



Australian Government

**Assessment Requirements for
AHCPCM513 Conduct environment and
food safety risk assessment of plant
nutrition and soil fertility programs**

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 6.0.

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 conducted environment and food safety risk assessments of plant nutrition and soil fertility programs on at least one occasion, and has:

- applied relevant workplace health and safety and environmental and biosecurity legislation, regulations and workplace procedures
- researched, identified and documented community, government and agricultural industry information, concerns and requirements in relation to fertiliser and soil ameliorant use and environmental stewardship
- researched, identified and documented information and standards relating to transporting, handling, storing and applying fertilisers and soil ameliorants
- identified and evaluated probability and severity of identified environmental risks associated with plant nutrition and soil fertility programs
- liaised with managers and landowners, and local and national organisations
- developed a plant nutrition and soil fertility management program, and key environmental stewardship issues report
- monitored effectiveness of plant nutrition and soil fertility management decisions over time
- identified opportunities to improve efficiency and effectiveness of plant nutrition and soil fertility program.

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:

- workplace health and safety and environmental and biosecurity legislation, regulations and workplace procedures relevant to conducting environment and food safety risk assessment of plant nutrition and soil fertility programs

- principles and practices of food safety risk assessment, including:
 - environmental implications of soil amendment and fertiliser use, which may include nutrient mining, run-off, nutrient loading of soil and water, toxicity, noise and dust
 - food safety issues relating to the use of fertilisers and soil ameliorants
 - law of the minimum, and importance of nutrient interactions
 - methods and pathways of nutrient uptake by plants, and loss from soil
 - nutrient cycling and its practical relevance to specific plants and soils encountered in local area, including role of soil biology
 - nutrients required by plants grown within workplace, and effects of nutrient deficiency and toxicity on individual plant species and varieties
 - relationship between soil characteristics and the availability of nutrients, including macro and micro elements, to plants
 - single nutrient and complete fertiliser products encountered in local area, including physical attributes, nutrient analysis, solubility, salt index, application rates and costs, and appropriate application techniques and equipment
 - soil amendments commonly used to treat local soil problems
 - soil and water sampling techniques to adapt activities and instructions to a range of environmental contexts
 - techniques for interpreting laboratory results and making fertiliser and amendment recommendations
 - techniques to assess effects of fertiliser and amendment recommendations on soil, plants and water.

Assessment Conditions

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

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - published local information relevant to nutrient management
- specifications:
 - workplace health and safety and environmental and biosecurity legislation, regulations and workplace procedures relevant to conducting environment and food safety risk assessment of plant nutrition and soil fertility programs
 - legislation and standards relevant to fertiliser and soil ameliorant transportation, handling, storage, application and environmental stewardship
 - national and local information and standards relevant to food safety associated with fertiliser and soil ameliorant
- relationships:
 - land owner or manager, client and local organisations
- timeframes:

- according to job requirements.

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>