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## IHT Celebrates 75th Republic Day with Grandeur and Pride

IHT celebrated 75th Republic Day in its Greater Noida Campus and Mandira Assam Centre. It was an grand and momentous occasion, marked with various events and activities to commemorate the significance of the day. The celebration started with the flag hosting ceremony by Sh. Sandeep Sudan Co Chairman of Institute of Horticulture Technology in Greater Noida. The ceremony was attended by faculty and staff creating a sense of unity and patriotism.

The ceremony was followed by brief remarks by Dr. Vijay K Koul Associate Director IHT, Dr. Jiteesh Jee Director IIPPT, Sh. Sanjeev Kulshrestha Registrar and others. Each highlighted the importance of Indian Constitution, democracy, and the journey of the nation over the past 75 years which was quite enlightening. The speakers also delved into contemporary issues and challenges facing India. Some of the speakers dwelled in deep about the sacrifices made by the freedom fighters and stressed the need to understand the responsibilities of citizens in a democratic society along with the rights.

The function was followed by culinary delights like tea, sweets and other traditional snacks which added a flavourful touch to the function. Overall, celebrating the 75th Republic Day in the Institute besides being a time of festivity also provided an opportunity for reflection, learning, and recommitment to the values enshrined in the Indian Constitution











# **Empowering Farmers through IHT's trainings** and exposure visits

The Institute of Horticulture Technology plays a crucial role in farmers' capacity building training by providing specialized education, training, and research & development focused on horticulture. It is a premier Institute for providing trainings in modern horticulture to various stake holders like farmers, field functionaries' present and prospective entrepreneurs, Govt. officials, students, industry persons and international trainees.

It has been recognized as Scientific and Industrial Research Organization- SIRO by DSIR, Ministry of Science and Technology, Govt. of

### Here are some key roles it plays

- Capacity Building Programs: The institute organizes specialized capacity building programs, including training-of-trainers workshops, study tours, and exchange programs, to empower farmers with the skills and knowledge needed to become successful horticulturists and entrepreneurs.
- 2. Developing Training Curriculum: The institute designs comprehensive training programs tailored to the needs of farmers, incorporating the latest advancements in horticulture technology, techniques, and practices.
- 3. Technical Trainings: It offers hands-on training sessions, workshops, and demonstrations to farmers on various aspects of horticulture, including crop cultivation, pest management, irrigation techniques, post-harvest handling, and marketing strategies.
- 4. Skill Enhancement: Through practical training and demonstrations, the institute helps farmers enhance their skills and knowledge, enabling them to adopt innovative practices and improve productivity and quality in horticulture production.
- 5. Access to Resources: The institute serves as a resource hub, providing farmers with access to cutting-edge technology, highquality planting material of vegetable seedlings, Citrus and Malbhog Banana and some other essential resources required for successful horticulture
- 6. Research and Development: It conducts research to identify challenges faced by farmers in horticulture production and develops sustainable solutions through innovative technologies and practices.
- 7. Extension Services: The institute offers extension services to disseminate research findings, best practices, and new technologies to farmers through field demonstrations, farmer field schools, and advisory
- 8. Networking and Collaboration: It facilitates networking and collaboration among farmers, researchers, industry experts, and government agencies to exchange knowledge, share experiences, and address common challenges in horticulture.

Overall, the Institute of Horticulture Technology plays a pivotal role in empowering farmers through education, training, and research, contributing to sustainable horticulture development and development of bio entrepreneurship.













## **Entrepreneurial Capacity Building Trainings**

## **Nursery Production and Management**

Nursery Production and Management training at IHT equips bio entrepreneurs with the knowledge, skills, and confidence to establish and manage successful nursery operations, contributing to the supply of high-quality seedlings for horticulture production and enhancing the overall sustainability and profitability of farming enterprises.

The Nursery Production and Management training program conducted during the month provided the trainees with comprehensive knowledge and practical skills necessary for successful nursery establishment and management. Here's an overview of this training: Nursery Infrastructure: Participants learnt about the design and layout of a nursery, including site selection, layout planning, and infrastructure requirements such as shade structures, irrigation systems, and potting areas.

Seedling Propagation Techniques: The training covered various methods of seedling propagation, including seed sowing, cutting propagation, grafting, and budding. Participants learn the principles and practices involved in each method, as well as factors affecting seedling growth and development.

Growing Media and Potting Mixtures: Farmers are educated on the selection and preparation of growing media and potting mixtures suitable for different types of crops and seedlings. They learn about the importance of soilless media, organic amendments, and nutrient balance for optimal seedling growth.

Nursery Management Practices: The training program addresses nursery management practices such as watering, fertilization, pest and disease management, and weed control. Participants learnt how to monitor seedling health, diagnose common problems, and implement corrective measures to ensure the production of healthy and vigorous seedlings.

Quality Assurance The participants were made aware of the importance of quality assurance and the standards for nursery products. They learn about the importance of maintaining high-quality standards in seedling production, including seed purity, uniformity, and disease-free status, to meet market demands.

Field Visits and Practical Demonstrations: The training program included field visits to Technology Park of IHT and practical demonstrations of nursery management techniques. Participants had the opportunity to observe real-world applications of the concepts learned in the classroom and gain hands-on experience under the guidance of experienced trainers.









