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NIPHM

राष्ट्रीय वनस्पति स्वास्थ्य प्रबंधन संस्थान
National Institute of Plant Health Management

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Theme Article



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From the Director General's Desk

India is one of the leading country in term of Agriculture and Information Technology. A proper and meaningful amalgamation of these sectors can play a game changing role in the lives of the 54.6% of the Indian population dependent on agriculture for their livelihoods and also for the food security of the world at large.

The agricultural sector can reap rich dividends by adopting the ICT technologies. By educating and training the farming community in adopting these technologies, a major change can be brought in agriculture and allied sectors. ICTs helps in enhancing the impact of extension services by improving access of farmers to information & services throughout the crop cycle.

The speed, reliability, accuracy and timeliness of the information, which is being delivered to the farming community in the form of both, audio/video and text formats is making a qualitative change in the life of the farmers and agricultural community. The information can be delivered through multiple modes like, touch screen kiosks connected to internet, mobile phones (broadcast, IVRS and interactive messaging) and also through other established modes of communication channels like KVKs, Common Service Centres, Kisan Call Centers etc.

Delivering localized and personalized content is the need of the hour and it is being achieved with the advent of new technologies such as GIS/ GPS, Internet of Things, Artificial Intelligence and the computing prowess of the technologies being introduced by the day. The farming community is slowly but steadily adopting to new communication technology. By adopting these technologies, the farmer can, not only implement scientific farming practices, but also can maximize agricultural profitability by minimizing the agricultural input costs through targeted application of resources based on the data/ content made available. NIPHM always plays proactive role in implementation of farmer centric activities. In view of this, NIPHM developed various videos, publications and online farmer advisory services which are directly useful for farmers and are publicly available on institute website. I hope these online sources are being utilized by farmers for sustainable agriculture and better farming.



Sd/-
(G. Jayalakshmi, IAS)
Director General

Role of ICT in Agriculture

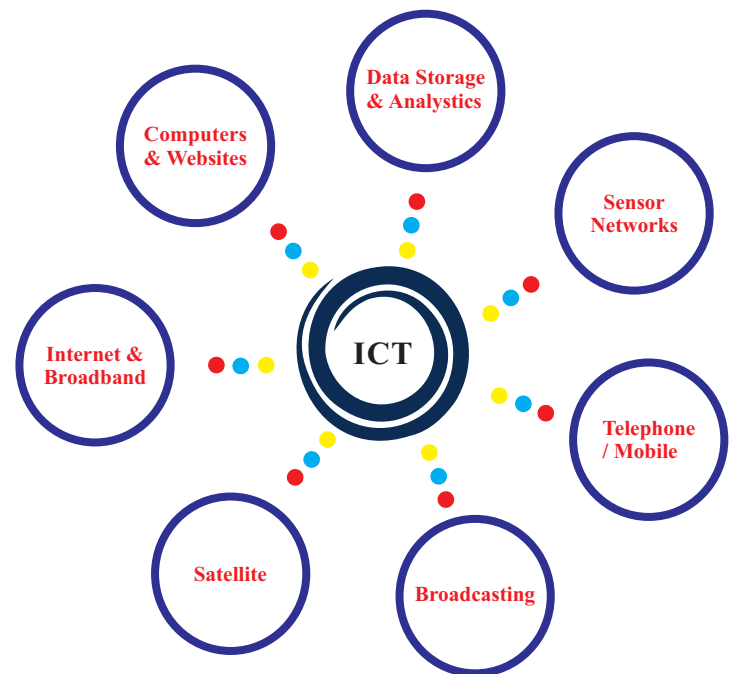
Er. Shaik Liyakhat Ali Ahamed, Mr. A. Nagaraju and Mr. G. Mahesh

Agriculture is one of the oldest profession in the history of mankind and in India. The agriculture sector provides employment to around 54.6% (Source: Annual Report 2017-18 of DAC&FW) of the population, and contributing immensely to the GDP of the Country. It is playing a significant role in the overall socio-economic fabric of India. It is true that India has made rapid progress in the field of agriculture post-independence, thanks to the Green Revolution and adoption of various technological advances related to the agriculture.

Information and Communication Technology (ICT) is playing a vital role by bridging the communication gap between major stakeholders in the field of agriculture. It is a combination of various technologies viz., telephony, wireless, mobile, internet, computers etc., which is very much helpful in disseminating content in various forms such as text, images, audios and videos to the potential end-users with no loss of data and in no time.

