

## 5. TRAINING AND CAPACITY BUILDING

### 5.1: Training

#### 5.1.1: Training Received

##### i) Participation in training (category-wise)

Sr. No.	Name of the Officials	Name of the course/training	Place	Period
<b>Scientists</b>				
1.	Dr. S. B. Nandeshwar	Competency Enhancement Programme for Effective Implementation of Training Functions by HRD Nodal Officers of ICAR	NAARM, Hyderabad	20-22 Feb-17
2.	Dr. S. M. Wasnik	Skill development in Agriculture - Kaushal vikas se krishi vikas	NAARM, Hyderabad	19-21 Feb-17
3.	Dr. D. V. Patil	Training on refresher course on Agriculture research management	MANAGE, Hyderabad	15-26 Nov-16
4.	Dr. J. A. Sheeba	Phenotyping for drought adaptive trait and their introgression for crop improvement, Crop phys.	UAS, JKVK, Bengaluru	17-24 Oct-16
5.	Mr. Madhu TN	DST-SERB Workshop on Chemical Ecology	NCBS, Bangalore	3-16 July-16
6.	Dr. M. Amutha	Techniques in Insect Molecular Biology and Toxicology	ICAR- Sugarcane Breeding Institute	7-16 Sep-16
7.				
<b>Technical</b>				
8.	Mrs. Sunita Chauhan	Promotion of agro Enterprise and food processing	ni-msme, Hyderabad	21-23 Feb-17
9.	Dr. U.V. Galkate	Commercial Dairy production	SRS ICAR - NDRI, Bengaluru	27 Feb to 4 Mar-17
10.	Mr. G.V.Deogirkar	Use of molecular techniques in crop improvement program	NRCPB, New Delhi	17-31, Jan-17
11.	Mrs. R. Deshmukh	Advances weed management	Directorate of WR, Jabalpur	3 Nov to 9, Dec-16
12.	Mrs. Swati Dixit	Digital Library Management.	CMFRI, Kochi	25-26 Nov-16
13.	Mr. R.V. Salame, Mr. Prashant Gavhale Mr. Bhausahab Naikwadi Mr. Mayur Meshram	Statistical techniques for agriculture data analysis.	IASRI, New Delhi	2-11 Nov-16
14.	Dr. Pundalik B Deulkar	Competence enhancement programme for technical officers of ICAR.	NAARM, Hyd.	17-26 Aug-16



15.	Mr. Bhausahab Naikwadi	Agrometeorological data collection, analysis and management	CRIDA, Hyd.	25 Jul to 6 Aug-16
16.	Mrs. Subashree K.	Competence enhancement programme for technical officers of ICAR.	NAARM, Hyd.	1-10 June-16
<b>Administration</b>				
17.	Mr. N.V. Dhande	Enhancing efficiency and behaviour skill of PA/PS/PRS	NAARM, Hyderabad	24-30 Nov-16
18.	Mrs. Shubhangi Kharche, Mr. N. Ramesh	Pension and other retirements benefits	ISTM, New Delhi	5-8 Sep-16

## ii) Training organized for various categories of employees (category-wise)

### Skilled Supporting Staff

Sr. No.	Name of the Officials	Name of the course/training	Place	Period
1.	Bathran Palaniappan, Rajamani Sakthivel, Kalyani Sampathkumar, Rajathi Kumarasamy, Chitra Mani, Dhara Essakki, Savithri Panneerselvam, Jegadambal Krishnasamy, Karuppusamy Kaliappan, Subbammal Brahman, Ramamurthy Krishnan, Manimekalai Karuppusamy, Laxmi Rangasamy, Kannaiyan Marudhan, Murgan Ammasalp, Thangavel Palani, Velingiri Kittan, Sarojini Najappan	Multi-skilled training programme to supporting staff	ICAR-CICR, Regional Station Coimbatore	22-24 Feb-17

## iii) HRD fund allocation and utilization

Sr. No.	BE 2016-17 for HRD			Actual Expenditure up to March. 2017 for HRD		
	Plan	Non-plan	Total	Plan	Non-plan	Total
	(Lakh Rs.)	(Lakh Rs.)	(Lakh Rs.)	(Lakh Rs.)	(Lakh Rs.)	(Lakh Rs.)
1	4.00	2.00	6.00	4.03	1.99	6.02

