



Govt. College for Women
(AUTONOMOUS) - GUNTUR. 1942 (Estd.)
College with Potential for Excellence

DEPARTMENT OF MICROBIOLOGY



A Certificate course in
OYSTER MUSHROOM CULTIVATION
From 25-11-2020 to 08-01-2021



Govt. College for Women (AUTONOMOUS) - GUNTUR. 1942 (Estd.) College with Potential for Excellence

DEPARTMENT OF MICROBIOLOGY

A CERTIFICATE COURSE IN OYSTER MUSHROOM CULTIVATION

About the certificate course: The course focus to provide self employment to students empowering them with the right knowledge to make their own Mushroom Making unit.

OUTCOMES OF CERTIFICATE COURSE: At the end of the course the student will

- To enhance skills in mushroom house management.
- To improve ability to harvest mushrooms and handle them post-harvest to maintain quality.
- To empower individuals to start their own mushroom cultivation entrepreneurship.

The course is designed and developed by the course coordinator and the following faculty taught the course

Dr. N. Praveena kumara

Dr. K.Sucharitha

Smt.P.Aruna

Course Details:

- Number of Participants: 37
- Duration of the course: 30 hours

Criteria of Assessment

- Summative: At the end of the course.

Number of Credits: 2

Eligibility Criteria to get the certificate

- 75 % attendance
- Attending both Formative and Summative Assessment.
- Securing minimum of 40% marks.

Timings: 4 PM TO 5 PM

Venue: Microbiology Lab, Government Women's college, Guntur.

Course starting date: 25-11-2020

Course ending date: 08-01-2021

Oster Mushroom cultivation

(Certificate course 30 hrs.)

SYLLABUS

Course objectives

- To facilitate self-employment.
- To know the nutrient value of mushroom.
- To study the morphology of oyster Mushrooms.
- To know the spawn production technique.
- To aware the identification of edible and poisonous Mushrooms.
- To learn the prospects and scope of mushroom cultivation in small scale industry.
- To understand the Diseases. Post harvesting techniques of Mushrooms.

UNIT I

History of mushroom cultivation, Introduction to oyster Mushrooms. Morphology of oyster mushrooms. Life cycle of oyster mushrooms. Spawn preparation - Isolation of pure culture; Nutrient media for pure culture; layout of spawn preparation room for the cultivation of oyster mushroom; raw material of spawn for oyster mushroom; sterilization; preparation of mother spawn and multiplication.

UNIT II

Cultivation of mushroom, layout of Oyster mushroom shed - small scale and large scale production unit. Types of raw material – preparation and sterilization; Oyster Mushroom bed preparation – maintenance of mushroom shed; harvesting method and preservation of oyster mushrooms.

UNIT III

Nutrient values of mushroom – protein, carbohydrate, fat, fibre, vitamins and amino acids contents; short and long term storage of mushroom; preparation of various dishes from oyster mushroom.

Medicinal value of oyster mushroom – cultivation, extraction, isolation and identification of active principle from oyster mushroom. Pharmacological and economic values of mushroom.

UNIT IV

Cultivation of following types of mushroom – oyster mushroom, button mushroom and any one medically valuable mushroom. Post harvesting techniques of oyster mushrooms.

Reference:

SUGGESTED BOOKS

1. Paul Stamets, J.S. and Chilton, J.S. 2004. Mushroom cultivation A practical guide to growing mushrooms at home, Agarikon Press.
2. Tewari and Pankaj Kapoor S.C. 1993. Mushroom cultivation. Mittal Publication. Delhi.
3. Marimuth et al., 1991. Oyster Mushrooms. Dept. of Plant pathology, TNAU, Coimbatore.
4. Nita Bahl. 1988. Hand book of Mushrooms, 2nd Edition, Vol I & II.

CERTIFICATE COURSE IN OYSTER MUSHROOM CULTIVATION

Introduction:

The Certificate Course on Oyster Mushroom Cultivation was conducted over a span of 30 hours, aimed at providing participants with comprehensive knowledge and practical skills in oyster mushroom cultivation. The course was designed to address the growing interest in mushroom farming and to equip individuals with the expertise needed to start their own oyster mushroom cultivation enterprises.

