AHCARB514 Diagnose tree diseases

Release: 1

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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 diagnose tree diseases and develop a management program for their control. Diseases include pathogens, pests and other disorders of angiosperms, gymnosperms and woody monocotyledons.

The unit applies to individuals who work in arboriculture and analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
1. Assess environmental impact	1.1 Identify tree species and determine its region of origin and seasonal growth characteristics
	1.2 Determine current and past cultural practices and impact on tree health
	1.3 Determine characteristics of growing environment affecting growth of tree

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
	1.4 Identify environmental and cultural factors predisposing tree to disease
	1.5 Determine and assess physical and chemical properties of the soil or growing media
2. Identify diseased trees	2.1 Identify trees displaying disease symptoms
	2.2 Recognise natural defence systems of trees for major disease types
	2.3 Determine disease groups according to classification
	2.4 Investigate trees for signs and symptoms of disease
	2.5 Determine impact of disease type on tree parts and systems
3. Diagnose tree disease	3.1 Record symptoms and signs of disease according to accepted nomenclature
	3.2 Collect and collate samples and evidence of disease and reference according to industry procedures
	3.3 Determine the nature and severity of the disease condition
	3.4 Determine disease type according to disease classification procedures
	3.5 Research and identify disease according to industry standards
	3.6 Prepare specimens of diseases for examination
	3.7 Collect and package specimens in preparation for despatch to specialist for diagnosis and laboratory testing according to biosecurity procedures
4. Provide a prognosis	4.1 Determine the current health and vigour of the tree
	4.2 Assess the severity and extent of the disease
	4.3 Research the virulence of the disease on the specific host
	4.4 Determine the phenology of the host and the disease
	4.5 Research and consider constraints for management options
	4.6 Consider influences of environmental conditions on host, disease and management options
	4.7 Document prognosis and report according to workplace procedures
5. Develop, document and monitor the	5.1 Investigate and recommend management options
	5.2 Develop a disease management program according to industry best

Elements	Performance Criteria
Elements describe the essential outcomes.	*Performance criteria describe the performance needed to demonstrate achievement of the element.*
management program	practice
	5.3 Record and document tree diseases and management programs according to workplace procedures
	5.4 Monitor, review and update management plans

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	• Interpret complex and technical information from scientific references to identify diseases and their virulence on host plants
Writing	• Generate complex management plans for diseases, demonstrating control over a range of writing styles

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCARB514 Diagnose tree diseases	AHCARB602 Diagnose tree diseases	Code changed to reflect AQF alignment 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