

Horticulture

1. Fundamental of horticulture

- 1.1 Classification of horticultural crops
- 1.2 Agro-ecological zoning and niches
- 1.3 Factors affecting horticultural crop production
- 1.4 Orchard establishment and management
- 1.5 Methods of propagation
- 1.6 Growth and development
- 1.7 Off season and protected horticulture
- 1.8 Organic horticulture
- 1.9 Horticultural enterprises
- 1.10 Effect of climate change

2. Fruit and plantation crop production

- 2.1 Classification of fruit and plantation crops
- 2.2 Environmental factors
- 2.3 High density planting
- 2.4 Crop load management
- 2.5 Canopy management
- 2.6 Breeding methods
- 2.7 Root-stock scion selection for crop improvement
- 2.8 Production techniques of major fruit and plantations crops
- 2.9. Introduction to minor fruit and plantation crops

3. Vegetable and spice crop production

- 3.1 Importance and present status
- 3.2 Classification
- 3.3 Climate change effects
- 3.4 Genetic resources in Nepal
- 3.5 Breeding methods
- 3.6 Off season and protected cultivation
- 3.7 Crop protection
- 3.8 Production techniques of major vegetable and spice crops
- 3.9 Introduction to minor vegetable and spice crops
- 3.10 Postharvest technology

4. Ornamental horticulture

- 4.1 Classification of ornamental plants
- 4.2 Landscape gardening
- 4.3 Breeding methods
- 4.4 Methods of Propagation
- 4.5 Production technology of Ferns, Palms, Aspidistra, Croton, Cord line ,Philodendron, Dieffenbachia, Aralias, Coleus, Cycads, Bougainvillea Azalias, Petunia, China Aster and Phlox
- 4.6 Production technology of Orchids and Bulbous plants
- 4.7 Production technology of cut and loose flowers
- 4.8 Bonsai making and management
- 4.9 Post harvest technology
- 4.10 Flower arrangement technology

5. Post-harvest horticulture

- 5.1 Postharvest physiology
- 5.2 Maturity indices
- 5.3 Causes of postharvest losses
- 5.4 Physical and physiological disorders
- 5.5 Postharvest entomology
- 5.6 Postharvest pathology
- 5.7 Packing house operations
- 5.8 Storage technology
- 5.9 Postharvest quality
- 5.10 Principles and methods of processing and preservations

6. Plant propagation and nursery management

- 6.1 Introduction
- 6.2 Propagation environment
- 6.3 Propagation from seeds
- 6.4 Vegetative propagation
- 6.5 Clone propagation
- 6.6 Tissue culture and micro propagation
- 6.7 Management of nursery enterprise
- 6.8 Commodity wise propagation techniques and root stocks

7. Vegetable and spice seed production technology

- 7.1 Seed production status in Nepal
- 7.2 Mode of pollination
- 7.3 Genetic and environmental factors
- 7.4 Seed production technology of the major vegetable and spice crops
- 7.5 Variety maintenance and seed multiplication
- 7.6 Hybrid seed production
- 7.7 Seed quality control
- 7.8 Seed certification and legislation
- 7.9 Seed distribution and marketing