

# **Horticulture Supervisors Training Course (IHT-510)**

## **DURATION - 6 Months**

### **Module 1. Introduction**

Importance, Scope and Advantages of Flower Production in Polyhouse and Open  
Classification of Ornamental Crops  
Present Scenario of Cut Flower Under Polyhouse  
Classification of Polyhouse Structures and Designs  
Management of Light, Temperature and Humidity Under Polyhouse

### **Module 2. Quality Seedling and Nursery Management**

Nursery Production in Open Condition and Protected Structure  
Soil vs Soil Less Substrate, Types of Soilless Substrate  
Bed Layout in Greenhouse Soil  
Organic and Inorganic Substrates  
Estimation of Soil pH and EC  
Mixing of Substrates

### **Module 3. Commercial Cultivation of Lilium, Chrysanthemum, Gerbera and Rose etc. and Pot Plants Cultivation**

Types of Pots/Containers  
Varieties and Selection  
Environment and Substrate Requirements - Mulching  
Soil/Media Preparation  
Staking and Support  
Irrigation and Fertigation  
Integrated Nutrient Management  
Management of Insect Pests and Diseases and Physiological Disorders  
Post-harvest Management and Marketing

### **Module 4: Post-Harvest Management and Marketing**

Harvesting of Cut Flowers in Polyhouse and Instruments Used  
Grading and Packaging  
Value Added Products – Dry Flower, Pot Pourri, Tinting  
Storage Temperature and Humidity Requirements of Different Flowers.  
Exposure Visits  
Export of Cut-flowers  
Record Keeping, Monitoring etc

### **Module 5. Introduction of Vegetable Production**

Present Scenario: Importance, Scope and Advantage of Vegetable Cultivation  
Classification of Vegetables: Based on Nutrition, Season, Utility, Plant Parts Used  
Role of Involve Factors: Temperature, Humidity, Light, Soil Texture, Soil pH, Soil Fertility, Planting Material, Water Quality, and Nutrition  
General Practices  
    Site Selection  
    Bed Preparation  
    Soil Solarization  
    Seed Sowing  
    Nursery Raising

- Transplanting
- Mulching
- Pinching
- Staking
- Weeding
- Pesticide Application

### **Module 6. Production Technology**

Introduction: Present Status, Kinds of Technology and Benefits in Vegetable Production

Protected Structure Cultivation Packages:

- Selection of Planting Material
- Soil Preparation and Planting
- Training, Pruning and Trellising
- Irrigation Schedule and Technology
- Fertigation Schedule and Technology
- Care and Handling
- Harvesting and Yield

Open Field Cultivation Packages

- Selection of Planting Material
- Soil Preparation and Planting
- Training, Pruning and Trellising
- Irrigation Schedule and Technology
- Fertigation Schedule and Technology
- Care and Handling
- Harvesting and Yield

### **Module 7. Plant Protection**

Introduction: Definition of Pest and Disorders, Importance, Categorization of Pest Diseases: Identification, Characteristic Symptoms, Source of Inoculums, Favorable Conditions, Managements

Insects

- Identification
- Characteristic Symptoms
- Source of Inoculums
- Favorable Conditions
- Managements

Disorders

- Identification
- Characteristic Symptoms
- Source of Inoculums
- Favorable Conditions
- Managements

### **Module 8. Post Harvest Management and Storage**

Maturity Indices

Harvesting and Yield: Time of Harvesting, Harvesting Methods

Pre-Cooling

Washing and Cleaning

Grading

Packing and Transportation: Packing Material, Packing Material According To Market Need Duration of Transportation  
Storage, Value Addition and Processing

### **Module 9. Introduction of Fruit Production, Climate, Soil Condition and Variety**

#### **Introduction:**

Scope and Importance of Fruit Cultivation, Industrial and Medicinal Important  
Classification of Fruit Crops  
Present Scenario of Fruit Industry in India  
Soil Health Management  
Soil Treatment  
Commercial Varieties of Regional, State, National and International Importance  
Hybrid Varieties and their Sources  
Pest and Disease Resistant Varieties and their Sources of Availability

### **Module 10. Propagation and Establishment of Orchards**

Recent Trends in Propagation  
Source of Rootstock/ Establishment of Mother Block  
Soil Solarization  
Planting Systems  
Preparation of Pits  
High Density Planting  
Mulches  
Intercropping  
Commercial Cultivation of Mango, Banana, Citrus and Guava etc.  
Introduction, Composition and Uses  
Origin and Distribution  
Cultivars  
Soil and Climate  
Propagation  
Cultivation Practices  
Flowering, Fruit Set, Fruit Growth and Development  
Pests, Diseases and Physiological Disorders  
Harvesting and Yield  
Packaging and Transport  
Ripening and Storage

### **Module 10: Post-Harvest Management and Marketing**

Maturity Indices  
Harvesting and Yield: Time of Harvesting, Harvesting Methods  
Pre-Cooling  
Washing and Cleaning  
Grading  
Packing and Transportation: Packing Material, Packing Material according to Market Need Duration of Transportation  
Storage