



Australian Government

AHCIRG216 Assist with surface irrigation operations

Release: 1

AHCIRG216 Assist with surface irrigation operations

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency covers the skills and knowledge required to assist with installing, operating and maintaining surface irrigation operations.

It applies to individuals who work under general supervision and exercise limited autonomy with some accountability for their own work. They undertake defined activities and work in a structured context.

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. Plan and prepare for work	1.1 Read and confirm work instructions 1.2 Prepare tools and equipment 1.3 Select personal protective equipment and clothing and ensure correct fit 1.4 Identify manual handling and other work health and safety hazards
2. Set up field for surface irrigation systems	2.1 Check rotobuck area for irrigation set up 2.2 Check pumps, bores and other water delivery mechanisms for

Element	Performance criteria
	irrigation set up 2.3 Position and secure tarpaulins or other water control devices as directed
3. Carry out routine maintenance activities on irrigation delivery systems	3.1 Service mechanical equipment 3.2 Flush and clean supply and distribution system 3.3 Maintain system inlets, outlets, structures and fittings 3.4 Check system is running smoothly and is free of damage, leaks and blockages in channels, drains and outlets 3.5 Clean irrigation system and ensure there is no disruption to the system
4. Undertake surface irrigation work as directed	4.1 Open and shut gates and valves 4.2 Ensure required head and water levels in head ditch are achieved and maintained to ensure sufficient water flow and availability to crops 4.3 Start or open the required number of siphons 4.4 Monitor progress of water flow in furrows 4.5 Lift siphons where irrigation is complete 4.6 Carry out irrigation change and mark 4.7 Move irrigation equipment
5. Record and report maintenance activities	5.1 Record damage and blockage caused by pests and vermin by damage type, location and the section of the system affected 5.2 Record and report damage or faulty pumps, valves, electrical components and computer systems and carry out necessary repairs 5.3 Record and report routine maintenance activities

Foundation Skills

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

Range of Conditions

Unit Mapping Information

New unit - no equivalent.

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 AHCIRG216 Assist with surface irrigation operations

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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:

- carry out surface irrigation operating tasks as directed
- check siphons for even water flow
- look for uneven water distribution or drainage
- monitor required head and water levels in head ditch
- open and close check valves
- record and report maintenance activities and faults
- start and pull siphons
- use mechanical equipment to build and repair banks and for weed removal

Knowledge Evidence

The candidate must demonstrate knowledge of:

- principles and practices of surface irrigation
- channels, furrows, borders, fittings and outlets
- damage and problems that occur with gravity-fed irrigation systems
- environmental impacts of irrigation using water from any ground or underground source
- identification, characteristics and operation of surface irrigation structures and components
- signs of stress in plants as well as the signs of over and under-watering
- system cleaning procedures
- system malfunctions and their likely causes
- purpose and principles of surface irrigation
- weed types encountered in gravity fed irrigation systems and their control

Assessment Conditions

Assessors must satisfy current standards for RTOs.

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