

COTTON *Innovate*



Weekly Newsletter from Central Institute for Cotton Research, Nagpur

www.cicr.org.in

Issue : 3, Volume :9, September 14-20, 2015

Whitefly Incidence on Cotton and Future Remedial Measures Meeting at Chandigarh

A meeting under the joint chairmanship of Agriculture ministers of Haryana and Punjab was organised at Chandigarh on 17.9.15 to discuss about losses caused due to whitefly in cotton crop in two states and the measures for future which was attended by Vice Chancellors of Haryana Agricultural University & Punjab Agricultural University and staff of agriculture Departments and Universities. Dr Monga along with Dr Rishi Kumar participated from CICR Regional Station, Sirsa. A five member committee consisting of two VCs, two Directors of Research and Dr Monga was made which will submit report in one month.



Monsoon Anomalies: Team of CICR and NIASM Scientists Visited to Drought Affected Villages in Vidarbha Region of Maharashtra

As per directives from Ministry of Agriculture and Farmers Welfare, Govt. of India the team constituted by Director, NIASM, Baramati for survey and assessment of the situation in drought affected villages in Vidarbha region of Maharashtra visited Buldana and Akola districts during 14-16 September 2015. The team consisting of Dr. S.M. Wasnik, Principal Scientist, Extension, CICR, Nagpur, Dr. B. B Fand, Scientist (Agril. Entomology) and Dr. Basavaraj Sajjanar Scientist (Animal Biotechnology) of NIASM interacted with farmers in affected villages of Akola and Buldana. It was noticed that there was a timely onset of rains during first week of June resulting in sowing of soybean, cotton and other kharif crops in the area. However, there were no rains until 23rd July resulting in a prolonged dry spell of about 45 days. As a result most of the crops have dried and farmers have to re-sow their crops during last week of July to first week of August. The situation was again worsened due to another dry spell of about 25 days when there were no rains till 1st September. The soybean crop was bearing merely 10-15 pods per plant as against 70-80 pods in case of normal rainfall. Thus, it is estimated that the drought like situation is expected to result in about 70% yield reduction in worst hit tehsils. The critical problems observed due to prolonged dry spells and delayed rains were poor crop stand, stunted growth, heavy flower drop, less number of flowers and pods, no grain filling in pods, shrivelled and undersized grains and increased infestations of insect pests like stem fly, girdle beetle and leaf eating caterpillars. In the surveyed villages, few farmers had cattle of cross bred jersey and local breeds. As there was less green fodder due to scanty rainfall and the animals were fed with dry and roughages like soybean husk the health of animals was deteriorating. The only concentrate fed for milch animals was cotton seed cake. Farmers were of the opinion that there will be shortage of fodder for animals in coming days as the yield of major fodder source i.e. soybean hay/husk will be severely reduced.

The team also interacted with Joint Director Agriculture, Amravati Division Sh. Sardar at Dr. PDKV, Akola. During the meeting which was also attended by Sh. RS Nikam, DSAO, Akola; Sh. SD Malpure, Deputy DSAO, Akola; Sh. Anil Solanke, SDAO, Akola; Sh. Kadarkar, SDAO, Akot; Sh. KR Agarkar, TAO, Telhara; Sh. K Raut, Agril. Officer, DSAO, Akola; Sh. DK

Tayade, Technical Officer, DSAO, Akola, JDA told that during the year 2014, there was late onset and early withdrawal of monsoon rainfall. Contrarily, this year (2015), the rains started timely, however, there were frequent and prolonged dry spells intermittently which has resulted in crop failures and re-sowing in most of the areas. Sh. SD Malpure, Deputy DSAO, Akola pointed out that due to sowing of cotton by the growers during first week of May, in the region, the problems like increased pigmentation and stunted growth of the crop, especially in Telhara and Akot tehsils, observed. In pigmentation, there was partly or fully reddening of leaves. He further told that majority of the area in Akola district is salt affected or at least with high pH. JDA Sh. Sardar further observed that the recent weather anomalies and climate variability's generally tend to cause mismatches between the crop phenologies and weather conditions resulting in poor crop performance and therefore there is an urgent need to design and develop new or at least refine existing technologies suiting to changing climatic situations. He also felt the need of short duration and stress tolerant varieties in soybean and cotton for the region.



