



Australian Government

Department of Education, Employment and Workplace Relations

AHCIRG201A Assist with the operation of gravity fed irrigation

Release: 1

AHCIRG201A Assist with the operation of gravity fed irrigation

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers the process of assisting with the operation of gravity fed irrigation systems under routine supervision and defines the standard required to: handle and shift loads; operate, check, clean and store irrigation equipment; set up field for gravity fed irrigation; estimate and monitor water levels and volumes/flow; identify adverse environmental impacts of gravity fed irrigation system and take appropriate action.
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Application of the Unit

Application of the unit	This unit applies to working under routine supervision, within enterprise guidelines.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Set up field for gravity fed irrigation	1.1.Irrigation equipment is handled safely in accordance with Occupational Health and Safety (OHS) practices. 1.2.Irrigation equipment is positioned in accordance with enterprise requirements. 1.3.Rotobuck area is checked for irrigation set up and action taken as required in accordance with enterprise policy and procedures. 1.4.Pumps, bores and other water delivery mechanisms are checked for irrigation set up and action taken as required in accordance with enterprise policy and procedures. 1.5.Tarpaulins or other water control devices are positioned and secured as required in accordance with enterprise procedures.
2. Carry out irrigation operations	2.1.Gates and/or valves are opened and shut as necessary in accordance with enterprise procedures. 2.2.Required head and water levels in head ditch are achieved and maintained to ensure sufficient water flow and availability to crops. 2.3.Required number of siphons are started/opened in accordance with enterprise procedures. 2.4.Progress of water flow in furrows is monitored in accordance with enterprise procedures. 2.5.Siphons are lifted where irrigation is complete in accordance with enterprise procedures. 2.6.Irrigation change is carried out and marked as required. 2.7.Irrigation equipment is shifted, as required, for irrigation changes in accordance with OHS guidelines.
3. Clean and store irrigation equipment as require	3.1.Equipment is cleaned and prepared for storage, as necessary, in accordance with enterprise policy and procedures. 3.2.Equipment is loaded for transport safely, if necessary, in accordance with OHS practices. 3.3.Equipment is stored as required, in accordance with enterprise policy and procedures.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- identify hazards and adopt safe work practices for using gravity fed irrigation systems.
- start up and close down the system
- monitor progress of water flow
- handle and shift loads
- clean and store system components
- follow enterprise policy and procedures relating to irrigation duties
- estimate water levels and volumes/flow
- identify adverse environmental impacts and take appropriate remedial action
- use literacy skills to follow sequenced written instructions and record information accurately and legibly
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification and seeking advice from supervisor
- use numeracy skills to estimate, calculate and record routine workplace measures
- use interpersonal skills to relate to people from a range of social, cultural and ethnic backgrounds and with a range of physical and mental abilities.

Required knowledge

- basic operation of gravity fed irrigation system
- irrigation times for enterprise fields to deliver sufficient volume without over watering
- components of a gravity fed irrigation system including cleaning and storage requirements
- manual handling procedures
- required head and water levels in head ditch
- OHS procedures relating to general activities involved in irrigating field crops using gravity fed irrigation.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following: • handle and shift loads • operate, check, clean and store irrigation equipment • set up field for gravity fed irrigation • estimate and monitor water levels and volumes/flow • identify adverse environmental impacts of gravity fed irrigation system and take appropriate action.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Gravity fed irrigation may include:	• border check systems • contour irrigation • furrow irrigation • hillside flooding • basin irrigation • ebb and flow • flood systems.
Border check systems may include:	• either permanent or temporary earth, plastic or concrete devices for insertion in a drain for reticulating water

RANGE STATEMENT

	• contour banks used to collect and distribute water along the perimeter of an irrigation plot • contour banks within a plot to collect/distribute water • larger scale systems to stop water exiting one area to another.
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Unit Sector(s)

Unit sector	Irrigation
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Co-requisite units

Co-requisite units		

Competency field

Competency field	
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