### 5.1.2: Training Imparted

#### International training

**2-Day training programme on Farm Implements for African Delegates at CICR, Nagpur, under Cotton-TAP for Africa Programme, 8-9<sup>th</sup> Sept., 2016**

Two-day training was organized at CICR, Nagpur

for participants from Africa under Cotton TAP. Four participants from Benin, Chad, Nigeria and Uganda attended the training programme. Dr. Blaise Desouza, Head, Crop Production and Training Co-ordinator gave an overview to the participants and hoped that the agri-implements to be shared would benefit the cotton growers in their



respective countries. Er. Majumdar, Course Leader of the programme gave detailed presentation of the agri-implements and also demonstrated these implements in the field and conducted an out-door activity to visit the farmers fields. Dr. Sandhya Kranthi, I/c Director briefed the participants about the Institutional activities and hoped that it would

be useful to the participants. All the participants appreciated the training programme and thanked the organizers, the Government of India, New Delhi and their respective Governments for sponsoring their nomination for this training programme.



**National Training  
Nagpur  
Tribal Sub-Plan**

Under Tribal Sub-Plan (TSP) of NSP, 6 trainings were organized for tribal farmers in 6 villages

adopted under Mera Gaon Mera Gaurav programme. They are Ladai ( Lingala), Wathoda, Nimboli, Budhla of Kalmeshwar tehsil; Murdapur of Bela tehsil and Narhar of Parseoni tehsil. Nearly 2000 tribal farmers and women got benefited by these trainings.



Ladai (Lingala)



Wathoda



Narhar

**Cultivation of Desi Cotton**

A training program on “Desi Kapus Lagwad Prashikshan Shibir” (Training Program on Cultivation of Desi Cotton) for farmers of four districts was organized by ICAR-Central Institute for Cotton Research, Nagpur with the special help of Yuva Rural Association (Y.R.A.) on 28.04.2016.

Around 65 farmers from different villages of Nagpur, Wardha, Amravati and Bhandara districts of Maharashtra attended the program. The function was chaired by Dr. K. R. Kranthi, Director, CICR, Nagpur while it was graced by Shri. Datta Patil (Y.R.A.). Other participants Shri Padole (Neem Foundation), Dr. Blaise Desouza, Head,





Crop Production, CICR, Nagpur, Dr. R. B. Singandhupe, In-charge, KVK, CICR, Nagpur, Dr. Punit Mohan, Principal Scientist, Dr. V. Santhy, Senior Scientist, Dr. Sunil Mahajan, Senior Scientist, Dr. Saravanan M, Scientist also attended the meet. Director, CICR elaborated the importance of desi cotton in comparison with Bt cotton. He also emphasized the future demand and dependency of market for surgical cotton. Shri. Datta Patil (Y.R.A.) shared his experience regarding how his organization has organized and monitored the seed production of *desi* cotton, Phule Dhanwantari on farmer's field, ginned and processed at CICR, Nagpur. Different farmers have also exchanged their experiences based on the cultivation of *desi* surgical cotton var. Phule Dhanwantari in previous year. They showed their willingness to grow the *desi* cotton in next season also. The farmers experienced that the cost of cultivation of *desi* cotton is much less due to less use of inputs like pesticides and fertilizers as compared to the Bt cotton. 'Package of Practices' (PoP) of *desi* surgical cotton var. Phule Dhanwantari was presented by Dr. Sunil Mahajan through power point presentations and its ready reckoner cards have also been distributed to the farmers. The 4 kg bag of quality seed of *desi* surgical cotton var. Phule Dhanwantari for one acre to each farmer was also distributed on payment basis by the Yuva Rural Association.

