

MUSHROOM CULTURE

Semester	Subject Code	Category	Lecture		Theory		Practical	Credits
			Hrs/ week	Total Hours/ Semester	Hrs/ week	Total Hours/ Semester		
III	POCZO3SS	Self study paper	-	-	-	-	Nil	2(extra)

COURSE OBJECTIVES

- The course will provide an adequate hand on experience for the students towards an independent handling and culture capability of all edible mushrooms.
- Subject content is so designed and hence the students can avail to become an entrepreneur herself.

COURSE OUTCOMES:

On the successful completion of the course, students will be able to:

CO Number	CO Statement	Knowledge Level (K1-K4)
CO1	To understand the identification of mushrooms and lifecycle of mushrooms.	K2
CO2	To learn about the history of mushroom cultivation and harvesting methods.	K1
CO3	To Update the knowledge on various Spawn production methods.	K4
CO4	To acquire knowledge on the methods of mushroom cultivation .	K4
CO5	To get employment opportunities in the harvesting and marketing of mushroom.	K2

Knowledge Level : K1-Remember ; K2 –Understand ; K3 – Apply ; K4 – Analyze

MAPPING WITH PROGRAMME OUTCOMES

COS	PO1	PO2	PO3	PO4	PO5
CO1	S	M	S	M	S
CO2	M	S	M	S	M
CO3	S	M	S	M	S
CO4	M	S	M	S	S
CO5	S	M	S	M	S

S- Strong; M – Medium ; L- Low

DISTRIBUTION OF MARKS: THEORY 100%

UNIT-I

Life cycle of Mushrooms - Identification - edible and poisonous Mushrooms - external factors for growth. Economic importance of Mushrooms as food

UNIT-II

History of mushroom cultivation -- selection - 'starter' - preparation of spawn - preparation of Compost (outdoor and indoor beds) - incubation - Harvesting and marketing

UNIT-III

Spawn production - grain, powder and granular spawn - mother spawn - planting spawn - preparation of culture (Tissue culture and spore culture), preservation and storage of culture - various media (PDA, malt extract, Wheat extract, compost extract)

UNIT-IV

Cultivation of white Button Mushrooms (*Agaricus bisporus*) and Oyster Mushrooms (*Pleurotus* spp) – materials – sterilization – spawning and fruiting – house design for pleurotus – preservation, canning drying, Cultivation of paddy straw Mushrooms – Preparation, Spawn making – Methods of Cultivation.

UNIT-V

Mushroom technology – nutritive value of edible Mushrooms- Medicinal value of Mushrooms, Advantages of Mushrooms Cultivation – Harvesting & Marketing.

TEXT BOOKS

S.NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1.	Dr. Teagan Beahan Sr.	Hand book of mushroom cultivation	TNAU Publications	1999
2.	Nita Bahl	Hand book on mushroom 4 th edn	Vijay pramlani for Oxford & IBH Publishing Co.Pvt .Ltd.,Newdelhi	2002
3.	Kannaiyan.S and Ramasamy.K	A Handbook of Edible Mushroom	Printers and Publishers, New Delhi	1980

REFERENCE BOOKS

S.NO	AUTHORS	TITLE	PUBLISHERS	YEAR OF PUBLICATION
1.	Pathak V.N, Nagendra Yadav and Maneesha Gaur	Mushroom Production and Processing Technology	Agrobios (India) Jodhpur	1998
2.	Chang T.S. and Hayes W.A.	The biology and cultivation of edible mushrooms	Academic Press,Newyork	1978

3.	M.C.Nair,C.Goku lapalan and Luludas	Mushroom cultivation	Scientific Publishers,Jodp ur,India	1997
4.	Ignacimuthu.S	Applied plant Biotechnology	Oxford &IBH Publishing Co.Pvt.Ltd, New Delhi	1997

WEB SOURCES:

www.livescience.com

www.sciencemag.com

www.treehugger.com

www.nature.com

TEACHING METHODOLOGY

- Class room teaching
- Assignments ,Seminars and Models
- Group Discussions
- Home test
- PPT Presentations
- Board and chalk
- Demonstration from the Video slides, Animated videos and interactive software.

SYLLABUS DESIGNERS

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