



RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

(Established by Government of Central Provinces Education Department by Notification No. 513 dated the 1st of August 1923 & presently a State Universities governed by Maharashtra Universities Act No. VI of 2017)

DEPARTMENT OF LIFELONG LEARNING AND EXTENSION
Guru Nanak Bhawan, University Campus, Ambazari Bypass Road, Nagpur-440033 Phone: 2530860

Dr. Nishikant Raut, (Director)

Mob. No. 9422803768

To,
The Principal
SSES Amravati's Science
College, Congress Nagar,
Nagpur.

No. DOLLE/464/23
Dated : 26. 10. 2023

Subject : Sanction for Conducting Short Term Courses under Jeevan Shikshan Abhiyan on No Grant Basis. (2023-24)

Sir/Madam,

With reference to your proposal for conducting Short Term courses indicated below under Jeevan Shikshan Abhiyan of this Department, this is to inform you that your proposal has been accepted and your College has been granted permission to conduct the course on the following conditions:

Details of the Course

Sr. No.	Name of the Course	Name of Course Coordinator	Duration	Credit	No. of Candidates to be admitted	Fees to be Charged per Student	Fees to be Deposited With the Deptt.
1.	Certificate Course in Biofertilizer and Biopesticide Production.	Dr. Pranita.B. Gulhane.	45 hrs. T-37 hrs. P-08 hrs.	2	80	500/-	10%
2.	Certificate Course in Ground Water Exploration.	Dr. P .B . Zamarkar.	45 hrs. T-36 hrs. P-09 hrs.	2	100	500/-	10%
3.	Certificate Course in Mushroom Cultivation.	Dr. Rupali . H. Mahakhode.	40 hrs. T-20 hrs. P-20 hrs.	2	80	500/-	10%
4.	Certificate Course in Fruit Processing and Wine Technology.	Dr. Pranita B. Gulhane.	45 hrs. T-37 hrs. P-8 hrs.	2	80	500/-	10%
5.	Certificate Course in Environment and water Management.	Dr. Priyadashani N . Deshmukh.	45 hrs. T-30 hrs. P-15 hrs.	2	150	500/-	10%
6.	Certificate Course in Immunology and Immunodiagnosics .	Dr. Sapna. Baghel .	44 hrs. T-36 hrs. P-08 hrs.	2	80	500/-	10%

Rules & Regulations of this Department regarding these courses should be strictly followed.

1. This sanction is valid for this particular Batch only.
2. Fees for the course should be charged as per the norms prescribed.
3. Expenditure on the course should be incurred as per norms.
4. Course should be started within a Month from the date of sanction.
Please communicate your acceptance within a month and submit the Initial Report
5. Submit the List of Students admitted in the excel format attached herewith.
6. Geotagged Photographs clicked during theory and practical classes have to be submitted along with the final report. Other than geotagged photographs will not be accepted.
7. Complete details and evidences (along with geotagged photographs) for theory & practical exam / assessment will have to be submitted. Guidelines for allotment of grades should be strictly followed.



Shri Shivaji Education Society Amravati's

SCIENCE COLLEGE

Congress Nagar, Nagpur - 440012 (M.S.) India.
Accredited With CGPA Of 3.51 At 'A+' Grade.



Department of Botany

Organizes

**SKILL-BASED
MUSHROOM
CULTIVATION
CERTIFICATE
COURSE**

2023-2024

ABOUT COURSE

- Extensive Sessions & training in mushroom cultivation techniques.
- Practical, hands-on experience with real-world applications.
- Expert guidance from industry experts.
- In-depth exploration of substrate preparation, inoculation, and harvesting.
- Skills development through project presentations and assessments.



For Registration Contact

Dr. Rupali H. Mahakhode

Application for Admission to Skill based course.

1) Certificate course : 2) Diploma course: 3) Advance diploma:

To,
The Principal,
Science College
Congress Nagar, Nagpur-12



R/Sir,

I hereby apply for admission to the above course. I shall abide by the rules and regulations of the concerned department and college.

Signature of the applicant

PARTICULARS TO BE FILLED IN BY THE CANDIDATE:

- 1) Full Name (Block Letters) YASH SUNIL Daxle
2) Details of last exam. passed/failed/group/ percent marks obt. B.Sc 1st year.
71%
3) Name of Skill base programme to apply : Mushroom Cultivation.
4) Details of other courses Applied/admitted -
5) Date of birth : 28-07/2004 Contact No. 7299344192
E-mail. yashdaxle@28gmail.com yashdaxle07@gmail.com
6) Information of Father / Guardian:
a) Full Name : SUNIL DORLE b) Occupation: Electric Contr
actor.
c) Annual Income: 50,000 d) Contact No. 9075197530
e) E. mail. -

Postal address of student for correspondence:

Krishna Mandir Parisar
Near police quarter
area / Bhandara.

Signature of the applicant

Declaration of Father or Guardian

I declare that the applicant is my son / daughter / ward and the particulars given above by him / her are correct and shall see that he / she observes all the rules of the college.

Signature of the father / Guardian.

Full Name. Sunil Daxle

Address Krishna Mandir

Area Near police Quarter
Bhandara.

RTM Nagpur University
Department of Life Long Learning and Extension
Skill Based Course

S.S.E.S. AMRAVATI'S SCIENCE COLLEGE
CONGRESS NAGAR, NAGPUR, MAHARASHTRA 440012
Department of Botany

Certificate Course in
Mushroom Cultivation
CURRICULUM AND DETAILED SYLLABUS

Course title	Certificate Course in Mushroom Cultivation
Qualification of the Candidate	H.S.S.C
Duration	03 Months

Sr. No.	Distribution of Marks	Marks (40)
1.	Identification & comment on spots (5 spots)	10
2.	Project Submission	20
3.	Field visit	05
4.	Viva-voce	05

Mahakhode
Dr. R.H. Mahakhode
Course Coordinator
Dr. Rupali H. Mahakhode
Assistant Professor
Department of Botany
SSES Am't's Science College
Congress Nagar, Nagpur-440012.