#### Implementation of Cotton FLDs

A training programme was held in Shivanphal in Girad cluster of Samudrapur tahsil of Wardha district on June 18, 2016 for undertaking cotton

FLD interventions on *Desi* cotton, cotton intercropping and integrated cotton management under the aegis of AICRP on cotton. 40 Farmers were motivated for cotton intercropping system. The benefits and role played by intercrops in improving soil fertility status of soil especially cotton- cluster bean intercropping system was discussed with the farmers. FLDs trials on cotton (H-8) BG II and cluster bean were conducted in one acre plot. Dr. S. M. Wasnik, Principal Scientist Extension, coordinated the FLD activities.

#### Protection of cotton plant varieties and farmers Right

Sixty farmers of KVK, Nagpur were trained on Protection of cotton plant varieties and farmers Rights on 22-25 March, 2017.

#### Soil Testing and Fertilizer Recommendations

Twenty persons belonging to private laboratories and soil testing staff on micro, and secondary nutrient deficiencies in cotton, soil testing and interpretation were trained on 23 March 2017.

#### Coimbatore

##### Tribal Sub-Plan

Scientists - Extension Officials - Farmers Interface Meeting cum Off - Campus Training Program on "Integrated Crop Management Practices in Cotton" for Tribal Cotton growers was conducted at State Horticultural Farm, Karumanthurai village, Pethanayakkanpalayam block, Attur Taluk, Salem district on 29.07.2016 under All India Coordinated Research Project on Cotton - Tribal Sub Plan (TSP). Scientists from ICAR - CICR, Coimbatore, extension officers from the State Horticulture farm and Department of Agriculture







and 59 tribal cotton growers from Pethanayakkanpalayam block, Attur Taluk, Salem district of Tamil Nadu have participated in the interface meeting cum training program.

Two on-campus training programs on Integrated Cotton Management techniques were conducted in CICR, Regional Station, Coimbatore during 3.11.16 & 4.11.16 and 9.2.17 & 10.2.17 for 37 tribal cotton growers from Jolarpet Taluk and Attur Taluk under ICAR- AICRP on Cotton (TSP).

### Sirsa

#### IPM/IRM under NFSM

A one day Farmers training programme on IPM/IRM under NFSM was organized at ICAR-Central Institute for Cotton Research Regional Station, Sirsa under the Chairmanship of Dr. D. Monga, Head CICR-Regional Station on 02.09.2016. Dr. D. Monga, Head. Dr. R.A. Meena delivered talks on crop production aspect, while Dr. Rishi Kumar and Dr. SK Sain delivered the lecture topics on IRM concept & cotton insect-pest management and cotton disease management, respectively. A total of 125 farmers who were enlisted for conducting Front Line Demonstrations on Integrated Pest management-Integrated Pesticides Resistance Management in Bt cotton varieties were trained.

#### Low-cost on-farm production technique of Trichoderma

Two 1-day farmers training programmes on "Low-cost on-farm production technique of Trichoderma" under NFSM were organized at ICAR- Central Institute for Cotton Research Regional Station, Sirsa.

On 25.01.2017, Dr. D Monga and Dr. SK Sain

delivered talk on Trichoderma: Introduction, its uses and technique for low-cost on-farm production. The technology was also demonstrated. A total of 30 progressive farmers from eight villages, and technical persons from Art of Living Foundation were trained in this training.

On 07.02.2017, Dr. Rishi Kumar gave the information on identification of cotton insect-pests and their Integrated Pest management. Dr. S.K. Sain delivered the lecture on identification and management of Cotton Diseases. The participants were also given hands-on practices on Low-cost on-farm production technique for Trichoderma. A total of 30 progressive farmers and extension personals from different districts of Haryana participated in this training.

### Mera Gaon Mera Gaurav Programme

'Mera Gaon Mera Gaurav (My Village My Pride)' programme was implemented through a team of scientists; each team comprising of four scientists with five clusters of villages as per guidelines. MGMG programme presently covered following 70 adopted villages with 14 clusters i.e. nine, four and one respectively from Nagpur (Maharashtra), Coimbatore (Tamil Nadu) and Sirsa (Haryana):

#### Maharashtra

Ganeshpur cluster, Wardha: Ganeshpur, Digras, Zadgaon, Belgaon, Borgaon (Sawli)

