



**MKR GOVT. DEGREE COLLEGE**  
(Accredited with B++ Grade by NAAC, ISO 9001-2015)  
Affiliated to Mahatma Gandhi University  
DEVARAKONDA, NALGONDA, TELANGANA



***A REPORT***

***ON***

**CERTIFICATE COURSE IN MUSHROOM CULTIVATION**

**(24-02-2023 to 11-04-2023)**

***ORGANIZED***

***BY***

**DEPARTMENT OF BOTANY**

**CERTIFICATE COURSE**  
**ON**  
**MUSHROOM CULTIVATION**

**Duration: 30 Hours**

**Course Objectives:**

- Enable the students to identify edible and poisonous mushrooms
- Provide hands on training for the preparation of bed for mushroom cultivation and spawn production
- Give the students exposure to the experiences of experts and functioning mushroom farms
- Help the students to learn a means of self-employment and income generation

**Course outcome:**

By successfully completing the course, students will be able to:

- Identify edible types of mushroom
- Gain the knowledge of cultivation of different types of edible mushrooms and spawn production
- Manage the diseases and pests of mushrooms
- Learn a means of self-employment and income generation

**Syllabus**

**Module 1: Introduction to mushrooms (4 hours)**

Mushrooms -Taxonomical rank -History and Scope of mushroom cultivation - Edible and Poisonous Mushrooms-Vegetative characters

**Module 2: Common edible mushrooms (2 Hours)**

Button mushroom (*Agaricus bisporus*), Milky mushroom (*Calocybe indica*), Oyster mushroom (*Pleurotus sajorcaju*) and paddy straw mushroom (*Volvariella volvcea*).

**Module 3: Principles of mushroom cultivation (8 Hours)**

Structure and construction of mushroom house. Sterilization of substrates. Spawn production - culture media preparation- production of pure culture, mother spawn, and multiplication of spawn. Composting technology, mushroom bed preparation. Spawning, spawn running, harvesting. Cultivation of oyster and paddy straw mushroom.Problems in cultivation - diseases, pests and nematodes, weed moulds and their management strategies.

#### **Module 4: Health benefits of mushrooms (2 Hours)**

Nutritional and medicinal values of mushrooms. Therapeutic aspects- antitumor effect

#### **Module 5: Post harvest technology: (4 Hours)**

Preservation of mushrooms - freezing, dry freezing, drying, canning, quality assurance and entrepreneurship. Value added products of mushrooms.

#### **Module 6: Training/ Workshop/ Field visit (10 Hours)**

Sterilization and sanitation of mushroom house, instruments and substrates

Preparation of mother culture, media preparation, inoculation, incubation and spawn production

Cultivation of oyster mushroom using paddy straw/agricultural wastes

#### **References**

1. Marimuthu, T. et al. (1991). Oyster Mushroom. Department of Plant Pathology. Tamil Nadu Agricultural University, Coimbatore.
2. Nita Bhal. (2000). Handbook on Mushrooms. 2nd ed. Vol. I and II. Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi
3. Pandey R.K, S. K Ghosh, 1996. A Hand Book on Mushroom Cultivation. Emkey Publications.
4. Pathak, V. N. and Yadav, N. (1998). Mushroom Production and Processing Technology. Agrobios, Jodhpur.
5. Tewari Pankaj Kapoor, S. C. (1988). Mushroom Cultivation. Mittal Publication, New Delhi.
6. Tripathi, D.P. (2005) Mushroom Cultivation, Oxford & IBH Publishing Co. PVT.LTD, New Delhi.
7. V.N. Pathak, Nagendra Yadav and Maneesha Gaur, Mushroom Production and Processing Technology/ Vedams Ebooks Pvt Ltd., New Delhi (2000)

## **DEPARTMENT OF BOTANY**

### **CERTIFICATE COURSE IN MUSHROOM CULTIVATION**

Mushroom cultivation can help to reduce vulnerability to poverty and strengthens livelihoods through the generation of a fast yielding and nutritious source of food and a reliable source of income. As it does not require access to land, the cultivation is viable and attractive. Mushroom cultivation is not only a source for nutritious protein-rich food; it can also contribute to the production of effective medicinal products. It is an eco-friendly agricultural practice in the efficient utilization of agricultural and industrial waste. It can also play a significant role in generating self-employment opportunity. Considering the significance of mushroom cultivation, the department is offering a certificate course in mushroom cultivation for the under graduate students. In addition to theory classes the course is providing hands-on trainings, seminars, assignments and field visits.

