



Australian Government

Assessment Requirements for AHCAGB523 Interpret and use agricultural data

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 interpreted and used at least three sources of agricultural data on at least two separate occasions during a production cycle, and has:

- discussed workplace objectives and purpose of information being sought with business owner or land manager
- identified, accessed, explained, documented and analysed workplace agricultural data
- generated maps or reports for agricultural activities and incorporated them into business operations
- conducted field work to ground truth data
- identified validity and reliability, gaps in existing data, and solutions to address gaps in existing agricultural data
- identified, recommended and costed hardware and software solutions to address data gaps where required
- collected and organised agricultural data and entered it into software program or application (app)
- implemented corrective actions as required
- identified and reported opportunities for improvements utilising agricultural data.
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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:

- the concept of farming as a system, including the interconnection of:
 - plants
 - soil
 - water

- environment
- weather
- finance
- production systems
- principles and practices for interpreting and using agricultural data, including:
 - how to distinguish between valid and invalid data and how to clean data
 - how to review data for spatial and temporal variance and compare current data to previous, or average data for consistency or variations
 - how to generate profitability maps of paddocks to highlight areas of differing return
 - how to transfer data to hardware controllers from generated maps
 - the importance of standardised data in generating whole of farm data analysis
 - data tracking and data inputs and outputs of the business
 - the importance of ground truthing
 - how agricultural data and decisions fit into the business plan, business drivers, costs and return on investment
- sources of data to assist with monitoring:
 - plants
 - soil
 - water
 - environment
 - salinity
 - erosion
 - weeds
 - biodiversity
- sources of data to assist with managing:
 - water use
 - precision mapping
 - precision and variable rate prescriptions
 - field record keeping
 - compliance record keeping
 - yield or harvest data
 - soil survey data
 - sensor network data, including; moisture probes, weather stations and canopy sensors
 - crop planning
 - agricultural machinery operation and monitoring
- types of data systems relevant to agricultural production, including:
 - Global Navigation Satellite Systems (GNSS)
 - relevant vegetation indices and their use
 - Unmanned Aerial Vehicle (UAV) imagery.

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:
 - hardware and software used to record agricultural data
- relationships:
 - business owner or land manager
- timeframes:
 - according to the 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>