



ADD ON COURSE: MUSHROOM CULTIVATION

DEPARTMENT OF BOTANY

L.T.K. COLLEGE, Azad, Lakhimpur, 787032, Assam

1. Aims and Objectives:

- a. To strengthen the promotion of mushroom cultivation by establishing a well-equipped mushroom farm and laboratory.
- b. To increase the production and consumption of mushrooms.
- c. To create new employment opportunities for students and the youth through mushroom cultivation.
- d. To empower rural communities with entrepreneurial skills through the production and sale of mushrooms.

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2. Syllabus:

Paper 1: Syllabus (Theory)

Unit I: Mushroom morphology:

Different parts of a typical mushroom & variations in mushroom morphology. General structure morphology of fruiting bodies, Key to differentiate Edible from and Poisonous mushrooms.

Unit II: Biology of Mushrooms:

Button, Straw & Oyster General morphology, distinguishing characteristics, spore germination and lifecycle.

Unit III: Nutrient Profile of Mushroom:

Protein, amino acids, calorific values, carbohydrates, fats, vitamins & minerals.

Unit IV: Health benefits of Mushroom:

Antiviral value, antibacterial effect, antifungal effect, anti-tumour effect, haemato logical value cardio vascular & renal effect, in therapeutic diets, adolescence, for aged persons & diabetes mellitus

Unit V: Cultivation System & Farm design:

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 VI: Compost & Composting:

Principles and methods of composting long method and short method of composting

Unit VII: Cultivation of Straw Mushrooms:

Collection of raw materials, compost & composting, spawn & spawning, casing & case run, cropping & crop management, picking & packing. Visit to relevant Labs/Field Visits

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Paper 2: Syllabus (Practical)

1. Identification of edible mushroom, Drawing and Labelling
2. Preparation of composting for straw cultivated mushroom
3. Designing mushroom farm layout location in different plot
4. Practice crop management, picking and packing
5. Field visit.

TextBook:

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

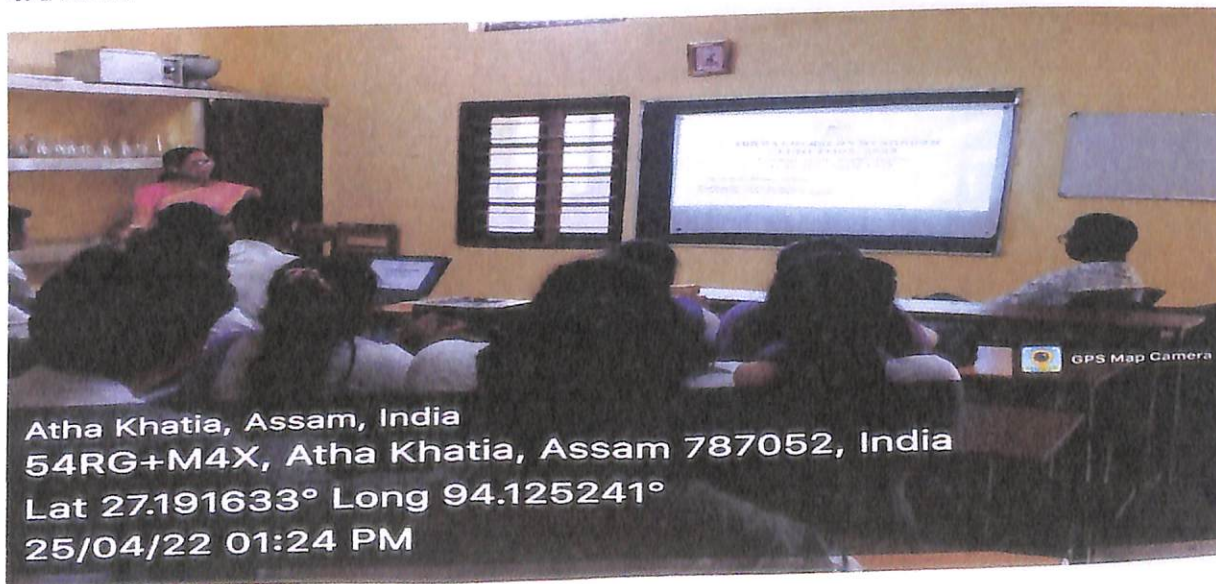
Reference Books:

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

3. Class Routine:

Days	Time
Monday	2.00 pm – 3.00 pm
Wednesday	2.00 pm – 3.00 pm
Friday	2.00 pm – 3.00 pm

