

DEPARTMENT OF BOTANY

CERTIFICATE COURSE IN MUSHROOM CULTIVATION

Introduction

Mushrooms are being used as food and medicine from ancient times. Mushroom contains all essential amino acids, vitamin B complex, iron, calcium, potassium, phosphorous, folic acid and other biochemical compounds. It is also a good source of dietary fibre. It is regarded as highly edible even for people suffering from cholesterol problems, heart diseases, diabetes and cancer. Mushroom cultivation has now become a source for income generation since there is a large demand for healthy and quality food products. Many value added products are also obtained from mushrooms. The cultivation procedure is characterised by small initial investment and year round production. It is an eco-friendly agricultural practice. Considering the commercial viability and self-employment potential of mushroom cultivation and marketing, the Department is offering the same as a certificate course to the under graduate students of the College.

Aims of the Course

- ❖ To provide hands-on training for the preparation of bed for mushroom cultivation and its harvesting, pests and diseases control and post harvesting management.
- ❖ To provide the students awareness about the marketing trends of Mushrooms.
- ❖ To give the students exposure to the experiences of experts in this field and to functioning mushroom farms.
- ❖ To help the students to learn a means of self-employment and income generation.

Duration of Course: The course shall extend over a period of 30 Hours.

Admission Procedure:

Candidates for admission to the course should be students of the Payyanur College. Interested students shall apply for admission at the time of notification in the prescribed form.

SYLLABUS

MUSHROOM CULTIVATION

Course objectives

- To facilitate self-employment.
- To know the nutrient value of mushroom.
- To study the morphology and types of Mushrooms.
- To know the spawn production technique.
- To learn the prospects and scope of mushroom cultivation in small scale industry.
- To understand the diseases and Post harvesting techniques of Mushrooms.

Module 1

3hrs

Introduction- Importance of fungi in human welfare, Edible mushrooms and Poisonous mushrooms, structure and life cycle of *Agaricus* and *Pleurotus*, Nutritional value, medicinal value and advantages.

Module 2

20 hrs

Cultivation: Paddy straw mushroom – substrate, spawn making. Methods – bed method, polythene bag method, field cultivation. Oyster mushroom cultivation – Substrate, spawning, pre-treatment of substrate. Maintenance of mushroom. Cultivation of white button mushroom – Spawn, composting, spawning, harvesting.

Module 3

2hrs

Diseases- Common pests, disease prevention and control measures. Processing - Blanching, steeping, sun drying, canning, pickling, freeze drying. Storage – short term and long term storage.

Practicals

5hrs

1. Practical method of mushroom cultivation.

References

1. Anonymous, Indian Journal of Mushrooms. Published by I.M.G.A. Mushroom Research Laboratory. College Agriculture, Solan
2. Harander S 1991. Mushrooms- The Art of Cultivation- Sterling Publishers.
3. Kaul T N 2001. Biology and conservation of mushrooms. Oxford and IBH publishing company N. Delhi
4. Pandey B P 1996. A textbook of fungi. Chand and company N Delhi.

Mode of Evaluation – Test Paper

Course Outcome

- Students can start small scale industry of Mushroom cultivation.
- Students studied the morphology and types of Mushrooms.
- Students will be able produce spawn on their own.
- Learned the prospects and scope of mushroom cultivation in small scale industry.
- Studied the technique of Mushroom cultivation.
- Understood the diseases and Post harvesting techniques of Mushrooms.