

**DEPARTMENT OF BOTANY**  
**Organized**  
**Certificate Course on Mushroom Cultivation**  
**Session 2022-2023**



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**

**2022-2023**

**ABOUT COURSE**

- Extensive 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

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

**Department of Botany**

SKILL BASE PROGRAMME (2022-2023)

Certificate Course: Mushroom Cultivation

**Notice**

Date: 17/08/2022

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 2022-23. Interesting students of B.Sc. Part I & Part II should registered themself in early and contact to the Course Coordinator Dr. R. H. Mahakhode immediately.

Course	Admission Fees
Mushroom Cultivation	Rs. 1500/-

*R. H. Mahakhode*

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

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

Department of Botany  
SKILL BASED PROGRAMME (2022-2023)  
**Certificate Course: Mushroom Cultivation**  
**List of Admitted students**

<b>Sr. No</b>	<b>Name of Students</b>
1	Badwaik Ayush
2	Batke Manoj Abhishek
3	Bawankar Prakash Vaidehee
4	Bhandare Prakash Kopal
5	Chipate Pravin Tanaya
6	Dutta Soni Raven
7	Ghadge Ramu Siddhant
8	Giri Devendra
9	Hadke Rashjrapal Tanmayee
10	Khobragade Komal
11	Mahule Nitin Yash
12	Mishra Rajiv Khushi
13	Mohod Sanjay Madhavi
14	Muley Shrikant Avantika
15	Nagare Pradip Tanmay
16	Pandey Bipin Divya
17	Raut Prabhakar Mansi
18	Roria Singh Ranvir Madhavi
19	Shinde Vijay Akansha
20	Singh Rakesh Divya

*R. Mahakhode*

Dr.R.H.Mahakhode  
Course Coordinator

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

**Department of Botany**  
SKILL BASED PROGRAMME (2022-2023)  
Certificate Course: Mushroom Cultivation

TWO DAYS WORKSHOP


Notice


Date: 21/03/2023

Department of Botany will be organizing Two Days Workshop on "Mushroom Cultivation" and power point presentation by Dr. Abhimanyu Rao Dongarwar, Expert, Sky Mushroom, Nagpur for the registered students of Certificate Course under Department of Life Long Learning and Extension, RTMNU, Nagpur for the session 2022-23 to inculcate Entrepreneurship Skill and Self Employment amongst the students.

Date: 23-24 March 2023

Time: 1:00 pm Venue: Botany Lab

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

  
Prof. M.P. Dhore  
Principal  
Science College, Nagpur

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


**Department of Botany**  
SKILL BASED PROGRAMME (2022-2023)  
Certificate Course: Mushroom Cultivation


GUEST LECTURE 2

Notice

Date: 13/03/2023

The students who are admitted in Mushroom Cultivation Certificate Course (Skill Based Course) under Department of Life Long Learning and Extension, RTMNU, Nagpur for the session 2022-23 hereby informed that department of Botany will be organizing Guest lecture, by Dr. Abhimanyu Rao Dongarwar, Expert, Sky Mushroom, Nagpur on 15<sup>th</sup> March at 1.00 pm in C-1 Class room. All Students are informed to remain present for the same.

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

  
Prof. M.P. Dhore  
Principal  
Science College, Nagpur

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


**Department of Botany**  
SKILL BASED PROGRAMME (2022-2023)  
Certificate Course: Mushroom Cultivation

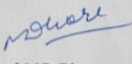
GUEST LECTURE 3

Notice

Date: 13/03/2023

The students who are admitted in Mushroom Cultivation Certificate Course (Skill Based Course) under Department of Life Long Learning and Extension, RTMNU, Nagpur for the session 2022-23 hereby informed that department of Botany will be organizing Guest lecture, by Dr. Abhimanyu Rao Dongarwar, Expert, Sky Mushroom, Nagpur on 16<sup>th</sup> March at 12.00 pm in C-1 Class room. All Students are informed to remain present for the same.

