

Mushroom Culture Technology

(One year Certificate Course)

Semester I

Theory: Unit 1: Introduction, history. Nutritional and medicinal value of edible mushrooms:

Poisonous mushroom of edible mushrooms available in India – *Volvariella volvacea*, *Pleurotus citrinopileatus* and *Agaricus bisporus*.

Unit 2: Cultivation Technology: Infrastructure: substrates (locally available) Polythene bag,

vessels, Inoculation hook, inoculation loop, low-cost stove, sieves, culture rack, mushroom unit

(Thatched house) water sprayer, tray, small polythene bag. Pure culture: Medium, sterilization,

preparation of spawn, multiplication. Mushroom bed preparation paddy straw, sugarcane trash,

maize straw, banana leaves. Factors affecting the mushroom bed preparation - Low cost technology. Composting technology in mushroom production.

Practical

1. Sterilization and sanitation of mushroom house, instruments and substrates
2. Preparation of mother culture, media preparation, inoculation, incubation and spawn production
3. Any other practical related with mushroom cultivation

Semester II

Unit 1: Storage and nutrition: Short-term storage (Refrigeration -upto 24 hours) Long term

Storage (canning. pickles. papaws). Drying, storage in salt solutions. Nutrition - Proteins - amino

acids, mineral elements nutrition- Carbohydrates, and Crude fibre content - Vitamins.

Unit 2: Food Preparation: Types of foods prepared from mushroom

Research Centres- National level and regional level. Cost benefit ratio - Marketing in India and abroad, Export Value.

Practical/ Project Work

Cultivation of mushroom using paddy straw/agricultural wastes