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## Commercial Hydroponics

The Commercial Hydroponics Training for Bio-entrepreneurs at the Institute of Horticulture Technology (IHT) provided aspiring entrepreneurs with specialized knowledge and skills necessary to establish and operate successful hydroponic ventures.

Hydroponic is a technology solution for India's aid in agriculture. Compared to the conventional farming, smart farms use 90% less water. Hence hydroponic farming is emerging as one of the better alternative new techniques in agriculture and gaining foothold India. However, for successful hydroponics farming, one needs to understand the protected structures for this, climate control, production technologies for hydroponic crops, plant protection, water distribution, nutrient management and post-harvest management. With this view, two weeks training programmes on "Commercial Hydroponic" were organized in July 2022 by IHT from 8 to 20th January 2024 in online cum offline mode and 22nd to 24th January 2024 through online mode.

#### Here's an overview of what this training involved:

Introduction to Hydroponics: Participants were comprehensively introduced to hydroponic cultivation, including different systems, growing mediums, and nutrient solutions. They learned about the benefits of hydroponics, such as water efficiency, space optimization, and year-round cultivation possibilities.

Business Planning and Feasibility Analysis: The training program included sessions on business planning, market research, and feasibility analysis specific to hydroponic ventures. Participants learned how to develop a business plan, assess market demand, analyze production costs, and evaluate the financial viability of their hydroponic enterprise.

Hydroponic System Design and Setup: Entrepreneurs were educated on the design, setup, and operation of hydroponic systems suitable for commercial-scale production. They learned about system components, infrastructure requirements, and customization options to meet crop-specific needs and production goals.

Crop Selection and Cultivation Techniques: Participants learned how to select suitable crops for hydroponic cultivation based on market demand, profitability, and growth requirements.

Nutrient Management and Solution Formulation: The training covered essential principles of nutrient management in hydroponic systems, including nutrient solution formulation, pH and EC management, and nutrient monitoring techniques. Entrepreneurs learned how to tailor nutrient solutions to meet crop nutritional needs and maintain optimal growing conditions.

Environmental Control and Monitoring: Entrepreneurs received training on environmental control and monitoring in hydroponic facilities, including temperature, humidity, light intensity. They learned how to implement climate control strategies, manage pests and diseases, and

ensure optimal growing conditions for crop health and productivity.

Quality Assurance and Food Safety: Participants learned about IPM, Good Agricultural Practices for insects and disease management, quality assurance protocols and food safety standards applicable to hydroponic production. They received guidance on crop hygiene, sanitation practices, and traceability

Overall, the Commercial Hydroponics Training for Bioentrepreneurs at IHT offered a comprehensive learning experience that empowered participants to establish and grow successful hydroponic ventures, contributing to sustainable agriculture, food security, and economic development.









### **Mushroom Production**

The Institute of Horticulture Technology (IHT) conducted a short-term online three-day training course from 3-5th January 2024 on mushroom cultivation. The participants were introduced to the fundamentals of mushroom cultivation, including different mushroom varieties, growth requirements, and cultivation techniques, Then following aspects of mushroom production was explained to the participants.

**Mushroom Production Process:** The training covered the entire mushroom production process, from substrate preparation and inoculation to fruiting body formation and harvesting. Participants learned about the optimal conditions required for each stage of mushroom growth.



**Substrate Selection and Preparation:** Participants were educated on selecting suitable substrates for mushroom cultivation, such as agricultural waste, compost, or synthetic materials. They learned how to prepare and sterilize substrates to create a favourable environment for mushroom mycelium growth.

**Spawn Inoculation and Spawning:** The course included practical sessions on spawn inoculation techniques, where participants learned how to introduce mushroom spawn into prepared substrates. They learned about different methods of spawning and how to ensure uniform distribution of spawn for optimal colonization.

**Environmental Control:** Participants learned about the importance of environmental factors such as temperature, humidity, light, and ventilation in mushroom cultivation. They were taught how to create and maintain the ideal growing conditions for different mushroom species. Pest and Disease Management: The training covered common pests and diseases that affect mushroom cultivation and methods for prevention and control. Participants learned how to identify signs of pests and diseases and implement appropriate management strategies.

Harvesting and Post-Harvest Handling: Participants learned about the signs of mushroom maturity and the proper techniques for harvesting mushrooms to ensure maximum yield and quality. They were educated on post-harvest handling practices to prolong shelf life and maintain product quality. Overall, the short-term online three-day training course on mushroom cultivation provided participants with a comprehensive understanding of the cultivation process, practical skills, and business insights necessary to start their own mushroom cultivation ventures

### **UPCOMING TRAINING PROGRAMMES**

S. No.	Title	Duration	Mode of Training
01	Landscape Horticulture	2 Week	Online cum Offline
02	Commercial Hydroponics	2 Week	Online cum Offline
03	Online Basic Hydroponic	3 Days	Online
04	Protected Cultivation of Vegetables Crops	1 Week	Online and Offline
05	Mushroom Production	3 Days	Online

<sup>\*</sup>Customized courses are also offered on demand.

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