SYLLABUS

Course components	Learning hours and mode of delivery
Unit-I: Introduction to mushrooms I. Scope, importance and history II. Classification of Mushroom III. Identification of Edible & Poisonous Mushrooms IV. Economic Importance of Mushroom	3 Weeks 07 THEORY
Unit-II: Infrastructure I. Designing & construction of Mushroom farms II. Tools & Machinery III. Sterilization and inoculation technique IV. Mushroom compost	2 Weeks 03 THEORY
Unit-III: Cultivation technique I. Climate requirement II. Bed/Bag preparation III. Types of straw in Mushroom Cultivation IV. Harvesting and post harvesting care	2 Weeks 04 THEORY
Unit-IV: Crop management & Health benefits I. Crop management II. Role of fungicide and bactericide III. Nutritional & Medicinal value of Mushroom IV. Mushroom care & handling	3 Weeks 06 THEORY
List of Practical: I. To study the identification of different types of Mushrooms II. To study the Tools used in mushroom cultivation III. To study the designing of mushroom unit IV. To study Sterilization technique V. To study inoculation technique VI. Preparation of different types of compost VII. Pasteurization of compost VIII. Methods of selection of different straws IX. To demonstrate Bed preparation X. To demonstrate Bag preparation XI. Selection of correct spawn XII. To study the different types of fungicide XIII. To study the different types of bactericide XIV. Mushroom care & handling XV. Field visit & project submission XVI. Workshop on Mushroom Cultivation	20 PRACTICAL

Teaching Plan
Certificate Course (10 Weeks)
Mushroom Cultivation

Weeks	Theory/Practical	Class/ Hours	Contents
Week I	Theory 1	60 min.	Introduction & History of Mushroom
	Theory 2	60 min.	Scope & Importance of Mushroom
	Practical	60 min.	Introduction to different Mushrooms
	Practical	60 min.	Morphology of Mushroom
Week II	Theory 3	60 min.	Classification of Mushroom
	Theory 4	60 min.	Identification of Edible Mushroom
	Practical	60 min.	To study the identification of Edible Mushroom
	Practical	60 min.	To study the identification of Poisonous Mushroom
Week III	Theory 5	60 min.	Identification of Poisonous Mushroom
	Theory 6	60 min.	Characters of Edible & Poisonous Mushroom
	Practical	60 min.	To study the tools used in mushroom cultivation
	Practical	60 min.	To study the designing of mushroom unit
Week IV	Theory 7	60 min.	Economic importance of Mushroom
	Theory 8	60 min.	Designing & construction of Mushroom farms
	Practical	60 min.	To study sterilization technique
	Practical	60 min.	To study inoculation technique
Week V	Theory 9	60 min.	Different tools & machinery used in mushroom cultivation
	Theory 10	60 min.	Sterilization & Inoculation technique
	Practical	60 min.	Preparation of different types of compost
	Practical	60 min.	Pasteurization of compost
Week VI	Theory 11	60 min.	Climate requirement
	Theory 12	60 min.	Bed preparation
	Practical	60 min.	Selection of correct spawn
	Practical	60 min.	Methods of selection of different straws

Week VII	Theory 13	60 min.	Bag preparation
	Theory 14	60 min.	Harvesting & Post harvesting care
	Practical	60 min.	To demonstrate Bed preparation
	Practical	60 min.	To demonstrate Bag preparation
Week VIII	Theory 15	60 min.	Crop management
	Theory 16	60 min.	Role of fungicide
	Practical	60 min.	To study the different types of fungicide
	Practical	60 min.	To study the different types of bactericide
Week IX	Theory 17	60 min.	Role of bactericide
	Theory 18	60 min.	Nutritional value of mushroom
	Practical	60 min.	Mushroom care & handling
	Practical	60 min.	Field visit
Week X	Theory 19	60 min.	Medicinal value of mushroom
	Theory 20	60 min.	Project writing
	Practical	60 min.	Spotting on different types of Mushroom
	Practical	60 min.	Workshop on Mushroom Cultivation

R. Mahakhode

Dr. R.H. Mahakhode
 Course Coordinator
 Dr. ~~Depal~~ Mahakhode
 Assistant Professor
 Department of Botany
 SSES Amt's Science College
 Congress Nagar, Nagpur-440012.

S.S.E.S. Amt's Science College, Congress Nagar, Nagpur.

Department of Botany

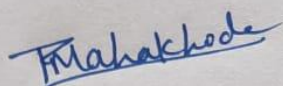
SKILL BASE PROGRAMME (2023-2024)

Certificate Course: Mushroom Cultivation

Notice

The Department of Botany is conducting **Certificate Course on Mushroom Cultivation** (Skill Base Course) under Department of Life Long Learning and Extension, RTMNU, Nagpur for the session 2023-24. Interesting students of B.Sc. Part I, Part II & Part III should registered themself in early and contact to the Course Coordinator Dr. R. H. Mahakhode immediately.

Course	Admission Fees
Mushroom Cultivation	Rs. 500/-



Dr. R.H. Mahakhode
Course Coordinator
Dept. of Botany



Prof. R.N. Deshmukh
HOD
Dept. of Botany

S.S.E.S. Amt's Science College, Congress Nagar, Nagpur.

