

Modification history

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 4.0.
Release 1	This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version 1.0.

AHCIRG216	Assist with surface irrigation operations
Application	<p>This unit of competency describes the skills and knowledge required to assist with installing, operating and maintaining surface irrigation systems.</p> <p>The unit applies to individuals who assist with surface irrigation operations under general supervision with limited autonomy and accountability.</p> <p>No occupational licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
Prerequisite Unit	Nil
Unit Sector	Irrigation (IRG)

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. Plan and prepare for work	1.1 Read work instructions and confirm with supervisor activity to be undertaken, including identifying potential hazards and risks and implementing safe working practices to minimise risks to self and others 1.2 Select appropriate tools and equipment 1.3 Select, fit and use personal protective equipment and clothing applicable to the task 1.4 Identify site for installation of the irrigation system
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 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 damaged or faulty pumps, valves, electrical components and computer systems and carry out necessary repairs 5.3 Record and report routine maintenance activities

Foundation Skills	
<i>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.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> Interpret textual information from a range of sources to identify relevant and key information about workplace operations
Writing	<ul style="list-style-type: none"> Record irrigation system damaged or faulty equipment, blockages and routine maintenance activity
Oral communication	<ul style="list-style-type: none"> Use clear language to confirm work activity and report irrigation system damage, faulty equipment, blockages and routine maintenance activity
Numeracy skills	<ul style="list-style-type: none"> Identify irrigation system component part numbers
Navigate the world of work	<ul style="list-style-type: none"> 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
AHCIRG216 Assist with surface irrigation operations Release 2	AHCIRG216 Assist with surface irrigation operations Release 1	Minor changes to performance criteria and foundation skills	Equivalent unit

Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72
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TITLE	Assessment requirements for AHCIRG216 Assist with surface irrigation operations
Performance Evidence	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has assisted with surface irrigation operations on at least one occasion and has:</p> <ul style="list-style-type: none"> • carried out surface irrigation operating tasks as directed • checked siphons for even water flow • looked for uneven water distribution or drainage • monitored required head and water levels in head ditch • opened and closed check valves • recorded and reported maintenance activities and faults • started and lifted siphons • used mechanical equipment to build and repair banks and for weed removal. 	
Knowledge Evidence	
<p>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:</p> <ul style="list-style-type: none"> • 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	
<p>Assessment of skills must take place under the following conditions:</p> <ul style="list-style-type: none"> • physical conditions: <ul style="list-style-type: none"> • a workplace setting or an environment that accurately represents workplace conditions • resources, equipment and materials: <ul style="list-style-type: none"> • work instructions and workplace procedures applicable to assisting with surface irrigation operations • surface irrigation system maintenance tools and equipment • personal protective equipment applicable to assisting with surface irrigation operations • specifications: <ul style="list-style-type: none"> • recording procedures • relationships: <ul style="list-style-type: none"> • supervisor • timeframes: <ul style="list-style-type: none"> • according to job requirements. <p>Assessors of this unit must satisfy the requirements of assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
Links	Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72