



Australian Government

AHCIRG303 Measure irrigation delivery system performance

Release: 1

AHCIRG303 Measure irrigation delivery system performance

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to measure pressure, flow and distribution uniformity of an irrigation system.

It applies to individuals who take responsibility for own work and for the quality of the work of others. They use discretion and judgement in the selection, allocation and use of available resources. All work is carried out to comply with workplace procedures.

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

Pre-requisite Unit

Nil.

Unit Sector

Irrigation (IRG)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Measure irrigation system performance	1.1 Measure and record system pressures, water flow rates and pump performance parameters 1.2 Measure variations in system pressures, water flow rates and pump performance parameters where relevant and record 1.3 Inspect distribution and delivery systems and identify and fix malfunctions in system and record actions 1.4 Identify and record factors external to the system that may cause interference
2. Monitor supply of	2.1 Record supply and part usage

Element	Performance criteria
equipment and spare parts	2.2 Monitor spare parts to ensure the supply meets demands 2.3 Make purchases within budget constraints 2.4 Report parts requirements outside of budget constraints 2.5 Record purchases and orders
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

Foundation Skills

Foundation Skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Unit Mapping Information

This unit is equivalent to AHCIRG303A Measure irrigation delivery system performance.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCIRG303 Measure irrigation delivery system performance

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Performance Evidence

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence that they can:

- access and prepare data records for both print-based and computer-based data
- apply measuring and testing techniques
- calculate pressure differentials, flow rates, crop yields, estimated water usage and actual water usage
- identify adverse environmental impacts of irrigation activities and take appropriate remedial action
- use computers to record and report data

Knowledge Evidence

The candidate must demonstrate knowledge of:

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

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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