



Australian Government

AHCPCM301 Implement a plant nutrition program

Release: 1

AHCPCM301 Implement a plant nutrition program

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to monitor and control the nutritional requirements of and applications to plants across a range of situations and environments.

It applies to individuals who take responsibility for their own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

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

Plants culture and management (PCM)

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. Prepare for implementation of the plant nutrition program	1.1 Identify goals, target site, soils, plant species and varieties for implementing the program 1.2 Identify materials for soil and plant treatments and locate the storage site or supplier details 1.3 Locate services using site plans and in consultation with the supervisor 1.4 Identify work health and safety hazard, assess risks and implement control measures

Element	Performance criteria
	1.5 Select and use suitable personal protective equipment (PPE)
2. Monitor soil pH	2.1 Monitor soil pH in the implementation site in relation to plant nutrition 2.2 Identify, select, compare and source products useful in changing soil pH 2.3 Assess product application methods according to product type and type of growing media
3. Determine nutritional problems in plants	3.1 Identify common nutrient deficiency and toxicity problems in plants, using visual inspection 3.2 Consult supervisor or horticulturist, as required, to determine causes of nutritional or toxicity problems 3.3 Identify, compare, select and source soil ameliorants to improve soil fertility
4. Prepare to use fertilisers	4.1 Select a fertiliser that is compatible with plant species and type of growing media 4.2 Assess fertiliser application methods, taking into account the fertiliser type, soils and the environmental implications 4.3 Apply fertilisers appropriate to the plant growing cycle and the organisation's fertiliser calendar
5. Prepare application equipment	5.1 Select tools, equipment and machinery 5.2 Carry out pre-operational and safety checks on tools, equipment and machinery 5.3 Calibrate tools, equipment and machinery
6. Apply specific products at appropriate rates	6.1 Select specific products based on their analysis to meet plant needs 6.2 Calculate product application rates to optimise plant benefit and minimise environmental impact 6.3 Apply specific products at the correct rate, timing and method according to the product type and analysis and with consideration of the environmental implications 6.4 Record product applications 6.5 Monitor, document and report target plant response to the plant nutrition program, as well as non-target effects responses including environmental impacts or pests

Foundation Skills

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

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCPCM301A Implement a plant nutrition program.

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for AHCPM301 Implement a plant nutrition program

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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:

- identify goals, target site, soils and plants for implementing the program
- identify materials and their supply source
- monitor soil pH in the implementation site
- identify appropriate products and application methods appropriate to implementing nutrition program
- estimate treatment and product requirements, material sizes and quantities
- conduct a site hazard identification and risk control assessment
- determine nutritional problems in plants
- plant nutrition program specifications
- apply specific products at appropriate rates and record their application
- select, check and calibrate tools, equipment and machinery

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of plant nutrition
 - botany and plant physiology
 - methods of nutrient uptake by plants
 - nutrient cycling and its practical relevance to the specific plants and soils
 - nutrients required by plants grown within the enterprise
 - soil ameliorants commonly required to treat the soil problems experienced by the enterprise
 - the effects of nutrient deficiency and toxicity on plant species and varieties
 - the environmental implications of soil ameliorant and fertiliser use

- the main simple and compound fertiliser products available to the enterprise including analysis, solubility, salt index, application rates and costs
- the relationship between soil characteristics and the availability of nutrients

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

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