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 mush room house management.
- To improve ability to harvest mushrooms and handle them post-harvest to maintain quality.
- To empower individuals to start their own milky 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

GOVERNMENT COLLEGE FOR WOMEN (A), GUNTUR

DEPARTMENT OF MICROBIOLOGY

A CERTIFICATE COURSE
IN
OYSTER MUSHROOM CULTIVATION

2020-2021

From 25-11-2020 to 08-01-2021

CIRCULAR

A certificate course in Oyster Mushroom Cultivation will be held from 25-11-2020 to 08-01-2021 for III year students. The duration of the course is 30 hours. The course will help in introduce the prospects and scope in oyster mushroom cultivation involving practical sessions and facilitate self-employment.

Course Coordinator

PRINCIPAL
GOVT. COLLEGE FOR WOMEN (A)
GUNTUR.

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.

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. Tewan 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

Certificate

GOVERNMENT COLLEGE FOR WOMEN (A) GUNTUR, ANDHRA PRADESH

DEPARTMENT OF MICROBIOLOGY

CERTIFICATE COURSE IN OYSTER MUSHROOM CULTIVATION

This is to certify that Ms **N. DIVYA SIVANI** 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 | Principal

Certificate course in Mushroom cultivation (2020-21)

Attendance

S.No	Name	Group	Hall ticket No	25/11	26/11	27/11	28/11	30/11	1/12	2/12	3/12	4/12	5/12	7/12	8/12	9/12	10/12	11/12	12/12	14/12	15/12	16/12	17/12	18/12	19/12	21/12	22/12	23/12	24/12	26/12	28/12	29/12	30/12	31/12	6/1/21	7/1/21	8/1/21
1.	P. Anuhya	III MBC	184O3002	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X
2.	K. Keerthana	III MBC	184O3006	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X
3.	M. Sravani	III MBC	184O3007	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4.	M. Sri Sai Mahalakshmi	III MBC	184O3008	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5.	M. Tulya Sree	III MBC	184O3009	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	a	X	X
6.	M. Sri Lakshmi	III MBC	184O3010	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7.	M. Hema priyanka	III MBC	184O3011	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X
8.	M. Tharangini	III MBC	184O3012	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9.	N. Bhargavi	III MBC	184O3013	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10.	P. Swetha	III MBC	184O3015	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
11.	R. Kavitha Bai	III MBC	184O3018	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
12.	S. Swetha	III MBC	184O3019	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	a	X	X
13.	Sk. Fazidha Bhanu	III MBC	184O3020	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
14.	Sk. Shabana	III MBC	184O3021	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
15.	V. Gayathsri Rojitha	III MBC	184O3022	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
16.	S. Sruthi	III MBC	184O3024	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X
17.	A. Venkata Kalyani	III MZC	184O3001	X	X	X	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X
18.	B. Mercy Amrutha	III MZC	184O3002	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
19.	B. Naga Rani	III MZC	184O3003	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
20.	Ch. Chandrika Alekhya	III MZC	184O3005	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
21.	Ch. Prashanthi	III MZC	184O3006	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22.	D. Padmaja	III MZC	184O3007	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
23.	G. Pravillika	III MZC	184O3008	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
24.	K. Prasana Rani	III MZC	184O3010	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
25.	K. Keerthi	III MZC	184O3011	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	a	X	X
26.	K. Sumanjali	III MZC	184O3012	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
27.	M. Teevitha	III MZC	184O3013	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
28.	L. Kousalya	III MZC	184O3014	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
29.	N. Divya sivani	III MZC	184O3016	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
30.	N. Hari chandana	III MZC	184O3017	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
31.	N. Soundarya	III MZC	184O3018	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
32.	P. Prathyusha	III MZC	184O3020	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
33.	P. Rachel Vinitha	III MZC	184O3021	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

ATTENDENCE:

Certificate Course in Mushroom cultivation
(2020-21)

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Marks

S.No	Name	Group	Hall ticket No	Marks
1	D. Anusha	III MBt	18403002	19
2.	K. Keerthana	"	18402006	20
3.	M. Sravani	"	18402007	18
4	M. Sri Sai Mahalakshmi	"	18402008	19
5.	M. Tulya Sree	"	18402009	20
6	M. Srilakshmi	"	18402010	20
7	M. Hima priya	"	18402011	17
8	M. Tharangini	"	18402012	15
9.	N. Bhargavi	"	18402013	20
10.	P. Sweatha	"	18402015	18
11.	R. kavitha Bai	"	18402018	18
12.	S. Sweatha	"	18402019	20
13	Sk. Faridha Bhanu	"	18402020	20
14	Sk Shabana	"	18402021	20
15	V. Gayathri pujitha	"	18402022	20
16	S. Sruthi	"	18402024	18
17	A. Venkata kalyani	III MZC	18403001	16
18	B. Mercy Amrutha	"	18403002	20
19	B. Naga Mani	"	18403003	20
20.	Ch. Chandrika Alekhya	"	18403005	17
21	Ch. prashanthi	"	18403006	20
22.	D. Padmaja	"	18403007	18
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	Divya Sivani	"	18403016	20
30	M. Mani Chandra	"	18403017	16
31	N. Soundarya	"	18403018	15
32	P Prathyusha	"	18403020	17
33	P Rachel Viritha	"	18403021	20

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S.NO	Name	Group	Hall ticket No	Marks
	S. Mounika	III MZC	18403028	18
	Sk. Sadiya Nawaz	"	18403035	15
	Sd. Reshma	"	18403026	20
	V. Harika	"	18403038	19

Marks

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?