



Australian Government

AHCIRG337 Measure irrigation delivery system performance

Release: 1

AHCIRG337 Measure irrigation delivery system performance

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 measure pressure, flow and distribution uniformity of an irrigation system, monitor supply of equipment and spare parts, and record system performance.

The unit applies to individuals who measure irrigation delivery system performance under broad direction and take responsibility for their own work.

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. Measure irrigation system performance	1.1 Measure and record system pressures, water flow rates and pump performance parameters according to measuring and recording procedures 1.2 Record variations where relevant 1.3 Inspect distribution and delivery systems, identify and fix malfunctions in system and record actions 1.4 Identify and record factors external to the system that may cause

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	interference 1.5 Minimise environmental impacts of irrigation system performance measurement activities
2. Check supply of equipment and spare parts	2.1 Record supply and part usage according to recording procedures 2.2 Check spare parts to ensure supply meets demands 2.3 Report parts requirements according to workplace requirements
3. Record and report system performance status	3.1 Record system pressures and variations 3.2 Record system flow rates and variations 3.3 Calculate and record distribution uniformity and mean application rates 3.4 Determine and record watering depth 3.5 Report system performance according to workplace requirements

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	Interpret textual information from a range of sources to identify relevant and key information about workplace operations
Writing	Document equipment purchases and orders, and irrigation delivery system performance clearly and accurately
Oral communication	Use clear language to report parts requirements, and irrigation delivery system performance
Numeracy skills	- Measure pressures, flow rates, pump performance and variations - Identify and record part numbers and part usage
Navigate the world of work	Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCIRG337 Measure irrigation delivery system performance	AHCIRG303 Measure irrigation delivery system performance	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 AHCIRG337 Measure irrigation delivery system performance

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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 measured irrigation delivery system performance on at least two occasions and has:

- applied measuring and testing techniques
- identified adverse environmental impacts of irrigation activities and taken appropriate remedial action
- accessed and prepared data records for both print-based and computer-based data
- used computers to record and report data
- calculated pressure differentials, flow rates, crop yields, estimated water usage and actual water usage
- used computers to record and report data.

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:

- measuring and monitoring procedures for factors contributing to irrigation system delivery
- soil water retention testing techniques
- water authority standards and procedures
- environmental impacts of irrigation, using water from any ground or underground source.

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 equipment

- irrigation delivery system performance measuring tools and equipment
- computer and software for recording and reporting data
- specifications:
 - measuring and recording procedures
- relationships:
 - supervisor
- timeframes:
 - according to job requirements.

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

Links

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