



Australian Government

AHCSOL508 Manage soils to enhance sustainability

Release: 1

AHCSOL508 Manage soils to enhance sustainability

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

Application

This unit of competency describes the skills and knowledge required to identify and assess soil characteristics, develop and implement a plan to improve the health of soils, and monitor and review results.

The unit applies to individuals who apply specialist skills and knowledge to the management of soils to enhance sustainability, and take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information, and analyse, design and communicate solutions to sometimes complex problems.

All work must be carried out to comply with workplace procedures, health and safety in the workplace requirements, legislative and regulatory requirements, and sustainability and biosecurity practices.

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

Pre-requisite Unit

Nil

Unit Sector

Soils and Media (SOL)

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. Identify characteristics of regional and local soils to assess their	1.1 Identify common characteristics and limitations of regional and local soils 1.2 Refer to paddock assessment to establish soil characteristics

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
current health	1.3 Research soil biota and its relationship to soil fertility 1.4 Evaluate current production practices and their contribution to land degradation and soil problems 1.5 Identify and select land preparation methods matched to machinery and equipment to maintain and improve soil productivity and structure
2. Develop a plan to improve and maintain the health of soils	2.1 Identify the impact of weather and climate on operational activities, soil structure and fertility, and develop contingency plans to account for climatic or other events 2.2 Compare and interpret soil test analysis with historical data, and incorporate into plan 2.3 Select nutrients to meet specific plant or crop requirements 2.4 Evaluate alternative strategies or products to improve soil fertility 2.5 Develop a soil amendment strategy, including soil ameliorating activities and soil ameliorant products to enhance sustainability of soil health 2.6 Select appropriate production crops suitable for soil type and climate for a land use rotation plan to improve or maintain soil productivity 2.7 Determine soil conservation strategies to minimise soil erosion and increase soil capacity, productivity and sustainability 2.8 Assess the environmental implications of chemical use, and consider and document alternative methods and organic preventive methods 2.9 Develop a strategy to improve and maintain the health of soils 2.10 Develop a strategy to monitor and report soil health and productivity 2.11 Document the soil health and productivity plan, and communicate to stakeholders
3. Implement plan for improvement and maintenance of a healthy soil	3.1 Implement a schedule for soil improvement, taking into account seasonal, geographical and resource factors, and stock or crop rotation 3.2 Implement strategies to integrate methods of soil improvement operations with land use rotation 3.3 Determine key staff responsibilities for specific implementation processes, and allocate duties

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	3.4 Modify plan to meet contingencies, and communicate to staff 3.5 Record and file soil management activities according to workplace procedures
4. Review plan, implementation strategy and the outcomes and determine necessary modifications	4.1 Analyse effectiveness of the soil improvement management plan through evaluation at key points, making adjustments where outcomes fall outside plan projections 4.2 Prepare recommendations for future strategies, based on the analysis of paddock observations and production data, to further enhance soil ecosystem and production

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	Identify and interpret textual information regarding common characteristics and limitations of regional and local soils, and soil biota and its relationship to soil fertility relevant to soil health and productivity management and planning
Oral communication	Initiate discussions with staff and stakeholders using clear language to discuss soil health and productivity plan and communicate modifications to plan
Numeracy	Calculate nutrient requirements

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCSOL508 Manage soils to enhance sustainability	AHCSOL502 Manage soils to enhance sustainability	Performance criteria clarified Foundation skills	Equivalent

Code and title current version	Code and title previous version	Comments	Equivalence status
		added Assessment requirements updated	

Links

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