

# Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore Shri Vaishnav Institute of Agriculture Vocational Agriculture Course

Course Code	Course Name	TEACHING & EVALUATION SCHEME							
		Theory			Practical		Credits		
		END SEM University Exam	Mid term exam	Teachers Assessment	END SEM University Exam	Teachers Assessment	L	Р	Total
VOAG201	Mushroom Cultivation and its Value Addition	00	00	00	60	40	0	4	4

1. Legends: L - Lecture; P - Practical

2. \*Teacher Assessment shall be based on following components: Quiz / Assignment / Project / Participation in Class.

## **Objective/Course outcome**

- Identify edible types of mushroom.
- Gain the knowledge of cultivation of different types of edible mushrooms and spawn production.
- Manage the diseases and pests of mushrooms.
- Learn post-harvest techniques of mushrooms.
- Learn a means of self-employment and income generation.

#### Theory

**Unit I:** Introduction to Mushroom (History and Scope of Mushroom Cultivation; Taxonomical rank of Mushroom; Vegetative characters of edible and poisonous mushrooms.)

**Unit II:** Common edible Mushrooms [Button Mushroom (*Agaricus bisporous*), Oyster mushroom (*Pleurotus* sp.), paddy straw mushroom (*Volvariella volvacea*), Milky Mushroom (*Calocybe indica*); Other economically important and medicinal mushroom-Shiitake Mushroom (*Lentinula edodes*).]. Nutritional and health benefits of Mushroom.

**Unit III:** Principle of Mushroom Cultivation (Structure and construction of mushroom house. Sterilization of substrates. Spawn production, Preparation of mother spawn, production of planting spawn, storage/transportation of spawn, Criteria for selection of good quality spawn. Cultivation of mushroom (Oyster, Button, Paddy straw, Reishi, Milky mushroom etc.)

Unit IV: Disease and Pest Management in cultivated mushrooms.

**Unit V:** Value addition of Mushroom (Value added products / recipes, Quality assurance, Packing and packaging, Market opportunities.)

## Practical

Acquaintance with various laboratory equipment and microscopy, Preparation of media, Preparation of mother culture, Spawn production (Mother and commercial spawn production), Cultivation of Oyster, Button, Paddy straw, Reishi, Milky mushroom etc. using agricultural waste, Identification of Mushroom diseases and pests and its management, Preparation of Value added products, Quality assurance, Packing and packaging.



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**Reference Books** 

Marimuthu, T. et al. (1991). Oster Mushroom. Department of Plant Pathology. Tamil Nadu Agricultural University, Coimbatore. 2.

Nita, B. (2000). Handbook of Mushrooms. Vol 1 & 2. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.

Pandey, R.K. and Ghosh, S.K. (1996). A handbook of Mushroom Cultivation. Emkey Publication.

Pathak, V.N. and Yadav, N. (1998). Mushroom Production and Processing Technology. Agrobios, Jodhpur.

Tewari Pankaj Kapoor, S. C. (2018). Mushroom Cultivation. Mittal Publication, New Delhi.

Tripathi, D.P. (2005) Mushroom Cultivation, Oxford & IBH Publishing Co. PVT.LTD, New Delhi.

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