



Madhya Pradesh Bhoj (Open) University

CERTIFICATE COURSE IN MUSHROOM PRODUCTION (With effect from the academic year 2024-25)

Eligibility for the Course

Candidates for admission to Certificate course in "Mushroom Production" should pass a Higher Secondary School Education in Science subjects with Biology.

Duration of the Course

Six months

Total Papers 4 (3 Theory Papers and 1 Practical)

Theory: Maximum Marks: 70

Minimum Marks: 28

Assignment: Maximum Marks: 30

Minimum Marks: 12

Total Marks: 100

Minimum Marks: 40

Credits: 3 for each paper

Papers	Details
Theory 1	Mushroom & their health benefit
Theory 2	Cultivation techniques
Theory 3	Production, processing and marketing
Practical	Field visit, Report writing, Viva-Voce

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PAPER I: MUSHROOMS & THEIR HEALTH BENEFIT

Unit: I Types and biology

Types-Button, milky, straw & oyster; structure of fruit body (button mushroom)
Life cycle pattern (button mushroom)

Unit: II Classification

Recent Classification- According to Ainsworth & Bisby's Dictionary of Fungi
Key to differentiate edible from poisonous mushrooms

Unit: III Nutrition Profile

Protein, carbohydrates, fats, vitamins & minerals

Unit: IV Antimicrobial properties

Antiviral value, antibacterial effect, antifungal effect, anti-tumour effect

Unit: V Therapeutic and physiological benefits

Cardiovascular value, renal effect, therapeutic values for adolescent, aged & diabetic persons

Salay
Gimariya
Sharma *Sharma* *Sharma*

PAPER II: CULTIVATION TECHNIQUES

Unit: I Spawn production: facility and technique

Facilities required for spawn preparation, spawn culture technique

Unit: II Substrate selection and treatment

Types of substrates, sterilization techniques

Unit: III Composting

Machinery required for compost making, short and long methods of composting, pasteurization

Unit: IV Production

Casing and case running, spawning, production and harvesting

Unit: V Pest management

Important disease and pests of mushrooms, and their control

Honey Shimara
Dish Aditi Sumit

PAPER III: PRODUCTION, PROCESSING AND MARKETING

Unit I: Farm design

Design of farm, bulk chamber, composting platform, pasteurization room & growing rooms

Unit II: Production of Button mushroom

Compost formation by IARI and solan formula, casing, spawning, fruiting and harvesting

Unit III: Production of oyster mushroom

Substrate treatment, inoculation, incubation, pinning and harvesting

Unit IV: Mushroom processing

Freezing, drying, canning, and pickling

Unit: IV: Marketing

Packaging and marketing of mushrooms, value added products of mushroom

Practical

1. Visit to relevant labs/field and report preparation
2. Introduction to various equipments used in the mushroom production
3. Demonstration of oyster mushroom bed preparation, spawning, pinning and harvesting.

Text Book:

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

Reference Books:

1. Mushroom Production and Processing Technology, Pathak, Yadav and Gour (2010) Published by Agro bios (India).
2. A hand book of edible mushroom, S. Kannaiyan and K. Ramasamy (1980) Today & Tomorrows printers & publishers, New Delhi.
3. Handbook on Mushrooms, Nita Bahl, oxford & IBH Publishing Co

Handwritten signatures and marks:
A large signature on the left, a signature "S. Kannaiyan" in the middle, and a signature "Nita Bahl" on the right, all written in blue ink.