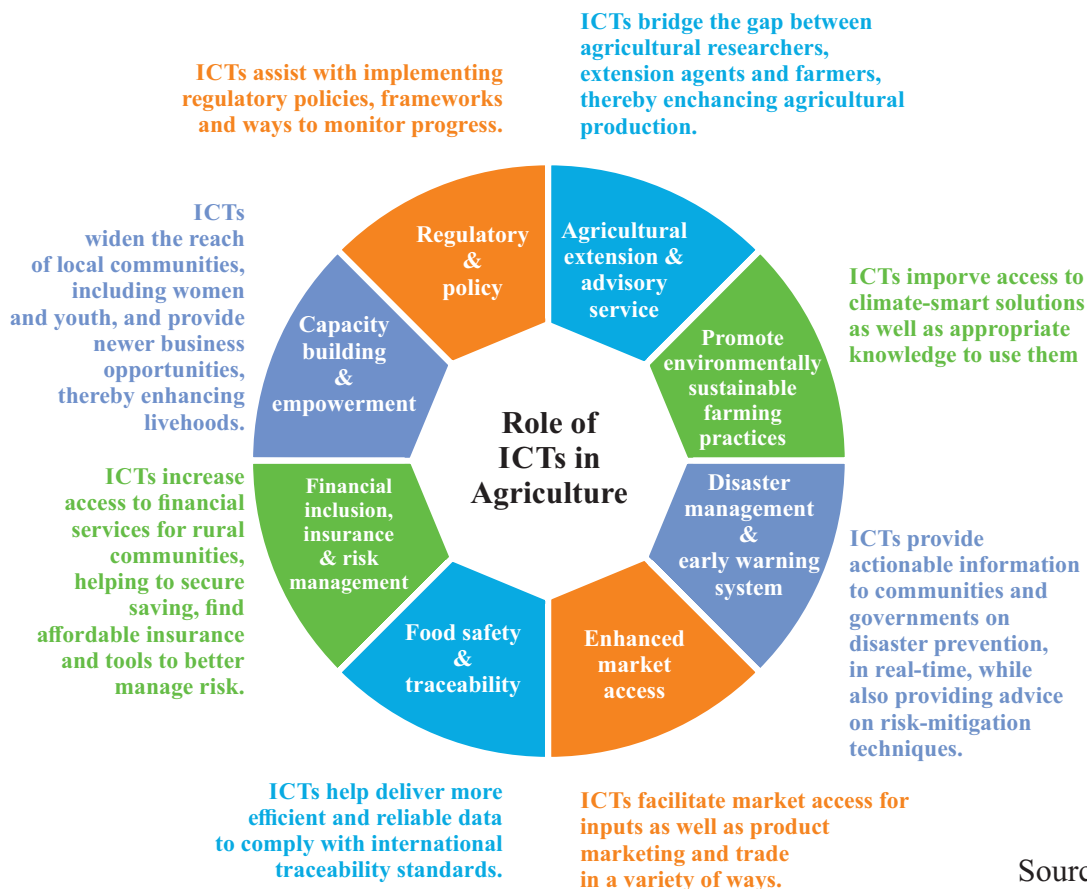
Broadly, usage of various communication technologies may be categorized as,

- ▲ Computers and Websites: Agriculture and agriculture related market information
- ▲ Internet and Broadband: Knowledge sharing, social media, e-community, banking, trading and marketing
- ▲ Satellite: Weather and remote sensing
- ▲ Broadcasting: Expertise sharing, advisory, community
- ▲ Telephone: Interactive voice response
- ▲ Mobile: Advisory, sales, banking, networking
- ▲ Sensor Networks: Real time information, better data quality, decision making
- ▲ Data Storage and Analytics: Precision agriculture, actionable knowledge



With the advent of ICT, other forms of communication such as printed material, exhibitions, demonstrations etc., at various levels have considerably subsided. The ICT provides fast and reliable dissemination of information to the clientele over other forms of communication. Moreover, ICT provides a more reliable mode of communication along with its merits such as ease of use, interactive features, speed, use case scenarios with their picturisation etc. India is ranked 5th for its pre-paid mobile cellular tariffs and ranked 1st in Internet and Telephony sectors competition index of “The Global Information Technology Report 2016” of World Economic Forum. The healthy competition and low cellular tariff surely helps in extensive use of mobile communication for information dissemination. ICT also provides for storage and retrieval of huge volumes of data in a more reliable, much easier and smoother manner when compared to other modes. In the wake of rapid developments in the field of ICT during the last couple of decades, both the Government and Public Sector have taken immense interest in adopting the ICT advancements to agricultural domain and also ensuring the adoption of the same by the farming community.

ICT is being used as an effective communication tool for disseminating the valuable inputs in time to the farmers.



Source: FAO, ITU

Characteristics of Farmer centric ICT initiatives

- Simple User-end solution
- Information should be localized
- Cost-effective / Affordable
- Benchmarked time lines / On-time information
- Focussed and Crisp
- Participatory
- Audio / Visual Media