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

  
Prof. M.P. Dhore  
Principal  
Science College, Nagpur



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

Department of Botany  
SKILL BASED PROGRAMME (2022-2023)  
Certificate Course: Mushroom Cultivation

WORKSHOP ATTENDANCE Date: 23-24/03/2023

Sr. No	Name of Students	Class	Group	Signature
1	Badwaik Ayush	BSC - II	CBZ	Badwaik
2	Batke Manoj Abhishek	BSC - II	CBZ	Batke
3	Bawankar Prakash Vaidehee	BSC - II	CBM	Bawankar
4	Bhandare Prakash Kopal	BSC - II	CBG	Bhandare
5	Chipate Pravin Tanaya	BSC - II	CBM	Chipate
6	Dutta Soni Raven	BSC - I	CBZ	Dutta
7	Ghadge Ramu Siddhant	BSC - I	CBM	Ghadge
8	Giri Devendra	BSC - II	CBZ	Giri
9	Hadke Rashjrapal Tanmayee	BSC - II	CBZ	Hadke
10	Khobragade Komal	BSC - III	CBZ	Khobragade
11	Mahule Nitin Yash	BSC - III	CBG	Mahule
12	Mishra Rajiv Khushi	BSC - III	CBZ	Mishra
13	Mohod Sanjay Madhavi	BSC - III	CBG	Mohod
14	Muley Shrikant Avantika	BSC - I	CBG	Muley
15	Nagare Pradip Tanmay	BSC - I	CBM	Nagare
16	Pandey Bipin Divya	BSC - II	CBZ	Pandey
17	Raut Prabhakar Mansi	BSC - III	CBM	Raut
18	Roria Singh Ranvir Madhavi	BSC - II	CBZ	Roria
19	Shinde Vijay Akansha	BSC - I	CBZ	Shinde
20	Singh Rakesh Divya	BSC - II	CBM	Singh

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

Department of Botany  
SKILL BASED PROGRAMME (2022-2023)  
Certificate Course: Mushroom Cultivation

GUEST LECTURE 2 ATTENDANCE Date: 15/03/2023

Sr. No	Name of Students	Class	Group	Signature
1	Badwaik Ayush	BSC - II	CBZ	Badwaik
2	Batke Manoj Abhishek	BSC - II	CBZ	Batke
3	Bawankar Prakash Vaidehee	BSC - II	CBM	Bawankar
4	Bhandare Prakash Kopal	BSC - II	CBG	Bhandare
5	Chipate Pravin Tanaya	BSC - II	CBM	Chipate
6	Dutta Soni Raven	BSC - I	CBZ	Dutta
7	Ghadge Ramu Siddhant	BSC - I	CBM	Ghadge
8	Giri Devendra	BSC - II	CBZ	Giri
9	Hadke Rashjrapal Tanmayee	BSC - II	CBZ	Hadke
10	Khobragade Komal	BSC - III	CBZ	Khobragade
11	Mahule Nitin Yash	BSC - III	CBG	Mahule
12	Mishra Rajiv Khushi	BSC - III	CBZ	Mishra
13	Mohod Sanjay Madhavi	BSC - III	CBG	Mohod
14	Muley Shrikant Avantika	BSC - I	CBG	Muley
15	Nagare Pradip Tanmay	BSC - I	CBM	Nagare
16	Pandey Bipin Divya	BSC - II	CBZ	Pandey
17	Raut Prabhakar Mansi	BSC - III	CBM	Raut
18	Roria Singh Ranvir Madhavi	BSC - II	CBZ	Roria
19	Shinde Vijay Akansha	BSC - I	CBZ	Shinde
20	Singh Rakesh Divya	BSC - II	CBM	Singh

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

Department of Botany  
SKILL BASED PROGRAMME (2022-2023)  
Certificate Course: Mushroom Cultivation

GUEST LECTURE 3 ATTENDANCE Date: 16/03/2023

Sr. No	Name of Students	Class	Group	Signature
1	Badwaik Ayush	BSC - II	CBZ	Badwaik
2	Batke Manoj Abhishek	BSC - II	CBZ	Batke
3	Bawankar Prakash Vaidehee	BSC - II	CBM	Bawankar
4	Bhandare Prakash Kopal	BSC - II	CBG	Bhandare
5	Chipate Pravin Tanaya	BSC - II	CBM	Chipate
6	Dutta Soni Raven	BSC - I	CBZ	Dutta
7	Ghadge Ramu Siddhant	BSC - I	CBM	Ghadge
8	Giri Devendra	BSC - II	CBZ	Giri
9	Hadke Rashjrapal Tanmayee	BSC - II	CBZ	Hadke
10	Khobragade Komal	BSC - III	CBZ	Khobragade
11	Mahule Nitin Yash	BSC - III	CBG	Mahule
12	Mishra Rajiv Khushi	BSC - III	CBZ	Mishra
13	Mohod Sanjay Madhavi	BSC - III	CBG	Mohod
14	Muley Shrikant Avantika	BSC - I	CBG	Muley
15	Nagare Pradip Tanmay	BSC - I	CBM	Nagare
16	Pandey Bipin Divya	BSC - II	CBZ	Pandey
17	Raut Prabhakar Mansi	BSC - III	CBM	Raut
18	Roria Singh Ranvir Madhavi	BSC - II	CBZ	Roria
19	Shinde Vijay Akansha	BSC - I	CBZ	Shinde
20	Singh Rakesh Divya	BSC - II	CBM	Singh

