



REPORT ON CERTIFICATE COURSE (2020-2021)

1. Name of the Course: **MUSHROOM CULTIVATION TECHNOLOGY**
2. Department : **BOTANY**
3. Duration No. of hours **-60HRS (30HRS Th & 30HRS Prac)** No. of days **-30days**
4. Whether brochure containing details of curriculum, assessment, procedures, etc., is enclosed? **YES**
5. Number of students enrolled: **30 Students**
6. Whether list of students is enclosed? (Yes/No): **YES**
7. Brief Report of the Certificate Course along with the outcome:

Objectives:

- The potential of mushroom farming is to generate new employment opportunities
- what could be better than learning about growing your own food, feeding your family, and selling the extra to line your family's coffers!

Report:

The certificate course is offered to all the UG I,II and III year students .30 students from all disciplines got enrolled and took the course. The course was offered from Dec-2019-Feb 2020,for a period of 30 days which includes theory and practical's ,each session is 2hrs duration after the college hours.

The high nutritional value of mushroom makes it is an ideal source of protein, vitamins and minerals. This alone should be reason enough for the us to encourage its widespread cultivation. Mushroom farming is the practice of growing mushrooms by using minimal space and nutrients .

Mushroom can be grown in different climatic conditions. In Indian conditions, three types of mushroom are grown widely, Button, Oyster and paddy straw Mushroom. Fresh Mushroom has a very short life therefore international trade is primarily in its processed form

Outcome:

- The students can gain Hands on experience in the concern topic, and it provides Entrepreneurship.

Regardless of all of the disadvantages, Mushroom farming is a sustainable farm practice that offers a remarkable skill development benefits

Signature of I/C of Dept. :.....

BJR GOVERNMENT DEGREE COLLEGE, HYDERABAD
DEPARTMENT OF BOTANY
CERTIFICATE COURSE ON
MUSHROOM CULTIVATION TECHNOLOGY-2020-2021



Objectives:

The potential of mushroom farming is to generate new employment opportunities .

Outcomes:

Mushroom farming is a sustainable farm practice that offers a remarkable skill development benefits

Duration:

The course is scheduled from Dec2020-Feb-2021

Registration:

Register on or before Nov 25th-2020.

Contact:

E.M.sunitha

Department of Botany

BJR GOVERNMENT DEGREE COLLEGE, HYDERABAD

DEPARTMENT OF BOTANY

CERTIFICATE COURSE **IN** **MUSHROOM CULTIVATION TECHNOLOGY**

About the course

- The certificate course “Mushroom Cultivation Technology” is designed with a view to improve the students to gain Hands on experience in the concern topic, as it provides Entrepreneurship.
- The certificate course is offered to all the UG I,II and III year students from all disciplines
- The course is of 60 hrs duration and runs for 30 days.

Objectives of the course

- The potential of mushroom farming is to generate new employment opportunities
- what could be better than learning about growing your own food, feeding your family, and selling the extra to line your family’s coffers!

Outcome of the course

By the end of the course

- The students can gain Hands on experience in the concern topic, and it provides Entrepreneurship.
- Regardless of all of the disadvantages, Mushroom farming is a sustainable farm practice that offers a remarkable skill development benefits.

Course syllabus

1. Introduction

- How Fungi are Named: Review of the system of plant identification
- Characteristics of all Fungi
- Three Fungi Kingdoms: Zygomycota, Basidiomycota and Ascomycota
- *Agaricus campestris* and *Agaricus bisporus*
- Distinguishing edible fungi, Mushroom structure, tell tale characteristics of the genus *Agaricus*, etc.
- History of Mushroom Cultivation

2. Spawn Production and Spawning and Making and Casing Beds

- Finding Spawn Supplies
- Overview of Spawn and Spawning
- Obtaining Smaller Quantities of Spawn
- The Process of Spawning
- Spawn Production; typical rye grain method
- Storing spawn, Growing Methods; Caves, bags, houses, outdoor ridge beds, troughs, etc
- Casing; biological process, characteristics of casing material, procedure
- Techniques; spawned casing, ruffling, scratching

3. Growing Conditions for Mushrooms and Pests, Diseases and Growing Mushrooms Outside

- Fungi Nutrition: carbon, nitrogen, essential elements, vitamins and growth factors
- Casing to Harvest of *Agaricus*
- Growing Indoors
- Environmental Control, equipment to measure and control the environment
- Overview of Pests, Diseases and Environmental Disorders

4. Harvesting, Storing and Using Mushrooms ,Marketing of Mushrooms

- Harvesting Buttons, Cups and Flats on *Agaricus bisporus*
- Fruiting patterns for *Agaricus bisporus* and other edible mushrooms
- Cool Storage of Mushrooms
- Freezing Mushrooms
- Dry Freezing Mushrooms
- Drying Mushrooms
- Canning Mushrooms
- Harvesting *Agaricus*; method of picking
- Handling *Agaricus* after harvest
- Controlled Atmosphere Storage
- Review of Marketing options for mushrooms

- Fresh Mushroom Sales
- Processed Mushroom Sales
- Production and Marketing of Oyster Mushroom and Straw Mushroom

Each lesson culminates in an assignment which is to be submitted to the college, marked by the tutors and returned to the students with any relevant suggestions, comments, and if necessary, extra reading

Suggested reading:-

- Growing Gourmet and Medicinal Mushrooms, Third Edition by Paul Stamets
- The Mushroom Cultivator : A Practical Guide to Growing Mushrooms at Home by Paul Stamets and J.S. Chilton
- Diseases and Pests of Mushrooms V. N. Pathak, Nagendra Yadav
- Modern Mushroom Cultivation V. N. Pathak, Nagendra Yadav & Maneesha Gaur
- Mushroom Production and Processing Technology V. N. Pathak, Nagendra Yadav .