Parseoni cluster, Nagpur: Narhar, Kolutmara, Nehra, Banera, Dhawalapur

Girad cluster, Wardha: Jogingumpha, Shivanphal, Arvi, Faridpur, Mohgaon

Nandura cluster, Wardha: Nandura, Nagapur, Karanji (Bhoge), Karanji (Kaji), Pujai

Hingna cluster, Nagpur: Mangali, Mandavghorad, Junewani, Nanda Khurd, Ukhali

Godhani cluster, Umred, Nagpur: Godhani, Mhasala, Mohpa, Sukali, Telkavads

Kaslmeshwar cluster, Nagpur: Sonegaon, Pahi, Ladai, Linga, Uparwahi

Navegaon cluster, Umred, Nagpur: Navegaon Sadhu, Tirkhura, Karhandla, Thana, Sev

Tumdi, Sukali, Navarmari, Lodhi panjri, Mangrul



## Tamil Nadu

Vadapudur Panchayat, Kinathukadavu block, Coimbatore District: Vadapudur, Singaiyanpudur, Sikkalampalayam, Yelur, Kallapuram

Sokkanur panchayat, Kinathukadavu block, Coimbatore district: Sokkanur, Muthugoundanpudur, Palapathy, Veerappagoundanur, Venkaiyagoundanpudur

Kanjapalli Panchayat, Annur Block, Coimbatore District: Kanjapalli, Dhasarpalayam, Oothupalayam, Kumargounderpudur, Neelagoundarpudur

Allapalayam Panchayat, Annur Block, Coimbatore District: Allapalayam, Konarpalayam, Uthirampalayam, Mathireddypalayam, Akravachengapalli

## Haryana

Jhonpra, Alleekan, Nejadela Kalan, Rangari, Begu

During the *kharif* season 2016-17, the HDPS technology was demonstrated to 40 tribal farmers in adopted village of Umred Taluk under MGMG under TSP.

### Training to Tribal Farmers on “Enhancing Cotton Productivity”

On the occasion of National Productivity week (12 to 18 February, 2017), a training programme on “Enhancing cotton productivity” was organized by the ICAR-Central Institute for Cotton Research (ICAR-CICR), Nagpur in collaboration with Ginning Training Centre, Nagpur and Department of Agriculture, Nagpur, Government of Maharashtra under the theme “From waste to profit through reduce, recycle and reuse”. Nearly hundred tribal farmers of Muradpur, Nissanghat, Surabardi, Kawadapur and Khursapur of Umred Block, Nagpur district participated in the day long training at Muradpur, Bela. Dr. Blaise, Head, Division of Crop Production, ICAR-CICR, Nagpur delivered the inaugural address on improving cotton productivity by recycling farm waste Dr. Mageshwaran explained about post harvest practices to prepare value added products from cotton stalks like mushroom production, pellet, briquette, card board etc. Mr. Chandrikapure (Taluka Agricultural Officer, Umred) explained



about various government schemes for benefit of cotton farmers. Dr. Manikandan and Dr. Santosh demonstrated rapid method of composting cotton stalks in the field.

### CICR scientists trained tribal farmers of Bela under MGMG programme

One day training programme was organized at Muradpur, Bela cluster in Umred Tahsil of Nagpur District on 13 Feb 2017 and imparted training to more than 60 farmers on cotton production and protection. Five villages namely Suraburdi, Murdapur, Nissanghat, Kawadapur and Khursapur were selected under Mera Gaon Mera Gaurav program. The cluster leader Dr. Nandeshwar (Head, Biotechnology Section) explained about Bt-cotton cultivation in irrigated areas. Dr. Gotmare highlighted the benefits of desi cotton in rainfed areas and also covered cotton seed production and storage aspects. Dr. Manikandan and Mr. Prabhulinga described innovative technologies of cotton cultivation. Mr. Chandrikapure (Taluka Agricultural Officer, Umred) spoke about organic farming benefits in horticultural crops. Dr. Wasnik explained about the program for the benefits of farmers and technological perspective.