Department of Botany
SKILL BASED PROGRAMME (2023-2024)
Certificate Course: Mushroom Cultivation

Sr. No	Name of Students	Sr. No	Name of Students
1	Admane Tanvi Ravindra	20	Nakhale Mansi Nagesh
2	Bangadkar Megha Sanjay	21	Nagpure Gayatri Tejlal
3	Bambal Aishwarya Pramod	22	Patil Chaitali Sandeep
4	Bisen Minal Shankar	23	Rajput Madhura Chandrashekhar
5	Bhandarkar Toral Suresh	24	Raut Sanika Vilas
6	Borkar Sejal Rajesh	25	Satpute Sanvay Sanjay
7	Burade Janhavi Narendra	26	Samrit Smita Arvind
8	Chirkute Anushree Vijay	27	Siingh Riya Virendra kumar
9	Chaudhari Ketaki Prakash	28	Shende Kasak Pravin
10	Dorle Yash Sunil	29	Solanki Mohak Hitesh
11	Durbule Rasika Rajesh	30	WasekarJiwak Dilip
12	Fiske Vedanti Jagdish	31	Waghmare Aditya Anand
13	Ghangare Priyanka Liladhar	32	Wankhede Shreya Dnyaneshwar
14	Ghaturle Grishma Vinod	33	Walke Devyani Ratnakar
15	Gurnule Madhavi Dhanraj	34	Wasnik Aakanksha Lahanu
16	Jadhao Ekta Lokhande	35	Yadav Dipesh Gyaneshwar
17	Kolhe Chetan Sanjay	36	Yadav Soumya Sunil
18	Kowe Rajshree Parmanand	37	Zade Akanksha Sanjay
19	Mahajan Bhumi Sudhakar	38	Zadgaonkar Avanti Anirudha

S.S.E.S.A's Science College, Congress Nagar, Nagpur

SKILL BASE PROGRAMME(2023-2024)

DEPARTMENT OF BOTANY

TIME TABLE

Certificate Course: Mushroom Cultivation

w.e.f. 01/03/2024

Days	Time	
	Theory Classes	Practical Classes
Monday	3:15 pm-4:15pm	-
Tuesday	3:15 pm-4:15pm	-
Wednesday	-	-
Thursday	-	-
Friday	-	3:15 pm-4:15pm
Saturday	-	3:15 pm-4:15pm

Rupali H. Mahakhode

Dr. Rupali H. Mahakhode
Course Coordinator
S.S.E.S.A's Science College,
Congress Nagar, Nagpur
Assistant Professor
Department of Botany
SSES Amt's Science College
Congress Nagar, Nagpur-440012.

S.S.E.S. Am't Science College, Congress Nagar, Nagpur.

Department of Botany
SKILL BASED PROGRAMME (2023-2024)
Certificate Course: Mushroom Cultivation

Guest Lecture Attendance 22/03/2024

Sr. No	Name of Students	Signature
1	Admane Tanvi Ravindra	
2	Bangadkar Megha Sanjay	
3	Bambal Aishwarya Pramod	
4	Bisen Minal Shankar	
5	Bhandarkar Toral Suresh	
6	Borkar Sejal Rajesh	
7	Burade Janhavi Narendra	
8	Chirkute Anushree Vijay	
9	Chaudhari Ketaki Prakash	
10	Dorle Yash Sunil	
11	Durbule Rasika Rajesh	
12	Fiske Vedanti Jagdish	
13	Ghangare Priyanka Liladhar	
14	Ghaturlle Grishma Vinod	

15	Gurnule Madhavi Dhanraj	
16	Jadhao Ekta Lokhande	
17	Kolhe Chetan Sanjay	
18	Kowe Rajshree Parmanand	
19	Mahajan Bhumi Sudhakar	
20	Nakhale Mansi Nagesh	
21	Nagpure Gayatri Tejal	
22	Patil Chaitali Sandeep	
23	Rajput Madhura Chandrashekhar	
24	Raut Sanika Vilas	
25	Satpute Sanvay Sanjay	
26	Samrit Smita Arvind	
27	Siingh Riya Virendra kumar	
28	Shende Kasak Pravin	
29	Solanki Mohak Hitesh	
30	WasekarJiwak Dilip	
31	Waghmare Aditya Anand	
32	Wankhede Shreya Dnyaneshwar	
33	Walke Devyani Ratnakar	

34	Wasnik Aakanksha Lahanu	
35	Yadav Dipesh Gyaneshwar	
36	Yadav Soumya Sunil	
37	Zade Akanksha Sanjay	
38	Zadgaonkar Avanti Anirudha	

Dr. R. H. Mahakhode
Assistant Professor
Department of Botany
SSES Am't Science College
Congress Nagar, Nagpur-440017.

S.S.E.S. Amt's Science College, Congress Nagar, Nagpur.

Department of Botany
SKILL BASED PROGRAMME (2023-2024)
Certificate Course: Mushroom Cultivation

GUEST LECTURE ATTENDANCE 26/03/2024

Sr. No	Name of Students	Signature
1	Admane Tanvi Ravindra	
2	Bangadkar Megha Sanjay	
3	Bambal Aishwarya Pramod	
4	Bisen Minal Shankar	
5	Bhandarkar Toral Suresh	
6	Borkar Sejal Rajesh	
7	Burade Janhavi Narendra	
8	Chirkute Anushree Vijay	
9	Chaudhari Ketaki Prakash	
10	Dorle Yash Sunil	
11	Durbule Rasika Rajesh	
12	Fiske Vedanti Jagdish	
13	Ghangare Priyanka Liladhar	
14	Ghatule Grishma Vinod	
15	Gurnule Madhavi Dhanraj	
16	Jadhao Ekta Lokhande	
17	Kolhe Chetan Sanjay	

S.S.E.S. Amt's Science College, Congress Nagar, Nagpur.

Department of Botany
SKILL BASED PROGRAMME (2023-2024)
Certificate Course: Mushroom Cultivation

GUEST LECTURE ATTENDANCE 26/03/2024

Sr. No	Name of Students	Signature
18	Kowe Rajshree Parmanand	
19	Mahajan Bhumi Sudhakar	
20	Nakhale Mansi Nagesh	
21	Nagpure Gayatri Tejlal	
22	Patil Chaitali Sandeep	
23	Rajput Madhura Chandrashekhar	
24	Raut Sanika Vilas	
25	Satpute Sanvay Sanjay	
26	Samrit Smita Arvind	
27	Singh Riya Virendra kumar	
28	Shende Kasak Pravin	
29	Solanki Mohak Hitesh	
30	WasekarJiwak Dilip	
31	Waghmare Aditya Anand	
32	Wankhede Shreya Dnyaneshwar	
33	Walke Devyani Ratnakar	
34	Wasnik Aakanksha Lahanu	
35	Yadav Dipesh Gyaneshwar	
36	Yadav Soumya Sunil	
37	Zade Akanksha Sanjay	
38	Zadgaonkar Avanti Anirudha	

S.S.E.S. Amt's Science College, Congress Nagar, Nagpur.

