

**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.

AHCARB301	Implement a tree maintenance program
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to identify a tree species and assess the health and condition in order to develop, safely implement and schedule a tree maintenance program and treatments within a safe environmental framework.</p> <p>The unit applies to individuals who work under broad supervision 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>Legislation, regulations and by-laws relating to the treatment and removal of trees apply nationally and in some states, territories and jurisdictions.</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. Undertake site assessment of trees and collect and test specimens	1.1 Undertake a site-specific Job Safety Analysis (JSA) and control measures 1.2 Perform a site assessment to identify conditions which may impact upon the health of trees on site 1.3 Identify genus and species of trees 1.4 Recognise signs of stress according to the characteristics of species 1.5 Recognise causes of stress according to characteristics of species 1.6 Assess abiotic factors affecting health of trees and impact on growth 1.7 Assess biotic factors affecting health of trees and impact on growth 1.8 Record and report results of site assessment according to workplace procedures
2. Prepare tree maintenance program	2.1 Identify maintenance requirements for trees according to identified health issues 2.2 Select treatments for identified maintenance requirements 2.3 Identify environmental implications for undertaking treatments 2.4 Document a maintenance program using requirements, treatments, environmental implications for identified tree species
3. Undertake treatment program	3.1 Select tools, equipment and machinery required for treatment 3.2 Conduct pre-operational checks and calibrate equipment and machinery according to manufacturer instructions 3.2 Select, check and use personal protective equipment 3.3 Implement health, safety, environmental, and traffic control procedures according to JSA 3.4 Apply treatments according to maintenance plan and environmental procedures 3.5 Maintain growing environment according to species cultural requirements

<b>Elements</b>	<b>Performance Criteria</b>
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4.Complete treatment program activities	4.1 Dispose of waste according to workplace and environmental procedures 4.2 Clean and sanitize equipment according to biosecurity procedures 4.3 Clean and store personal protective equipment 4.4 Determine schedule for follow up treatments and communicate to work team 4.5 Maintain records and report work outcomes according to workplace procedures

<b>Foundation Skills</b>	
<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>	
<b>Skill</b>	<b>Description</b>
	•
	•
	•

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
AHCARB301 Implement a tree maintenance program	AHCARB301 Implement a tree maintenance program		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>
--------------	---

<b>TITLE</b>	<b>Assessment requirements for AHCARB301 Implement a tree maintenance program</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 prepared and implemented a tree maintenance program for at least three trees for a period of not less than 3 months in the following situations:</p> <ul style="list-style-type: none"> <li>• a tree beside or underneath power lines</li> <li>• a tree with defects and site targets</li> <li>• a tree requiring general maintenance</li> </ul> <p>There must also be evidence that the individual has:</p> <ul style="list-style-type: none"> <li>• identified the tree genus and species</li> <li>• assessed site-specific health and safety issues and completed a Job Safety Analysis (JSA)</li> <li>• assessed the site for conditions and factors which impact on the health of trees</li> <li>• assessed abiotic and biotic conditions affecting health of trees</li> <li>• documented a tree maintenance program for the three situations above over a 3 month period including: <ul style="list-style-type: none"> <li>• identified maintenance requirements</li> <li>• selected treatment methods and equipment for tree maintenance</li> <li>• identified environmental implications of the treatments selected</li> </ul> </li> <li>• selected, checked, used and maintained personal protective equipment</li> <li>• selected tools and equipment and checked and calibrated equipment according to manufacturer instructions</li> <li>• applied treatments according to maintenance plan</li> <li>• maintained growing environment in accordance with species needs</li> <li>• disposed of waste according to workplace and environmental procedures</li> <li>• cleaned and sanitised equipment</li> <li>• determined a schedule for follow up treatments and communicated to work team</li> <li>• maintained records and report according to procedures.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>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:</p> <ul style="list-style-type: none"> <li>• purpose and process for completing Job Safety Analysis (JSA)</li> <li>• treatments and treatment methods commonly used on trees including <ul style="list-style-type: none"> <li>• physical treatments</li> <li>• chemical treatments and materials safety data</li> <li>• environmental implications of different types of treatments</li> <li>• solutions to conflicting treatment options</li> <li>• calculations for measuring treatment applications</li> </ul> </li> <li>• structure and development of tree maintenance programs and planning including: <ul style="list-style-type: none"> <li>• development of tree maintenance programs</li> <li>• scheduling tree maintenance</li> </ul> </li> <li>• performing a site assessment to identify conditions which may impact upon the health of trees on site</li> <li>• recognition and treatment of common tree disorders including: <ul style="list-style-type: none"> <li>• pests and diseases</li> <li>• nutritional disorders, deficiencies and toxicities</li> <li>• stress inducing factors for a variety of tree species</li> <li>• signs of stress characteristics</li> <li>• causes of stress in tree species</li> <li>• common structural faults and defects of trees</li> <li>• soil-based problems including compaction</li> <li>• sampling procedures identifying pests diseases and soil conditions</li> </ul> </li> <li>• abiotic issues that could affect the health of tree species, including;</li> </ul>	

## Knowledge Evidence

- temperature extremes
- frost and sunburn
- light intensity and duration
- precipitation (watering programs, rainfall, quantity, distribution etc: hail, snow etc)
- wind
- lightning
- aspect
- topography
- compaction and drainage
- pH, salinity and contamination
- biotic issues that could affect the health of tree species, including:
  - soil ecosystem; beneficial and pathogenic organisms
  - humans
  - animals
  - other plants including vines and mistletoe
- identification and culture of trees including:
  - techniques for identifying trees
  - recognising tree cultural requirements
  - maintaining tree growing and cultural conditions
  - tree structure and function
  - physiological processes affecting tree growth
  - compartmentalisation of decay in trees (CODIT)
  - tree growth and structure resulting from CODIT responses
- safety and tree treatments including:
  - personal protective equipment
  - traffic control
- effect of treatment materials on off target species
- methods for identification and analysing for tree health including:
  - methods of testing collected specimens of stressed material
  - methods of analysing nutritional status of trees
  - health characteristics of tree species
- tree establishment and tree maintenance including:
  - standards for selection of tree stock for landscape
  - standards for pruning of amenity trees
  - planting and establishment requirements of tree stock
- waste disposal including:
  - environmental protection
  - biosecurity and hygiene practices
- equipment used in treating trees, their safe operation, maintenance, cleaning and sanitation
- record keeping and data management for tree maintenance.

## Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - access to trees growing in the conditions outlined in the performance evidence
- resources, equipment and materials:
  - sprayers/application equipment
  - measuring and weighing equipment
  - chemical spill kit
  - personal protective equipment (PPE)
  - first aid and emergency kit
  - traffic management kit
  - signage - chemical use
  - signage - work zone

<b>Assessment Conditions</b>	
<ul style="list-style-type: none"><li>• specifications:<ul style="list-style-type: none"><li>• workplace and manufacturer instructions for safe operation, cleaning and storing of treatment equipment</li><li>• procedures for application of treatments</li><li>• materials safety data sheets</li></ul></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>	
<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>