Issues in implementing farmer centric ICT initiatives

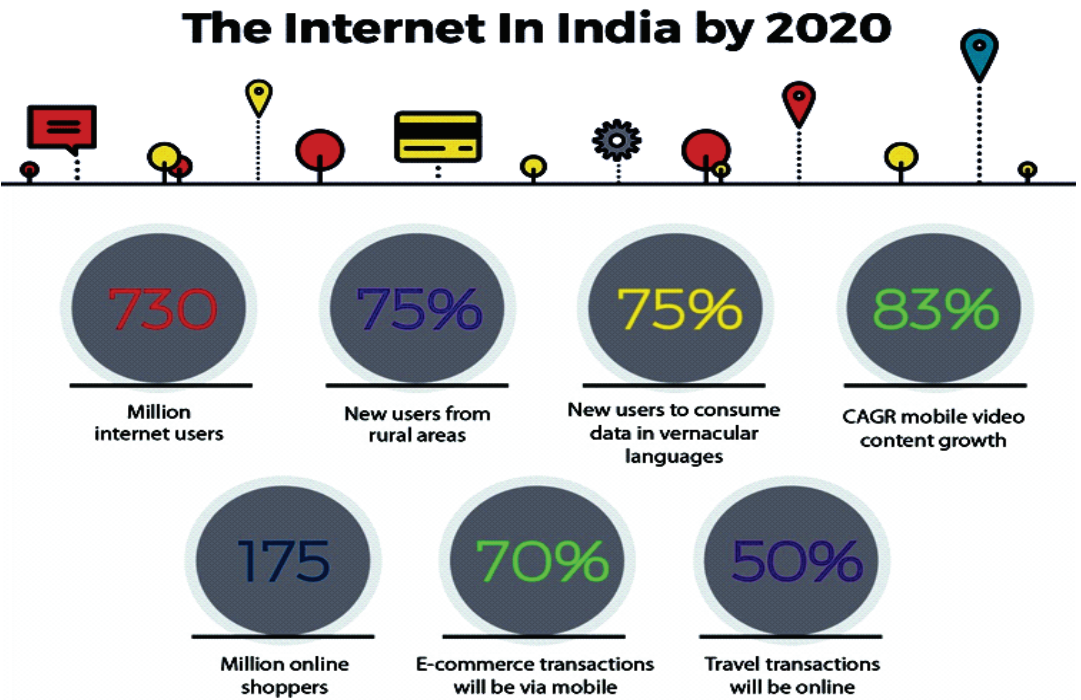
- Non availability of localized content to suit the needs and challenges of small scale farmers
- Undue stress on technology than on people and content
- Content is more technical and text driven than simple and visual
- Non-Interactive and non-collaborative
- Common / Standard Content
- Lack of basic training / awareness on the ICT initiative
- Non participatory / non-involvement of local communities or groups (One way communication)
- Lack of integration of the initiative with time-tested and accepted channels of communication / with programs already grounded and running.

- i. Poor coordination between the content providers
- j. Failure to provide information on-time

Present and Future Prospects of Internet Usage

The number of internet users in India is to reach 500 million by June, 2018 from 481 million in December'2017, based on the report published jointly by IAMAI and Kantar IMRB.

As per the report, urban India witnessed 9.66% growth, whereas rural India witnessed 14.11% growth from December'2016. Rural internet penetration has grown from 18% to 20.26% in December'2017. This is a positive outcome and the scope for growth is very huge in rural India. It can substantially help the rural agronomy and farmers in particular, providing them with avenues to access reliable information over internet and mobile telephony.

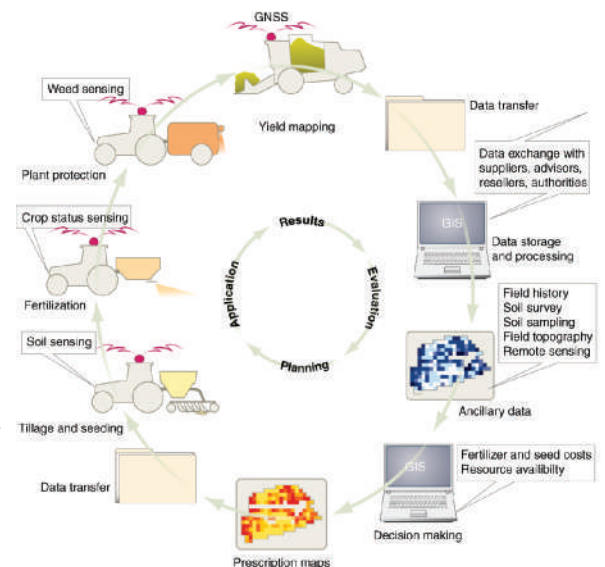


Source: blogs.nasscom.in - Achyuta Ghosh

The optimum utility of the ICT initiatives mostly depend on the literacy levels, knowledge of ICT tools, information as per the local needs and awareness. In this age of mobile telephony and cheaper internet connectivity, the delivery of audio visual content becomes much easier and shall be having more impact when compared to the text based content.

Precision Agriculture

Precision Agriculture (PA) is a farm management approach using modern information technology tools such as Global Positioning System (GPS), Geographic Information System (GIS) and Remote Sensing. PA is primarily sensor dependent and GPS technology augments the precision part of the system. PA is slowly catching up as one of the crop management practices among farmers of the western world with large stretches of arable land. PA helps in precise application of agricultural inputs for plant growth considering various factors such as soil, weather, water/ moisture levels etc.



Source: Science Magazine – Gebbers and Adamchuk 2010

PA helps in maximizing agricultural profitability by minimizing the agricultural input cost and also through targeted application of resources based on the data available. Ex.: Based on the soil data available, the application of fertilizers can be varied and similarly the usage of pesticide to areas in time of need. PA technologies are helpful in accurately identifying water stress, are used to use water judiciously and more efficiently.

Precision Agriculture can be aptly termed as a way to “apply the right treatment in the right place at the right time” (Gebbers and Adamchuk 2010). PA is also helpful in controlling environmental pollution and in partially arresting environmental degradation due to planned and controlled use of pesticides and natural resources (Geiger et al., 2010; Kleijn et al., 2011).

