

COTTON *Innovate*



Weekly Newsletter from Central Institute for Cotton Research, Nagpur

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SCIENTIFIC TALK



A Wild Idea on “Electronic Technology Transfer supported by Indigenous Decision Support System” was presented by Dr. A. R. Raju under the aegis of CICR innovation Cell on 1/3/2013. One way messaging and information distortion are the two bottlenecks in current technology dissemination. Technology can be visualised with two minutes HD video film supported by indigenous audio. An indigenous decision support system with ready to use default or farmers own data can be fitted to get advices with appropriate agro-economics on selection of seed to market prices for cotton and soybean crops. Function keys are assigned the job for easy query processing supported by audio narration. This electronic technology transfer system can be launched on web, desk top, mobile platforms flexible to use by agricultural technology managers and Farmers.



A library talk on “International Cotton Researcher’s Association (ICRA)” was given by Dr. M.V. Venugopalan, under the aegis of Library Club, CICR, Nagpur on 1/3/2014. In his talk he emphasised the benefits and need of being a member in ICRA and explained various options available in the website <http://www.icracotton.org/> including the funding of ICRA.



As part of the weekly scientific seminar at CICR, Regional Station, Coimbatore, a scientific talk on "Roundup Ready Flex – SWOT analysis" was delivered by Dr. K. Sankaranarayanan, Principal Scientist (Agronomy) on March 1, 2014. The technical details of RRF technology were elaborated. The strength of the technology includes high effectiveness in managing nut grass (*Cyperus rotundus*) and hairyali grass (*Cynodon dactylon*), commercial acceptability, systemic nature, low mammalian toxicity, good environment compatibility, less persistence and reduced labor cost. The weakness of RRF in cotton cultivation includes efficacy under stress condition, less controllable weeds and non-acceptance of EU for transgenic products. Possibility of zero tillage and conservation tillage as the opportunity expected by the technology were highlighted. The threat perception including emergence of herbicide resistant weeds, discourages the Integrated weed control, reduced employment opportunities and livelihood security of small, marginal farmers and laborers were discussed.



TRAINING

A training program on “Integrated Cotton Management Practices” for tribal cotton growers was conducted at Central Institute for Cotton Research, Regional Station, Coimbatore during February 24-26, 2014 under All India Coordinated Cotton Improvement Project (AICCP) – Tribal Sub Plan (TSP). Sixteen tribal cotton growers from Tirupattur taluk, Vellore District of Tamil Nadu participated in the three days program. The training programme includes lectures by CICR scientists, field visits and visit to spinning mill. The trainees were exposed to improved cotton varieties / hybrids and cultivation of ELS cotton for higher yield and price. The importance of quality cotton seed for higher productivity, physiological disorders of cotton and their management and agro techniques for increasing the yield in cotton were dealt well in the training. In addition information on high productive and remunerative novel technology – High Density Planting System (HDPS) in cotton were inculcated. Information on IPM / IRM strategies, emerging pests and their management and nematodes management were also given to the trainees. The trainees visited the nearby spinning mill and the trials of HDPS in the CICR farm. The trainees were explained about e-Kapas network and all of them joined willingly in the e-Kapas program. The researchable problems in cotton identified with the participation of farmers in Best Cotton Cultivation Program were also dealt by an external expert in the training program. The participated farmers opined that there were desirable changes in their attitude towards cotton cultivation after attending the training.

Accolades for CICR and CICR Scientists

CICR wins Mahindra Samridhhi Krishi Sansthan Samman National Award 2014

The Central Institute for Cotton Research, Nagpur was conferred the 'National Award 2014- Best Research Institute -Krishi Sansthan Samman' by Mahindra Samridhhi India Agri Awards 2014. Dr K.R. Kranthi Director CICR received a cash prize of Rs 2.11 lakh, a shield and citation from Shri Tariq Anwar, Minister of State for Agriculture and Food Processing in a glittering ceremony held on the 24th February at Hotel Ashok New Delhi. Dr. K. R. Kranthi was accompanied by Dr. M.S. Yadav, Chief Technical Officer, CICR to receive the award. The institute was recognized for its innovative inventions patented as Bt detection kits which empowered farmers to identify good quality Bt seeds from spurious seeds. The institute was also recognized for developing concepts of eco-friendly pest management and pioneering implementation of insect resistance management strategies which resulted in significant reduction in the usage of insecticides in India. The Mahindra Samridhhi awards in partnership with Zee News were given in seven categories to farmers and institutions from a total 40,000 applications. The Mahindra awards which are now recognized as one of the most prestigious in agriculture recognizes purposeful contributions, made by individuals and institutions, in the field of agriculture. Mr Anand Mahindra, Managing Director, Mahindra and Mahindra, Shri Ashish Bahuguna, Secretary, Agriculture, Ministry of Agriculture and Dr Pawan Kumar Goenka, President - Automotive and Farm Equipment were present on the dias. .



