



Protected Plant Production

Duration (approx)	100 hours
Qualification	Statement of Attainment

Lesson Structure

There are 10 lessons in this course:

1. Structures For Protected Cropping
2. Environmental Control
3. Cladding Materials And Their Properties
4. Irrigation
5. Nursery Nutrition
6. Relationship Between Production Techniques And Horticultural Practices
7. Horticultural Management In A Greenhouse: Pests And Diseases
8. Harvest & Post Harvest Technology
9. Greenhouse Plants
10. Risk Assessment

Each lesson culminates in an assignment which is submitted to the Academy, marked by the Academy's tutors and returned to you with any relevant suggestions, comments, and if necessary, extra reading.

Aims

- Describe and Evaluate the type and shape of modern growing structures
- Describe and evaluate environmental controls in protected cropping
- Explain the nature of solar radiation, transmission properties of glass and its substitutes
- Determine the water requirements of a crop; and methods of irrigation.
- Relate horticultural principles to the production and harvesting of a range of crops.
- Evaluate the factors involved in marketing protected crops
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- Undertake risk assessment for a protected crop

What You Will Do

- Identify the main types of growing structure
- Relate use of structures to shape and type of construction
- Identify the range of environmental factors controlled within a growing structure
- Describe the use of the equipment used to measure and monitor these factors
- Name and describe a range of types of environmental controls
- Evaluate the use of IT facilities for environmental control
- Describe the meaning of "daylight" and explain the role of sunlight and diffused light
- Relate time of year to the quantity and quality of available light
- Evaluate how the shape and orientation of a structure will affect light transmission
- Assess the effectiveness of glass and cladding alternatives for light transmission
- Describe the durability and insulation properties of glass and alternative materials
- Select and describe appropriate systems of irrigation for plants grown in a situation
- Select and describe appropriate systems of irrigation for container grown plants
- Specify and evaluate systems for incorporating plant nutrients into the irrigation water
- Explain the effects of environmental control on a range of plants
- Relate the essential features necessary for successful plant establishment and development to their underlying scientific principles.
- Describe the production of a range of crops
- State the optimum stage of growth for harvesting a range of crops
- Describe the harvesting systems for protected crops
- Explain how shelf life can be affected by pre and post harvesting treatment of the crop
- State the factors to be considered when marketing crops
- Evaluate alternative marketing outlets
- Relate packaging & presentation to marketing
- Assess benefits to the grower and customer, of grading a crop before marketing
- Determine elements of risk in the practical operations associated with protected plant production.
- Identify safe working practices