#### **Aim of the Course**

- Enable the students to identify edible and poisonous mushrooms
- Provide hands on training for the preparation of bed for mushroom cultivation and spawn production
- Give the students exposure to the experiences of experts and functioning mushroom farms
- Help the students to learn a means of self-employment and income generation

**Duration of the Course:** 30 Hours

#### **COURSE ASSESSMENT**

Assessment of students was carried out on the basis of internal evaluations which include attendance, viva, test papers and practical skill during training. Certificates will be issued to students on successful completion of the course.

MKR Government Degree College, Devarakonda

Dist: Nalgonda

**DEPARTMENT OF BOTANY**

**NOTICE**

Date: 13.02.2023

All the students are here by informed that, Department of Botany is organizing 30 Hours certificate Course in "Mushroom Culture". Interested students should enroll your names with Dr. Ch. RamaRaju, Asst. Professor of Botany on or before 20/02/2023.

All the students of B.A/ B.Com/. MPCs should note.

Dr. Ch. RamaRaju  
Asst. Professor of Botany

  
**Principal,**  
MKR Govt. Degree College,  
DEVARAKONDA-508249.

MKR GDC DEVARAKONDA

Certificate Course on Mushroom Cultivation FOR VI- SEM (BA,B.Com.  
(CA),MPCS)

Students List

	ROLL NO	NAME	GROUP	Remarks
1	20044026468024	P.Shiva	MPCs	
2	20044026468014	M.Anil	MPCs	
3	20044026468017	N.Naveen	MPCs	
4	20044026468016	Nazma	MPCs	
5	20044026468005	E.Kotesh	MPCs	
6	20044026468018	N.Surendhar	MPCs	
7	20044026468008	J.Poojitha	MPCs	
8	20044026468020	N.Hymavathi	MPCs	
9	20044026468028	R.Sai shirisha	MPCs	
10	20044026468027	Md. Minhaj Mohiuddin	BA	
11	20044026405012	G.Bhavani	B. Com C.A	
12	20044026405013	J.Bhagya	B. Com C.A	
13	20044026405039	V.Mahesh	B. Com C.A	
14	20044026405020	K.Anil	B. Com C.A	
15	20044026405002	A.Sowmya	B. Com C.A	
16	20044026405993	N.Srikanth	B. Com C.A	
17	20044026129018	MD.Wahaj haneef	BA	
18	20044026469020	N.Anusha	BA	
19	20044026469515	C.Naresh	BA	
20	20044026129028	SK.Sameer	BA	

*Chandrabaj*

PRINCIPAL (CAC)

M.K.R. Government Degree College,  
Devarakonda, Nalgonda. Dt. 508248





M  
Certificate Course on Mushroom

ROLL NO	NAME	GROUP	7	8	9	10	11	12
20044026468024	P. Shiva	MPCs	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva
20044026468014	M. Anil	MPCs	M. Anil	M. Anil	M. Anil	M. Anil	M. Anil	M. Anil
20044026468017	N. Naveen	MPCs	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen
20044026468016	Nazma	MPCs	Nazma	Nazma	Nazma	Nazma	Nazma	Nazma
20044026468005	E. Katesh	MPCs	E. Katesh	E. Katesh	E. Katesh	E. Katesh	E. Katesh	E. Katesh
20044026468018	N. Surendhar	MPCs	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar
20044026468008	J. Pojitha	MPCs	J. Pojitha	J. Pojitha	J. Pojitha	J. Pojitha	J. Pojitha	J. Pojitha
20044026468020	N. Hymavathi	MPCs	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi
20044026468028	R. Sai shirisha	MPCs	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha
20044026468027	M. Anil	MPCs	M. Anil	M. Anil	M. Anil	M. Anil	M. Anil	M. Anil
20044026405012	G. Bhavani	B. Com CA	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani
20044026405013	J. Bhagya	B. Com CA	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya
20044026405039	V. Mahesh	B. Com CA	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh
20044026405020	K. Anil	B. Com CA	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil
20044026405002	A. Sowmya	B. Com CA	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya
20044026405033	N. Srikanth	B. Com CA	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth
20044026129018	MD. Wahaj hameef	BA	MD. Wahaj hameef	MD. Wahaj hameef	MD. Wahaj hameef	MD. Wahaj hameef	MD. Wahaj hameef	MD. Wahaj hameef
20044026469020	N. Anusha	BA	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha
20044026469515	C. Nareesh	BA	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh
20044026129028	SK. Sameer	BA	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer

