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इंस्टीट्यूट ऑफ हॉर्टीकल्चर टेक्नोलॉजी Institute of Horticulture Technology

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INSTITUTE OF HORTICULTURE TECHNOLOGY

WISHES

HAPPY NEW YEAR

2019



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FROM DIRECTOR'S DESK

I am overwhelmed to wish all our reader a very happy and prosperous New Year, 2019. As we know that India has made an impressive growth in the production of horticulture crops like vegetables and fruits which is likely to touch a record 305.4 million tonnes (mt) in 2017-18 as per the estimates of Ministry of Agriculture and Farmers Welfare, Govt. of India. This is about 1.6% higher than the previous year and 8% higher than the previous five years' average. Within horticulture, production of vegetables is estimated at 181 mt in 2017-18, about 1% higher than the year before, while that of fruits is estimated at 95 mt, 2% higher than the previous year.



Institute of Horticulture Technology is devoted in upskilling famers, officers, agriculture graduates and entrepreneurs in various sectors of Horticulture. The Institute is well known for various initiatives in professional and skill development education in different sectors like, Protected Cultivation, Micro-irrigation, Soil Health Management, Good Agricultural Practices etc. Institute has also a fair contribution in enhancing income of farmers after being trained by the Institute as in evident from their success stories.

I strongly believe that IHT will continue its contribution towards the nation and help in increasing farmers' income in twofold by the end of the financial year 2022.

TRAINING AT IHT THIS MONTH Plant Health Clinic - A systematic approach to GAP

With rapidly changing climatic conditions, there is evidences that farmers are facing many challenges including plant care, new diseases and pests. The soil nutrient status and the management of pests are very important for successful crop production. Plant Clinics have a great role to play in addressing the gap and play a key role in helping farmers overcome the challenges.

Plant Clinics provide a meeting place for trained plant health advisors, known as plant doctors and the farmers they aim to serve. Plant clinics are not operated by plant wise, but rather by local extension officers who are well trained in the relevant techniques and skills to run a plant clinic. They provide diagnosis and advice on any problem and any crop.

Owing to this importance IHT conducted a capacity-building program for Officers of Department of Horticulture, Himachal Pradesh from 15th to 19th of January 2019. The trainees were made aware about the importance, layout and requirements of plant health clinic. Various interactive lectures by eminent experts on insect, disease, virus management was an important part of the training.

As soil plays a pivotal role on plant health, hence peer knowledge about soil, its amendment and management is required to make a balanced nutrition for crops. Participant officers were provided hands on training in soil analysis with STFR (Soil Testing & Ferti Recommendation) developed by IARI, Pusa, New Delhi.



Trainees during hands on training



Interactive lecture during training



Trainees learning Soil Analysis in Laboratory

Micro-irrigation under PMKSY-PDMC

Today India considered, as to-be-a water stressed country. Climate change along with increasing population and conventional flood irrigations leads to water scarcity. Micro irrigation is the only way to enhance water use efficiency also increase the production. The Government of India has been implementing Centrally Sponsored Scheme on Micro Irrigation such as “Pradhan Mantri Krishi Sinchai Yojna” with the objective to achieve convergence of investments in irrigation at the field level and expand cultivable area under assured irrigation. “Per Drop More Crop” is a component under PMKSY to assure improvement on on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies and introduce sustainable water conservation practices. Providing subsidies made drip irrigation popular among farmers but its regular maintenance became cumbersome for farmers due to lack of knowledge and proper skill.

IHT is recognized and empanelled with Department of Agriculture, Corporation and Farmers Welfare, Krishi Bhavan, New Delhi, Govt. of India for imparting training on “Precision Irrigation”. In accordance to the above recognition, Director of Horticulture, Commissionerate of Agriculture, Maharashtra State, Pune deputed officers for attending the present training conducted at IHT main campus at Greater Noida w.e.f. 01st to 05th January, 2019. Officers including Development and Extension Departments of Agriculture from 12 districts of Maharashtra imparted in this 5 days training. The training was delivered based on three way modules i.e. interactive lectures, hands on training and exposure visits by in house faculty and industry experts at the Institute and Technology Park of the institute at Greater Noida. Highly competent experts and faculties imparted the training.

The trainees were demonstrated different micro irrigation system suitable for different crops at different region. They were demonstrated different types of emitters, their efficiency and maintenance. IHT addressed the difficulties farmers are facing in cleaning, de-clogging and maintenance of micro irrigation systems.



Few glimpse of training and certificate distribution

Turning to the roots - Organic Farming

Organic farming is an alternative agricultural system where use of agricultural chemicals are restricted. India has followed this method of farming from an ancient age, but use of fertilizer and other agricultural chemicals showed an easier way to get higher production and increased productivity as well. However, indiscriminate use of those chemicals leads to environmental pollution and health hazards. Since last century, awareness among people has generated and farmers nowadays are trying to adopt this alternate method of farming. As per the definition of the United States Department of Agriculture (USDA) study team on organic farming “organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection”.

