

**Modification history**

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 4.0.
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0.

AHCARB312	Use standard climbing techniques to access trees
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to climb trees with ropes, harnesses and spurs using a range of basic climbing techniques using ropes, knots and equipment for accessing trees.</p> <p>The unit applies to individuals who work under broad direction and take responsibility for their own work. They use discretion and judgement in the selection, allocation and use of available resources and for solving problems.</p> <p>No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Arboriculture (ARB)

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 site and inspect equipment	1.1 Confirm access to site and scope of works with client 1.2 Identify work health, safety and environmental hazards, assess risks and identify controls according to workplace safety procedures 1.3 Prepare a job safety analysis (JSA) or safe work method statement (SWMS) for the site and activities 1.4 Confirm availability of first aid and rescue personnel, equipment and procedures 1.5 Conduct pre-operational preparations and safety checks, on ropes, harnesses, tools and equipment 1.6 Select, ensure serviceability and use personal protective equipment
2. Prepare to access tree	2.1 Inspect tree to determine efficient low risk access route and climbing method through discussion with work team 2.2 Select and prepare climbing equipment according to manufacturer instructions, work health and safety regulations and industry standards 2.3 Configure climbing equipment components to form functional tree climbing system appropriate to the access method selected 2.4 Tie, dress, set and finish climbing knots and hitches according to climbing system 2.5 Sharpen, prepare and fit climbing spurs and gaffs 2.6 Conduct pre-climb checks of configured systems to ensure compatibility, safety and function according to selected climbing system, industry standards and manufacturer instructions

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
3. Access tree safely to work position	3.1 Select and install anchor points according to suitable load bearing requirements in accordance with access method selected 3.2 Use harness and lanyard to ascend tree to suitable work positions within crown using safe access route 3.3 Ascend and navigate through tree canopy using climbing techniques required for task 3.4 Observe and maintain safe clearance from hazards and climbing and rigging equipment 3.5 Communicate with work team during operations according to work site and environmental conditions using methods agreed with work team 3.6 Maintain awareness and clearances to avoid power line according to workplace safety procedures
4. Descend from tree	4.1 Descend tree using climbing equipment in a controlled manner 4.2 Remove all climbing equipment safely in a controlled manner according to manufacturer instructions 4.3 Inspect, clean, maintain, and store climbing and safety equipment according to manufacturer instructions

Foundation Skills	
<i>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.</i>	
Skill	Description
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Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
AHCARB312 Use standard climbing techniques to access trees	AHCARB312 Use standard climbing techniques to access trees	Edited Elements and PC's for clarity and completeness	Equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72">https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72</a>
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<b>TITLE</b>	<b>Assessment requirements for AHCARB312 Use standard climbing techniques to access trees</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has demonstrated climbing techniques on <b>at least 3 structurally different trees</b>:</p> <ul style="list-style-type: none"> <li>• confirmed access to site and scope of works with client</li> <li>• identified work health, safety and environmental hazards and prepared a job safety analysis (JSA) or safe work method statement (SWMS) for the site and activities</li> <li>• confirmed availability of first aid and rescue personnel, equipment and procedures</li> <li>• conducted pre-operational safety checks, on ropes, harnesses, tools and equipment</li> <li>• selected and used personal protective equipment and safety equipment during works</li> <li>• inspected tree and discussed with work team a safe access route in tree</li> <li>• selected and prepared climbing equipment for accessing tree</li> <li>• selected, prepared and fitted climbing spurs and gaffs for climbing trees</li> <li>• ascended, navigated through and descended tree canopy using harness and lanyard and safe anchor points following safe climbing techniques including:             <ul style="list-style-type: none"> <li>• moving rope technique</li> <li>• double rope with prussik technique</li> <li>• trunk walking technique and foot ascenders</li> <li>• climbing spurs ensuring separation of spurs and clearance distance between spurs and ropes</li> </ul> </li> <li>• tied, dressed, set and finished the following climbing knots and hitches:             <ul style="list-style-type: none"> <li>• Scaffold knot</li> <li>• Double Fishermans Knot/Prusik loop</li> <li>• Girth Hitch</li> <li>• English Prusik Knot</li> <li>• Marlin Spike</li> <li>• Clove Hitch</li> <li>• Double Overhand Stopper Knot</li> <li>• Sheet bend</li> <li>• Slippery Sheet Bend</li> <li>• Bowline Knot</li> <li>• Running Bowline Knot</li> </ul> </li> <li>• communicated with work team during operations using agreed communication procedures</li> <li>• maintained safe clearances from power lines</li> <li>• removing all access equipment in a controlled manner</li> <li>• inspected, cleaned maintained and stored climbing and personal protection equipment according to manufacturer's instructions.</li> </ul>	

## 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:

- assessing and selecting methods for climbing trees
- assessing work health, safety, site, environmental and traffic control measures including:
  - preparing JSAs and SWMS for site-specific risks
  - purpose of first aid and rescue personnel, equipment and procedures
  - pre-operational and safety checks, on ropes, harnesses, tools and equipment
  - personal protective equipment used when climbing
- arborist climbing equipment, use and maintenance including:
  - ropes and their characteristics
  - uses of climbing ropes
  - types of climbing ropes
  - dynamic ropes
  - triple locking carabiners
  - climbing hardware
- purpose, function, selection, tying, dressing, setting, checking and finishing of arborist knots used for climbing techniques
- safety when climbing trees including:
  - safe working limits of ropes and equipment
  - defects in ropes, tools and equipment
  - climbing harnesses and lanyards
- hazards to avoid when climbing within the tree canopy including:
  - safe distances from electrical power lines
  - tree structural defects
  - spurs, rigging equipment and ropes
  - deciding on low risk access routes
- communications strategies used in the arboriculture industry including
  - voice
  - hand
  - whistle signals
  - electronic communications
- climbing techniques using ropes and spurs including:
  - double rope with prussik technique
  - trunk walking and foot ascenders
  - standard climbing technique
  - low risk anchor points
  - controlled descent operations
- controlled removal of access equipment
- inspecting, cleaning, maintaining and storing climbing equipment.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - access to at least **X trees** with different canopy structures for individuals to demonstrate different climbing techniques
- resources, equipment and materials:
  - standard climbing kit
  - harness
  - communications equipment agreed by work crew
  - personal protective equipment (PPE)
  - first aid and emergency kit
  - rescue kit
  - traffic management kit
- specifications:

<b>Assessment Conditions</b>	
<ul style="list-style-type: none"><li>workplace and manufacturer instructions for safe operation, cleaning and storing of equipment</li><li>relationships:<ul style="list-style-type: none"><li>client and work team.</li></ul></li></ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p> <p>In addition, the following specific assessor requirements apply to this unit:</p> <ul style="list-style-type: none"><li>arboriculture vocational competencies at least to the level being assessed</li><li>current arboriculture industry skills directly relevant to the unit of competency being assessed.</li></ul>	
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