**Shri Shivaji Education Society Amravati's  
SCIENCE COLLEGE, Congress Nagar, Nagpur  
Department of Botany  
Organized  
Skill- Based Mushroom Cultivation Certificate Course  
Session 2022-23**

---

**REPORT**

Mushroom is a fungus which belongs to Basidiomycetes family. It is the only edible fungus. Mushroom cultivation is a technology of growing mushrooms using plant, animal and industrial waste. In a nutshell mushroom cultivation is a **“Wealth out of waste technology”**. Mushroom cultivation is a technique which lead to the entrepreneurship and it is advantageous for students under the heads “Earn while learn”.

Department of Botany conducted Two days workshop on ‘**Mushroom Cultivation**’, skill based program under Life Long Learning and Extension, RTMNU, Nagpur for the session 2022-23 on 23 and 24<sup>th</sup> of March 2023 in Botany laboratory, Shri Shivaji Science College, Nagpur.

Chief Guest of the program was Mr. Abhimanyu Rao Dongarwar, founder and developer of Sky Mushrooms and training and spawn laboratory. Prof. M.P.Dhore, Principal congratulated the students and advised that the course has much more potential in terms of gaining the employment. Prof. R.N. Deshmukh, HOD highlighted the value of mushrooms. Dr. R.H.Mahakhode, Co-ordinator, Mushroom Cultivation Certificate Course (skill based program) learned about the importance, medicinal and nutritional values of the edible mushroom for humankind and also developed the employment skill among the students.

Mr. Abhimanyu Rao Dongarwar guided the students to understand the Mushroom Cultivation technique. The program was attended by students through registration under this course. The workshop was conducted for two days, in which students learned about exploring mushrooms, cultivation of Oyster mushrooms and its types. Students gained knowledge about benefits of edible mushrooms including how to fill bags and spawn preparation & information about varieties of mushrooms like button mushrooms, paddy straw mushroom, oyster mushrooms, milky mushrooms etc.

The duration of the course is 45 hrs. The programme held in the following manner- First Guest lecture was held on 18<sup>th</sup> November 2022, in which students learned about “Introduction and Identification of Edible Mushrooms”.

Second lecture was conducted on 15<sup>th</sup> March 2023, in which “Sterilization Technique and Preparation of Substrate/ Compost and Nutrition Value of Mushrooms” learnt by students.

In the third lecture students acquired knowledge about “Inoculation, Harvesting, Storage and Marketing of Edible Mushrooms” which was conducted on 16<sup>th</sup> March 2023.

Prof. R. N. Deshmukh, Prof. P.S. Tiwari, Dr. Mrs. R. P. Sonwalker, M. P. Bulkunde attended the programme.

### **Importance of Oyster Mushrooms-**

Mushrooms found to have high protein contents (i.e., 50-51%) along with the proteins have 18 different types of amino acids. It has a high minerals content, Vitamin C, D and Vitamin B1, B3, B5 and Cyanocobalamin. Mushrooms can be easily grow and it has good economic values. The yield of mushrooms is noteworthy when properly managed to care. Mushroom also show anti-cancerous, anti-diabetics along with that antiaging, zero fat level, and antiviral, also used in antibiotics preparation. Mushrooms utilize to normalize and stabilized blood pressure for heart patients, increases metabolism and contains insulin, improves digestion etc.

### **Students were completed projects on topics,**

Project 1: Mushroom Cultivation: Sterilization & Inoculation Technique

Project 2: Mushroom Cultivation: Harvesting & Processing

The certificate course was completed by taking examination of the students. Question papers are of 50 Marks and it contains 25 objective type questions and each carries 2 marks.





