



**Australian Government**

**AHCAGB509 Select and implement a  
Geographic Information System (GIS) for  
sustainable agricultural systems**

**Release: 1**

# AHCAGB509 Select and implement a Geographic Information System (GIS) for sustainable agricultural systems

## Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

## Application

This unit of competency covers identification and application of current technology, selecting and inputting appropriate data, processing and evaluating information and data produced. This unit assists land managers to make informed decisions in a number of production systems and applications, integrating into an overall holistic planning tool.

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

This unit is applicable to persons who have a role in managing a land based production business. This unit is likely to require consultation with external experts, such as extension officers from State Agricultural Departments and agronomists.

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.
1. Select a GIS to incorporate into the land based business	1.1 Identify appropriate GIS management software appropriate to a land based business requirement 1.2 Identify the purpose and business requirements of the GIS for developing a sustainable land management system

Element	Performance criteria
	<p>1.3 Collect enterprise and land use management data requirements from all sources of information and enter into the software program</p> <p>1.4 Identify and assess opportunities and limitations for operational improvements that may result from adopting GIS</p> <p>1.5 Identify potential cost savings benefits as a result of using GIS and adjust enterprise production budgets</p> <p>1.6 Develop a plan to incorporate the use of a GIS into the land based business to improve operational efficiency, profitability and sustainability</p>
<p>2. Implement GIS into the land based business</p>	<p>2.1 Identify appropriate training requirements for personnel to optimise the efficient use of machinery and technology</p> <p>2.2 Select required machinery and technology to incorporate into production operation</p> <p>2.3 Complete work operations to minimise environmental impacts by improving soil profile and productivity</p> <p>2.4 Identify and implement corrective action as a result of precise measurement data provided by satellite imagery</p>
<p>3. Review production data using GIS</p>	<p>3.1 Review enterprise operations regularly to identify opportunities for improvements in sustainable production systems using GIS</p> <p>3.2 Monitor and assess impact of natural conditions on enterprise to maximise sustainability of land-based business</p> <p>3.3 Review production data to identify increases in productivity and reduced input costs</p> <p>3.4 Review monitoring procedures and recorded operating costs against production cash flow budget</p>

## 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 VBP153 Select and implement a Geographic Information System (GIS) for sustainable agricultural systems.

## Links

Companion Volume implementation guides are found in VETNet -

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