy	• Complete routine calculations and report on size, length, diameter of felled trees

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
FWPCOT2XXX Use chain saw to fall trees manually (basic)	FWPCOT2236 Fall trees manually (basic)		

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

TITLE	**Assessment requirements for FWPCOT2XXX Fall trees manually (basic)**

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:
- assessed, planned and conducted the felling of six basic trees following a work order or instruction workplace policy and procedures and current workplace health and safety legislation and regulations. In completing this work, the individual must demonstrate that, for each tree, the falling technique was consistent with current Australian Standards and industry codes of practice applicable to tree felling operations. In falling one of these six trees, the individual must demonstrate cuts with the following accuracy:
  - a scarf cut facing the intended direction of fall, including a top cut angled at 45° with a margin of error of ± 2° and a depth of 1/4 of the tree diameter with a margin of error of ± 50 mm, and a horizontal flat bottom cut that meets precisely with the lowest part of the top cut
  - a back cut parallel to and 10% of the tree diameter above the bottom cut of the scarf, that continues along that plane until 10% of the tree diameter remains uncut leaving straight hinge wood
- 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 falling operations
- characteristics of basic trees
- workplace health and safety requirements including:
  - personal protective equipment (PPE) and clothing
  - safety equipment
  - first aid equipment
  - firefighting equipment
  - hazard and risk control procedures
  - fatigue management procedures
  - safety signage
  - safe workplace practices,
  - fire prevention and safety
  - techniques for manual handling, including shifting, lifting and carrying
- types and purposes of cuts to fell trees including scarf cutting and back cutting using different methods to provide hinge-wood and wedges to maintain control of tree
- typical tree defects and how these affect tree felling activities:
  - shakes
  - insect defects
  - knots and resin pockets
  - pipe
  - drysides
  - biomechanical defects including splits, hazard beams and heartwood rot
- 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:
  - basic trees
  - physical conditions of the site
  - fire
  - overhead and underground services
  - excavations

Knowledge Evidence

- traffic
- structures
- hazardous materials
- insects and animals
- people on or near worksite
- machinery on or near worksite
- methods used to remove trees that are hung up
- methods for assessing chain condition
- environmental protection measures suitable for a worksite where tree felling operations are performed:
  - noise control
  - protection of flora, fauna and habitat
  - protection of soil
  - protection of water
  - disposal, recycling and reuse of waste
  - cleaning of plant, equipment and tools
  - protection of adjacent land uses and fixed assets
  - vehicle control
  - access restrictions
  - fire prevention
  - protection of cultural heritage
- the types, safe use, operation and maintenance of chainsaws, including:
  - chainsaw
  - safety features of chainsaws including hand guard and chain brake
  - cutting attachments
  - maintenance requirements
  - support tools.

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 a workplace location 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
  - access to work order or instruction detailing tree felling operations to be carried out by operator
  - access to workplace policies and procedures which cover current workplace health and safety regulations and related industry standards and codes of practice applicable to tree felling and chain saw operations
  - access to workplace policies and procedures which cover off on current Environment Protection Acts, regulations and related industry standards and codes of practice applicable to tree felling operations
  - access to workplace safety and environmental protection plans
  - access to site emergency procedure
  - access to workplace standard operating procedures or operator manual for chain saws.

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

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