Internet of Things (IoT) in Agriculture

Internet of Things (IoT) refers to all those things which are connected to internet and specifically to those things which can communicate with each other over internet. The things / objects (ex. Mobiles, smart watches, sensors, networked electronic devices such as those in smart homes / smart farms etc.,) thus connected can share volumes of data between themselves and can generate huge data banks useful for various functionaries in taking timely informed decisions. This helps in reducing human interventions and more automated actions resulting in saving precious resources.

The Open Government Data (OGD) Platform India

The Government is promoting Open Government Data (OGD) Platform India – data.gov.in. The purpose of the initiative is to enable Government departments and Ministries to publish their datasets, documents, services, tools collected by them for public use.

OGD has four modules viz.,

- ▲ **Data Management System (DMS)** – Module for contributing data catalogues by various government agencies for making those available on the front end website after a due approval process through a defined workflow.
- ▲ **Content Management System (CMS)** – Module for managing and updating various functionalities and content types of the Open Government Data Platform India Platform.
- ▲ **Visitor Relationship Management (VRM)** – Module for collating and disseminating viewer feedback on various data catalogs.
- ▲ **Communities** – Module for community users to interact and share their zeal and views with others, who share common interests as that of theirs.

Source: data.gov.in

E-Publishing

e-Publishing makes possible providing documents over internet. An e-document can be accessed over devices like computers, PDAs, mobiles etc. It helps in accessing the related information faster and much easier than from the traditional published documents. The striking feature apart from the ease of availability of information is that of interactivity, using which the end-user can navigate / browse to other related and cross-referenced content over the internet.

The Directorate of Information and Publications of Agriculture (DIPA) is one of the prime sources of e-documents in India. Its research project files and Handbook of Agriculture are notable. Various other Organizations related to the field of agriculture like Indian Agricultural Research Institute – Pusa, National Bank for Agriculture and Development (NABARD), Krishak Bharati Cooperative Ltd. (KRIBHCO), Indian

Agricultural Statistics Research Institute (IASRI), National Agricultural Cooperative Marketing Federation of India Ltd. (NAFED), National Institute of Plant Health Management (NIPHM), State Agricultural Universities etc., bring out various e-documents from time to time for the benefit of the farming community at large.

National E-Governance Plan for Agriculture (NeGP-A)

The National E-Governance Plan for Agriculture (NeGP-A) is implemented by the Department of Agriculture Cooperation & Farmers Welfare, Ministry of Agriculture & Farmers Welfare as a Mission Mode Project enabling convergence of all its IT Schemes and that of its departments along with State specific e-Governance initiatives in agriculture and allied sectors at the Centre and States / UTs. Under NeGP-A all IT initiatives of DAC&FW are proposed to be integrated to enable the farmers in making proper and timely use of the information available through various ICT channels.

NeGP aims at offering Government to Citizen / Farmer (G2C or G2F), Government to Business (G2B) and Government to Government (G2G) agricultural services in an integrated manner through the Central and State Agriculture Portals.

The key objectives of MMP includes -

- ▲ Bringing farmer centricity & service orientation to the programs
- ▲ Enhancing reach & impact of extension services
- ▲ Improving access of farmers to information & services throughout crop-cycle
- ▲ Building upon, enhancing & integrating the existing ICT initiatives of Centre, and States
- ▲ Enhancing efficiency & effectiveness of programs through process redesign
- ▲ More effective management of schemes of DAC
- ▲ Promoting a common framework across states

Information dissemination shall be through various channels, viz., Government Offices, Integrated Central and State Portals, Internet Touch Screen Kiosks, Krishi Vigyan Kendras (KVKs), Kisan Call Centres (KCCs), Agri-Clinics, Common Service Centres (CSCs) and Mobile Phones (Broadcast, IVRS, Voice-recognition and Interactive Messaging).

Broadly the MMP is categorized into 12 Cluster covering 23 Services, which in turn have 72 components on a whole. The 12 cluster of services are,

- ▲ Monitoring implementation/evaluation of Government schemes and programs
- ▲ Information soil health
- ▲ Information on pesticides, fertilizers and seeds
- ▲ Information farm machinery, crops and Good Agricultural Practices (GAPs)
- ▲ Information on forecasted weather and agro-met advisory
- ▲ An interaction platform with information on market prices, stock arrivals, agricultural procurement places.
- ▲ Information on marketing infrastructure
- ▲ Provision for electronic certification for exports and imports
- ▲ Information on irrigation infrastructure
- ▲ Drought relief and management
- ▲ Information on fisheries
- ▲ Livestock management

Source: NeGP-A and other open source documents.

Various ICT Initiatives in Agriculture

AGRISNET (Agriculture Resources Information System Network) is a mission mode project to disseminate comprehensive information to the farmers up to the block level. The project aims to provide a technology platform with “a system for reliable and faster information retrieval, anytime in relation to cropping or crop cultivation”. It is intended to offer need based localized advisory services to farmers. Information pertaining to market, rainfall, soil health, field fertility, seed availability, fertilizer availability, fertilizer calculations, fertilizer prices, various Government schemes is made available through AGRISNET.



Source: indiagovernance.gov.in



AGMARKNET (Agricultural Marketing Information Network), launched in the year 2000 by Ministry of Agriculture & Farmers Welfare, Government of India. The portal provides agricultural marketing information to farmers and other stakeholders. It provides the information on, daily arrivals of agricultural produce to various markets across the country and their prices. The details like prices and arrivals, grades and standards, commodity profiles of various agricultural produce, information and related reports etc. can also be accessed through this portal.

