



Australian Government

AHCWRK605 Design and conduct a field-based research trial

Release: 1

AHCWRK605 Design and conduct a field-based research trial

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 9.0.

Application

This unit of competency describes the skills and knowledge required to design and conduct a field-based research trial.

The unit applies to individuals who apply advanced skills and knowledge to design and conduct a field-based research trial, and take personal responsibility and exercise autonomy in undertaking complex work. They analyse information and exercise judgement to complete a range of advanced skilled activities. They work in contexts that are subject to change, and adapt a range of fundamental principles accordingly.

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

Pre-requisite Unit

Nil

Unit Sector

Work (WRK)

Elements and Performance Criteria

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. Design the trial	1.1 Identify purpose, subject and aim of the research trial 1.2 Research available evidence to determine trial performance criteria 1.3 Locate trial sites according to research trial design requirements, and identify and document site factors 1.4 Identify and obtain approvals and permits required to conduct the

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	trial 1.5 Establish data collection and recording specifications 1.6 Follow scientific and statistical methodology techniques and procedures to satisfy statistical analysis requirements 1.7 Identify workplace health and safety hazards and risks, and develop control measures 1.8 Identify environmental implications associated with implementation of the trial, and document in the trial design 1.9 Identify and cost materials, tools, equipment and machinery required for the trial 1.10 Document the trial design, specifications and procedures
2. Prepare and conduct the trial	2.1 Establish and prepare trial sites 2.2 Undertake staged data collection throughout the course of the trial 2.3 Monitor trial implementation for compliance to the trial design and specifications 2.4 Record monitoring and trial data
3. Review, assess and document trial outcomes	3.1 Review and analyse trial data and outcomes 3.2 Determine conclusions based on evidence and reasoned arguments 3.3 Assess trial outcomes 3.4 Document and report trial purpose, outcomes and conclusions based on evidence and reasoned arguments

Foundation Skills

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.

Skill	Description
Reading	Identify and interpret information regarding field-based research trial, including purpose, evidence, performance criteria and trial design

Skill	Description
Writing	Use clear language, accurate industry terminology and logical structure to document trial design, specifications and procedures, and record monitoring and trial data
Numeracy	- Perform mathematical calculations to interpret and compare trial statistical data - Calculate and analyse trial costs, including labour, materials, tools equipment and machinery

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCWRK605 Design and conduct a field-based research trial	AHCWRK603 Design and conduct a field-based research trial	Minor changes to application Major and minor changes to performance criteria Foundation skills added Major and minor edits to performance and knowledge evidence and assessment conditions	Not equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCWRK605 Design and conduct a field-based research trial

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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 designed and conducted at least one field-based research trial and has:

- established and conducted sound research parameters that enable achievable results
- sought and obtained appropriate approvals to conduct field-based trial
- entered, analysed and organised data in a mathematically sound and accurately graphed, charted or tabled representation, consistent with the trial design
- followed workplace health and safety and environmentally responsible practices.

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:

- scientific and statistical methodology, research methods, techniques and procedures
- workplace health and safety, environmental protection and employment legislation, regulations and codes of practice relevant to designing and conducting a field-based research trial
- research trial data collection, processing, storage and reporting procedures
- properties of materials involved in the trial.

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:

- trial materials
- research trial reporting procedures
- computer hardware and software
- specifications:
 - workplace health and safety, environmental protection and employment legislation, regulations and codes of practice relevant to designing and conducting a field-based research trial.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

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