



Australian Government

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

Release: 1

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Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- take soil samples
- test soils
- analyse soil improvement requirements
- implement soil improvement plan according to permaculture guidelines
- maintain soil health

Knowledge Evidence

The candidate must demonstrate knowledge of:

- permaculture principles and practices related to soil health and plant nutrition
 - working with natural soils rather than importing soil
 - soil as an ecosystem
 - soil as biomass and carbon capture and storage
- principles of sustainable horticultural practices
- how to read a laboratory soil test
- soil testing techniques, such as:
 - jar test for soil structure
 - ribbon test and ball test for soil texture
 - infiltration or permeability test
 - pH testing
 - compaction test
 - non-wetting soil test
 - air-filled porosity test
 - worm count

- microscopic biota in soils
- plant nutrient uptake and mineral action
- soil chemistry
- science of composting
- fungal and bacterial action and mulches appropriate to different plants
- additives to improve soils, such as
 - compost and worm castings
 - compost teas
 - biochar
 - green manures
 - organic mulch
 - manures/animal bedding materials
 - leaf mould
 - plantings – green manures, nurse plants
 - companion planting
 - chop and drop
 - nutrient trapping systems
 - greywater use
 - organically certified products
 - amendments that may include rock dust, gypsum, dolomite, lime, zircon, sulphur and other minerals
- plant growth and development
- soil life, including microscopic life
- methods of waste disposal causing minimal impact on the environment
- the effects of conventional agricultural chemicals on soils and soil ecosystems

Assessment Conditions

Assessors must satisfy current standards for RTOs. Assessors must also hold a nationally accredited Certificate III (or higher) in Permaculture. Completion of a Permaculture Design Course (PDC) is not sufficient at this level.

Links

Companion Volume implementation guides are found in VETNet -

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