Aim:

To provide participants with a comprehensive understanding of oyster mushroom cultivation techniques.

To promote oyster mushroom cultivation as a sustainable agricultural enterprise.

To empower individuals with the knowledge and expertise to start their own oyster mushroom cultivation businesses.

Objectives:

- To facilitate self-employment.
- To know the nutrient value of mushroom.
- To study the morphology of oyster Mushrooms.
- To know the spawn production technique.
- To aware the identification of edible and poisonous Mushrooms.
- To learn the prospects and scope of mushroom cultivation in small scale industry.
- To understand the Diseases. Post harvesting techniques of Mushrooms.

Procedure:

The course comprised a series of lectures, demonstrations, hands-on activities. Participants were provided with course materials, manuals, and resources for further reading. Assessment methods include assignments, and a final exam where participants had to develop a milky mushroom cultivation plan for a hypothetical scenario.

Outcomes:

- Participants gained a solid understanding of oyster mushroom cultivation principles and techniques.
- Enhanced skills in substrate preparation, spawn production, and mushroom house management.
- Increased awareness of disease and pest management strategies specific to oyster mushroom cultivation.
- Improved ability to harvest mushrooms at the optimal stage of maturity and handle them post-harvest to maintain quality.
- Empowered individuals to start their own oyster mushroom cultivation enterprises or integrate mushroom farming into existing agricultural practices.

Government College For Women (A), Guntur
Department Of Microbiology

Certificate Course On Organic Farming

STUDENTS ENROLLMENT LIST

S.No	Name of the student	Course
1.	G.AUHYA	III MBC
2.	K.KEERTHANA	III MBC
3.	M.SRAVANI	III MBC
4.	M.SRI SAI MAHALAKSHMI	III MBC
5.	N.TULYA SREE	III MBC
6.	M.SRI LAKSHMI	III MBC
7.	M.HEMA PRIYANKA	III MBC
8.	M.TARANGINI	III MBC
9.	M.BHARGAVI	III MBC
10.	P.SWETHA	III MBC
11.	SK.FARIDHA BHANU	III MBC
12.	SK.SHABHANA	III MBC
13.	V.GAYATHRI RUJITHA	III MBC
14.	S.SRUTHI	III MBC
15.	A.VENKATA KALYANI	III MZC
16.	B.MERCY AMRITHA	III MZC
17.	B.NAGA MANI	III MZC
18.	CH.CHANDRIKA ALEKHYA	III MZC
19.	CH.PRASANTHI	III MZC
20.	D.PADMAJA	III MZC
21.	G.PRAVALLIKA	III MZC
22.	K.PRASANNA RANI	III MZC
23.	K.KEERTHI	III MZC
24.	K.SUMANJALI	III MZC
25.	M.JEEVITHA	III MZC
26.	L.KOUSALYA	III MZC
27.	N.DIVYA SIVANI	III MZC
28.	N.MANI CHANDANA	III MZC
29.	N.SOUNDARYA	III MZC
30.	P.PRATHYUSHA	III MZC
31.	P.RACHEL VIHITHA	III MZC
32.	S.MOUNIKA	III MZC
33.	SK.SADIYA NAWAJ	III MZC
34.	Y.RACHEL	III MZC
35.	SD.RESHMA	III MZC
36.	P.DIVYA	III MZC
37.	V.HARIKA	III MZC



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Certificate course in Mushroom cultivation (2020-21)
Attendance

31

[illegible]

MARKS:

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Certificate Course in Mushroom cultivation
(20 L0-21)
Marks

