



Australian Government

AHCARB314 Implement a tree maintenance program

Release: 1

AHCARB314 Implement a tree maintenance program

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 5.0.

Application

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, implement and schedule a tree maintenance program and treatments according to safety and environmental procedures.

The unit applies to individuals who work under broad direction in arboriculture 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.

The arboriculture industry requires that all tree maintenance work is undertaken according to preferred industry practices (as outlined in the Companion Volume).

Legislation, regulations and by-laws relating to the treatment and removal of trees apply in some states and territories.

Pre-requisite Unit

Nil

Unit Sector

Arboriculture (ARB)

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. Undertake site assessment of trees	1.1 Undertake a site-specific job safety analysis (JSA) and record and implement site-specific control measures 1.2 Perform a site assessment and liaise with client to identify conditions that may impact upon the health of trees on site

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.3 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 identified treatments 2.4 Document a maintenance program using requirements, treatments and environmental implications
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 3.3 Select, check and use personal protective equipment 3.4 Implement workplace health, safety, environmental and traffic control procedures according to JSA 3.5 Apply treatments according to maintenance plan and environmental procedures and industry best practice 3.6 Maintain growing environment according to species cultural requirements
4. Complete treatment program activities	4.1 Dispose of waste according to workplace and environmental procedures 4.2 Clean and sanitise 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

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	workplace procedures

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
Writing	Use clear language and correct concepts and terminology to ensure clarity of meaning when reporting and recording work outcomes
Numeracy	Calculate volume, weight and ratio for determining and applying treatments to trees

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCARB314 Implement a tree maintenance program	AHCARB301 Implement a tree maintenance program	Prerequisite units removed Performance criteria clarified Foundation skills added Assessment requirements updated	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB314 Implement a tree maintenance program

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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 prepared, documented and implemented a tree maintenance program for at least three trees for a period of not less than 3 months in the following situations:

- a tree requiring tree treatments and reduction pruning
- a tree with structural defects and site targets
- a tree requiring health and soil based remediation.

There must also be evidence that the individual has:

- identified site-specific health and safety issues including personal protective equipment required
- assessed abiotic and biotic conditions affecting health of trees and discussed the conditions and factors with client
- documented a tree maintenance program and included in the program the following:
 - tree maintenance requirements
 - treatment methods and equipment
 - environmental implications of treatments
- maintained growing environment of tree in accordance with species needs and scheduled follow-up treatments
- cleaned and sanitised equipment and disposed of waste
- maintained records and reported work outcomes on completion of activities.

All tree maintenance work is required to be performed according to preferred industry practices (as outlined in the Companion Volume).

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:

- preferred industry practices (as outlined in the Companion Volume) for tree maintenance work
- purpose and process for completing job safety analysis (JSA)
- treatments and treatment methods commonly used on trees, including:
 - physical treatments
 - chemical treatments and materials safety data
 - environmental implications of different types of treatments
 - solutions to conflicting treatment options
 - calculations for measuring treatment applications
- structure and development of tree maintenance programs, scheduling and planning
- site assessment to identify conditions impacting the health of trees on site
- recognition and treatment of common tree disorders above and below ground, including:
 - pests and diseases
 - nutritional disorders, deficiencies and toxicities
 - stress-inducing factors for a variety of tree species
 - signs of stress characteristics
 - causes of stress in tree species
 - common structural faults and defects of trees
 - soil-based problems, including compaction
 - sampling procedures identifying pests, diseases and soil conditions
- abiotic issues that could affect the health of tree species, including:
 - temperature extremes
 - frost and sunburn
 - light intensity and duration
 - water, natural rainfall, hail, snow, including volume and distribution
 - wind direction and intensity
 - lightning
 - topography and aspect
 - 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 and maintaining tree cultural requirements
 - tree structure and function
 - physiological processes affecting tree growth

- compartmentalisation of decay in trees (CODIT)
- tree growth and structure resulting from CODIT responses
- safety while undertaking tree treatments, including:
 - hazards associated with chemical treatments
 - 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 affected 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 use - AS2303
 - standards for pruning of amenity trees – AS4373
 - planting and establishment requirements of tree stock
- waste disposal, including:
 - protection of the environment
 - biosecurity and hygiene practices
- safe operation, maintenance, cleaning and sanitation of tree treatment equipment
- record keeping and data management for tree maintenance.

Assessment Conditions

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

- physical conditions:
 - the trees growing in the conditions stipulated in the performance evidence
- resources, equipment and materials:
 - tree treatment application equipment
 - measuring and weighing equipment
 - chemical spill kit
 - personal protective equipment
 - first aid and emergency kit
- specifications:
 - preferred industry practices (as outlined in the Companion Volume) for tree maintenance work
 - workplace and manufacturer instructions for safe operation, cleaning and storing of treatment equipment
 - procedures for application of treatments
 - materials safety data sheets
- relationships:

- work team.

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

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed.

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