Source: agmarknet.gov.in

Farmers Portal (<https://farmer.gov.in>) is the portal being maintained by the Department of Agriculture Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. The portal is aimed to make available, relevant agricultural information and services to the farming community such as fertilizers, seeds, pesticides and information pertaining to agricultural credit / crop insurance etc. Information pertaining to Animal Husbandry and Fisheries is also made available through this portal.

Source: farmer.gov.in





mKisan Portal (<https://mkisan.gov.in>) is being maintained by the Department of Agriculture Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. mKisan is an integrated SMS portal for disseminating advisories and agricultural information to the farmers over their mobiles. The information is disseminated with collaboration from respective State Government agriculture and allied departments, Krishi Vigyan Kendras (KVKs) and covers the fields of Agriculture, Horticulture, Animal Husbandry and Fisheries.

Source: mkisan.gov.in

National Institute of Plant Health Management (NIPHM) (<http://niphm.gov.in>)

National Institute of Plant Health Management is an Autonomous Organization under the Department of Agriculture Cooperation & Farmers Welfare (DAC&FW), Ministry of Agriculture & Farmers Welfare, Government of India. NIPHM is promoting various agricultural technologies and providing training on these technologies to the field officers and farmers from across the Country. NIPHM through its website (<http://niphm.gov.in>) is providing various technology videos and content in the form of electronic documents on IPM packages and other agricultural technologies.

Apart from these ICT initiatives, there are various other sources of agricultural information being provided, both by the Government and Private Sector.

Related Websites -

http://agricoop.nic.in	http://agriculture.gov.in/	www.fert.nic.in	http://www.imd.gov.in
http://agrionline.nic.in/	http://www.nabard.org/	www.fci.gov.in	https://www.icar.org.in/
http://www.fao.org	http://www.icrisat.org/	www.apeda.com	http://dare.nic.in/



**Special Events:
Inauguration of Beneficial Insect Museum**

Biological control of insect pests plays a major role in integrated pest management. Therefore, it is very essential to know about the insects which are acting as “Friends of Farmers”. Keeping in view, a Museum of Beneficial Insects was inaugurated at NIPHM by Smt. V. Usha Rani, IAS, Director General, NIPHM on 10.05.2018. This museum will help the trainees/ students to learn about various insects which are acting as parasitoids, predators, pollinators etc. Preserved insects specimens as well as the posters of beneficial insects belonging to different families are also displayed.



Inauguration of Weed Science Laboratory



Weed plants cause a deleterious effect on crop ecosystem. The identification of weed plants plays a major role in weed science. To familiarise with the various species of weed plants, a weed science laboratory was inaugurated at NIPHM on 15.06.2018 by Smt. V. Usha Rani, IAS, Director General, NIPHM. The live weed specimens, equipment used in weed management etc. were also displayed for demonstration. In addition to this, a video highlighting the various weed management practices was also being displayed in the laboratory.

Inauguration of Seed Health Testing Laboratory

Routine seed health testing is carried out in many countries for seed certification and plant quarantine. However, the majority of seed health tests used throughout the world has never been subject to rigorous validation. Three primary organizations publish standardized seed health tests: the International Seed Testing Association (ISTA), the International Seed Health Initiative (ISHI), and the U.S. National Seed Health System (NSHS). The inaugural ceremony of Seed Health Testing laboratory was commenced by Smt. Usha Rani, IAS on 15.06.2018. Director PMD, Director PBD and other faculty of NIPHM have graced the inauguration function. An identification kit for sorghum smut was also released as an initiative for initial identification of seed-borne pathogen. Demonstration for blotter test, grow out test, agar method, seed washing test, molecular techniques was organised.



NIPHM MoU with BARC

NIPHM has entered Memorandum of Understanding with Bhabha Atomic Research Centre, Department of Atomic Energy, Mumbai on 09-04-2018 for various research collaborations related to Irradiation as a Phytosanitary measures for export of selected agriculture commodities.



Farmers training on “Rodent Pest Management in Coconut and Cocoa Plantations”

One day training programme was organised on Rodent Pest management in Coconut and Cocoa Plantations to the farmers of Amalapuram and Gopalapuram, East Godavari District, Andhra Pradesh on 26th and 27th April, 2018. The programme was held in collaboration with Department of Horticulture, Andhra Pradesh. Total 233 farmers were attended the training. Dr. P. Saktivel, ASO (VPM) and Mr. B. Naresh, SRF (VPM) explained the farmers on the ethology of rodents in horticultural crops, demonstrated the poison bait preparation & application, use of local butta trap on rodent control and hands on training in operating the trap and also a practical demonstration was given to farmers about rodent kill traps application and also explained the trunk banding in coconut crops.



Farmers training on “Rodent Pest Management”



Training programme on Rodent Pest management was organised at Palivela village, East Godavari Dist. Andhra Pradesh on 15.05.2018. The programme was held at Palivela in collaboration with Department of Agriculture, Andhra Pradesh. Shri, A. Mariadoss AD (RPM) and Mr. B. Naresh, SRF (VPM) explained the farmers on the ethology of rodents in agricultural crops, storage places and houses; different species of rodents; damages and diseases caused by them; procedure of poison bait preparation, application; importance of bait stations; effective management of rodents by following integrated approaches; a practical demonstration was given to farmers about rodent kill traps application, bait stations importance in application of poison baits.