Interaction with farmers at Borgaon Manju, Tal, Akola



Poor grain filling in pods of soybean at Borgaon Manju, Tal, Akola



Discussion with DSAO & other Officials, Akola



Discussion with JDA, Amravati Division

'Mera Gaon Mera Gaurav' - Programme Highlights

The multidisciplinary team of scientists from ICAR-Central Institute for Cotton Research, Nagpur visited five Villages viz., Arvi, Mohgaon, Faridpur, Shivanphal and Jogingumpha of under Girad cluster of Wardha district under "Mera Gaon Mera Gaurav" programme on 9th Sept., 2015. The team comprising of Dr. Nandini Narkhedkar, (Plant Nematologist), Dr. Saravanan (Plant Breeding), Dr. Shailesh Gawande (Plant Pathology) and Mr. Joy Das (Plant Biotechnology) along with Mr. Ranjendra Kharche (SRF, HDPS, IRM) visited the above mentioned villages for introduction of the team to the villagers and to elaborate the outline of 'Mera Gaon Mera Gaurav' Programme. The visit to villages under Girad cluster was planned in consultation with Mr. Atul Sharma. At Girad the team visited Magan Sangrahalaya branch where farmers meet on organic farming was going on. Magan Sangrahalaya at Wardha was established during 1938 by Mahatma Gandhi. Girad branch of Magan sangrahalaya is doing exemplary work in creating awareness about organic farming and rural livelihood through various projects. Mr. Gajanan Garghate who takes care of the organic farm at Girad introduced the team to the farmers who had gathered from all the nearby villages including the allotted five villages of Girad Cluster. Farmers were explained in brief about the programme by Dr. Nandini

Salient observations of the cluster:

- Main Kharif crops of the cluster are cotton followed by soybean and pigeon pea.
- Most of the area in the cluster is under rainfed condition while about 10% farmers have the irrigation facility.
- The soil type varied from loam to black clay soils.
- Topography of the soil is undulating in some places because of which some of the field are facing water logging.
- Farmers were resorting to spray of mixture comprising of insecticides, growth regulators, fungicides etc. on the advice of dealers of agrochemicals.
- Spray of Monocrotophos was rampant in Faridpur village resulting in lush green foliage and few squares.
- In some of the allotted villages, HDPS (Suraj) under cotton FLDs, IRM demonstrations are already going on under the guidance of ICAR-CICR, Nagpur scientists.
- Some of the farmers are using their own F₂ Bt seeds instead of purchasing F₁ Bt hybrids.
- Some of the farmers were practising organic farming in consultation with Magan Sangrahalaya.

Narkhedkar and requested the farmers to utilize the opportunity and avail technical advice provided from CICR. After interaction in the farmers meet, the team visited Faridpur, Arvi, Mohgaon, Jogingumpha and Sivanphal and interacted with the local farmers. The team also interacted with the Gram Sevakas of these villages and officials of village Panchayats for collection of baseline information.

- A concept of “Integrated Organic Management” is being promoted among the farmers by Magan Sangrahalaya.
- Ajit 155, Ajit 199, Xylem, Yuva and Ankur 3028 are some of the Bt hybrids that are being cultivated there.
- Villages lacked allied enterprises because of non availability of suitable market.
- Animal husbandry was almost nonexistent in these villages.



Farmers meet at MaganSangrahalaya, Girad



Visit to HDPS Field (Suraj) at Jogingumpha



Meeting with Panchayat Officials at Mohagaon village



Scientist- Farmer Interaction at Arvi village



Interaction with farmers at Faridpur Village



Interaction with farmers at Faridpur Village

In Umred Cluster of Nagpur District, a group of Scientists including Drs S B Nandeshwar, Vinita Gotmare, Prabhulinga and Manikandan conducted a brief survey for five villages namely Godhani, Mhopa, Mhasala, Sukali and Telkawadsi. They interacted with the Sarpanch of four villages (Godhani, Mhasala, Sukali and Telkawadsi) Smt Chayatai Kangale and some other farmers of the villages. She gave an overview of the general information about these villages i.e. population, soil type, major crops and animals prevalent in the area, farming practices etc. Team explained to farmers the objective of the scheme that to provide them with required information, knowledge and advisories on regular basis and to promote the direct interface of Scientists with the farmers to hasten the lab to land process. Farmers briefed that earlier, soybean was a major crop in the area but because of repeated sowing of Soybean year after year the yields have drastically reduced which has forced the farmers to shift towards Cotton cultivation. Another problem is that farmers take up excessive spray of all kind of pesticides, tonics etc on cotton crop. Awareness among the farmers for judicious use of pesticides is of urgent need. It was observed that the farmers in the area grow Bt cotton hybrids on very light soils with an average annual rainfall of about 700-800 mm. For the last two years i.e. 2013 and 2014, the rainfall was too erratic due to which farmers have suffered a great loss.

Comparatively the situation is better in the current season. The crop stand is good. The other crops grown in these villages are Soybean and Pigeon pea. There is a perennial problem of wild animals like boar, monkeys etc damaging crops for which farmers need urgent protection from these animals. Some HDPS plots of variety Suraj were also visited by the team.



