



**Australian Government**

**Assessment Requirements for  
FWPHAR3221 Harvest trees manually  
(advanced)**

**Release: 2**

## Assessment Requirements for FWP HAR3221 Harvest trees manually (advanced)

### Modification History

Release	Comments
Release 2	This version released with FWP Forest and Wood Products Training Package Version 3.0.
Release 1	This version released with FWP Forest and Wood Products Training Package Version 2.0.

### 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 harvesting trees at an advanced level
- comply with applicable licensing or certification requirements relevant to harvesting trees at an advanced level
- effectively communicate and use safe working practices, including maintaining an awareness of other personnel activity in the work area
- assess site conditions, by applying environmental protection measures, detecting hazards and own skill level for harvesting trees at an advanced 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 felling 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
- harvest advanced trees using appropriate cuts safely and without causing 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 harvest trees at an advanced level

- use tree felling techniques including scarf cutting and back cutting to provide hinge-wood, and the use of wedges to assist in controlling falling direction
- apply appropriate extraction methods
- apply specifications as outlined in harvesting plan

## Knowledge Evidence

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

- workplace health and safety 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
- cutting patterns used to optimise time to fell trees
- environmental protection measures to follow when felling trees related to:
  - native vegetation
  - soil and water
  - heritage and archaeological 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 advanced tree felling and harvesting 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 harvesting 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
- components of a harvesting plan including an extraction plan, a traffic plan, environmental requirements, restricted areas, identified hazards and product volumes
- log extraction methods including skidding, forwarding, using cable or shovel logging and following the harvest plan when felling trees
- work order information regarding:

- tree felling requirements
- requirements for product quality
- harvesting plan
- risk assessments for tree-felling including:
  - ground and environmental conditions likely to affect harvesting activities including ground stability, ground slope, forest lean and weather conditions
  - underground and overhead services
  - forest fire
  - position and movement of personnel working on the harvesting site
  - traffic management
  - safety signage warning of harvesting operations in the area.
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## Assessment Conditions

The following resources must be made available:

- workplace location or simulated workplace of a forest environment with trees typical to the scope of this unit
- 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:
  - coupe plans
  - 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
- applicable 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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## Links

Companion Volume implementation guides are found in VETNet -

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