

Modification history

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture, 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.

AHCIRG432	Supervise irrigation system maintenance
Application	<p>This unit of competency describes the skills and knowledge required to develop an irrigation system maintenance program, supervise irrigation maintenance, maintain testing equipment, supervise pest and weed control in an irrigated area and complete irrigation system maintenance records.</p> <p>The unit applies to individuals who apply specialised skills and knowledge to the supervision of irrigation system maintenance and have responsibility for the output of others. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.</p> <p>No occupational licensing, legislative or certification requirements are known to 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. Develop a maintenance program for an irrigation system	1.1 Establish the maintenance requirements for the irrigation site, components and structures according to the maintenance program 1.2 Determine the frequency of maintenance activities required and develop a schedule 1.3 identify and quantify total maintenance costs 1.4 Assess the workplace health and safety risks associated with the maintenance program and implement suitable controls 1.5 Minimise environmental impacts of irrigation system maintenance activities 1.6 Develop a system for reporting maintenance activities
2. Supervise maintenance of irrigation components	2.1 Develop maintenance checklists for irrigation components 2.2 Monitor component operation, identify operating faults and take appropriate action 2.3 Identify and investigate abnormal operation or frequent and recurring breakdowns and organise maintenance as required 2.4 Identify situations requiring expert advice seek and specialist assistance 2.5 Review equipment condition routinely to ensure and maintain efficient operations
3. Carry out maintenance of testing equipment	3.1 Perform preventative maintenance 3.2 Identify and report equipment wear and faults 3.3 Perform minor repairs within limits of authorisation 3.4 Replace defective parts and make adjustments 3.5 Seek expert help where difficulties are encountered 3.6 Update maintenance and calibration records

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4. Supervise pest and weed control in an irrigated area	4.1 Assess evidence of pests and determine species of infestation 4.2 Locate areas of weed infestation, which may be reduced or eradicated and identify species 4.3 Select integrated control methods for pests and weeds 4.4 Schedule control methods at the optimum time that will have minimal damage to the crop 4.5 Maintain infestation and treatment records
5. Complete records of irrigation system maintenance	5.1 Maintain maintenance activity records 5.2 Assess maintenance work results against the maintenance program

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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"> Identify and interpret information regarding supervising irrigation system maintenance
Writing	<ul style="list-style-type: none"> Develop irrigation system maintenance reporting system and maintenance checklists Record testing equipment maintenance and calibration Record pest and weed infestation and treatment Record irrigation system maintenance activity
Oral communication	<ul style="list-style-type: none"> Use clear language to consult with specialist technical personnel
Numeracy	<ul style="list-style-type: none"> Estimate and calculate maintenance costs for material requirements, equipment, staff and specialist technical personnel
Navigate the world of work	<ul style="list-style-type: none"> Identify and describe own 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
AHCIRG432 Supervise irrigation system maintenance Release 2	AHCIRG432 Supervise irrigation system maintenance 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 AHCIRG432 Supervise irrigation system maintenance
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 supervised irrigation system maintenance on at least one occasion and has:</p> <ul style="list-style-type: none"> • carried out visual checks for blockages or signs of wear in components • checked connections and controllers • checked sprinkler output and function • confirmed operational pressures • developed workplace procedures for pre-season, irrigation and post-season maintenance • ensured proper operation of automatic flush valves • inspected irrigation systems • maintained testing equipment • pressure tested systems • serviced irrigation equipment • tested emitter output and function • tested irrigation equipment. 	
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 irrigation system maintenance supervision • workplace procedures for pre-season, irrigation and post-season maintenance • drainage systems • environmental impacts of irrigation maintenance • equipment testing • system components • system inspection • operating pressures and output • operation and maintenance requirements • pre and post-season maintenance covering • pressure testing as per procedures • pumping and distribution systems • distribution uniformity • visual checks for blockages or signs of wear in components • workplace health and safety hazards and safe work procedures. 	
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"> • irrigation system testing equipment and procedures • workplace procedures applicable to health and safety in the workplace and irrigation system maintenance • specifications: <ul style="list-style-type: none"> • maintenance program • relationships <ul style="list-style-type: none"> • specialist technical personnel • timeframes: <ul style="list-style-type: none"> • according to the job requirements. 	

Assessment Conditions

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