



Australian Government

AHCPER319 Test, improve and maintain healthy soil in a permaculture system

Release: 1

AHCPER319 Test, improve and maintain healthy soil in a permaculture system

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to test, improve and maintain healthy soil in a permaculture system. It requires knowledge of soils and their components, testing methods, nutrient action and soil improvement systems.

All work is carried out to comply with workplace procedures.

This unit applies to individuals who 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 occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Permaculture (PER)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Take soil samples from a number of places in the permaculture system	1.1 Obtain samples from several places over a site 1.2 Prepare the samples for testing 1.3 Label containers accurately with location identifier, date, soil test and tester

Element	Performance criteria
2. Test soil for range of plant and structural needs	2.1 Carry out soil tests for texture, organic matter, structure, pH, water infiltration and compaction 2.2 Have samples tested by a laboratory for nutrient levels and deficiencies if concerned or if particular requirements exist for the crops and livestock in the permaculture system 2.3 Re-test in a different season or soil temperature
3. Analyse soil improvement requirements	3.1 Determine requirements for soil improvement from tests carried out 3.2 Determine requirements for soil improvement from the laboratory test results, if taken 3.3 Identify soil biota in soil and ascertain how to optimise biodiversity 3.4 Research soil improvement options, including discussing with neighbours and experienced practitioners appropriate options for soil improvement
4. Implementing soil improvement plan	4.1 Develop a plan for soil improvement over time and vary it depending on the location on the site and the crop or livestock being grown 4.2 Calculate required quantities of allowable additives and supplements to improve soil health 4.3 Use products at recommended rates and according to any existing certification system applying to the land 4.4 Protect soil biota present in soil, including using appropriate mulches for perennial and annual plants
5. Maintain health of soil according to organic guidelines	5.1 Observe changes over time and record using tables and photographic records 5.2 Avoid practices that can cause deterioration in soil health such as over- or under- watering, over-grazing, over-cultivating and off-contour ploughing 5.3 Follow organic and permaculture guidelines to increase soil carbon

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

New unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>