As conversion of a piece of land to complete Organic is time taken and needs higher investment, farmers of Gujarat are adopting Good Agricultural Practices with maximum source of organic inputs. This month, five days training program was conducted at IHT from 28th January to 1st February on Hi-Tech Horticulture Production Technologies with Special reference to Organic Farming. The training program was divided in three components i.e. interactive sessions, hands on experiences and exposure visit. Participants were mostly farmers from Junagarh and Somnath districts of Gujarat accompanied by Horticultural Officers of respective areas. Pondering on the training area, participants were taken to National Center of Organic Farming for exposure visit, where they got a huge coverage on organic resources and their use in farming. Through interactive session and hands on experience in IHT, trainees got acquainted with maintenance of soil health, proper usage of farm wastes and convert those wastes as organic inputs for crop cultivation. They also learnt about cultural and mechanical methods of pest control and different way to improve and maintenance of soil health. Field visits helped them understanding that production of fruits are also possible under insect proof net and high density planting under such net can also provide a fair income. Smile on trainees face gave us satisfaction and motivated us to work more intensively.



Trainees during Hands on Experience Session

Privately sponsored trainings

Now a days educated youth is exploring the possibilities of being involved in the production of horticultural crops specially protected cultivation of vegetables and cut flowers. IHT is getting queries from such youth from time to time as such has scheduled the training programme for such candidates. During this month eight trainings were conducted at IHT on different dates this month, which includes “Production Technology of Greenhouse Vegetable Crops”, “Protected Cultivation of Cut Flowers” and “Commercial Hydroponics”. Hydroponic is an emerging sector in today’s era, as some schools are also getting interested to include it in educational curriculum. Good Shepherd School of Ooty, Tamil Nadu deputed their teacher to IHT for three days training on Hydroponic. In her feedback she appreciated the training program and said that the training was quite informative and hands on. Trainees from various parts of the country like, Haryana, Uttar Pradesh, Bihar, Jharkhand etc. Trainings were appreciated and at the same time participants inputs are been received. IHT appreciates participants’ suggestions and thankfully accept their concern towards the institute which will strengthen training curriculums even more.



Glimpses of Hands on experience during different trainings

LABORATORY ESTABLISHMENT

Soil analysis laboratory

Soil analysis is an important component of Good Agricultural Practices. This is the very first step to be taken by a grower to know the soil, its texture, structure, porosity, quality and nutrient level. IHT has established a mini laboratory and introduced Pusa STFR (Soil Test and Fertilizer Recommendation) kit to the trainees. Pusa STFR Meter has been developed by IARI and licensed to nine firms for commercial production of this kit. The kit comes with programmable colorimeter and analyses soil parameters quantitatively. This soil testing kit can help farmers in testing 14 parameters of soil including macro and micronutrients. It also make crop-specific fertilizer recommendation with tentative dosage for 100 crops within a short time, and thus helps them to achieve higher yields and keeps soil fertile. Other than this, IHT also procured one more soil analysis kit introduced by IGKV, Raipur which is easier to handle by farmers at field level.



Various activities in soil analysis laboratory at IHT

Micro Irrigation laboratory

It is the goal of the institute to train the farmer or trainers and make them well equipped so that they can serve the nation through a better agriculture. Thus, it ensures that the learning facilities are state-of-the-art and updated to expose trainees in a real world, on farm experience while learning. To pursue this, Institute of Horticulture Technology has taken a bigger step to seek for initiatives by establishing a laboratory equipped with various components of trickle irrigation.

The laboratory is well equipped with various components of micro-irrigation. Different types of emitters, drippers, sprinklers with different specifications kept for demonstration. Fertilizer injectors like fertibridge, dozertron and ventury system with fertilizer tank are been showed in laboratory, where trainees can make fertilizer solutions of various strength and components as per crop requirement.

This laboratory will be helpful to farmers to understand the process of trickle irrigation, they will able to choose appropriate micro-irrigation system according to the crop they are growing. The most difficult situation what farmers face during using drip irrigation is its maintenance. This situation sometimes discourage people in adopting trickle irrigation system. Here in this laboratory and adjacent area under micro irrigation IHT provide trainings on the dos and don'ts while using this sytem.



Various activities in Micro-Irrigation laboratory at IHT

FUTURE PROGRAMMES FOR FEBRUARY 2019

Sr. No.	Courses	Duration
1	Production Technology of Greenhouse Vegetable Crops	3, 5 and 6 Days
2	Production Technology of Cut Flower in Greenhouse	3 and 5 Days
3	Mushroom Production	3 Days
4	Commercial Hydroponic	3 Days