Scientists briefing Sarpanch and farmers of Godhani Cluster of Umred, Nagpur



Monitoring of HDPS demonstration variety Suraj by the team on farmers field.

At CICR Regional Station, Coimbatore a team of Scientists Dr. P.Nalayini, Dr. S. Manickam, Dr. J. Gulsar Banu and Dr. D. Kanjana visited the Kanjapalli Panchayat, Annur Taluk of Coimbatore on 18.9.15 and interacted with villagers, village administrative officials and explained them about the Mera Gaon and Mera Gaurav programme. The Scientists team has also collected information for baseline survey.

CICR, RS, Coimbatore Organizes Training to the Extension Staff of BCI Project

Dr. S. Manickam, Principal Scientist (Plant Breeding) coordinated and conducted one day technical training to the Extension staff of Better Cotton Initiatives Projects on 15-09-2015 to orient extension staff of Better Cotton Initiatives Project (BCI) projects in Tamil Nadu and Karnataka on best agronomic practices for the 2015 season. Total of 19 staffs representing three groups viz., (1) Dalmia Bharat Group Foundation, Dalmiapuram, (2) Vrutti PUs in Salem, Erode and Dharmapuri districts and (3) Mykaps PUs in H.D. Kote and Nanjankud were trained.

Scientists and participants interaction was organized regarding the changing situation of cotton in their respective areas and issues in cotton production (like quality of inputs sold in markets, marketing of cotton, HDPS trials etc). Following points were discussed for follow up:

- Conducting one follow up training in December for orientation in the trials laid out at CICR. Projects can think of getting their lead farmers to the same
- Enrolling the lead farmers from each PU for SMS voice advisory of CICR
- Using of weekly advisory available in local languages at the CICR portal
- Any field problems and technical issues can be discussed with the CICR scientists

Details of Sessions conducted as under

| Session | Facilitated by | Main topics covered | Take away – important learning |
|---------|-----------------------|---|--|
| I | Dr. A.H. Prakash | Importance of Cotton in India, importance of extension workers, considerations in extension work | Overview of Cotton in India |
| II | Dr. N. Gopalakrishnan | Cotton in Tamil Nadu – problems and possible ways forwards | Understanding the context |
| III | Dr. S. Manickham | Important varieties suitable for Tamil Nadu, Basic orientation on the four Cotton types in India, Varietal characters, importance | Basic understanding about varieties, hybrids |
| IV | Dr.P. Nalayini | Agronomic aspects of Cotton cultivation – land preparation, sowing, spacing, weed management, fertilizer scheduling, pest management, HDPS trials | Balanced fertilizer application Foliar spray of nutrients |
| V | Dr. S. Venkatakrisnan | Fibre quality aspects in relation to field practices, Various issues in fibre quality – staple length, micronaire, strength, How to avoid contamination at different stages | Contamination possibilities at different sources (farm, picking, transport, ginning) |

| | | | |
|-----|-------------------|---|--|
| VI | Dr. B. Dharajothi | Major pests of Cotton and their management, Do's and Don'ts in pest management, Key considerations in using chemical pesticides like types, dose and timing of sprays, Pest monitoring and decision making, Insecticide resistance management | Use of pesticides on basis of effective monitoring Pesticides to be avoided in different stages of growth |
| VII | Dr. S. Usharani | Various extension methods used in India Changing extension scenario and adaptations required, Different initiatives by CICR | Enrolling Field facilitators and the lead farmers for voice SMS advisory – e-Kapas |



Hindi Fortnight Celebrations

The Inaugural function of Hindi Fortnight Celebrations was held at Central Institute for Cotton Research, Regional Station, Coimbatore on 14.9.2015 at 3.00 PM. The function was chaired by Dr. A.H. Prakash, Project Coordinator & Head. In his inaugural speech he expressed about the importance of conducting Hindi fortnight, the need for usage of Hindi noting, leave application and usage of Hindi on computer etc and also stressed on the importance of official Hindi usage as per the Council's appeal. He also stressed on the importance of using practical Hindi sentences and words in office.

Dr. N. Gopalakrishnan, Principal Scientist and Chairman (Hindi Committee), in his speech said that hindi has been made National language and Official Language since the year 1949 as it is spoken by majority of people in the country. As Hindi is a link language, the economic development of the country is possible in this way like foreign countries like U.S., Germany, France, China, Japan and Britain. As an employee of Government of India, Hindi has to be followed regularly, especially through publication of Hindi books, circulars, official notings, incentive schemes etc. Hindi is the third largest spoken language in the world. He also read out the message given by Honourable Director General on this occasion. Smt. K. Subashree, Technical Officer & Convener, Hindi Committee gave a brief note about the various hindi competitions to be held during Hindi Fortnight Celebrations at CICR, Coimbatore.