Off Campus : Preparation of low cost bottle traps and lures for fruit fly trapping

In India, fruit flies have been identified as one of the ten most serious problems of agriculture as a whole. It is distributed throughout India and undergoes hibernation during winter in north India; it is serious and active throughout the year in southern parts of India. Because of their polyphagous nature, cause a huge economic loss to fruits and vegetables which varies from 2.5 – 100 per cent depending upon the crop and season. Additionally, its broad host range, climate tolerance, and high reproductive rate make it a serious pest with extreme invasive potential. NIPHM has organized off-campus training programme for farmers in collaboration with Department of Horticulture and Food Processing, Lucknow, Uttar Pradesh on “Preparation of low cost bottle trap and lures for fruit fly management in Mango Orchards” from 14th to 15th May, 2018 at Pratapgarh and Banaras districts of Uttar Pradesh. The training was attended by one hundred four farmers.



Farmers Training on “Vertebrate Pest Management”

One day training programme was organised to the farmers at Koleri village, Magudi Taluk, Karnataka in association with University of Agricultural Sciences, GKVK, Bangalore on 24.05.2018. Dr. Mohan Naik, Professor of Entomology, GKVK, Bangalore delivered the welcome address which was followed by Dr. P. Saktivel ASO (VPM) delivered a talk on the management of vertebrate pest problems in different cropping systems. Prof. A.K. Chakraborty, Head of Entomology (Rtd.), IIHR, Bangalore was invited as resource person and he explained about the biology, ecology and management of monkey and wild boar in cultivated ecosystem in local language i.e., Kannada. In the afternoon, Dr. Mohan Naik explained the major pest species of rodents and conducted practicals about the different species of rodents in Karnataka. Explained the different mitigation strategies. The rodent poison baits were prepared and distributed to the farmers.

Farmers Training on “Rodent Pest Management”

One day training programme was organised to the farmers on Rodent Pest management at Devarapalli Village, East Godavari District, Andhra Pradesh on 14.05.2018. The programme was held at Devarapalli in collaboration with Department of Agriculture, Andhra Pradesh. In the selected village paddy is the major cultivated crop, all the farmers are facing the problem in managing the rodents. Keeping this in the mind this village was selected by department of agriculture, Kothapeta to organise one day farmer training on rodent pest management to protect the crop fields from rodent damage. Shri. A. Mariadoss AD (RPM) and Mr. B. Naresh, SRF (VPM) explained the farmers on the ethology of rodents in agricultural crops, storage places and houses; different species of rodents; damages and diseases caused by them; procedure of poison bait preparation, application; importance of bait stations; effective management of rodents by following integrated approaches; a practical demonstration was given to farmers about rodent kill traps application, bait stations importance in application of poison baits.



Capacity Building Training Programmes on Plant Biosecurity

Plant Biosecurity is of paramount importance to any country to safeguard food-security, sustainability of agricultural/horticultural production and also in protecting livelihood of people. Though incursion of alien pests into newer areas is not a new phenomenon, increased global trade has paved way for quicker entry of many exotic pests to hitherto unknown areas. The division organizes a number of training programmes in Biosecurity & Incursion Management, Rodent Pest Management and special capacity building programmes to promote safe trade in compliance of SPS. The following training programmes was organized by Plant Biosecurity Division during the month April - June, 2018:

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	Quarantine Pests: Detection and Identification	21	03.04.2018	23.04.2018
2	Quarantine Insects: Detection and Identification	5	09.04.2018	13.04.2018
3	Quarantine Pathogens: Seed Health Testing and Molecular Diagnostic Techniques	5	16.04.2018	20.04.2018
4	Pest Surveillance	5	07.05.2018	11.05.2018
5	Forced Hot Air Treatment	5	21.05.2018	25.05.2018
6	Stored Grain Pest Management	5	28.05.2018	01.06. 2018
7	Plant Biosecurity and Incursion Management	21	05.06.2018	25.06.2018
8	Fundamentals of Plant Biosecurity	3	05.06.2018	07.06.2018
9	Pest Risk Analysis	5	11.06.2018	15.06.2018
10	Emergency Preparedness	3	18.06.2018	20.06.2018
11	Fruit Fly Surveillance and Management	5	25.06.2018	29.06.2018
12	Urban Integrated Pest Management (UIPM)	15	10.04.2018	24.04.2018
13	Vertebrate Pest Management (VPM)	3	29.05.2018	31.05.2018
14	Rodent Pest Management	5	04.06.2018	08.06.2018



Capacity Building Training Programmes on Plant Health Management

Plant Health Management has great importance in sustainable agriculture and now-a-days much significance is being given to the eco-friendly management of insect pests and plant pathogens. Hence, the subduing of pest population under this concept is mainly by the use of natural enemies and also by bio-fertilizers which helps in the improvement of soil health also. The newly introduced pest management concepts like Ecological engineering and AESA based Plant Health Management are also given much importance. The training programmes organised by the division are designed to include the non-chemical pest management strategies for the management of insect pests and diseases of crops.

The following training programmes were organised during April - June, 2018.