### Scientists-Farmers Interface

The various teams organize an interactive meet with farmers at MGMG villages to have Scientists – farmers interface on the issues farmers are facing on regular basis. The farmers and scientists interacted on various issues related to insect pest management of agricultural, horticultural crops and animal husbandry issues. A training and demonstration was given to the farmers for the collection of soil samples from the field with due precautions. The farmers also been advised to protect the crops from wild animals by fencing with iron wires and old sarees.

### Soil Health Awareness Training

- ICAR-CICR organized soil health awareness training and card distribution programme at Magan Sangrahalaya, Girad of Wardha District on 30 April and 17 Dec., 2016. More than 100 farmers participated in the programme where soil health cards were distributed to 74 farmers from five villages viz., Arvi, Faridpur, Shivanphal, Mohgaon and Jogingumpha in Girad Cluster in Samadrapur Tahsil of Wardha district under MGMG Programme
- Dr. S.M. Wasnik, Principal Scientist, Extension & Nodal Officer MGMG Programme urged the farmers to apply the fertilizers judiciously according to recommendations given in soil health card. Earlier, Dr. Nandini Gokte Narkhedkar, Principal Scientist, Nematology emphasized on importance of soil analysis for actual nutrient requirement and scientific cultivation of cotton. Dr. Shailesh Gawande, Scientist, Plant Pathology conducted programmes and highlighted about the MGMG scheme. Dr. J. Das and Dr. Sarvanan talked about *desi* cotton and tree cotton and its role in organic cotton cultivation. They also explained about “Praddhan Mantri Fasal Bima Yojna” and provided printed pamphlets for further dissemination of information.

### Tribal Farmers Meet - cum- Trainings organizes at Villages

ICAR-CICR, Nagpur scientists organizes five training programmes - cum- tribal farmers meet at Nimboli, Lohagad and Budhla in villages of

Kalmeshwar cluster and Narhar village for 5 adopted villages of Parseoni block under Mera Gaon Mera Gaurav programme on 17<sup>th</sup>, 21<sup>st</sup> December, 2016 and 16.02.17 under TSP of National Seed Project (NSP). The farmers were trained on different aspects of agriculture, poultry, goat rearing and exclusively on cotton seed production technology. Key issues related to choose right cotton hybrids having sucking pests tolerance, disease tolerance; cotton bollworm management, control measures to be taken to ensure better yield levels. The training programme was attended by around 1120 tribal farmers which include more than 400 farm women. Scientists from ICAR-CICR and KVK Nagpur; Dr. Sujit Shukla of GTC, CIRCOT, Nagpur; Dr. Gajbhiye and Yellorkar of Dr. PDKV Agriculture College and Shri Tambekar, Bhise and Smt Atram of State of Agricultural Departments provided the information and demonstrations on various aspects of agricultural, horticultural, animal husbandry and apiculture enterprises. Four Krishi Mitras were also felicitated for their active involvement in MGMG programme.

### Swachhta Pakhawara and Farmers Meeting at Sirsa Villages

CICR, RS, Sirsa implemented the activities under Swachh Bharat Mission and organizes farmers awareness towards clean and green agriculture in Mera Gaon Mera Gaurav villages, promotion of clean and green technologies, weed management for cotton pest management, promoting compost making, plantation of new trees etc. under the leadership of Dr. D Monga, Head, CICR RS, Sirsa. Also around 25 farmers participated in the meeting organized at Neza dela Kalan village under MGMG programme by Dr. S. K. Verma along with Sh. Sarfraj Ahmad and Sh. Anuj Kumar on 29/07/2016 and 31/08/2016. Farmers were trained on how to observe the whitefly population per three leaves for following the whitefly management schedule. Farmers have followed the CICR strategy for whitefly management- the first spray of Neem based followed by flonicamid and IGRs. And they observed that the whitefly population was under check. The pamphlets distributed on whitefly management were appreciated by the farmers.



## 6. AWARDS AND RECOGNITIONS

### Awards

#### Fellowship of the Maharashtra Academy of Sciences

Dr D. Blaise, Head, Division of Crop Production, ICAR-CICR, Nagpur received the Fellowship of the Maharashtra Academy of Sciences which was conferred on 9 November 2016 at National Chemical Laboratory, Pune by Padma Shri Prof. G. D. Yadav, Vice-Chancellor, Institute of Chemical Technology, Mumbai.