4. Photo:



5. Student List:

List of Students Enrolment and Students Who Completed the Course

SL No	Student Name
1	Tapan Payeng
2	Sibani Borah
3	Atifa Begum
5	Babesh Taid
6	Bhaskar Dutta
7	Jitul Kaman
8	Nandeswar Kaman
9	Parishmita Dutta
10	Bonikan Kaman
11	Daritry Pegu
12	Partha Pratim Bora
13	Amlan Jyoti Gogoi
14	Humen Das
15	Sangeeta Borgohain
16	Preety Chetry
17	Rakesh Bora
18	Bitupon Gogoi

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6. Question Paper:

Add on Course Final Examination 2022

Course Name: Mushroom Cultivation

Department of Botany

Theory Paper

Marks : 48

Time : 3 hours

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|--------------------------------------------------------------|----|
| 1. Write about different types of mushrooms. | 5 |
| 2. General characteristics of oyster mushrooms. | 5 |
| 3. Write about Nutrient Profile of Mushroom. | 10 |
| 4. Medicinal importance of mushroom. | 8 |
| 5. Principles and methods of composting. | 5 |
| 6. Give detail description of cultivation of straw mushroom. | 15 |

Add on Course Final Examination 2022

Course Name: Mushroom Cultivation

Department of Botany

Practical Paper

Marks: 32

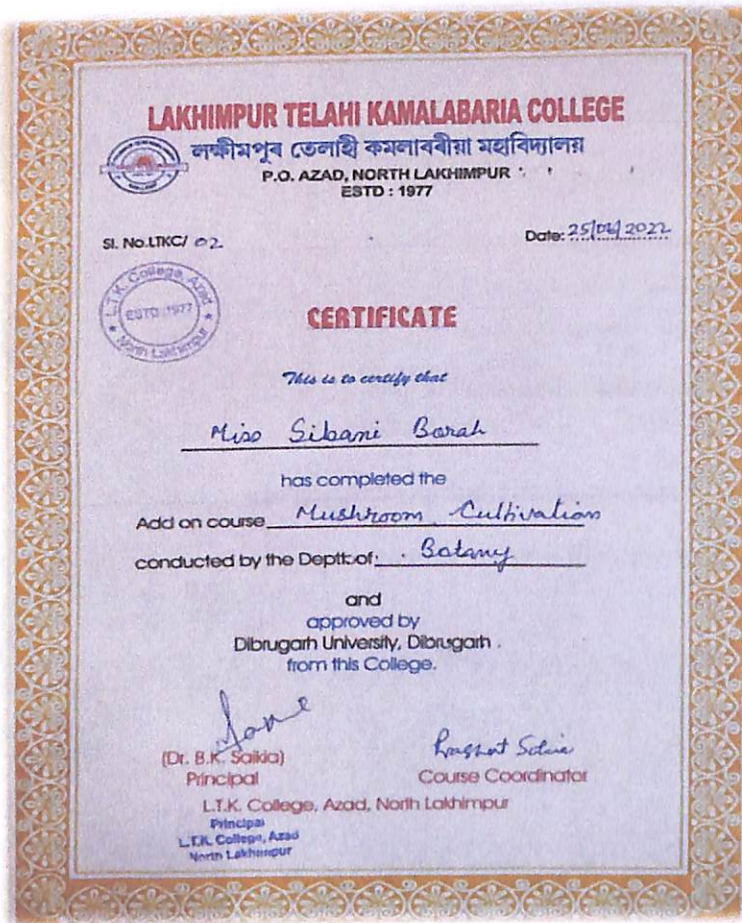
Time: 3 hours

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|------------------------------------------------------------------------|----|
| 1. Identification of edible mushroom, Drawing and Labeling. | 10 |
| 2. Demonstrate preparation of composting for straw cultivated mushroom | 15 |
| 3. Viva | 7 |
| 4. Assignment | 10 |
| 5. Project | 10 |

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7. Certificate:



8. Learning Outcome: After the completion of the course, students become more knowledgeable and skill full in producing mushroom. Through this course they become more capable of selling their own produced product and thereby secure job which is one of the important goal of our human kind.

Prabhat Saikia
Principal,
L.T.K. College Azad
North Lakhimpur

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Dept. of Botany
L.T.K. College

Prabhat Saikia

(Prabhat Saikia)

Course Co-ordinator

Add on Course

Department of Botany

L.T.K. College, Azad, North Lakhimpur

P. Saikia