



## Contents

- Growing Importance of Horticultural Farming: A Gateway to Sustainable Agriculture
- Empowering Horticulture through Capacity Building Training

## Growing Importance of Horticultural Farming: A Gateway to Sustainable Agriculture

In today's rapidly changing agricultural landscape, horticultural farming is becoming more essential than ever. As the global demand for fresh, organic produce grows, there is a significant shift toward efficient, sustainable farming practices. Horticulture, which includes the cultivation of fruits, vegetables, flowers, and medicinal plants, is at the heart of this movement. However, to succeed in horticulture, it's not enough to simply have a passion for farming; it requires knowledge, skills, and the right techniques.

This is where the Institute of Horticulture Technology (IHT) plays a crucial role. IHT offers specialized training programs in modern farming techniques like hydroponics, micro-irrigation, pest management, and landscape gardening. These programs are designed to equip farmers and enthusiasts with the necessary skills to thrive in the evolving field of horticulture. For example, IHT's "Commercial Hydroponics" program teaches trainees the science behind soil-less farming, including nutrient management, water-efficient irrigation, pest control, and production techniques for vine and salad crops. The hands-on experience provided during training ensures that participants not only learn theory but also gain the practical skills needed to establish and maintain successful hydroponic farms.

Horticulture's role in the economy is growing, with India being the second-largest producer of fruits and vegetables globally. As urban farming gains traction and consumers demand more organic and locally-grown food, the horticulture sector is poised to expand. Future trends like vertical farming and smart farming technologies will further enhance the productivity and sustainability of the sector. At IHT, the emphasis is on empowering individuals with the knowledge to implement advanced farming practices. Whether it's managing a greenhouse or designing sustainable landscapes, IHT helps farmers gain the expertise to increase yields, reduce costs, and improve environmental sustainability. By learning these modern techniques, farmers can ensure they stay ahead of the curve, ready to meet the challenges of the future.

Horticulture farming is not just about growing plants; it's about embracing technology and sustainable practices that ensure long-term success. Through IHT's specialized training programs, future horticulturists are prepared to lead the way in transforming the agricultural landscape.

## Empowering Horticulture through Capacity Building Training

The Institute of Horticulture Technology (IHT) continues to play a pivotal role in advancing horticultural knowledge and practices through its specialized training programs. Designed for self-sponsored individuals and professionals, these programs focus on practical learning, innovation, and sustainability across diverse areas such as hydroponics, protected cultivation, mushroom production, and landscape management. With expert-led sessions and hands-on exposure, participants are equipped with the tools and confidence to adopt modern technologies and entrepreneurial approaches in horticulture. These training initiatives reflect IHT's commitment to building a skilled workforce for a greener, more productive future in Indian and global horticulture.

In line with this commitment, IHT recently organized a series of impactful training programs covering cutting-edge topics such as Commercial Hydroponics, Landscape and Garden Maintenance, Protected Cultivation of Vegetable Crops, and Mushroom Production Technology. These diverse trainings not only enriched participants with theoretical knowledge but also provided extensive hands-on exposure, preparing them to implement modern horticultural practices effectively. Here's a brief glimpse into these training initiatives:

### IHT Conducted Two-Week Hybrid Training on Commercial Hydroponics

The Institute of Horticulture Technology successfully conducted a comprehensive two-week training program on "Commercial Hydroponics" in April 2025. Designed for entrepreneurs, the training followed a hybrid model with the first week comprising online theoretical sessions and the second week focusing on intensive hands-on training at IHT and its demonstration centre Technology Park. During the online week, trainees were introduced to hydroponic systems, types of greenhouses, nursery planning, nutrient and climate management, irrigation systems, crop-specific production, and integrated pest management. The sessions were interactive, fostering engagement and real-time clarification of doubts.

The offline week enabled participants to receive in-depth practical exposure. Key modules included nursery setup, media and nutrient solution preparation, fertigation system handling, NFT/DFT crop production, and indoor vertical farming. A dedicated session focused on pest and disease control along with awareness on government schemes and subsidies. The training culminated with a feedback session and certificate distribution, leaving the participants equipped with valuable skills for setting up and operating hydroponic farming systems successfully.



*Hands-on training on hydroponic crop production and nutrient management at Technology Park*

## Landscape and Garden Maintenance Training in IHT

A five-day specialized training program on “Landscape and Garden Maintenance” was conducted at IHT for entrepreneurs. The training aimed to build foundational and advanced skills in managing landscape horticulture efficiently and sustainably.

The program began with sessions on the significance of landscape horticulture in environmental design and soil health management. Trainees received hands-on exposure to micro-irrigation techniques, the use of greenhouses in landscape design, and nursery systems for ornamental plants. Practical sessions emphasized garden design principles, planting aesthetics, and applications of annuals, biennials, and perennials in ornamental horticulture. The final days focused on lawn establishment, propagation techniques, and integrated pest and disease management. The training concluded with feedback collection and certificate distribution, providing participants with actionable skills for creating and maintaining beautiful green spaces.



*Hands-on training on Propagation technique for Ornamentals*

## Prospective Entrepreneurs Training in Protected Farming of Vegetable Crops in IHT

The Institute of Horticulture Technology conducted a five-day training on “Protected Cultivation of Vegetable Crops”, tailored for entrepreneurs and growers seeking knowledge in controlled-environment farming. Participants were introduced to protected structure types, soil health management, nursery raising, plug seedling production, and vegetable grafting techniques. Key modules included scientific bed preparation, soil sterilization, transplanting, and production techniques for major vegetable crops.

Additional focus was placed on efficient micro-irrigation systems, fertigation scheduling, pest/disease control strategies, and managing physiological disorders under greenhouse conditions. The training provided field-level exposure through polyhouse demonstrations. The training concluded with interactive feedback and certificate distribution, empowering participants with the skills necessary to boost vegetable productivity through protected cultivation.



*Hands-on training on Wine Crop Production and Bed Preparation*

## Online Training on Mushroom Production Technology

A three-day online training on “Mushroom Production Technology” was held by IHT to provide technical know-how to aspiring mushroom cultivators. The program began with an overview of mushroom cultivation and its commercial potential. Modules covered compost and casing preparation for button mushrooms, spawn production, and production techniques for button, oyster, milky, and shiitake mushrooms. Participants were also trained in pest and disease management strategies with a focus on producing mushrooms with minimum pesticide residues. The online format ensured real-time engagement and enabled widespread participation. The program concluded with online feedback collection, reviews, and digital certificate distribution, equipping participants to pursue mushroom farming as a viable entrepreneurial avenue.



## Upcoming Trainings

Looking ahead, the Institute of Horticulture Technology continues to pave the way for innovation and excellence in horticultural education. We are excited to announce a series of upcoming training programs aimed at empowering individuals with the latest skills and knowledge in various aspects of horticulture. These sessions will focus on practical training in protected cultivation, nursery production, saffron production, mushroom production, and hydroponics, and landscape gardening. Stay tuned for more details and registration information on these upcoming opportunities to advance your horticultural expertise!



ISO 9001 : 2008

# इंस्टीट्यूट ऑफ़ हॉर्टीकल्चर टेक्नोलॉजी Institute of Horticulture Technology

**Main Campus:** 42A, Knowledge Park III, Greater Noida - 201310, Uttar Pradesh  
**North East Campus:** Mandira, Kamrup - 781127, Assam  
Mobile: 8860621160, website: [www.iht.edu.in](http://www.iht.edu.in), Email: [enquiry@iht.edu.in](mailto:enquiry@iht.edu.in), [training@iht.edu.in](mailto:training@iht.edu.in)