Participation in Training Workshop

Dr Vishlesh Nagrare, Senior Scientist (Entomology) participated in training workshop on “Environmental Risk Assessment (ERA) of Genetically Engineered (GE) plants, September 15-17, 2015 at New Delhi. The training workshop was organized by Ministry of Environment, Forest and Climate Change, Government of India, conducted by CERA-IISI Research Foundation USA and coordinated by Biotech Consortium India limited, New Delhi. In the training workshop discussion was held on the draft guidelines for ERA of GE plants, assessment of risk posed by GE plants, problem formulation to structure ERA process, pathway to harm analysis, data quality and data portability, evaluating impact to non target organisms, evaluating weediness and invasiveness, useful resources for ERA and communicating the risk assessment decision.

Meetings Attended

Dr. K.R. Kranthi, Director, ICAR-CICR, Nagpur participated a meeting under the chairmanship of Shri. R.K.Singh, Jt. Secretary (Seeds) regarding Bollworm resistance to Bollgard technology in Gujarat – finalizing of Guidelines / suggestions to adopt by the farmers on 18th September, 2015.

Other activities

Dr. S. Manickam, Principal Scientist (Plant Breeding) was nominated by the Dean, School of Post Graduate Studies, Tamil Nadu Agricultural University as the External Examiner for the Final Viva-Voce for Sh. R. Bharathi Raja, Ph. D. student in Plant Breeding and Genetics. The final viva-voce was held on 14-09-2015 at Seminar Hall, Centre for Plant Breeding and Genetics, Tamil Nadu Agricultural University, Coimbatore.

Newspaper clippings

HARYANA

2015

Five-member panel to find solution to whitefly epidemic

TRIBUNE NEWS SERVICE

CHANDIGARH, SEPTEMBER 17
A five-member committee of agriculture experts from both Haryana and Punjab has been constituted to find ways to control the impact of whitefly on cotton crop. The committee will submit its report in one month.

A decision to this effect was taken at a joint meeting held in the presence of Haryana Agriculture Minister OP Dhankar and Punjab Agriculture Minister Tota Singh here today. Senior officers of the Agriculture Department of both states and agriculture scientists were also present in the meeting.

Later, while interacting with mediapersons, Dhankar said both Haryana and Punjab had lots of similarities in terms of soil, soil fertility and the environment. He said whitefly was a common problem of both Haryana and Punjab as it had adversely affected the crop in both the states.

He said Chief Minister Manohar Lal Khattar and Punjab Chief Minister Parkash Singh Badal also discussed this issue at a meeting held yesterday.

Dhankar said the work of special girdawari had been started in the state to access the extent of damage to crop caused due to whitefly. He said with a view to ensuring that the problem of whitefly did not occur in future, a 5-member committee, including Vice-Chancellors of Ch Charan Singh Haryana Agricultural University, Hisar, and Punjab Agricultural University, Ludhiana, had been constituted. The committee would submit its report in a month.

In reply to a question, the Agriculture Minister said the actual loss to the crop could be accessed after the completion of girdawari. The parameter for the compensation of loss would be same as that was followed in case of wheat crop.

Asked about the loss being faced by farmers due to the use of sub-standard seeds, he said if the seeds failed the sample, the companies concerned would be held responsible for the same.

He said the aim of the state government was not only to increase the income of farmers, but also fertility of the soil. He said the government was also making concerted efforts to promote other high-yielding crops using less fertilisers.

| Extent of the damage | |
|---------------------------|-------------|
| 3.06 lakh hectares | |
| 0-25 per cent damage | 77% of area |
| 26-50 per cent damage | 16 per cent |
| 51-75 per cent damage | 5 per cent |
| 76 per cent and above | 3 per cent |





Photo : M Sabesh



Produced and Published by: Dr. K. R. Kranthi, Director, CICR, Nagpur
Chief Editor : Dr. S. M. Wasnik
Editors : Dr. J. Annie Sheeba, Dr. Vishlesh Nagrare,
Dr. J. Amutha, Dr. M. Saravanan
Digital Editor & Media Support : Mr. M. Sabesh

Citation : Cotton Innovate, Issue-2, Volume-9, 2015,
ICAR-Central Institute for Cotton Research, Nagpur.

Publication Note: This Newsletter presented online at
http://www.cicr.org.in/cotton_innovate.html

Cotton Innovate is the Open Access CICR Newsletter

The Cotton Innovate – is published weekly by
ICAR-Central Institute for Cotton Research
Post Bag No. 2, Shankar Nagar PO, Nagpur 440010
Phone : 07103-275536; Fax : 07103-275529;
email: cicrnagpur@gmail.com