



Australian Government

AHCIRG507 Audit irrigation systems

Release: 1

AHCIRG507 Audit irrigation systems

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 4.0.

Application

This unit of competency describes the skills and knowledge required to collect and collate data, assess data, compile a system evaluation report and recommend alterations to improve irrigation system performance.

The unit applies to individuals who apply specialised skills and knowledge to the audit of irrigation systems, 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.

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

Pre-requisite Unit

Nil

Unit Sector

Irrigation (IRG)

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. Collect and collate all available data	1.1 Collect data on system performance 1.2 Collect data on environmental and workplace health and safety issues 1.3 Collect data on equipment supply and usage 1.4 Collect data on crop production

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	1.5 Collect data on water use and quality 1.6 Collect data on climatic trends 1.7 Collect data on physical and chemical properties of soil 1.8 Collate and record available data using computer software
2. Assess actual data against benchmarks, specifications and predictions	2.1 Analyse system performance and compare with system specifications and performance predictions 2.2 Analyse supply and stock use and compare with previous and estimated usage and costs 2.3 Analyse crop production and compare with previous and predicted production 2.4 Analyse water usage and quality and compare with past and predicted usage and quality 2.5 Analyse climatic information and compare with predicted trends 2.6 Analyse soil properties and compare with previous and predicted properties 2.7 Analyse production costs related to irrigation system and compare with previous and predicted costs
3. Compile a report of system evaluation	3.1 Examine indicators of good performance 3.2 Examine indicators of poor performance 3.3 Examine causes of deviations from performance specifications and requirements 3.4 Prepare a report that includes discussion of results of data analysis and conclusions reached on irrigation system performance in relation to crop production and business performance
4. Recommend alterations to achieve performance improvement	4.1 Document recommendations to modify or eliminate causes of poor performance, or to enhance current performance 4.2 Report audit findings and recommendations to property owner or manager

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 irrigation system performance and audit requirements
Oral communication	Initiate discussions with property owner or manager, using clear language to communicate audit report findings and recommendations
Navigate the world of work	Identify and describe own workplace requirements, including safety requirements, associated with own role and area of responsibility
Interact with others	Use appropriate language and communication skills to disseminate information about audit report findings and recommendations

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG507 Audit irrigation systems	AHCIRG501 Audit irrigation systems	Performance criteria clarified Foundation skills added Assessment requirements updated	Equivalent unit

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 AHCIRG507 Audit irrigation systems

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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 audited an irrigation system on at least two occasions and has:

- analysed and organised data
- identified adverse environmental impacts of irrigation system activities and recommended appropriate remedial action
- recommended relevant workplace health and safety and environmental procedures
- used computer software for irrigation auditing
- solved performance problems and recommended solutions.

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:

- environmental impacts of irrigation systems using water from any ground or underground source
- relevant workplace health and safety legislation, codes of practice and workplace requirements
- statistical data analysis procedures and software
- evaluation procedures
- irrigation system performance indicators.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - irrigation system performance data related to irrigation system being audited

- system specifications and performance prediction information related to irrigation system being audited
- computer and statistical data analysis procedures and software
- relationships:
 - property owner or 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

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