

## U16302

## Monitor environmental conditions for plants

## Unit Descriptor:

This unit describes the work expectations associated with monitoring environmental conditions for protected crops. It is relevant to anyone who is working in accordance with instructions from a supervisor or manager. You will be involved in monitoring temperature, humidity, ventilation, light and shade. You may also have to keep records of environmental conditions up to date and complete.

You will need to have knowledge of the environmental conditions required i.e. those relevant to the enterprise within which you are working. You will also need to be able to identify when environmental conditions need adjusting, but are not expected to carry out adjustments at this level. You should also be able to monitor and maintain irrigation systems.

**ELEMENT****PERFORMANCE CRITERIA**

*To be competent you must achieve the following:*

- |   |   |
|---|---|
| 1. Monitor and record environmental conditions for plants | 1.1 <b>Monitor</b> environmental conditions in accordance with instructions.<br><br>1.2 Accurately identify the need for adjustments to environmental conditions and report promptly to the appropriate person.<br><br>1.3 Ensure records are accurate, legible and complete.<br><br>1.4 Ensure working methods promote health and safety, and are consistent with relevant legislation and codes of practice |
| 2. Monitor and maintain watering systems                  | 2.1 Confirm the supply of water to the crop(s) is suitable for the crop(s) in accordance with instructions.<br><br>2.2 Recognise the need for <b>adjustments</b> to watering systems in accordance with instructions.   |

- 2.3 Accurately identify problems with the delivery of water to the crop (s) and take the **appropriate action**.
- 2.4 Efficiently and effectively use equipment in accordance with manufacturers instructions.
- 2.5 Ensure records are accurate, legible and complete.
- 2.6 Ensure working methods promote health and safety, and are consistent with relevant legislation and codes of practice.

### **RANGE STATEMENT**

*You must cover the items below:*

#### **Element 1: Monitor and record environmental conditions for plants**

**A. Monitor three** of the following environmental conditions:

- (i) temperature
- (ii) humidity
- (iii) ventilation
- (iv) light and shade
- (v) chemical properties

#### **Element 2: Monitor and maintain watering systems**

**A. Recognise the need for **adjustments**** to:

- (i) irrigation equipment
- (ii) water supply

**B. Take the following **appropriate action**** to:

- (i) solve the problem
- (ii) report the problem to the appropriate person.

**UNDERPINNING KNOWLEDGE AND SKILLS**

1. Instructions for monitoring environmental conditions.
2. The specified environmental conditions for the crop(s).
3. The use of computers and other equipment for monitoring environmental conditions.
4. Indications that environmental conditions require adjustment.
5. The types of adjustments which may be required and the correct action to take.
6. The reasons for keeping records of environmental conditions.
7. The correct methods for completing records of environmental conditions.
8. Your responsibility under health, safety and environmental legislation.
9. Systems for supplying water to the crop(s).
10. How to check that the supply of water to the crop(s) is suitable.
11. The types of adjustments to the watering system which are necessary.
12. Problems which may occur in the delivery of water to the crop(s) and how these should be resolved.
13. The correct use of equipment for applying water.

**EVIDENCE GUIDE**

*For assessment purposes:*

**(1) Critical Aspects of Evidence**

Assessment should involve observation of you monitoring and recording environmental conditions for protected crops and monitoring and maintaining watering systems.

In demonstrating competence in monitoring environmental conditions for protected crops you should measure the ph of water and growing media:

A. Monitor **three** of the following environmental **conditions**:

- (i) temperature
- (ii) humidity
- (iii) ventilation
- (iv) light and shade
- (v) chemical properties

B. Recognise the need for **adjustments** to:

- (i) irrigation equipment
- (ii) water supply

C. Take the necessary steps to carry out one of the following **appropriate actions**:

- (i) solve the problem
- (ii) report the problem to the appropriate person

Use of equipment, chemical and all other activities must meet the requirements of the law and relevant codes of practice.

### **(2) Methods of Assessment**

Observation by your assessor of you:

- Monitoring environmental conditions in accordance with instructions
- Identifying accurately the need for adjustments to environmental conditions and promptly reporting to the appropriate person
- Confirming the supply of water to the crop(s) is suitable for the crop in accordance with instructions
- Recognising the need for adjustments to watering systems in accordance with instructions
- Identifying accurately problems with the delivery of water to the crop and taking the appropriate action

Answers to writing or oral questions from your assessor.

### **(3) Context of Assessment**

Evidence from simulations is **not** acceptable for this unit.