

Syllabus: Certificate Programme on Nursery Management (CNM)

PAPER I : Commercial Nursery Management of Horticultural Crops -01

Unit 1: Introduction to Commercial Nursery Management

- Nursery trade in India
- Scope for commercial nursery
- Definition of nursery, nursery management
- Different types of ornamental/flowering plants
- Some popular ornamental plant species

Unit 2: Planning and Layout of Commercial Nursery

- Selection of site
- Planning and layout
- Structures for nursery
- Standard rootstocks

Unit 3: Tools and Implements for Nursery

- Different types of tools and implements
- Pots and pans, seedling trays
- Plant supports and tying materials

Unit 4: Propagation Techniques

- Definition
- Seed propagation – procedure
- Vegetative propagation – cuttings, layering, budding, grafting, specialized vegetative structures

Unit 5: Propagation of Important Flowering Crops

- Chrysanthemum
- Dahlia
- Bulbous ornamental plants (corms and bulbs)

- Gladiolus
- Tuberose

Unit 6: Propagation by Tubers, Rhizomes, and Their Division

- Specialized structures: tubers, rhizomes, suckers

Activities

- Design and draw a model layout for a commercial nursery (site selection, space allocation)
- Practice vegetative propagation using stem cuttings from a fruit or flower plant available in your garden

PAPER II: Commercial Nursery Management of Horticultural Crops -02

Unit 1: Raising Saplings of Nut Crops (Coconut and Arecanut)

- Criteria for selection of mother palm
- Method of sowing and seedling quality for coconut and arecanut

Unit 2: Multiplication Techniques in Black Pepper and Betel Vine

- Vine cutting, leaf bud cutting
- Trench layering
- Rapid multiplication technique

Unit 3: Rooting and Growing Media & Vermicompost Production

- Rooting media: soil, sand, peat, sphagnum moss, vermiculite, perlite, pumice
- Different Potting media
- Vermicompost: preparation and usage

Unit 4: Propagating Structures

- Low-cost structures: polyhouses, shade nets, nursery beds
- High-cost structures: greenhouses, hotbeds, mist chambers, light boxes, propagating cases

Unit 5: Potting and Repotting of Nursery Plants

- Advantages of potting
- Pot mixtures, containers, potting procedure

- Repotting and maintenance

Unit 6: Diseases and Pests in Nursery and Their Management

- Common diseases: damping off, anthracnose, blights, die-back, leaf spots, powdery mildew
- Common pests: scales, thrips, aphids, mealy bugs, whiteflies, mites, caterpillars, cutworms, leaf miners, snails, slugs

Unit 7: Progeny Block

- Definition and importance
- Selection of plants/varieties
- Planting and maintenance

Unit 8: Storage of Seeds

- Seed collection
- Techniques of seed storage
- Containers and management practices
- Maintenance of seed purity

Unit 9: Record Keeping in Nursery

- Types and importance of records

Activities:

Use kitchen vegetable peels and soil in a bucket to simulate composting

Design Experimental Trials on Growing Media (test different media e.g., soil, sand, cocopeat, compost) for rooting success of cuttings and document results with photos.)

PAPER III: Commercial Nursery Management of Horticultural Crops -03

Preparation of Layout of a Commercial Nursery

Identification of Tools and Implements for Nursery

Seed Bed Preparation, Seed Sowing, and Raising of Vegetable and Flower Seedlings

Economics of Vegetable and Flower Seedling Production

Propagation by Cuttings

Propagation by Grafting

Propagation of Chrysanthemum and Dahlia

Propagation of Black Pepper and Betel Vine

Propagation of Coconut and Arecanut

Visits to Commercial Nurseries

Nursery Visit Report details: Learners need to record the following details and prepare a report

A.

(A)Name of the Nursery/Proprietor and Address		
(B)Date of visit		
©Year of establishment		
(D)Professional training ,if any		
(E)Total nursery area	At the beginning_____	At present _____
(F) Infrastructural facilities available		
Sl.No.	Particulars	Unit
1.	Greenhouse	
2.	Low cost Greenhouse	
3.	Shade net house	
4.	Pump set	
5	Generator	
6.	Out let in market	
7	Selling cart	
8	Others	
(G) Employees/Labour		

Permanent		Seasonal	
Male	Female	Male	Female
(H) Crops multiplied in the nursery			
Crop	Method	Season	
(I) Sources of plantlets /stock materials			
(J) Total annual turn over			
(K) Scope of Nursery Business as self employment			
Very good	Good	Fair	Not promising

B. Prepare a note on the nursery you visited regarding the layout of the nursery, progeny block, special nursery products, if any, structures maintained, any specific advantages or disadvantages of the nursery and overall performance of the nursery.