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## GOVT. OF INDIA PRIORITIZES AGRICULTURE FOR DOUBLING FARMERS INCOME

Agriculture in India is the key resource of employment. Almost 50% of total population of the country is associated with agriculture. However, its share in GDP, declined from more than 30 per cent in Fiscal Year 1991 to nearly 14.5 per cent in Fiscal Year 2011. This may be the consequence of the progression of farming clusters towards other services and industries. On the other hand, there was very low private investments to encourage agrarians for farming. The current Government has decided to draw attention of global private investors to increase from 13 per cent, which is the current statistics to help farmers across the country to around 30 per cent.

Apart from making changes in the existing practices, the government will make technology available to farmers across the country from sowing till marketing. Plans to use satellites and drones are also being made by the group of ministers. Small farmers will also be added in the fold.

Diversification of agriculture commodities is a novel approach by the Govt. will assist farmer to get rid of glut in the fresh market. Proper storage is one of the tool for this. "Gramin Bhandaran Yojna" has launched to create scientific storage capacity with allied facilities in rural areas. To meet the requirements of farmers for storing farm produce, processed farm produce and agricultural inputs. Promotion of grading, standardization and quality control of agricultural produce to improve their marketability. Prevent distress sale immediately after harvest by providing the facility of pledge financing and marketing credit by strengthening agricultural marketing infrastructure in the country.

On the other hand farmers are also getting assistance in enhance benefit with lesser investment. "Soil Health Card" help farmers to estimate précised requirement of fertilizers. A dedicated "Micro Irrigation Fund" created with NABARD has been approved with an initial corpus of Rs. 3000 crore for 2019-20 for encouraging public and private investments in Micro irrigation.



## Trainings at IHT

### Farmers Trainings- Jharkhand

Farmers of different districts of Jharkhand i.e. Hazaribagh, Jamtara, Chatra, Pakur, Lohardaga and Ramgarh participated in training programmes on “Hi-tech Horticultural Crop Production” in IHT during the month.

The farmers were provided hands on trainings in the Horticulture Technology Park established by IHT for showcasing modern technologies and hands on trainings in various innovative technologies like:

- Soil solarization
- Soil bed preparation
- Mulching, how to make hole in mulching for transplanting
- Soil less media and how to prepare mixture of Coco peat, vermiculite and perlite
- Hi-tech nursery production techniques for quality seedling production
- High density and ultra-high density planting methods
- Correct procedure for soil sampling
- Polyhouse and trouble shooting
- Micro-irrigation and fertigation technology
- Integrated Pest Management

The farmers took keen interest in raising of nursery in soilless media, media characteristics- importance of EC and pH in media and how to correct it so that quality seedlings can be raised. The importance of growing nursery under protected conditions was explained to the participants. The importance of non-chemical methods of pest control like cultural, mechanical, microbial control, use of monitoring traps, trap/indicator crops, microbial was demonstrated and explained to the farmers. Farmers took keen interest in non-chemical methods of pest control. Farmers were very keen to know about the technologies which can be used by them in their fields in order to increase quality production from unit area.

Exposure visit to National Centre of Organic Farming:

The farmers were taken for an exposure visit to National Centre for Organic Farming, Ghaziabad. The experts from the centre interacted with the farmers and apprised them about the technologies available for successful organic agriculture. The importance of ‘DECOMPOSER, a product developed by the centre which can be produced by farmers themselves was discussed and the farmers were provided with a bottle each of the product for usage and multiplication at their place. The participants were satisfied with the training programs and expressed that, their experience in IHT will help them to overcome many constraints which they were facing in their fields. They have rated the training excellent.



Few Glimpse of Hands of Training



## Trainings for entrepreneurs

Hydroponic crop production is becoming a profitable venture nowadays in India. This technology has a great acceptance in enormous countries worldwide. Hydroponic sector has created a divergence in private investors from other industries to agriculture. It is gradually bolstering agriculture sectors in the country.