12/11/23





**M**  
Certificate Course on Mushroom

ROLL NO	NAME	GROUP	19	20	21	22	23	24
20044026468024	P. Shiva	MPCS	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva
20044026468014	M. Anil	MPCS	M. Anil	M. Anil	M. Anil	M. Anil	M. Anil	M. Anil
20044026468017	N. Naveen	MPCS	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen
20044026468016	Nazma	MPCS	Nazma	Nazma	Nazma	Nazma	Nazma	Nazma
20044026468005	E. Kotes	MPCS	E. Kotes	E. Kotes	E. Kotes	E. Kotes	E. Kotes	E. Kotes
20044026468018	N. Surendhar	MPCS	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar
20044026468008	J. Poojitha	MPCS	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha
20044026468020	N. Hymavathi	MPCS	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi
20044026468028	R. Sai shirisha	MPCS	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha
20044026468029	<del>MD. Minhal</del> SK. Asjethashim	<del>SD</del> MPCS	<del>MD. Minhal</del> SK. Asjethashim	<del>MD. Minhal</del> SK. Asjethashim	<del>MD. Minhal</del> SK. Asjethashim	<del>MD. Minhal</del> SK. Asjethashim	<del>MD. Minhal</del> SK. Asjethashim	<del>MD. Minhal</del> SK. Asjethashim
20044026405012	G. Bhavani	B. Com CA	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani
20044026405013	J. Bhagya	B. Com CA	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya
20044026405039	V. Mahesh	B. Com CA	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh
20044026405020	K. Anil	B. Com CA	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil
20044026405002	A. Sowmya	B. Com CA	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya
20044026405033	N. Srikanth	B. Com CA	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth
20044026129018	MD. Wahaj haneef	BA	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef
20044026469020	N. Anusha	BA	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha
20044026469515	C. Naresh	BA	C. Naresh	C. Naresh	C. Naresh	C. Naresh	C. Naresh	C. Naresh
20044026129028	SK. Sameer	BA	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer



**M**  
Certificate Course on Mushroom

ROLL NO	NAME	GROUP	25	26	27	28	29	30	31
20044026468024	P. Shiva	MPCS	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva	P. Shiva
20044026468014	M. Anjali	MPCS	M. Anjali	M. Anjali	M. Anjali	M. Anjali	M. Anjali	M. Anjali	M. Anjali
20044026468017	N. Naveen	MPCS	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen	N. Naveen
20044026468016	Nazma Shaik	MPCS	Nazma Shaik	Nazma Shaik	Nazma Shaik	Nazma Shaik	Nazma Shaik	Nazma Shaik	Nazma Shaik
20044026468005	E. Kotesw	MPCS	E. Kotesw	E. Kotesw	E. Kotesw	E. Kotesw	E. Kotesw	E. Kotesw	E. Kotesw
20044026468018	N. Surendhar	MPCS	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar	N. Surendhar
20044026468008	J. Poojitha	MPCS	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha	J. Poojitha
20044026468020	N. Hymavathi	MPCS	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi	N. Hymavathi
20044026468026	R. Sai shirisha	MPCS	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha	R. Sai shirisha
20044026468027	M. Mohi	MPCS	M. Mohi	M. Mohi	M. Mohi	M. Mohi	M. Mohi	M. Mohi	M. Mohi
20044026405012	G. Bhavani	B. Com CA	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani	G. Bhavani
20044026405013	J. Bhagya	B. Com CA	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya	J. Bhagya
20044026405039	V. Mahesh	B. Com CA	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh	V. Mahesh
20044026405020	K. Anil	B. Com CA	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil	K. Anil
20044026405002	A. Sowmya	B. Com CA	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya	A. Sowmya
20044026405033	N. Srikanth	B. Com CA	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth	N. Srikanth
20044026129018	MD. Wahaj haneef	BA	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef	MD. Wahaj haneef
20044026469020	N. Anusha	BA	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha	N. Anusha
20044026469515	C. Nareesh	BA	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh	C. Nareesh
20044026129028	SK. Sameer	BA	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer	SK. Sameer

*S. Kumarajay*

A



A certificate issued to students. ( modal)





Photograph of student participants in the preparation of compost. Course coordinator and Principal Dr. Ch. Rama Raju along with other staff are seen.





Spanning and bedding in Mushroom cultivation.



MKR GDC Devarakonda  
Mushroom Cultivation  
24.03.2023 17:35  
16.69978, 78.90845 ( $\pm 99$ m)  
Altitude: 241m  
12-237, Mission compound Road, Devarakonda, Telangana  
508248

Growth and appearance of Mushroom on the beds.