



Australian Government

**Assessment Requirements for
AHCORG411 Manage organic soil
improvement**

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 9.0.

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, on at least one occasion, managed the improvement of soil on an organic farm and has:

- implemented principles of organic agriculture and agroecology
- devised and implemented a soil improvement plan to correct imbalances and maintain soil fertility
- sampled soil, conducted tests and analysed soil test results for the following physical and chemical indicators of soil condition and fertility:
 - soil texture
 - structure
 - salinity
 - sodicity
 - pH
 - mineral balances
 - organic matter
 - drainage
 - compaction
 - aeration
 - water infiltration
- improved and maintained soil fertility using natural processes and according to National Standard for Organic and Bio-Dynamic Produce
- applied workplace health, safety and environmental procedures and practices.

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:

- availability, use and definition of organic fertilisers
- physical and chemical properties of soil, including:
 - factors contributing to soil acidity, sodicity and salinity
 - factors promoting soil and plant water-holding capacity
 - importance of soil biological activity
 - major nutrient elements and their role in plant growth
 - soil textural types and determinants
- soil sampling and testing procedures for indicators of soil fertility
- preparing soils to submit for laboratory testing
- methods and inputs that can be used to correct imbalances and maintain soil fertility
- principles of organic agriculture and the management of soil
- processes and practices that impact on soil structure, biological activity, water-holding capacity and weed patterns
- processes of aggregate and colloid formation
- range of soil analyses available and principles of each
- relationship between plants, soil structure, water holding capacity and nutrient availability, including:
 - role of organic matter, humus and microorganisms
 - role of livestock in enhancing soil fertility
 - role of macro- and micro-elements in soil and plants
 - role of weeds
 - significance of levels and balance of soil fertility indicators
 - soil food chains and food webs
- principles, practices and inputs allowable under the National Standard for Organic and Bio-Dynamic Produce.

Assessment Conditions

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

- physical conditions:
 - skills must be demonstrated on an organic farm or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - tools and equipment for sampling and testing soils
 - personal protective equipment
- specifications:
 - workplace policies, procedures and processes
 - manufacturer operating instructions for sampling and testing equipment
 - safety data sheets
 - workplace specifications for soils

- specific organic and biodynamic standards and codes of practice.

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

Links

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