Department of Botany
SKILL BASED PROGRAMME (2023-2024)
Certificate Course: Mushroom Cultivation

BATCH-1 TWO DAYS WORKSHOP ATTENDANCE 27-28/03/2024

Sr. No	Name of Students	Signature 27/03/2024	Signature 28/03/2024
1	Bisen Minal Shankar		
2	Borkar Sejal Rajesh		
3	Fiske Vedanti Jagdish		
4	Ghangare Priyanka Liladhar		
5	Ghatule Grishma Vinod		
6	Gurnule Madhavi Dhanraj		
7	Mahajan Bhumi Sudhakar		
8	Nakhale Mansi Nagesh		
9	Nagpure Gayatri Tejlal		
10	Rajput Madhura Chandrashekhar		
11	Raut Sanika Vilas		
12	Satpute Sanvay Sanjay		
13	Singh Riya Virendra kumar		
14	Shende Kasak Pravin		
15	Solanki Mohak Hitesh		
16	Waghmare Aditya Anand		
17	Yadav Dipesh Gyaneshwar		
18	Yadav Soumya Sunil		
19	Zade Akanksha Sanjay		

S.S.E.S. Amt's Science College, Congress Nagar, Nagpur.

Department of Botany
SKILL BASED PROGRAMME (2023-2024)
Certificate Course: Mushroom Cultivation

BATCH-2 TWO DAYS WORKSHOP ATTENDANCE 01-02/04/2024

Sr. No	Name of Students	Signature 01/04/2024	Signature 02/04/2024
1	Admane Tanvi Ravindra		
2	Bangadkar Megha Sanjay		
3	Bambal Aishwarya Pramod		
4	Bhandarkar Toral Suresh		
5	Burade Janhavi Narendra		
6	Chirkute Anushree Vijay		
7	Chaudhari Ketaki Prakash		
8	Dorle Yash Sunil		
9	Durbule Rasika Rajesh		
10	Jadhao Ekta Lokhande		
11	Kolhe Chetan Sanjay		
12	Kowe Rajshree Parmanand		
13	Patil Chaitali Sandeep		
14	Samrit Smita Arvind		
15	Wankhede Shreya Dnyaneshwar		
16	Wasekar Jiwak Dilip		
17	Walke Devyani Ratnakar		
18	Wasnik Aakanksha Lahanu		
19	Zadgaonkar Avanti Anirudha		

Department of Botany

Skill Based Course (Session-2023-24)

Mushroom Cultivation Certificate Course

Theory Examination (Multiple choice based questions)

Time- 1.5 hours

Maximum Marks- 50

Name: _____

Roll No. _____

Class: B.Sc./M.Sc. Semester: _____ Group: _____

Date: _____

Invigilator Sign. _____

N.B:- (1) There are 25 objective type questions and each question carry 2 marks.

(2) All questions are compulsory.

(3) Tick mark the correct answer

Q. Choose the correct option from the following questions.

1. _____ is known as temperature tolerant white button mushroom.

- Agaricus*
- Pleurotus*
- Voveriella*
- Agaricus bitorquis*

2. Formaldehyde is used as _____ in mushroom cultivation.

- Disinfectant
- Fertilizer
- Insect repellent
- Food material

3. Fungi are different from plants because

- they lack organelles
- they are unable to fix CO₂
- they rely on absorptive nutrition
- they are autotrophs

4. What is the other name of Mushroom?

- Funaria*
- Dryopteris*
- Agaricus*
- Ferus*

5. Longer method of compost preparation requires -----days

- 28 days
- 15 Days
- 45 days
- 8 days

6. Mycelium produces white or colored umbrella shaped fruiting bodies called:

- Haphae
- Basidiocarp
- Annalus
- Seta

7. Mushroom has _____

- Anticancer property
- Anti aging property
- Antibiotic property
- All of the above

8. Mushroom is:

- Saprophytic fungus
- Autotrophic Algae
- Heterotrophic fungus
- None of the above

9. On the lower side of Pileus number of vertical plates like structure is present called _____

- Spores
- Organelles
- Mushroom Dryopteris
- Gills

10. What percentage of water comprises the mushroom?

- 85 - 95%
- 1 - 5%
- 25%
- None of the above

11. *Pleurotus* is also known as

- Paddy straw mushroom
- Dhingri Mushroom
- Button Mushroom
- None of the above

12. Oyster is the types of _____ mushroom.

- Poisonous
- Non- poisonous
- Edible
- Non-edible

13. During Spawning temperature should be maintain between

- 20-30
- 55-70
- 80-100
- 0-10

14. What is the process called in which mushrooms are grown in a controlled environment, such as a greenhouse or laboratory?