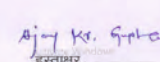
This month IHT conducted training programs on "Commercial Hydroponics", where participants in fact the prospective entrepreneurs from Delhi, Pune and abroad - Ghana, Africa participated. The trainees were explained the different nutritional requirement of crops in different stages of the cropping period and how the requirements of a seedling differ from that of a grown plant. The amount of nutrient, EC and pH required by the plant 'depends on its stage of development' was explained to them with respect to the crop in Intelligent Hydroponic Greenhouse of IHT. In hands on training sessions the procedure to make a recipe for a crop was explained to them and it was made clear to them that the recipes have to be made in such a way so that it does not disrupt the osmotic balance of the root zone, nor hampers the nutrient requirement. The importance of climate control for hydroponic crop production was discussed with the trainees.

Participants expressed their satisfaction at the end of the training program. Their feedback experience was video recorded and published in YouTube. Seeing keen interest of trainees IHT has launched **1-month training program on Hydroponic commencing from 5th September, 2019.**

## Plug Nursery Production as Start Up.

Plug type nursery production of vegetables fetch a good price from market as usually farmers are not able to grow good quality planting material on their own, particularly during off-season. A person having knowledge about raising quality-planting material can mitigate this gap with proper skill. IHT conducted 5 days training program on "Plug type nursery production of vegetables". The participants were explained about importance and steps for producing quality planting material in protected conditions by controlling greenhouse microclimate according to the seedlings. Trainees were also explained about importance and methods of hardening of the seedlings and methods for distribution of nursery to customers. The trainees were quite interested in going for startups for the Plug Nursery Production.



<p>5(b) Your Comments (only 2 - 4 Lines)?</p> <p>Training was very excellent and very much informative.</p> <p>The training staff and faculty are very co-operative.</p> <p>We learn so many things starting from basic doubts till all the details, I would be really thankful for the training.</p> <p>Dr. Yogesh Bapurao Kadam Scientist Pune, Maharashtra</p> <p></p>	<p>6. यदि आप का कोई सुझाव हो तो लिखें।</p> <p>IHT संस्थान अपना प्रोपर्टी डेवलपमेंट में शामिल करे ताकि लोग तकनीकी एवं High-tech जानकारी प्राप्त कर सकें।</p> <p>7. आपको संस्थान के माध्यम से ग्राम कार्यक्रम कैसे लगा ?</p> <p>IHT संस्थान के माध्यम से ग्राम कार्यक्रम अच्छा रहा मंडों के कर्म एवं पदाधिकारी का व्यवहार बहुत अच्छा है।</p> <p>Mr. Ajay Kumar Gupta, Farmer Lohardaga, Jharkhand</p> <p></p>
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## Out Reach Programme

IHT expert took active part in Faculty Development Program conducted by Department of Biotechnology at IILM Academy of Higher Learning, College of Engineering & Technology, Greater Noida on "Agriculture, Food Science and Environmental Dynamics: Integrating Technology, People and Sustainable Development" on 2nd July, 2019.

During the program, IHT arranged a workshop which includes a brief lecture along with demonstration of various hydroponic components which are used to grow plants in soil less media.

The engineering and science students showed lot of interest for hydroponic crop production system in order to produce healthy crops.



Co-ordinator, FDP felicitating IHT expert at IILM

## Eminent visitor

Mr. Theo Rutten, Senior PUM Expert, Netherlands visited the State of Art facility of the Institute on 30th July, 2019. Mr. Theo Rutten has 50 years of experience in horticulture particularly in hydroponic cultivation method of vegetables under controlled climatic condition. After his visit to Technology Park, he visited the laboratories including, Micro-irrigation Laboratory and Hydroponic Crop Production Laboratory in the Institute.



Hydroponic Expert addressing IHT faculty during visit

He also addressed Institute's faculties and discussed elaborately the advanced method of Hydroponics. He explained how every plants are monitored, methods of documentation and analysis. Mr. Rutten shared his vast knowledge about the effects environmental factors on plant physiology with the scientists of IHT. He appreciated the initiative of IHT in capacity building and skill development for Indian farmers and most importantly the youth of the Nation.

## Future Trainings

Training	Duration	Starting Date	Closing Date
Production Technology of Greenhouse Vegetable Crops-Supervisor Level II	3 month	02.09.2019	30.11.2019
Hydroponics – Level 1	1 month	05.09.2019	04.10.2019
Innovative Nursery	3 weeks	19.08.2019	06.09.2019
Floriculture and Landscaping	1 month	09.09.2019	07.10.2019