

HAJEE KARUTHA ROWTHER HOWDIA COLLEGE

(An Autonomous Institution Affiliated to Madurai Kamaraj University, Madurai.)

Re-Accredited with A++ Grade by NAAC (3rd Cycle)

Uthamapalayam - 625 533.



DEPARTMENT OF BOTANY

PART IV - BOTANY

SYLLABUS

Choice Based Credit System – CBCS

(As per TANSCHÉ)

With

Outcome Based Education (OBE)

(Academic Year 2023 -2026)

Semester – I

Course Category	Course Code	Course Title	Hrs	CIAE	TEE	Max Marks	Credits
Part – IV	23UBYSE11	Nursery and Landscaping (NME)	2	25	75	100	2

Semester – II

Course Category	Course Code	Course Title	Hrs	CIAE	TEE	Max Marks	Credits
Part – IV	23UBYSE21	Mushroom Cultivation (NME)	2	25	75	100	2

1.	Edmond Musser and Andres, Fundamentals of Horticulture, McGraw Hill Book Co. New Delhi.
2.	Agrawal, P.K. 1993. Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National Seed Corporation Ltd., New Delhi.
3.	Janick Jules. 1979. Horticultural Science. (3 rd Ed.), W.H. Freeman and Co., San Francisco, USA.
4.	Singh, J. 2018. Fundamentals of Horticulture. Kalyani Publishers.
5.	Sharma V. K. 1999. Encyclopaedia of Practical Horticulture, Vol I –IV, Deep And Deep Publ. Pvt. Ltd.
Web Resources	
1.	https://www.kopykitab.com/higher-education-ebooks/higher-education-ebooks/Agricultural-Industry-agriculture-eBooks/Nursery-And-Landscaping-by-V-Amarnath
2.	https://www.amazon.in/Nursery-Landscaping-Veena-Amarnath/dp/8177542788
3.	https://www.amazon.in/Gardening/b?ie=UTF8&node=1637077031
4.	https://in.pinterest.com/pin/496733033900458021/?lp=true
5.	https://www.gardenvisit.com/ebooks

Mapping with Programme Outcomes:

CO /PO	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	1	3	2
CO 2	3	3	2	2	3
CO 3	2	2	3	1	1
CO 4	3	2	2	1	3
CO 5	3	3	2	3	2

Strong-3 Medium-2 Low-1

Level of Correlation between PSO's and CO's

CO /PSO	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	1	2	2	1	3
CO2	3	2	2	2	2
CO3	1	1	3	3	1
CO4	2	1	3	2	1
CO5	1	2	3	2	3

Strong-3 Medium-2 Low-1

Course Code	Course Title	Category	Credits	Hours	Marks		
					CIAE	TEE	Total
23UBYSE21	MUSHROOM CULTIVATION (NME)	NME	2	2	25	75	100

Learning Objectives		
L1	To learn and develop skills in mushroom cultivation	
L2	To understand and appreciate the role of mushrooms in Nutrition, Medicine and health.	
L3	To cultivate mushroom cultivation in small scale industry.	
L4	To learn about diseases and post harvest technology.	
L5	To study new methods and strategies to contribute to mushroom production.	
UNIT	Contents	No. of Hours
I	Introduction: Morphology, Types of Mushroom, identification of edible and poisonous mushroom, Nutritive values, life cycle of common edible mushrooms.	6
II	Mushroom cultivation, prospects and scope of Mushroom cultivation in small scale Industry.	6
III	Life cycle of <i>Pleurotus</i> spp and <i>Agaricus</i> spp.	6
IV	Spawn production, growth media, spawn running and harvesting of mushrooms and marketing.	6
V	Diseases and post harvest technology, Insect pests, nematodes, mites, viruses, fungal competitors and other important diseases.	6
	Total	30
Course Outcomes		Knowledge Level
CO	On completion of this course, students will	
1	Recall various types and categories of mushroom.	K1,K2,K3,K4
2	Explain about various types of food technologies associated with mushroom industry.	K1,K2,K3,K4,K5,K6
3	Apply techniques studied for cultivation of various types of mushroom.	K1,K2,K3,K4,K5,K6
4	Analyze and decipher the environmental factors and economic value associated with mushroom cultivation	K1,K2,K3,K4,K5,K6
5	Develop new methods and strategies to contribute to mushroom production.	K1,K2,K3,K4,K5
Textbooks		
1	Handbook of Mushroom Cultivation. 1999. TNAU publication.	
2	Marimuthu, T., Krishnamoorthy, A.S., Sivaprakasam, K. and Jayarajan. R. 1991.Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore..	
3	Swaminathan, M. 1990. Food and Nutrition. Bappco, The Bangalore Printing and Publishing Co. Ltd., No. 88, Mysore Road, Bangalore - 560018.	
4	Sing. 2005. Modern Mushroom Cultivation, International Book Distributors, Dehradun.	

5	Verma, 2013. Mushroom: edible and medicinal: cultivation conservation, strainimprovementwith their marketing.DayaPublishingHouse.
Reference Books	
1.	Handbook of Mushroom Cultivation. 1999. TNAU publication..
2.	Marimuthu, T., Krishnamoorthy, A.S., Sivaprakasam, K. and Jayarajan. R. 1991.Oyster Mushrooms, Department of Plant Pathology, Tamil Nadu Agricultural University, Coimbatore.
3.	Swaminathan, M. 1990. Food and Nutrition. Bappco, The Bangalore Printing andPublishing Co. Ltd., No. 88, Mysore Road, Bangalore - 560018.
4.	Nita Bahl. 2002. Handbook on Mushroom 4 th edition Vijayprimlani for oxford & IBH publishing co., Pvt., Ltd., New Delhi. Dr.C. Sebastian Rajesekaran Reader in Botany Bishop Heber College, Trichy – 17.
5.	Suman. 2005. Mushroom Cultivation Processing and Uses, M/s. IBD Publishers and Distributors, New Delhi.
Web Resources	
1.	https://www.amazon.in/Mushroom-Cultivation-India-B-C/dp/817035479X
2.	http://nrcmushroom.org/book-cultivation-merged.pdf
3.	http://agricoop.nic.in/sites/default/files/ICAR_8.pdf
4.	http://www.agrimoon.com/mushroom-culture-horticulture-icar-pdf-book/
5.	https://books.google.co.in/books/about/Mushroom_Cultivation_in_India.html?id=6AJx99OGTKEC&redir_esc=y

Mapping with Programme Outcomes:

CO /PO	PO 1	PO 2	PO 3	PO 4	PO 5
CO 1	3	2	3	3	2
CO 2	3	2	3	2	3
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CO 4	3	3	3	3	2
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Level of Correlation between PSO's and CO's

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CO1	1	2	2	1	3
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CO4	2	1	3	2	1
CO5	1	2	3	2	3

Strong-3 Medium-2 Low-1