- Cultivation
- Foraging
- Harvesting
- Wild crafting

15. Which among the following is short term mushroom storage?

- Refrigeration
- Canning
- Pickling
- Brining

16. _____ is known as "King oyster mushroom"

- Pleurotus eryngii*
- Volveriella*
- Agaricus*
- None of the above

17. Mushroom is good source of

- Protein
- Carbohydrates
- Fats
- None of these

18. What are symptoms of mushroom poisoning?

- Mild nausea
- Vomiting
- Diarrhea
- All of the above

19. What is the mode of nutrition of mushroom?

- Photosynthetic
- Chemosynthetic
- Saprophytic
- None of the above

20. What is the primary function of the gills found on the underside of a mushroom cap?

- To absorb sunlight for photosynthesis
- To release spores for reproduction
- To absorb water and nutrients
- To provide camouflage

21. Which among the following mineral is commonly found in mushrooms?

- Aluminium
- Manganese
- Potassium
- Strontium

22. The poisonous mushrooms are popularly known as _____

- Toadstool
- Gill's
- Spores
- Oyster

23. Which among the following is added to the mushroom compost

- Table salt
- Urea
- Potassium chloride
- Silica

24. Substrate for mushroom cultivation should be rich in

- Cellulose
- Lignin
- Hemicellulose
- All the above

25. Which among the following mushroom yield anticancer drug

- Agaricus bisporus*
- Ganoderma lucidum*
- Volvariella volvacea*
- Lycoperdon perlatum*

Department of Botany
Skill Based Course (Session-2023-24)
Mushroom Cultivation Certificate Course
Theory Examination
ATTENDANCE SHEET

Date: 18.07.2024

Sr. No.	Roll No.	Name of Student	Signature	Invigilator Sign.
1	BOT01	Admane Tanvi Ravindra	<i>Tanvi Admane</i>	<i>Aishwarya</i>
2	BOT02	Bangadkar Megha Sanjay	<i>Megha</i>	<i>Aishwarya</i>
3	BOT03	Bambal Aishwarya Pramod	<i>Aishwarya</i>	<i>Aishwarya</i>
4	BOT04	Bisen Minal Shankar	<i>Minal</i>	<i>Aishwarya</i>
5	BOT05	Bhandarkar Toral Suresh	<i>Toral</i>	<i>Aishwarya</i>
6	BOT06	Borkar Sejal Rajesh	<i>Sejal</i>	<i>Aishwarya</i>
7	BOT07	Burade Janhavi Narendra	<i>Janhavi</i>	<i>Aishwarya</i>
8	BOT08	Chirkute Anushree Vijay	<i>Anushree</i>	<i>Aishwarya</i>
9	BOT09	Chaudhari Ketaki Prakash	<i>Ketaki</i>	<i>Aishwarya</i>
10	BOT10	Dorle Yash Sunil	<i>Yash</i>	<i>Aishwarya</i>
11	BOT11	Durbule Rasika Rajesh	<i>Rasika</i>	<i>Aishwarya</i>
12	BOT12	Fiske Vedanti Jagdish	<i>Vedanti</i>	<i>Aishwarya</i>
13	BOT13	Ghangare Priyanka Liladhar	<i>Priyanka</i>	<i>Aishwarya</i>
14	BOT14	Ghatule Grishma Vinod	<i>Grishma</i>	<i>Aishwarya</i>
15	BOT15	Gurmule Madhavi Dhanraj	<i>Madhavi</i>	<i>Bharma.</i>
16	BOT16	Jadhao Ekta Lokhande	ABSENT	<i>Bharma.</i>
17	BOT17	Kolhe Chetan Sanjay	<i>Chetan</i>	<i>Bharma.</i>
18	BOT18	Kowe Rajshree Parmanand	<i>Rajshree</i>	<i>Bharma.</i>
19	BOT19	Mahajan Bhumi Sudhakar	<i>Bhumi</i>	<i>Bharma.</i>
20	BOT20	Nakhale Mansi Nagesh	<i>Mansi</i>	<i>Bharma.</i>
21	BOT21	Nagpure Gayatri Tejal	<i>Gayatri</i>	<i>Bharma.</i>
22	BOT22	Patil Chaitali Sandeep	<i>Chaitali</i>	<i>Bharma.</i>
23	BOT23	Rajput Madhura Chandrashekhar	<i>Madhura</i>	<i>Bharma.</i>

Department of Botany
Skill Based Course (Session-2023-24)
Mushroom Cultivation Certificate Course
Theory Examination
ATTENDANCE SHEET

Date: 18.07.2024

Sr. No.	Roll No.	Name of Student	Signature	Invigilator Sign.
24	BOT24	Raut Sanika Vilas	<i>Sanika</i>	<i>Bharma.</i>
25	BOT25	Satpute Sanvay Sanjay	<i>Sanvay</i>	<i>Bharma.</i>
26	BOT26	Samrit Smita Arvind	<i>Smita</i>	<i>Bharma.</i>
27	BOT27	Siingh Riya Virendra kumar	<i>Riya</i>	<i>P.Bharma</i>
28	BOT28	Shende Kasak Pravin	<i>Pravin</i>	<i>P.Bharma</i>
29	BOT29	Solanki Mohak Hitesh	<i>Mohak</i>	<i>P.Bharma</i>
30	BOT30	Wasekar Jiwak Dilip	<i>Jiwak</i>	<i>P.Bharma</i>
31	BOT31	Waghmare Aditya Anand	<i>Aditya</i>	<i>P.Bharma</i>
32	BOT32	Wankhede Shreya Dnyaneshwar	<i>Shreya</i>	<i>P.Bharma</i>
33	BOT33	Walke Devyani Ratnakar	<i>Devyani</i>	<i>P.Bharma</i>
34	BOT34	Wasnik Aakanksha Lahanu	<i>Aakanksha</i>	<i>P.Bharma</i>
35	BOT35	Yadav Dipesh Gyaneshwar	ABSENT	<i>P.Bharma</i>
36	BOT36	Yadav Soumya Sunil	<i>Soumya</i>	<i>P.Bharma</i>
37	BOT37	Zade Akanksha Sanjay	<i>Akanksha</i>	<i>P.Bharma</i>
38	BOT38	Zadgaonkar Avanti Anirudha	<i>Avanti</i>	<i>P.Bharma</i>

Name and Signature of Invigilator

1. AISHWARYA M. ZURE - *Aishwarya*
2. PIYUSH SHARMA - *Bharma.*
3. PALLAVI N. BUTLE - *P.Bharma*

Department of Botany
Skill Based Course (Session-2023-24)
Mushroom Cultivation Certificate Course
Practical Examination
ATTENDANCE SHEET

