

Modification history

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 5.0.

AHCXXX5XX	Interpret and implement agricultural data
Application	<p>This unit of competency describes the skills and knowledge required to identify, interpret and implement agricultural data, identify and address data gaps, monitor agricultural operations, and review agricultural data.</p> <p>The unit applies to individuals who apply specialised skills and knowledge to the interpretation and implementation of agricultural data, and take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information and analyse, design and communicate solutions to sometimes complex problems.</p> <p>All work must be carried out to comply with workplace procedures, health and safety in the workplace requirements, legislative and regulatory requirements, and sustainability and biosecurity practices.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	To be advised

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and access agricultural data	1.1 Discuss business objectives with business owner or land manager to determine purpose of information being sought 1.2 Identify existing sources of agricultural data available in the workplace to support business objectives 1.3 Access existing agricultural data and enter into software program 1.4 Create maps and reports using existing data
2. Interpret and explain agricultural data	2.1 Interpret maps and reports to identify opportunities and limitations for operational improvements that support business objectives 2.2 Conduct field work to ground truth data 2.3 Document data results 2.4 Discuss and explain data results and information with business owner or land manager
3. Identify and address data gaps	3.1 Identify gaps in existing agricultural data 3.2 Identify solutions to address data gaps utilising existing sources 3.3 Identify and cost hardware and software solutions to address data gaps where required 3.4 Recommend solutions and seek approval from business owner or land manager
4. Analyse agricultural data	4.1 Analyse data statistically to determine significance of results 4.2 Identify opportunities to improve business operational performance 4.3 Recommend solutions utilising agricultural data and present to business owner or land manager for approval
5. Implement agricultural data and monitor operations	5.1 Collect and coordinate agricultural data and enter into software program 5.2 Generate maps and reports for agricultural activities 5.3 Implement maps and reports into agricultural operations 5.4 Monitor operations and implement corrective actions as required

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
6. Review agricultural data	6.1 Review production data to identify increases in productivity as a result of using agricultural data and report 6.2 Review business operations to identify opportunities for improvements using agricultural data and report

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Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Identify and interpret agricultural data information and requirements for the business
Writing	<ul style="list-style-type: none"> Create maps and reports Document data results and reports
Oral communication	<ul style="list-style-type: none"> Initiate discussions with business owner or land manager, using clear language to discuss business objectives, explain data results and information, recommend solutions and seek approval
Numeracy	<ul style="list-style-type: none"> Access, record and analyse agricultural data for input to decision making Estimate and calculate hardware and software acquisition and running costs Compare hardware and software acquisition and running costs with costs of services provided by off-property suppliers

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
AHCXXX5XX Interpret and implement agricultural data	Not applicable	New unit	No equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72
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TITLE	Assessment requirements for AHCXXX5XX Interpret and implement agricultural data
Performance Evidence	
<p>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 implemented agricultural data on at least three occasions and has:</p> <ul style="list-style-type: none"> • discussed business objectives and purpose of information being sought with business owner or land manager • identified, accessed, interpreted, explained, documented and analysed workplace agricultural data • conducted field work to ground truth data • identified gaps and solutions to address gaps in existing agricultural data • identified, recommended and cost hardware and software solutions to address data gaps where required • collected and coordinated agricultural data and entered into software program • generated maps and reports for agricultural activities and implemented into agricultural operations • monitored operations and implemented corrective actions as required • identified and recommended opportunities to improve business operational performance utilising agricultural data. 	
Knowledge Evidence	
<p>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:</p> <ul style="list-style-type: none"> • principles and practices for interpreting and implementing agricultural data, including: <ul style="list-style-type: none"> • how to distinguish between good and bad data • 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 • the concept of farming as a system, including the interconnection of: <ul style="list-style-type: none"> • plants • soil • water • environment • weather • finance • farming systems • types of data systems relevant to agricultural data, including: <ul style="list-style-type: none"> • Differential Global Positioning Systems (DGPS) • Normalised Difference Vegetation Index (NDVI) • Global Information Systems (GIS) • Global Navigation Satellite Systems (GLONASS) • Global Positioning Systems (GPS) • Real-Time Kinematic (RTK) • Unmanned Aerial Vehicle (UAV) imagery • application of agricultural data systems and sources of data to assist with monitoring: <ul style="list-style-type: none"> • plants • soil • water • environment • salinity • erosion • weeds • biodiversity • application of agricultural data systems and sources of data to assist with managing: <ul style="list-style-type: none"> • irrigation tracking • precision mapping 	

Knowledge Evidence
<ul style="list-style-type: none">• precision and variable rate prescriptions• field record keeping• compliance record keeping• crop planning• agricultural machinery operation and monitoring.

Assessment Conditions
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none">• physical conditions:<ul style="list-style-type: none">• a workplace setting or an environment that accurately represents workplace conditions• resources, equipment and materials:<ul style="list-style-type: none">• hardware and software used to record agricultural data• relationships:<ul style="list-style-type: none">• business owner or land manager• timeframes:<ul style="list-style-type: none">• according to the job requirements. <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>

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