



Australian Government

AHCAGB506 Manage application technology

Release: 1

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Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency specifies the outcomes required to provide information or manage application technology in crops or pastures. The technology applies to the application of chemicals such as herbicides, fungicides, insecticide and fertilisers as well as biological and organic agents.

The unit involves the application of a broad knowledge base to identify and apply solutions to a range of problems. This includes plant morphology and physiology, plant protection, nutrition requirements, environmental impacts, the use of information technology and occupational health and safety hazards.

All work must be carried out to comply with workplace procedures, work health and safety legislation and codes, and sustainability practices.

This unit of competency applies to work in a range of agricultural or support enterprises, such as agronomists and rural merchants. Work will be undertaken without supervision. Responsibility for and organisation of the work of others involved in the program may be required.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil.

Unit Sector

Agribusiness (AGB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.

Element	Performance criteria
1. Analyse application requirements	1.1 Determine goals for application of agents following a review of enterprise production plans and in consultation with land manager 1.2 Access and review records of previous nutrition, pest, weed and disease management including the application of any agents 1.3 Access and review relevant climate, environmental and geographic data from available information systems and sources 1.4 Access and review yield monitoring data including yield variability 1.5 Access and review relevant soil, plant and water information from tests and records
2. Develop an application plan	2.1 Identify performance targets and indicators in the plan 2.2 Select appropriate agent/s, including adjuvants, method of application and equipment based on site analysis, recommendations, production requirements, environmental conditions and manufacturer's specifications 2.3 Select spray nozzles to achieve the optimum droplet size with minimal variation and deliver the appropriate liquid flow rate for the selected agent in the desired spray distribution pattern 2.4 Determine and monitor measures to control factors influencing the level of spray drift 2.5 Determine procedures to ensure compliance with the range of appropriate federal, state and local government legislation and regulations 2.6 Identify work health and safety hazards, assess risks and implement appropriate controls 2.7 Determine environmental impacts of application and implement appropriate clean up strategies to the area 2.8 Determine scheduling for applications taking the range of seasonal, geographic and resourcing factors into consideration 2.9 Determine the type, format, frequency and detail of record keeping required by legislation and undertaken by manager(s) and operators

Element	Performance criteria
3. Monitor and evaluate the effectiveness of the application plan	3.1 Evaluate the effectiveness of the application at key points and make adjustments as necessary 3.2 Monitor and assess environmental impacts and work health and safety hazards relating to application strategies throughout the implementation process 3.3 Make modifications to the plan as and when necessary for environmental, work health and safety, resourcing or effectiveness reasons 3.4 Analyse data, observations and documentation from the implementation of the application plan against the plan according to enterprise guidelines 3.5 Prepare recommendations for future strategies based on the analysis of the data 3.6 Record details of the implementation including information on any difficulties or issues faced, technical details, environmental and work health and safety impacts, recommendation for future action, results, costs and any available data analysis

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 - equivalent to VU21628 Manage application technology

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 AHCAGB506 Manage application technology

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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:

- interpret, analyse and extract information from a range of sources
- establish processes, strategies, procedures and controls for the application of chemical and biological agents
- prepare written plans and procedures for implementation by others
- explain and deliver instructions about the plans and scheduling of operations
- identify and react appropriately to environmental implications and work health and safety hazards
- identify and assess weeds, pests, diseases and nutritional and other deficiencies
- formulate efficient, cost effective control programs
- read and interpret manufacturer's instructions and agent labels
- record recommendations and applications.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- characteristics of pest, weed and disease species including their life cycles and reproduction capability
- principles of integrated pest and weed management
- range and classes of fertilisers, herbicides, insecticides and fungicides available and their basic chemistry
- growth stages of weeds and plant morphology
- the effects on crops of weeds, pests, diseases and/or lack of soil fertility
- mode of action of chemical or biological control agents and long term effects of these agents with respect to plant back periods and resistance

- range and effect of different nozzles, pressures, spray patterns, droplet sizes and basic physics of droplets and fluids
- work health and safety hazards and controls and environmental impacts
- best management practices and processes to minimise the impact of agents
- federal, state and local government legislation and regulations.

Assessment Conditions

Competency is to be assessed in the workplace or simulated environment that accurately reflects performance in a real workplace setting.

Assessors must satisfy current standards for RTOs.

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