Date: 18.07.2024

Sr. No.	Roll No.	Name of Student	Signature	Invigilator Sign.
1	BOT01	Admane Tanvi Ravindra	<i>Tanvi Admane</i>	<i>Bharma.</i>
2	BOT02	Bangadkar Megha Sanjay	<i>Megha</i>	<i>Bharma</i>
3	BOT03	Bambal Aishwarya Pramod	<i>Aishwarya</i>	<i>Bharma.</i>
4	BOT04	Bisen Minal Shankar	<i>Minal</i>	<i>Bharma.</i>
5	BOT05	Bhandarkar Toral Suresh	<i>Toral</i>	<i>Bharma.</i>
6	BOT06	Borkar Sejal Rajesh	<i>Sejal</i>	<i>Bharma.</i>
7	BOT07	Burade Janhavi Narendra	<i>Janhavi</i>	<i>Bharma.</i>
8	BOT08	Chirkute Anushree Vijay	<i>Anushree</i>	<i>Bharma.</i>
9	BOT09	Chaudhari Ketaki Prakash	<i>Ketaki</i>	<i>Bharma.</i>
10	BOT10	Dorle Yash Sunil	<i>Yash</i>	<i>Bharma.</i>
11	BOT11	Durbule Rasika Rajesh	<i>Rasika</i>	<i>Bharma.</i>
12	BOT12	Fiske Vedanti Jagdish	<i>Vedanti</i>	<i>Bharma.</i>
13	BOT13	Ghangare Priyanka Liladhar	<i>Priyanka</i>	<i>Bharma.</i>
14	BOT14	Ghatule Grishma Vinod	<i>Grishma</i>	<i>Bharma.</i>
15	BOT15	Gurmule Madhavi Dhanraj	<i>Madhavi</i>	<i>Bharma.</i>
16	BOT16	Jadhao Ekta Lokhande	ABSENT	<i>Bharma.</i>
17	BOT17	Kolhe Chetan Sanjay	<i>Chetan</i>	<i>Bharma.</i>
18	BOT18	Kowe Rajshree Parmanand	<i>Rajshree</i>	<i>Bharma.</i>
19	BOT19	Mahajan Bhumi Sudhakar	<i>Bhumi</i>	<i>Bharma.</i>
20	BOT20	Nakhale Mansi Nagesh	<i>Mansi</i>	<i>Aishwarya</i>
21	BOT21	Nagpure Gayatri Tejal	<i>Gayatri</i>	<i>Aishwarya</i>
22	BOT22	Patil Chaitali Sandeep	<i>Chaitali</i>	<i>Aishwarya</i>
23	BOT23	Rajput Madhura Chandrashekhar	<i>Madhura</i>	<i>Aishwarya</i>

Department of Botany
Skill Based Course (Session-2023-24)
Mushroom Cultivation Certificate Course
Practical Examination
ATTENDANCE SHEET

Date: 18.07.2024

Sr. No.	Roll No.	Name of Student	Signature	Invigilator Sign.
24	BOT24	Raut Sanika Vilas	<i>Sanika</i>	<i>Aishwarya</i>
25	BOT25	Satpute Sanvay Sanjay	<i>Sanvay</i>	<i>Aishwarya</i>
26	BOT26	Samrit Smita Arvind	<i>Smita</i>	<i>Aishwarya</i>
27	BOT27	Siingh Riya Virendra kumar	<i>Riya</i>	<i>Aishwarya</i>
28	BOT28	Shende Kasak Pravin	<i>Pravin</i>	<i>Aishwarya</i>
29	BOT29	Solanki Mohak Hitesh	<i>Mohak</i>	<i>Aishwarya</i>
30	BOT30	Wasekar Jiwak Dilip	<i>Jiwak</i>	<i>Aishwarya</i>
31	BOT31	Waghmare Aditya Anand	<i>Aditya</i>	<i>Aishwarya</i>
32	BOT32	Wankhede Shreya Dnyaneshwar	<i>Shreya</i>	<i>Aishwarya</i>
33	BOT33	Walke Devyani Ratnakar	<i>Devyani</i>	<i>Aishwarya</i>
34	BOT34	Wasnik Aakanksha Lahanu	<i>Aakanksha</i>	<i>Aishwarya</i>
35	BOT35	Yadav Dipesh Gyaneshwar	ABSENT	<i>Aishwarya</i>
36	BOT36	Yadav Soumya Sunil	<i>Soumya</i>	<i>Aishwarya</i>
37	BOT37	Zade Akanksha Sanjay	<i>Akanksha</i>	<i>Aishwarya</i>
38	BOT38	Zadgaonkar Avanti Anirudha	<i>Avanti</i>	<i>Aishwarya</i>

Name and Signature of Invigilator

1. AISHWARYA M. ZURE - *Aishwarya*
2. PIYUSH R. SHARMA - *Bharma.*
3. _____

Department of Botany
SKILL BASED COURSE EXAMINATION (2023-2024)

Certificate Course: Mushroom Cultivation

Date: 20/07/2024

Total Marks: 100

STATEMENT OF MARKS

Sr. No.	Name of Students	Theory Marks (50)	Practical Marks (30)	Project Marks (10)	Internal Assessment (10)	Total Marks (100)	Grade
1	Admane Tanvi Ravindra	40	26	10	10	86	A+
2	Bangadkar Megha Sanjay	36	23	10	10	78	A
3	Bambal Aishwarya Pramod	20	17	09	10	57	B
4	Bisen Minal Shankar	42	24	10	10	86	A+
5	Bhandarkar Toral Suresh	40	24	10	10	84	A+
6	Borkar Sejal Rajesh	18	17	09	10	54	B
7	Burade Janhavi Narendra	42	27	10	10	89	A+
8	Chirkute Anushree Vijay	40	20	10	10	80	A
9	Chaudhari Ketaki Prakash	46	25	10	10	91	O
10	Dorle Yash Sunil	34	27	10	10	81	A+
11	Durbule Rasika Rajesh	46	29	10	10	95	O
12	Fiske Vedanti Jagdish	40	25	09	10	84	A+
13	Ghangare Priyanka Liladhar	42	20	10	10	82	A+
14	Ghaturle Grishma Vinod	46	25	10	10	91	O
15	Gurnule Madhavi Dhanraj	38	24	10	10	82	A+