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	Orientation-cum-Capacity building program on "Soil and plant health management" for the Facilitators/ Coordinators of DAESI	2	11.04.2018	12.04.2018
2	Organic farming for sustainable agriculture	3	07.05.2018	09.05.2018
3	Refresher training programme on 'On farm production of bio-control agents and microbial bio-pesticides' for established Agripreneurs	4	07.05.2018	10.05.2018
4	Production protocol for bio-fertilizers and bio-pesticides	10	14.05.2018	23.05.2018
5	Quarantine nematodes of economic importance	3	21.05.2018	23.05.2018
6	Production protocol for bio-control agents, quality analysis and quality assessment of microbial bio-pesticides and bio-fertilizers	21	07.06.2018	27.06.2018
7	Training to Pest monitors and field diagnosis for IPM under CROPSAP	5	11.06.2018	15.06.2018
8	Orientation-cum-Capacity building program on "Soil and plant health management" for the Facilitators/ Coordinators of DAESI	2	13.06.2018	14.06.2018
9	Quality assessment and quality management of microbial bio-pesticides	10	18.06.2018	27.06.2018



Capacity Building Training Programmes on Plant Health Management

The following farmers training programmes were also organised during April to June, 2018.

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	'On-farm production of bio-control agents and microbial Bio-pesticides' to promote bio-fertilizers usage and production for farmers of Warangal Urban & Rural Districts under DPMP	4	16.04.2018	18.04.2018
2	On-farm production of bio-control agents and microbial Bio-pesticides	3	23.04.2018	25.04.2018
3	On-farm production of bio control agents under ATMA-SSEPRS farmers of Tamil Nadu	3	02.05.2018 11.06.2018 18.06.2018	04.05.2018 13.06.2018 20.06.2018
4	On-farm production of bio control agents and microbial bio-pesticides	3	29.05.2018	31.05.2018
5	Training on "On-farm production of Bio-control agents for promotion of sustainable agriculture" to the farmers of Warangal district	4	04.06.2018	07.06.2018
6	Organic farming for sustainable agriculture	3	27.06.2018	29.06.2018



Capacity Building Training Programmes on Pesticide Management

The Pesticide Management Division continuously makes efforts to organize various capacity building programs in order to provide awareness among all the stakeholders on the use of pesticides besides conducting the mandated training programs viz. Pesticide Formulation Analysis, Inspection, Sampling and Prosecution Procedures under Insecticide Act, 1968 etc. for the extension officials of State and central Agriculture departments so that the use of Pesticides can be reduced significantly.

The following training programs were conducted during April - June, 2018.

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	Pesticide Residue Analysis	21	12.04.2018	02.05.2018
2	Calibration of Glassware & Laboratory Equipment for Pesticide Formulation (PFA) Laboratories	8	19.04.2018	26.04.2018
3	Inspection, Sampling and Prosecution Procedures under Insecticide Act, 1968 (ISPP)	5	21.05.2018	25.05.2018
4	Pesticide Formulation Analysis	60	05.06.2018	03.08.2018



Capacity Building Training Programmes on Plant Health Engineering

Application of pesticides continues to play a significant role in reducing crop losses due to pests even under IPM as a last resort. The success of pest management operations depends on proper technique of application of pesticide and the equipment used. Selecting the right equipment for pesticide application is vital for successful pest control to ensure safe and judicious use of pesticides. In view of this, Plant Health Engineering Division organized following training programmes during April - June, 2018:

Sl. No	Name of The Programme	Duration (Days)	Date	
			From	To
1	Pesticide Application Techniques and Safety Measures	5	23.04.2018	27.04.2018
2	Pesticide Application Techniques and Safety Measures	5	07.05.2018	11.05.2018
3	GIS approach in Soil, Water and Plant Health Management	5	14.05.2018	18.05.2018
4	Post-Harvest management and Storage techniques	5	25.06.2018	29.06.2018
5	Farm machinery and post-harvest management for B. Tech Agricultural Engineering students	30	01.06.2018	30.06.2018



Skill development Training course on “Organic Farming”

NIPHM has been recognized as skill development training center by DAC &FW for conducting training as specified by ASCI (DAC & FW). In view of that a skill development training on “Organic Farming” was conducted in association DDS-KKVK, Zaheerabad to 20 farmers/rural youths from 09.04.2018 to 09.05.2018 (1 month) at KVK, Zaheerabad. Total 20 participants (9 male and 11 female farmers) from nearby villages of Kashimpur, Zaheerabad, Bardipur and Algole participated. The training programme consisted of 40% theory and 50 % practicals and 10% visit on various aspects of organic crop production practices like soil health management (soil sample collection and soil testing procedures), water conservation techniques, importance and types of mulching, permaculture techniques and cropping systems, vermicomposting, Preparation of vermiwash, Panchagavya, Jeewamrutham, bijamrutham, aganiastram, brahmastram and NSKE, bio control of pests. Demonstration also given on kitchen gardening and orchard management, packages of practices and propagation methods for the fruit crops, nursery management etc. As part of the training, exposure visit to NIPHM & Community production center at Pastapur were arranged for the participants. Farmers also visited fields of farmers practicing organic cultivations. Smt. V. Usha Rani, I.A.S., Director General, NIPHM has graced the occasion as Chief Guest for the Valedictory programme on 09.05.18 and interacted with farmers.