# Workshop on Mushroom Cultivation – Day 1





## Workshop on Mushroom Cultivation – Day 2



## Fruiting Body of Oyster Mushroom – Day 15



*Dr. R.H. Mahakhode*

**Dr.R.H.Mahakhode  
Course Co-ordinator**

## **ACTION TAKEN REPORT**

The Department of Botany, Shri Shivaji Science College, Nagpur, held a two-day workshop on 'Mushroom Cultivation' on March 23-24, 2023. The workshop, part of the Life Long Learning and Extension program, featured Mr. Abhimanyu Rao Dongarwar of Sky Mushrooms. Students learned about various mushroom cultivation techniques, including sterilization, inoculation, and harvesting. The program included guest lectures and hands-on training, focusing on the economic and health benefits of mushrooms. The course concluded with an examination, and students gained valuable skills in mushroom cultivation.

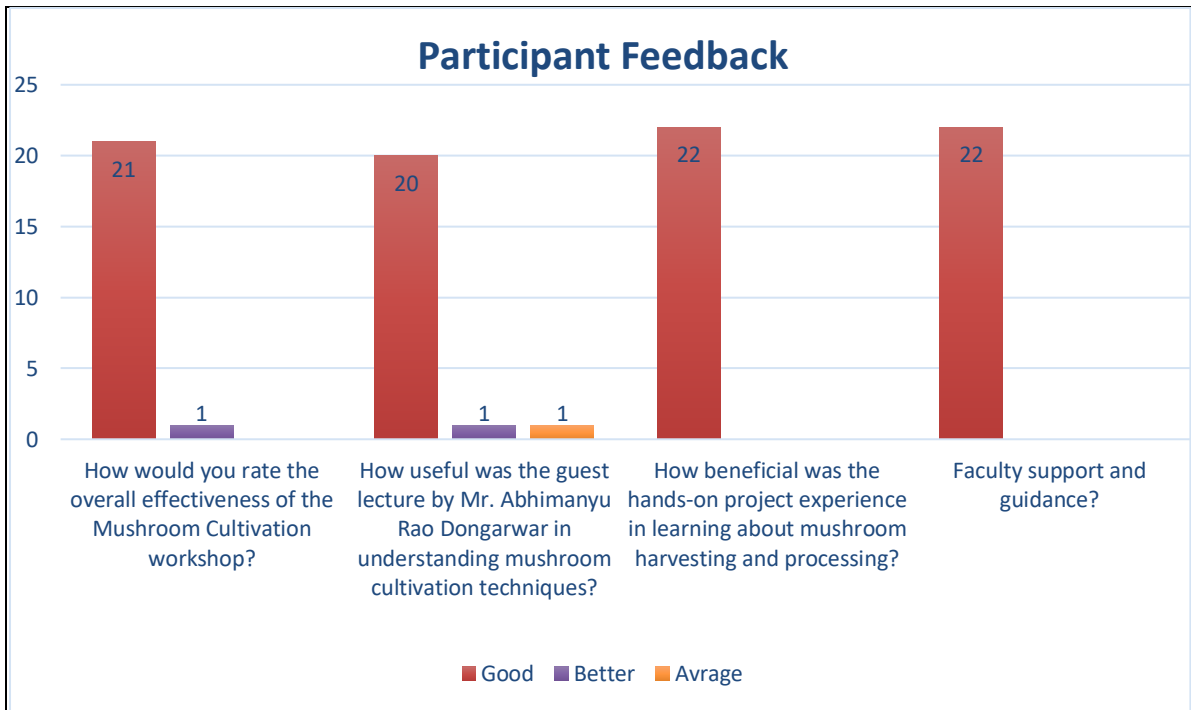
### **FEEDBACK FORM**

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 lecture by Mr. Abhimanyu Rao Dongarwar in understanding mushroom cultivation techniques?			
3)	How beneficial was the hands-on project experience in learning about mushroom harvesting and processing?			
4)	Faculty support and guidance?			

*R. H. Mahakhode*

Dr.R.H.Mahakhode  
Course Coordinator





*Dr. R.H. Mahakhode*

Dr.R.H.Mahakhode  
Course Coordinator

*Dr. A.A. Halder*

Signature of IQAC Coordinator  
Internal Quality Assurance Cell  
(IQAC)

S. S. E. S. Amravati's Science College  
Congress Nagar, Nagpur  
Score approved by the State  
Committee (Annexure 2)



*Dr. R.H. Mahakhode*

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