

## Mushroom Cultivation

1. Department: Botany
2. Title: Mushroom Cultivation
3. Sector: - M.Sc. I (Botany)
4. Year of implementation: 2024-2025

### Course Structure

Skill Level	Theory Hours	Practical Hours	Total Hours	Credits	No. of students in batch
7	15	30	45	02	09

### Syllabus

#### Learning Objectives:

This subject is aimed to develop an understanding among the students on

1. Mushroom biology and Edible and poisonous mushrooms
2. Cultivation and marketing of mushroom

#### Theory Syllabus (15 Hrs, Credit:01)

##### Unit I Pre-requisite for Mushroom Cultivation

Biology of Mushroom; Edible and Poisonous Mushrooms; Nutritional and Medicinal Values of Mushroom; Infrastructure, equipment's and substrates in mushroom cultivation:

Polythene, bags, vessels, inoculation hook, inoculation loop, love cost stove, sieves, culture racks, mushroom unit or mushroom house, water sprayer, tray, boilers, driers, pure culture; Mushroom research centres/farms: National level and regional level, Marketing of mushrooms in India and world.

##### Unit II Mushroom Cultivation and Production Unit Designing

Preparation of spawn substrate, Preparation of pure culture, Culture maintenance, storage of spawn; Cultivation of commercially important Mushrooms – Paddy straw mushroom, Wheat Straw Mushroom (Oyster Mushroom), Button Mushroom; Mushroom Pest and pathology

**Practical Syllabus (30 Hrs, Credit:01)**

**List of Experiments** **24 hr**

1. Identification of edible and poisonous mushroom
2. Production of spawn
3. Cultivation of paddy straw mushroom
4. Cultivation of wheat straw mushroom
5. Cultivation of button mushroom
6. Study of various pests and their management

**Visit to commercial mushroom farm or production unit** **6 hrs**

**Learning Outcomes:**

After completing the course, the student will be able to:

1. Identify edible mushrooms
2. Prepare spawn and pure culture at commercial level
3. Cultivate mushroom on large commercial scale
4. Learn short term and long-term storage of mushroom
5. Start the production and processing unit

**Recommended Books:**

1. Pathak, V. N. and Yadav, N. (1998). **Mushroom Production and Processing Technology**. Agrobios, Jodhpur.
2. Kannaiyan, S. Ramasamy, K. (1980). **A hand book of edible mushroom**, Today & Tomorrows Printers & Publishers, New Delhi.

**BOS Sub Committee:**

1. Prof. (Dr.) D. D. Namdas - Chairperson
2. Mr. A. A. Mali -Member

**Expert:**

1. Mr. Vinayak Mankumare -Industrial Expert
2. Dr. H. S. Patil -Academic Expert