Sr. No.	Name of Students	Theory Marks (50)	Practical Marks (30)	Project Marks (10)	Internal Assessment (10)	Total Marks (100)	Grade
16	Jadhao Ekta Lokchand	AB	AB	08	10	18	--
17	Kolhe Chetan Sanjay	32	17	09	10	68	B+
18	Kowe Rajshree Parmanand	32	26	10	10	78	A
19	Mahajan Bhumi Sudhakar	42	27	09	10	88	A+
20	Nakhale Mansi Nagesh	40	24	09	10	83	A+
21	Nagpure Gayatri Tejlal	36	23	08	10	77	A
22	Patil Chaitali Sandeep	42	29	10	10	91	O
23	Rajput Madhura Chandrashekhar	44	25	09	10	88	A+
24	Raut Sanika Vilas	48	23	10	10	91	O
25	Satpute Sanvay Sanjay	46	22	10	10	88	A+
26	Samrit Smita Arvind	34	22	10	10	76	A
27	Singh Riya Virendra kumar	42	24	09	10	85	A+
28	Shende Kasak Pravin	40	25	08	10	83	A+
29	Solanki Mohak Hitesh	28	20	08	10	66	B+
30	Wasekar Jiwak Dilip	38	AB	08	09	55	B
31	Waghmare Aditya Anand	44	26	10	10	90	A+
32	Wankhede Shreya Dnyaneshwar	42	23	09	10	84	A+
33	Walke Devyani Ratnakar	46	27	10	10	93	O

Sr. No.	Name of Students	Theory Marks (50)	Practical Marks (30)	Project Marks (10)	Internal Assessment (10)	Total Marks (100)	Grade
34	Wasnik Aakanksha Lahanu	44	28	10	10	92	O
35	Yadav Dipesh Gyaneshwar	AB	AB	10	10	20	--
36	Yadav Soumya Sunil	38	24	10	10	82	A+
37	Zade Akanksha Sanjay	36	26	10	10	82	A+
38	Zadgaonkar Avanti Anirudha	48	27	10	10	95	O

R. Mahakhode

Dr. R.H.Mahakhode
 Course Coordinator
Dr. Rupali H. Mahakhode
 Assistant Professor
 Department of Botany
 SSES Amt's Science College
 Congress Nagar, Nagpur-440012,

**Shri Shivaji Education Society Amravati's
SCIENCE COLLEGE, Congress Nagar, Nagpur
Department of Botany
Organized
Skill- Based Mushroom Cultivation Certificate Course
Session 2023-24**

REPORT

Department of Botany organized Skill Based Programme under Department of Life Long Learning and Extension, RTM Nagpur University, Nagpur for the session 2023 -2024 on Mushroom Cultivation. Botany Department signed MOU with Organo Mushroom, Nagpur on 2nd March 2024. Under this MOU department was organized a training program for the students of Bachelor of Science & Master's of Science. The purpose of Skill Based Programme to develop Entrepreneurship Skill, Nutritional Awareness, Scientific Inquiry, Career Exploration and Self Employment for the students. The duration of the course is 45 hrs. Total 38 Students participated in this program. Department of Botany signed MOU with Organo Mushroom, Nagpur. The registered students under this course attend lectures; practical's and hands on training on mushroom cultivation. The lectures were conducted on different topics entitled Introduction and Identification of Mushroom and their types, Inoculation and Sterilization techniques Mushroom Cultivation techniques, Substrate preparation, Incubation phase, Environmental conditions, Fruiting & Harvesting, Challenges and solutions, Market Potential and Social Impact of Mushrooms. Hands on Session were taken from 27th March 2024 to 2nd April 2024. Registered students visited to Organo Mushroom Farm.

The student participated in hands-on training on mushroom cultivation. Through this training, students learned about fungal biology, sustainable farming practices. They engaged in various stages of the cultivation process where students prepared substrates, inoculated them with mushroom spawn, Bag casing involves adding a layer of spawns inside the cultivation bags, Pinning refers to the stage where tiny mushroom primordia known as pins to start from the surface of casing layer and maintained optimal conditions for mycelium growth. Humidity, Temperature, Fresh Air Exchange monitoring and adjusting these conditions teach students the importance of precision and care in cultivation process throughout the training, strict hygiene and safety protocols were emphasized to prevent contamination. Students observed the fruiting and harvesting stages, gaining insights into both the scientific and practical aspects of mushroom farming. Students experience that session was more informative and Interactive. At the end students gave their feedbacks and explained how they are benefitted.

Chief Guest of the program was Mrs. Priya Anilkumar Bavaskar, Founder and Director, Organo Mushroom explained the various techniques of mushroom cultivation. Prof. M.P. Dhore, Principal guided the students about their overall development by learning several skills in hand on training in mushroom cultivation. We would like to express our heartfelt gratitude for their unwavering support and encouragement in providing valuable Hands on learning experiences to all participants. Under visionary leadership and constant motivation of Prof R. N. Deshmukh, Head of the Department, your guidance and efforts in providing students with necessary resources, expertise and passion for sharing knowledge have illuminated the path throughout this journey. Dr. R. H. Mahakhode, Course Coordinator, Mushroom Cultivation Certificate Course (skill based program) guided the students about the importance, medicinal and nutritional values of the edible mushroom for humankind and also developed the employment skill among the students.

Prof P.S. Tiwari, Dr. R.P. Sonwalkar, Dr. S.S. Deshmukh Ms. Shruti Agrawal, Ms. Aishwarya Zure and Non -Teaching staff with their cooperation the activity has been successfully implemented and making programme grand success.

