

DETAILED SYLLABUS OF 1st SEMESTER

Course Code	: SEC149
Title of the Course	: Mushroom Cultivation
Nature of the Course	: Skill Enhancement Course (SEC)
End Semester	: 80 Marks
In Semester	: 20 Marks
Total Credits	: 03

COURSE OBJECTIVES: The objective of this course is to provide knowledge to the students on Mushroom cultivation, production, and processing techniques.

UNITS	CONTENTS	L	T	P
I (20 marks)	INTRODUCTION 1.1 Morphology and life cycle of mushroom 1.2 Differentiation of edible and poisonous mushroom 1.3 Nutritional and medicinal value of edible mushroom 1.4 Edible mushrooms available in India <ul style="list-style-type: none"> • <i>Volvariella volvacea</i> • <i>Pleurotus citrinopileatus</i> • <i>Agaricus bisporous</i> 	10	1	-
II (25 marks)	CULTIVATION TECHNOLOGY 2.1 Basic materials required in mushroom cultivation 2.1.1 Infrastructure: Polythene bag, vessels, inoculation hook, inoculation loop, low-cost stove, sieves, culture rack, mushroom unit (Thatched house), water sprayer, tray, small polythene bag 2.1.2 mushroom substrate selection, substrate soaking, pasteurization etc. 2.1.3 Preparation of spawn: process of spawn culture, selection of correct spawn, culture maintenance, mother spawn production and storage of spawn 2.1.4 Preparation of mushroom bed: paddy straw, sugarcane trash, maize straw, banana leaves. 2.1.5 Factors affecting the mushroom bed preparation: Low-cost technology, composting technology in mushroom production	10	2	-

III (15 marks)	STORAGE 3.1 Storage of fresh and dry mushroom 3.1.1 Short-term storage (Refrigeration-up to 24 hours) 3.1.2 Long-term storage (canning, pickels, papads) 3.1.3. Processing of mushrooms (canning, dehydration, and packing)	10	1	-
Practical (20 marks)	4.1 Identification of edible mushroom 4.2 Demonstration of spawn preparation 4.3 Demonstration of culture & packaging technique of mushroom		1	25
Total		30	05	25

Where, L: Lectures

T: Tutorials

P: Practical

MODES OF IN-SEMESTER ASSESSMENT:

(20 Marks)

- One Internal Examination - 10 Marks
- Others (Any one) - 10 Marks
 - Sessional Examination
 - Assignment

LEARNING OUTCOME

1. Know the Mushroom cultivation, production, and processing techniques.
2. Learn the techniques of identification of edible and non-edible mushrooms.

SUGGESTED READINGS:

1. Marimuthu, T. Krishnamoorthy, A.S. Sivaprakasam, K. and Jayarajan. R. (1991). Oyster Mushroom. Department of Plant Pathology. Tamil Nadu, Agricultural University, Coimbatore.
2. Nita Bhal. (2000). Handbook of Mushrooms. 2nd ed. Vol. I and II. Oxford and IBH publishing Co. Pvt. Ltd., New Delhi.
3. Pandey R.K, S.K Ghosh, 1996. A Hand Book on Mushroom Cultivation. Emkey publications.
4. Pathak, V.N. and Yadav, N. (1998). Mushroom Production and Processing Technology. Agrobios, Jodhpur.
5. Tiwari Pankaj Kapoor, S.C. (19988). Mushroom cultivation. Mittal Publication, New Delhi.