

J.S. University, Shikohabad


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Value Added Course

**MUSHROOM PRODUCTION
TECHNOLOGY**

Faculty of Agricultural Science

	J.S. University, Shikohabad Faculty of Agricultural Science	Value Added Course
		AY: 2019-20

MUSHROOM PRODUCTION TECHNOLOGY

Duration: 30 Hours. (Theory and Practical)

Perquisites: Mushroom production technology enables the learners to understand the benefits of mushroom production and can generate self-employment.

Assessment criteria/award of certification:

Participants who secured 90% attendance and secured 80% marks in final Quiz shall be awarded the completion of certificate.

Introduction

Mushrooms are being used as food and medicine from ancient times. Mushroom contains all essential amino acids, vitamin B complex, iron, calcium, potassium, phosphorous, folic acid and other biochemical compounds. It is also a good source of dietary fiber. It is regarded as highly edible even for people suffering from cholesterol problems, heart diseases, diabetes and cancer. Mushroom cultivation has now become a source for income generation since there is a large demand for healthy and quality food products. Many value added products are also obtained from mushrooms. The cultivation procedure is characterised by small initial investment and year round production. Department is offering the same as an add on certificate course to the under graduate students of the College.

Aims of the Course

- To enable the students to identify the edible and poisonous mushrooms.
- To provide hands-on training for the preparation of bed for mushroom cultivation and its harvesting, pests and diseases control and post harvesting management.
- To provide the students awareness about the marketing trends of Mushrooms.
- To give the students exposure to the experiences of experts in the field and to functioning mushroom farms.
- To help the students to learn a means of self-employment and income generation.

Course objectives

- To facilitate self-employment.
- To know the nutrient value of mushroom.
- To study the morphology and types of Mushrooms.
- To know the about to know compost preparation method spawn production technique.
- To aware the identification of edible and poisonous Mushrooms.
- To learn the prospects and scope of mushroom cultivation in small scale industry.
- To understand the diseases, Posts and harvesting techniques of Mushrooms.

Course Outcome

- Students can start small scale industry of Mushroom cultivation.
- Students study the morphology and types of Mushrooms.
- They are aware of the identification of edible and poisonous

Mushrooms.

- Students will be able produce spawn on their own.
- Learned the prospects and scope of mushroom cultivation in small scale industry.
- Studied the technique of Mushroom cultivation.
- Understood the Diseases. Post harvesting techniques of Mushrooms.

MUSHROOM CULTIVATION TECHNOLOGY

Course Syllabus:

Module I

Introduction – History of mushroom cultivation; Classification and distribution of mushroom; life cycle of mushroom. Identification of poisonous mushrooms.

Module II

Spawn preparation - Isolation of pure culture; Nutrient media for pure culture; layout of spawn preparation room; raw material of spawn; sterilization; preparation of mother spawn and multiplication.

Module III

Cultivation of mushroom, layout of mushroom shed - small scale and large scale production unit. Types of raw material – preparation and sterilization; Mushroom bed preparation – maintenance of mushroom shed; harvesting method and preservation of mushrooms.

Module IV

Nutrient values of mushroom – protein, carbohydrate, fat, fibre, vitamins and amino acids contents; short and long term storage of mushroom; preparation of various dishes from mushroom. Medicinal value of mushroom – cultivation, extraction, isolation and identification of active principle from

mushroom. Pharmacological and economic values of mushroom.

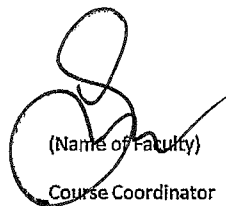
Module V

Cultivation of following types of mushroom – milky mushroom; oyster mushroom, button mushroom and any one medically valuable mushroom.

Practical: All the items included in theory.

SUGGESTED BOOKS

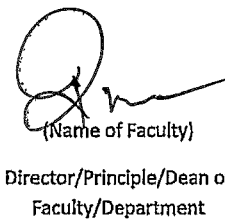
1. Paul Stamets, J.S. and Chilton, J.S. 2004. Mushroom cultivation A practical guide to growing mushrooms at home, Agarikon Press.
2. Tewari and Pankaj Kapoor S.C. 1993. Mushroom cultivation. Mittal Publication. Delhi.
3. Marimuth et al., 1991. Oyster Mushrooms. Dept. of Plant pathology, TNAU, Coimbatore.
4. Nita Bahl. 1988. Hand book of Mushrooms, 2nd Edition, Vol I & II.
5. Shu Fing Chang, Philip G. Miles and Chang, S.T. 2004. Mushrooms Cultivation, nutritional value, medicinal effect and environmental impact. 2nd ed., CRC press.


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Dean Academics

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(Name of Faculty)
Director/Principle/Dean of
Faculty/Department

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