SNO	Name	Group	Hall ticket No	Marks
1	D. Anukhya	III MBL	18402002	19
2	K. Keerthana	"	18402006	20
3	M. Sravani	"	18402007	18
4	M. Sri Sai Mahalakshmi	"	18402008	19
5	M. Tulja Sree	"	18402009	20
6	M. Sri Lakshmi	"	18402010	20
7	M. Heria priya	"	18402011	17
8	M. Tharangaani	"	18402012	15
9	N. Bhargavi	"	18402013	20
10	P. Sweatha	"	18402015	19
11	R. Kavitha Bai	"	18402018	18
12	S. Sweatha	"	18402019	20
13	SK. Faridha Bharu	"	18402020	20
14	SK. Shabana	"	18402021	20
15	V. Gayathri pujitha	"	18402022	20
16	S. Sruthi	"	18402024	18
17	A. Vekata Kalyani	III MZC	18403001	16
18	B. Mercy Anrutha	"	18403002	20
19	B. Anaga Mani	"	18403003	20
20	Ch. Chandrika Alekhyia	"	18403005	19
21	Ch. Prashanthi	"	18403006	20
22	D. Padmaja	"	18403007	19
23	G. pravallika	"	18403008	18
24	K. Prasanna Rani	"	18403010	19
25	K. Keerthi	"	18403011	18
26	K. Sumanjali	"	18403012	16
27	M. Jeevitha	"	18403013	15
28	L. Kousalya	"	18403014	16
29	N. Divya Sivani	"	18403016	20
30	M. Moni chandra	"	18403017	16
31	N. Soundarya	"	18403018	15
32	P. Prathyusha	"	18403020	19
33	P. Rachel Vinitha	"	18403021	20

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SNO	Name	Group	Hall ticket No	Marks
1	S. Moonika	III MZC	184030283	18
2	SK. Sadiya Nawaz	"	18403025	15
3	SK. Reshma	"	18403026	20
4	V. Harika	"	18403028	19



**GOVERNMENT COLLEGE
FOR WOMEN (A)
GUNTUR, ANDHRA PRADESH**

**DEPARTMENT OF MICROBIOLOGY
CERTIFICATE COURSE**

This is to certify that Ms _____ of III B.Sc.
Microbiology Zoology Chemistry has successfully completed a
Certificate course in OYSTER MUSHROOM CULTIVATION
conducted by the Department of Microbiology from 25-11-
2020 to 08-01-2021 and fulfilled all prerequisites as per UGC
norms, for award of credits.

Course Coordinator

Incharge of Department

Principal

Certificate course-2020-21

Examination on Oyster Mushroom cultivation

I. Answer any 25 of the following questions 25x2=50M

1. What is Oyster mushroom.
2. How do you identify oyster mushrooms.
3. Discuss the distribution patterns of oyster mushrooms around the world.
4. Outline the life cycle of a typical mushroom.
5. Why is it important to identify poisonous mushrooms?
6. Describe the process of isolating a pure culture for spawn preparation.
7. What are the essential components of nutrient media for pure culture isolation?
8. Explain the layout of a spawn preparation room for oyster mushroom cultivation.
9. List the raw materials used for oyster mushroom spawn preparation.
10. Discuss the methods of sterilization in spawn preparation.
11. Compare and contrast small-scale and large-scale mushroom production units.
12. What types of raw materials are commonly used in mushroom cultivation? How are they prepared and sterilized?
13. Describe the process of mushroom bed preparation.
14. How should a mushroom shed be maintained for optimal cultivation?
15. What methods are employed in harvesting mushrooms, and how are they preserved?

16. Analyze the nutrient values of mushrooms, including protein, carbohydrate, fat, fiber, vitamins, and amino acids.
17. Discuss short and long-term storage methods for mushrooms.
18. Provide examples of various dishes that can be prepared from oyster mushrooms.
19. Explore the medicinal values of oyster mushrooms.
20. How are active principles extracted, isolated, and identified from oyster mushrooms?
21. Detail the cultivation process for oyster mushrooms.
22. Explain the cultivation techniques for button mushrooms.
23. Choose one medically valuable mushroom and describe its cultivation process.
24. What are the post-harvesting techniques specific to oyster mushrooms?
25. Discuss the economic significance of mushroom cultivation.
26. How has the history of mushroom cultivation evolved over time?
27. What are the primary classifications of mushrooms based on their characteristics?
28. In what regions of the world are mushrooms most commonly found?
29. Explain the significance of identifying and distinguishing poisonous mushrooms.
30. What is the importance of understanding the life cycle of mushrooms in cultivation?