Registered students were visited to Organo Mushroom Lab. on 6th April after the completion of Hands on training on mushroom cultivation. Students were given the projects in a group on different topics of mushroom cultivation technique. The certificate course was completed by taking examination of the students. Theory question paper is of 50 Marks and it contains 25 objective type questions and each carries 2 marks. Practical question paper is of 30 marks and carries 5 marks each.



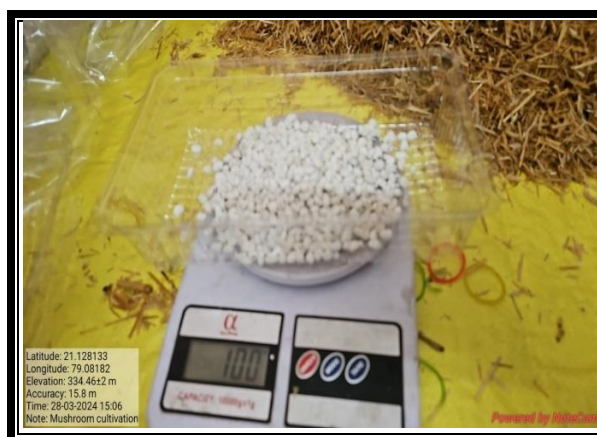
Lectures conducted by Faculty & Guest on Mushroom Cultivation



Inoculation and Sterilization Technique



Preparation of Substrate, bag casing and pinning training session



Incubation phase, Primordial stage, Fruiting and Harvesting



Students visited to ORGANO MUSHROOM Farm



Mahakhode

Dr. R.H. Mahakhode
Course Coordinator

ACTION TAKEN REPORT

The Department of Botany, Shri Shivaji Science College organized a Skill Based Programme on Mushroom Cultivation for the session 2023-2024. An MOU was signed with Organo Mushroom, Nagpur, on March 2, 2024, to provide training for B.Sc. and M.Sc. students. The 40-hours course covered various aspects of mushroom cultivation, including substrate preparation, inoculation, and harvesting, and included hands-on training. Students visited Organo Mushroom Farm and engaged in practical sessions, learning about fungal biology and sustainable farming practices. The program concluded with a project submission and examination. Mrs. Priya Anilkumar Bavaskar, Founder of Organo Mushroom, delivered a keynote address, and the event was supported by faculty and staff, highlighting its success in developing students' skills and knowledge.



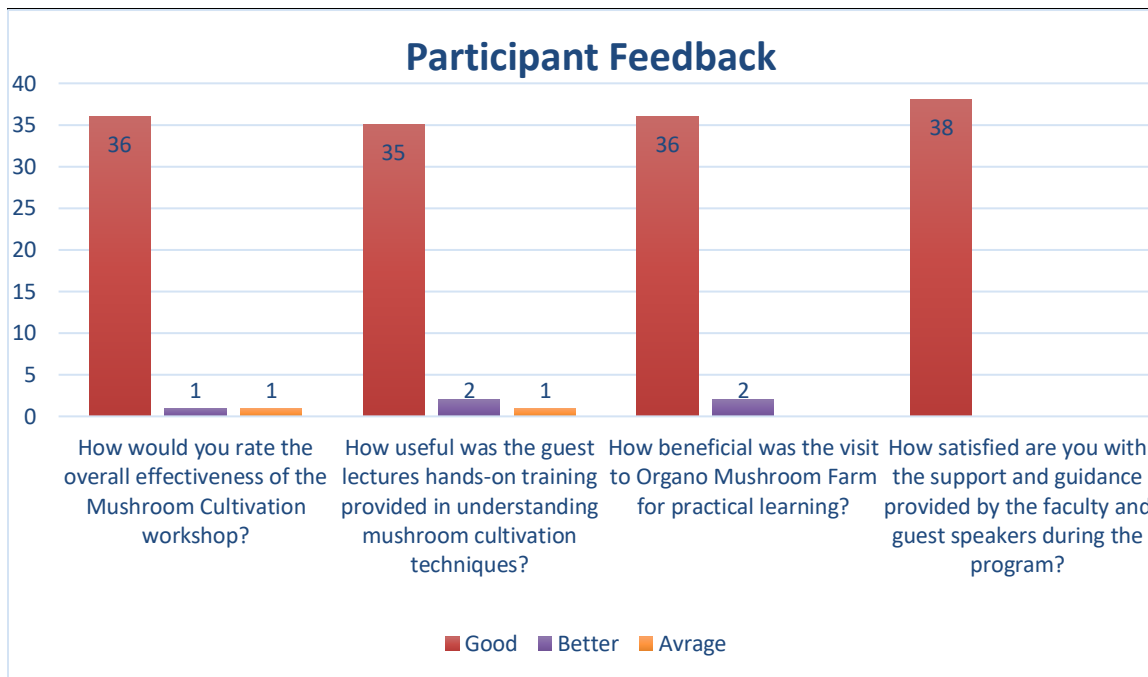
Dr. R.H. Mahakhode
Course Coordinator

FEEDBACK FORM

Sr. No.	Question	Response		
		Good	Better	Average
1)	How would you rate the overall effectiveness of the Mushroom Cultivation workshop?			
2)	How useful was the guest lectures hands-on training provided in understanding mushroom cultivation techniques?			
3)	How beneficial was the visit to Organo Mushroom Farm for practical learning?			
4)	How satisfied are you with the support and guidance provided by the faculty and guest speakers during the program?			

R. Mahakhode

Dr. R.H. Mahakhode
Course Coordinator



R.H. Mahakhode

Dr. R.H. Mahakhode
Course Coordinator

R.H. Halder

Signature of IQAC Coordinator
Internal Quality Assurance Cell
(IQAC)
S. S. E. S. Amravati's Science College
Congress Nagar, Nagpur



M. Mohore

Signature of Principal
Principal
S. S. E. S. Amravati's
Science College, Nagpur.