



Rajarshi Shahu Mahavidyalaya, Latur

(Autonomous)

Department of Botany

Course Type: SEC

Course Title: Mushroom Cultivation Techniques

Course Code: 101BOT1601

Credits: 02

Max. Marks: 50

Lectures: 30 Hrs.

Learning Objectives:

LO-1. To learn the techniques of mushroom cultivation.

LO-2. To identify the edible and non-edible mushroom.

LO-3. To know the methods of composting.

LO-4. To learn the importance of casing mixture.

LO-5. To study picking and packing of mushroom.

LO-6. To study principles of mushroom farm layout.

Course Outcomes:

After completion of course the student will be able to-

CO-1. Start a small business of mushroom production.

CO-2. Select important types of Mushrooms, value added products and their cultivation

CO-3. Maintain Mushroom farm in a hygienic and scientific way.

CO-4. Examine nutritional value of mushrooms.

| Unit No. | Title of Unit & Contents | Hrs. |
|------------|---|-----------|
| I | Cultivation System & Farm design | 08 |
| | Fundamentals of cultivation system- small village unit & larger commercial unit. Principles of mushroom farm layout- location of building plot, design of farm, bulk chamber, composting platform, equipments & facilities, pasteurization room & growing rooms. | |
| | Unit Outcomes: UO-1 To study principles of mushroom farm layout. UO-2 To learn the techniques of mushroom cultivation | |
| II | Composting, Spawn & Spawning | 07 |
| | Principles of composting, machinery required for compost making, materials for compost preparation. Methods of Composting- Long method of composting (LMC) & Short method of composting (SMC). | |
| | Unit Outcome: UO-1 To know the methods of composting. | |
| III | Casting materials & Case running: | 07 |
| | Importance of casing mixture, Quality parameters of casing soil, | |

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|-----------|---|-----------|
| | different types of casing mixtures, commonly used materials. | |
| | Unit Outcome: UO-1. To learn the importance of casing mixture. | |
| IV | Cultivation of Button, Oyster and Straw Mushrooms | 08 |
| | Collection of raw materials Compost & composting Spawn & spawning Casing & case run Cropping & crop management, Picking & packing. | |
| | Unit Outcomes: UO-1. To learn the importance of casing mixture. UO-2. To study picking and packing of mushroom | |
| V | Practicals (Included in above 04 units) | |
| | 1. Oyster cultivation and demonstration of Button mushroom cultivation 2. Tissue isolation, Sub culturing, Spawn making and fruiting bags production, Processing. 3. Field trip to commercial mushroom farms and scientific institutions. 4. Visit to relevant Labs/Field Visits | |

Learning Resources:

1. Mushroom Cultivation, Tripathi, D.P.(2005) Oxford & IBH Publishing Co. PVT.LTD, New Delhi.
2. Mushroom Production and Processing Technology, Pathak Yadav Gour (2010) Published by Agrobios (India).
3. A hand book of edible mushroom, S.Kannaiyan& K.Ramasamy (1980). Today & Tomorrows printers & publishers, New Delhi
4. Handbook on Mushrooms, Nita Bahl, oxford & IBH Publishing Co.