

Mushroom Culture and Technology-II

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credits	Credit Distribution Of The Course			Eligibility Criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Mushroom Culture and Technology-II	2	0	0	2	Class XII	NA

Cultivation of Button mushroom and King oyster mushroom

Prerequisites:

Compost preparation for button mushroom would start around October-November and further cultivation steps will take place from January. Compost and spawn should be prepared before going to the next step.

Learning objectives:

- To develop skills for growing button and king oyster mushroom

Learning Outcomes:

After completion of this course, the learner will be able to:

- prepare casing soil and apply over spawn-run compost bags.
- implement harvesting, packaging and marketing of produce as per FSSAI standards.

Syllabus

Practical: 60 hours**

** Specimens and examples studied may vary depending on seasonal factors and availability

1. To add and mix spawn of button mushroom to pre-prepared compost (Spawning). 4 hours
2. To set up ideal mushroom house for cultivation of button mushroom. 8 hours
3. To maintain ideal environmental conditions for spawn run. 4 hours
4. Preparation and sterilization of casing soil. 4 hours
5. To apply casing soil over the spawn run compost bags and incubating for case run.

- | | |
|---|---------|
| | 4 hours |
| 6. To maintain appropriate conditions for pin head formation and fruiting of button mushroom. | 8 hours |
| 7. Harvesting of first flush of button mushrooms. | 4 hours |
| 8. Post-harvest packaging and storage of button mushrooms. | 4 hours |
| 9. Maintaining the environmental conditions for the second flush of button mushroom. | 4 hours |
| 10. To prepare and sterilize substrate bags for cultivation of king oyster mushroom. | 4 hours |
| 11. To add the spawn of king oyster mushroom in the substrate bags under aseptic conditions and incubator under appropriate conditions. | 4 hours |
| 12. To induce fruiting of king oyster mushroom by scraping the mycelium from the edges and surface of spawn run bags. | 4 hours |
| 13. Harvesting, post-harvest packaging and storage of king oyster mushrooms. | 4 hours |

Essential Readings:

1. Aggarwal, A., Sharma, Y.P., Angra, E. (2021). A textbook on mushroom cultivation, Theory and Practices. Newrays Publishing House, 2021.
2. Tiwari, S.C. Kapoor, P. (2018). Mushroom Cultivation. Mittal Publications. ISBN - 978-8183249232.
3. Bahl, N. (2015). Hand Book on Mushroom. Page no. 1-166. Oxford & IBH Publishing Company. ISBN- 13:978-8120413993.
4. Russell, S. (2014). The Essential Guide To Cultivating Mushroom. Storey Publishing. North Adams, MA 01247 page no. 1-233. ISBN 978-1-61212-146-8.
5. Chang, S.T. Miles, P.G. (2004). Mushrooms Cultivation, Nutritional Value, Medicinal effect and Environmental Impact. Page no. 1-477, CRC Press.
6. Fletcher, J.T., Gaze, R.G. (2007). Mushroom Pest and Disease Control. CRC Press.
7. Rai, R.D., Arumuganathan, Y. (2008). Post harvest technology of mushrooms. Pages 1-72. National Research Center for Mushroom (Indian Council of Agricultural Research) Chambaghat, Solan-173 213 (HP)

Examination scheme and mode:

Evaluation scheme and mode will be as per the guidelines notified by the University of Delhi.