Laying of Foundation stone for construction of State of the Art NABL laboratory

Shri. S.K. Pattanayak, IAS, Secretary to Government of India, Department of Agriculture, Cooperation and Farmers Welfare, MoA & FW visited NIPHM on 22nd May, 2018 for laying of foundation stone for construction of State of the Art NABL laboratory for Pesticide Management Division at NIPHM campus. The occasion was graced by Shri. Jalaj Shrivastava, IAS, Additional Secretary (PP), DAC&FW; Shri. B. Pradhan, IAS, Additional Secretary & Financial Advisor, DAC&FW, Mrs. V. Usha Rani, IAS, Director General, MANAGE & Director General I/c., NIPHM; Ms. G. Jayalakshmi, IAS, Director General, NIPHM and Senior officers of NIPHM and CPWD).



4th International Day of Yoga celebrations

The 4th International Day of Yoga was celebrated on 21-06-2018 at NIPHM. The Officers, Staff, Trainees and Students have attended the programme and practiced yoga asanas on the occasion for one hour.



World Agriculture Day celebrations

The World Agriculture Day was celebrated on 11-6-2018. Director General, NIPHM Smt. V. Usha Rani, IAS and other officials have planted trees in the NIPHM campus (near old hostel building) on this occasion.



Celebrations of 'World Environmental Day'

NIPHM has celebrated “World Environmental Day” on 05-06-2018. A poster preparing competition has been conducted among the Officers, Officials and Trainees of NIPHM on the theme 'Beat Plastic Pollution' on the occasion.

Smt. V. Usha Rani, IAS, Director General, NIPHM has addressed the Staff and Trainees on the occasion and appealed to avoid plastic in daily life to protect our environment.

The prizes were distributed to the winners on the occasion.



Fall armyworm - The New Wound of Indian Agriculture

Fall Armyworm (FAW) or *Spodoptera frugiperda*, is an insect that is native to tropical and subtropical regions of the Americas. In its larva stage, it can cause significant damage to crops, if not well managed. It prefers maize, but can feed on more than 80 additional species of plants, including rice, sorghum, millet, sugarcane, vegetable crops and cotton. In Africa, FAW was first detected in Nigeria in January 2016 and has quickly spread across virtually all of sub-Saharan Africa.

The fall armyworm (FAW), *Spodoptera frugiperda*, a devastating insect-pest, has been identified for the first time on the Indian subcontinent. University of Agricultural and Horticultural Sciences (UAHS) confirmed the arrival of the pest in maize fields within campus grounds in Shivamogga, in the state of Karnataka, southern India. Unofficial reports of incidence of FAW are rapidly emerging from several states in India, including Andhra Pradesh, Maharashtra and Telangana. Farmers will need great support to sustainably manage FAW in their cropping systems through Integrated Pest Management.

Source - <http://www.fao.org/food-chain-crisis/how-we-work/plant-protection/fallarmyworm/en/>



एनआईपीएचएम में राजभाषा हिंदी के क्रियान्वयन से संबंधित क्रियाकलाप

राजभाषा कार्यान्वयन समिति (राकास) की बैठक वर्ष 2018-19 हेतु दिनांक 29-05-2018 को श्रीमती वी.ऊषारानी, भा.प्र.से., महानिदेशक, रावस्वाप्रसं (एनआईपीएचएम) की अध्यक्षता में हुई। बैठक में महानिदेशक के समक्ष जनवरी-मार्च, 2018 की तिमाही हिंदी प्रगति रिपोर्ट प्रस्तुत किया गया। उन्होंने उक्त तिमाही प्रगति रिपोर्ट की समीक्षा की एवं पिछले बैठक के दौरान लिये गए निर्णयों पर की गई कार्यवाही पर संज्ञान लेते हुए संस्थान में राजभाषा कार्यान्वयन हेतु कई निदेश दिये।

महानिदेशक ने पिछली तिमाही की समीक्षा करते हुए संस्थान में आगे भी राजभाषा अधिनियम की धारा 3(3) का अनुपालन शत-प्रतिशत किये जाने के निदेश दिये। इस तिमाही के दौरान एनआईपीएचएम वेबसाइट के प्रत्येक कॉलम को पूर्ण रूप से हिंदी में अनुवाद कर एनआईपीएचएम वेबसाइट पर अपलोड कर दिया गया है। इसके साथ ही एनआईपीएचएम प्रशिक्षण कैलेंडर वर्ष 2018-19 को हिंदी में अनुवाद कर वेबसाइट पर अपलोड कर दिया गया है। इसके अलावा इस तिमाही के दौरान वनस्पति स्वास्थ्य अभियांत्रिकी प्रभाग के प्रशिक्षण मैनुअल “रासायनिक पीड़कनाशियों का सुरक्षित एवं विवेकपूर्ण उपयोग” का हिंदी में अनुवाद किया गया है। इसी संदर्भ में महानिदेशक ने एनआईपीएचएम प्रशिक्षण सामग्री (मैनुअल) के महत्वपूर्ण अध्यायों एवं किसानों से संबंधित प्रौद्योगिकी वीडियो, बुकलेटो (पुस्तिकाओं), को हिंदी में अनुवाद करने हेतु निदेश दिये।

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