#### Fellow of Indian Society of Agronomy

Dr D. Blaise, Head, Division of Crop Production, ICAR-CICR, Nagpur was conferred Fellow, Indian Society of Agronomy on 22 November 2016 at the Fourth International Agronomy Congress, New Delhi.



#### Fellowship of Indian Society of Soil Survey and land Use Planning (ISSLUP)

Dr. M V. Venugopalan, Principal Scientist (Agronomy), Division of Crop Production, ICAR-CICR, Nagpur was conferred the Fellowship of the Indian Society of Soil Survey and land Use Planning (ISSLUP), Nagpur for his outstanding research contribution in the fields of participatory and perspective land use planning, carbon sequestration in rainfed land use systems and application of crop simulation models in land use planning and soil quality analysis. He received this award on 10 November, 2016.



#### Fellow of the Society for Bio-control Advancement

Dr. M. Amutha, Scientist (Entomology), ICAR-CICR, Regional Station, Coimbatore received the Award of Fellow of the Society for Bio-control Advancement, Bengaluru on 9.2.2017.

#### Young Scientist Award

Dr. Savitha Santosh received 'Young Scientist Award' from the Society of Scientific Development in Agriculture & Technology (SSDAT) for "Screening of native isolates of Pink Pigmented Facultative Methylobacteria for Zeatin production" in National Conference on Innovative and current advances in Agriculture and Allied Sciences (ICAAAS-2016) held at Prof. Jayashankar Telangana State Agricultural University, Rajendranagar, Hyderabad during December 10-11, 2016.

Dr. Shankaraganesh, Scientist (Entomology), ICAR-CICR, Regional Station, Coimbatore received Young Scientist Award 2017 from the Gochar Educational and Welfare Society, Saharanpur, Uttar Pradesh, India.

#### Distinguished Scientist Award

Dr. K. Sankaranarayanan received "Distinguished Scientist Award 2016" from Society for Scientific Development and Agriculture Technologies (SSDAT), Meerut.

#### Best paper award

Dr. V. Santhy , Mrs. Mithila Meshram, and Dr. S.



Mahajan were awarded best paper award for the scientific achievement of research work on “Trait repository to strengthen DUS test in cotton” presented at XIV National Seed Seminar held at ICAR-IARI, New Delhi from 28-30 January 2017.

**Best oral presentation award**

Dr N. Arunkumar, undergoing NPDF (DST-SERB) under the mentorship of Dr. N. Gopalakrishnan and Dr. J. Gulsar Banu participated and presented a paper entitled “Screening and Quantification of Microbial Surfactants Produced by Wax Degrading Bacteria Isolated from Cotton Mealybugs” in the National Symposium on Advances in Agriculture through Sustainable Technologies and Holistic Approaches (AASTHA) organized by Society for Advancement of Human and Nature

(SADHNA), Solan, HP and ICAR-Central Coastal Agricultural Research Institute, Ela, Old Goa from 15 - 17, February, 2017. The research paper was adjudged as Best oral presentation.



## 7. LINKAGES AND COLLABORATIONS

Areas of Linkages	Institution
<b>NATIONAL</b>	
Fibre testing, fibre quality evaluation and nanotechnology	CIRCOT, Mumbai
Multi-location testing of promising cultures, Bt cotton evaluation	AICCIP (21 centres)
Germplasm collection, maintenance and plant quarantine clearance	NBPGR, New Delhi
Seed technological research and breeder seed production	NSP, New Delhi
Technology for pink bollworm resistance monitoring and management	State Department of Agriculture, Haryana, KVKs, CCS, HAU, Hisar, NCIPM, etc
Crop pest surveillance and advisory for cotton pests in Maharashtra	Agriculture Department, Government of Maharashtra
Mechanization	Precision tools, Nagpur
Vision-based expert system for picking of cotton	IIIT&M, Gwalior; Jamia Milia Islamia Univ., Delhi; CMERI-CoEFM, Ludhiana
HDPS and sustainable pest management strategies	Better Cotton Initiative
Desi cotton production	Yuva Rural Association