



Australian Government

AHCIRG327 Implement an irrigation schedule

Release: 1

AHCIRG327 Implement an irrigation schedule

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to implement an irrigation schedule.

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. Interpret the irrigation schedule	1.1 Determine work requirements and identify hazards, assess risks and implement control measures 1.2 Select required tools and equipment and check for safe operation 1.3 Select and use suitable personal protective equipment 1.4 Access information on plant growing requirements 1.5 Interpret moisture requirement throughout the growing season 1.6 Read the predicted seasonal moisture deficit and watering requirements and check with management

Element	Performance criteria
	1.7 Record parameters for the irrigation system
2. Determine irrigation shifts	2.1 Subdivide the irrigated area into the smallest units capable of individual irrigation and note area and irrigation equipment characteristics for each 2.2 Define each unit for its soil irrigation capability 2.3 Define the crop and plant water requirement for each unit 2.4 Combine units requiring similar irrigation to form a shift that does not exceed the water delivery capacity of the property irrigation infrastructure 2.5 Determine the water volume required to meet irrigation needs over specified period
3. Implement irrigation schedule	3.1 Coordinate resources and brief personnel to deliver requirements 3.2 Implement watering program
4. Monitor irrigation	4.1 Inspect plants and crops for growth rate and signs of stress 4.2 Record frequency of irrigation 4.3 Measure and record water usage and confirm water allocation is not exceeded for a given period 4.4 Calculate the differences between estimated water use and actual water used 4.5 Measure water quality 4.6 Assess plant and crop growth and water use efficiency 4.7 Measure soil for readily available water 4.8 Record climate and weather conditions 4.9 Adjust watering program in response to rainfall events and changes to evapotranspiration rates
5. Record irrigation information and activities	5.1 Record plant or crop environment data 5.2 Record water usage 5.3 Record irrigation shifts 5.4 Record system process data

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 AHCIRG327A Implement an irrigation schedule.

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 AHCIRG327 Implement an irrigation schedule

Modification History

Release Number	TP Version	Comments
1	AHCv1.0	Initial release

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 interpret the information in an irrigation schedule
- apply sampling techniques
- compare plant health and growth to benchmark requirements
- conduct soil moisture tests
- consult with appropriate senior personnel or consultants
- identify irrigation requirements throughout the growing season by monitoring:
 - climatic conditions
 - crop stage and requirements if applicable
 - effective root depth
 - frost risk
 - plant varietal characteristics and requirements
 - signs of plant nutrient deficiencies
 - soil moisture levels
 - soil type and depth
 - symptoms of water stress
 - water quality
 - water table level
- identify, rectify and report environmental non-compliance
- instruct irrigation system operators
- implement the irrigation schedule including consideration of:
 - application rates
 - interaction between different irrigation employees or shifts
 - maintenance programs and supplies
 - materials, chemicals, services
 - resources, including operators with appropriate skills

- timing and length
- liaise with other work areas
- monitor irrigation activities including:
 - environmental impact of irrigation activities
 - identifying emitter output consistency
 - identifying soil moisture content and depth to which water will reach
- report and record problems and corrective action taken
- take corrective action in response to out-of-specification results or non-compliance

Knowledge Evidence

The candidate must demonstrate knowledge of:

- consultation requirements and procedures
- effect of irrigation techniques on plant growth
- environmental impacts, hazards and controls for irrigation
- interpretation of routine soil moisture tests
- irrigation strategies
- principles of soil moisture monitoring including volumetric soil moisture content, percentage compared to soil moisture tension
- procedures and responsibility for reporting problems
- recording requirements and procedures
- resource requirements and availability
- sampling techniques and procedures
- testing techniques and procedures
- visual symptoms of plant nutrient deficiencies, water stress and frost
- water budgeting tools
- workplace hazards and controls

Assessment Conditions

Assessors must satisfy current standards for RTOs.

Links

Companion Volume implementation guides are found in VETNet -

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