

## Overview

This standard is for those who control the environmental conditions for protected crops. It is relevant to individuals who are working with crops that are grown in protected conditions. You will have considerable responsibility for climate control. This will involve setting up environmental conditions and adjusting them as necessary.

Environmental conditions include: temperature, humidity, carbon dioxide levels, light and shade. You will need to have knowledge and understanding of the relationship between environmental conditions and crop growth.

## Control the environmental conditions for protected crops

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### Performance criteria

*You must be able to:*

1. check the working methods for controlling environmental conditions for protected crops are established and clearly communicated
2. confirm that the environmental conditions for the protected crops are prepared in accordance with specifications
3. confirm that the equipment for controlling and maintaining environmental conditions is working in accordance with manufacturers' instructions
4. check that the environmental conditions for protected crops are monitored in accordance with specifications
5. confirm that the adjustments to environmental conditions are carried out in accordance with specifications
6. maintain communication with colleagues and others involved in, or affected by, your work
7. confirm appropriate records are completed as required by relevant legislation and the organisational requirements
8. confirm that environmental and health and safety policies and risk assessment requirements are put into practice across your area of responsibility

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### Knowledge and understanding

*You need to know and understand:*

1. the correct environmental conditions required to achieve optimum crop growth
2. the effects of temperature, humidity, carbon dioxide levels, ventilation, light and shade on the growth and development of the crops
3. the safe and correct use of equipment for controlling environmental conditions for protected crops
4. correct methods for preparing environmental conditions for protected crops
5. procedures and methods for monitoring and adjusting environmental conditions for protected crops
6. the indications that environmental conditions require adjustment
7. the use of technology to monitor and maintain environmental conditions for protected crops
8. the importance of confirming that the activities involved in controlling the environmental conditions for protected crops are completed in accordance with specifications
9. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
10. conventions and ways in which information relating to environmental conditions must be recorded
11. the importance of following environmental and ecological best practice to help minimise the impact of your work on the environment
12. your responsibilities under relevant health and safety legislation, codes of practice and organisational policies

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### Scope/range

A. identify the following environmental conditions required by protected crops:

1. temperature
2. humidity
3. light and shade
4. carbon dioxide levels

B. set up the following types of equipment to control environmental conditions:

1. computer
2. heating
3. ventilation
4. watering systems
5. carbon dioxide generators/injectors
6. data recording equipment

C. make adjustments to the following environmental conditions:

1. temperature
2. humidity
3. light and shade
4. carbon dioxide levels
5. ventilation

## Glossary

### Environmental conditions:

- temperature
- humidity
- light and shade
- carbon dioxide levels

### Specifications:

- drawings
- schedules
- method statements
- Standard Operating Procedures (SOPs)
- manufacturers' guidelines

## Control the environmental conditions for protected crops

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**Originating Organisation** Lantra

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**Relevant Occupations** Nursery Worker; Fruit and Vegetable Production Worker

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**Suite** Horticulture

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