Name of the Training Course: Skill Development in Mushroom Cultivation Technology

Dates: January 20-24, 2025



Objectives:

- I. To popularize mushroom production as alternative income generation strategy among the farming community and budding entrepreneurs.
- II. To strengthen the skills and knowledge of agri-entrepreneurs focusing on cultivation and production techniques of different mushrooms

Mushroom production in India is gaining attention as a viable alternative income generation strategy, particularly for small and marginal farmers, as well as budding entrepreneurs. With the increasing pressure on traditional farming methods due to unpredictable weather patterns, land degradation, and the rising cost of inputs, mushroom cultivation offers a sustainable and low-cost alternative. India's vast agricultural base, combined with the increasing demand for nutritious, organic, and plant-based foods, makes it an ideal environment for mushroom farming.

Mushroom cultivation is a relatively low-investment activity with high returns, making it a favorable option for farmers seeking to diversify their income. The investment in mushroom production can range between ₹50,000 to ₹100,000 for small-scale production, including the cost of substrates, spawn, and basic infrastructure. A single crop cycle, which lasts about 60-70 days, can yield around 2-3 tons of mushrooms. The average farm gate price of mushrooms

in India is between ₹100-₹150 per kg, depending on the variety and location. With such numbers, small-scale farmers can potentially earn ₹200,000 to ₹450,000 per cycle, translating into an annual income of up to ₹1.8 million if properly managed.

According to the National Horticulture Board, India produced about 2.39 lakh metric tons of mushrooms in 2022, with the market expected to grow significantly. The global mushroom market is forecasted to reach USD 86.6 billion by 2025, growing at a compound annual growth rate (CAGR) of 8.4%, and India is positioned to be a major player in this sector. Currently, the demand for mushrooms is expanding both domestically and internationally, driven by health-conscious consumers looking for protein-rich, low-calorie, and nutrient-dense foods. India's mushroom exports are still relatively small, with China, the United States, and several European nations dominating the global market. However, India's potential is enormous if the right infrastructure and knowledge-sharing programs are put in place.

Popularizing mushroom production among farmers and budding entrepreneurs can significantly boost rural economies. Farmers, who are often heavily dependent on seasonal crops, can supplement their income through year-round mushroom cultivation, reducing their vulnerability to crop failure and market price fluctuations. Mushrooms grow in controlled environments, which means they are not as affected by weather conditions, pests, or diseases as conventional crops. Moreover, mushroom farming requires relatively less land compared to other crops, which is beneficial in land-scarce regions.

For entrepreneurs, mushroom farming offers multiple revenue streams. Apart from fresh mushrooms, value-added products such as dried mushrooms, mushroom powder, pickles, and even cosmetic products can be marketed. Entrepreneurs can also engage in spawn production, which is crucial for mushroom cultivation, creating a business ecosystem around the industry. The government has also recognized this potential, providing subsidies and support under various schemes like the National Horticulture Mission and the Rashtriya Krishi Vikas Yojana (RKVY).

To fully capitalize on the economic potential of mushroom cultivation, it is essential to strengthen the skills and knowledge of agri-entrepreneurs. Despite the low investment and high returns, mushroom farming is highly technical. It requires expertise in spawn production, substrate preparation, temperature and humidity control, pest and disease management, and post-harvest handling. To bridge this knowledge gap, training programs must be established at the grassroots level, focusing on the different types of mushrooms such as button, oyster, milky, and shiitake mushrooms, which have varying production techniques.

Strengthening the supply chain is equally important. Most small farmers and entrepreneurs face challenges in accessing markets, leading to lower profitability. By forming cooperatives or farmer-producer organizations (FPOs), small-scale mushroom farmers can pool their resources, gain better access to inputs, and market their products more efficiently.

Mushroom production presents a significant opportunity for income diversification among farmers and entrepreneurs in India. With low initial investment, high market demand, and year-round cultivation, it offers a sustainable solution to the challenges faced by traditional farming. By popularizing mushroom farming and strengthening the skills of agri-entrepreneurs, India can tap into both domestic and global markets, fostering rural development and enhancing food security. With appropriate government support, technical training, and infrastructure

improvements, mushroom cultivation could transform the agricultural landscape and provide a stable source of income for thousands of farmers and entrepreneurs.

Course Director: Dr. Deeba Kamil

Outcomes of Training:

Promoting mushroom production through proposed training offers a sustainable, low-investment alternative income source for farmers and entrepreneurs. With minimal land requirements and year-round cultivation potential, mushroom farming can diversify farmers' income, making them less dependent on traditional crops and mitigating risks from climate and price fluctuations. For budding entrepreneurs, this sector provides multiple business opportunities, from spawn production to value-added products, contributing to rural economic growth. Skill enhancement through training programs would empower farmers and entrepreneurs with technical knowledge, improving efficiency and profitability. Better supply chains, cold storage, and market access could help India expand into global markets, boosting exports. Environmentally, mushroom farming recycles agricultural waste and provides a highly nutritious food source, contributing to food security and public health. Overall, popularizing mushroom cultivation has the potential to transform rural livelihoods, support economic development, and strengthen India's presence in the global agricultural market.

Course Director: Dr Deeba Kamil, Senior Scientist, Division of Plant Pathology, ICAR-IARI, New Delhi

Course Co-director: Dr Amrita Das, Senior Scientist, Division of Plant Pathology, ICAR-IARI, New Delhi

Course Coordinator: Dr. Renu Pandey, Head, Division of Plant Physiology ICAR – IARI, New Delhi

Who can apply: Farmers and Entrepreneurs

Duration & Date: 05 days (20-24th January 2025)

No. of trainees: Minimum 25 (First come first serve basis)

Venue: ZTM & BPD Unit and Division of Plant Pathology, ICAR-IARI, Pusa, New Delhi

Training Costs (per candidate): Rs. 3000 (excluding boarding and lodging)

(Request your accommodation on email- adp.ztmbpd@gmail.com and accommodation can be provided as per the availability at IARI, PUSA, New Delhi)

Please make payment to the following account number:

Bank Name:	CANARA BANK
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IFSC:	CNRB0019029
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Note: No registration will be considered without payment