

MUSHROOM CULTIVATION

[15L + 30 P]

[Credits 2]

Course Description: To impart knowledge to students about the diversity and identification of mushrooms growing in the region and to acquaint them about the nutritional, medicinal value of mushrooms and cultivation of some mushrooms.

Course Objectives:

Course learning outcomes:

Unit I: Title [5 Hrs.]

Overview of mushroom, characteristics, and types (Poisonous and non-poisonous mushrooms).
Mushroom ecology: Habitat, nutrition, life cycle, diversity; nutritional and medicinal importance of mushrooms.

Unit II: Title [5 Hrs.]

Mushroom cultivation: (science and art, waste to wealth), round the year mushroom cultivation, life cycle, reproduction of mushrooms
Mushroom hunting, prerequisite, collection, description, and description of mushrooms.

Unit III: Title [5 Hrs.]

Cultivation practices of *Pleurotus* (Dhingari oyster mushroom), Button Mushroom, Milky Mushroom.

Practicals: [30 Hrs.]

- Acquaintance with laboratory equipment.
- Culture media preparation and sterilization techniques, isolation of pure cultures.
- Mushroom collection from their natural habitat, isolation, and preservation.
- Identification and preservation of mushroom specimens.
- Identification of different types of mushrooms.
- Materials required for Cultivation of Mushrooms.
- Demonstration of cultivation of Mushroom.

REFERENCE BOOKS:

- Nadiad Marimuthu, T. Krishnamoorthy, A. S. Sivaprakasam, K. and Jayarajan. R (1991): Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
- Nita Bahl (1984-1988): Handbook of Mushrooms, II Edition, Vol. I & Vol. II.
- Tewari, Pankaj Kapoor, S.C., (1988). Mushroom cultivation, Mittal Publications, Delhi.

Mode of Evaluation:

**Continuous Internal Assessment (No end semester examination)
(Poster presentation / Project/ Presentation/ Assignment/ Quiz)**

Total Mark: 100

HORTICULTURE

[15L + 30 P]

[Credits 2]

Course description:

Course Objectives:

Course learning outcomes:

Unit I: Introduction

[5 Hrs.]

Scope and importance, Branches of horticulture; Role in rural economy and employment generation; Importance in food and nutritional security; Urban horticulture and ecotourism.

Unit II: Ornamental Plants

[5 Hrs.]

Types, classification (annuals, perennials, climbers and trees); Identification and salient features of some ornamental plants [Rose, Marigold, *Gladiolus*, *Tuberose*, Cacti and Succulents (*Opuntia* and *Agave*)] Ornamental flowering trees (*Amaltas*, *Gulmohar*, *Jacaranda*, *Lagerstroemia*, Palms).

Unit III: Fruit, Vegetables and Techniques

[5 Hrs.]

Production, origin, distribution, management and marketing of vegetable and fruit crops; Identification of some fruits and vegetable varieties (Citrus, Banana, Mango, Chillies and Cucurbits). Application of manure, fertilizers, nutrients and PGRs; Weed control; Biofertilizers, biopesticides; Irrigation methods (drip irrigation, surface irrigation, furrow, and border irrigation)

Practical:

[30 Hrs.]

- Visit to a garden.
- Visit to an orchard.
- Visit to a vegetable farm.
- Propagation of flower crops, vegetable crops and fruit crops through seeds.
- Preparation of pot for planting, cleaning, and filling.
- Identification of different fertilizers.
- Identification of organic manures (FYM, Vermicompost, cakes)

REFERENCE BOOKS:

- NIIR Board (2005). Cultivation of Fruits, Vegetables and Floriculture. National Institute of Industrial Research Board, Delhi.
- Singh, D. & Manivannan, S. (2009). Genetic Resources of Horticultural Crops. Ridhi International, Delhi, India.
- Swaminathan, M.S. and Kochhar, S.L. (2007). Groves of Beauty and Plenty: An Atlas of Major Flowering Trees in India. Macmillan Publishers, India.

Mode of evaluation:

Continuous Internal Assessment (No end semester examination)

(Poster presentation / Project/ Presentation/ Assignment/ Quiz)

Total Mark: 100