In the photo from left

1. Shri Ashish Bahuguna, Secretary, Agriculture, Ministry of Agriculture, GOI, New Delhi
2. Mr Anand Mahindra, Managing Director, Mahindra and Mahindra,
3. Dr M. S. Yadav, Chief Technical Officer, CICR, Nagpur
4. Dr K. R. Kranthi, Director, CICR, Nagpur
5. Shri Tariq Anwar, Minister of State for Agriculture and Food



Dr. (Mrs.) B. Dhara Jothi, Principal Scientist, Central Institute for Cotton Research, Regional Station, Coimbatore, was conferred Dr. Jagadiswari Rao Woman Scientist Award - 2012 by Applied Zoologists Research Association (AZRA), Cuttack for her outstanding research contribution in the field of Plant Protection especially in Cotton Entomology at AZRA Silver Jubilee International Conference on "Probing Biosciences for Food & Nutritional Security and Safer Environment" held from 16 to 18 February, 2014 at Central Rice Research Institute, Cuttack, Odisha.

Dr. (Mrs.) J. Gulsar Banu, Principal Scientist (Nematology) was conferred Dr. B. Vasantharaj David Award by Applied Zoologists' Association, Central Rice Research Institute, Cuttack, Odisha for her outstanding contribution to research in the field of Plant Protection especially in Plant Nematology. She was conferred this award during the International Conference on "Probing Bioscience for Food Security and Environmental Safety" that was held at Central Rice Research Institute, Cuttack, Odisha during 16-18 February, 2014.



Presentation in Conference/Seminars

B. Dhara Jothi, Sandhya Kranthi and Chinna Babu Naik. (2014). Efficacy of Transgenic Bt Cotton hybrids on Pink bollworm, *Pectinophora gossypiella* (Saunders) under irrigated and rain fed conditions of South and Central India. Presented at AZRA Silver Jubilee International Conference on "Probing Biosciences for Food & Nutritional Security and Safer Environment" held from 16-18 February, 2014 at CRRI, Cuttack, Odisha.

Science Day Celebration-2014

National Science Day was celebrated at CICR on 28th February 2014 with the theme "Fostering Scientific Temper". Shri Atul Sharma, Dean, Shikshan Mandal, Ramakrishna Bajaj College of Agriculture, Pipri, Wardha was the Chief Guest for the event. He was honoured by the Director and staff of CICR for his 15 years of selfless service and commitment to support the cotton fraternity and the farmers.



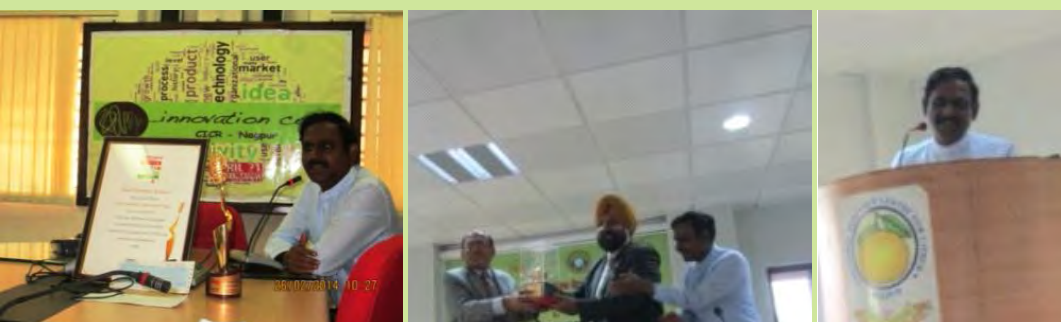
Shri Atul Sharma in his talk on “Harnessing Science in a civilized world” enlightened the audience on how science built a civilized world through the ages. Shri Atul Sharma exhorted that education should help the society to move away from superstitions and blind faith. Earlier, Dr. Sandhya Kranthi, Head, Crop Protection Division, CICR welcomed the delegates. Dr. K. R. Kranthi, Director, CICR in his introductory remarks, said that science day was an ideal occasion for scientists to celebrate their profession. He also said that quest for the truth should be the aim for every researcher. He also mentioned that science should be communicable, it should reach common man. On this occasion, a competition was held on “The Most Exciting Discoveries in Agricultural sciences in Recent Times” for CICR staff. Dr. M.V.Venugopalan, Head, PME Unit, briefed out the shortlisted excited discoveries and the winners were awarded with cash prizes.

In the scientists' category, Dr J. H. Meshram, Senior Scientist won the first prize for his presentation on 'Quinabactin can make plants resistant to drought'. Dr Amudha won the second prize for her presentation on 'DNA- Clamp the nanomachine' In the Research Fellows category, Ms. Pratiksha Gajbhiye won the first prize for 'Genetic wiring of seeds revealed'. The second prize was shared by Mr Sachin More and Miss Aswini Yeole for their respective entries on 'Silkworm produces spider silk' and 'Plants can fight insects through circadian rhythms'. Dr.H.B.Santosh compered the programme and Dr .J. Annie Sheeba conducted the programme and proposed the vote of thanks.

MEETINGS

A meeting was conducted by Director, Dr.K.R.Kranthi, at CICR, Nagpur on 26.02.2014 to brief about Mahindra Samriddhi India Agri Awards 2014 and share his experience with all the Scientists of CICR .

A meeting was held at National Research Centre for Citrus, Nagpur for interaction of Scientists of NRCC, NBSS, CICR and CIRCOT, with ASRB Chairman, Dr. Gurbachan Singh on 26.02.2014. Dr. K. R. Kranthi, Director, CICR was the Guest of Honour. Dr. M.S. Ladaniya, Director, NRCC, Nagpur welcomed the Guests and the Scientists. Dr. Gurbachan Singh addressed the scientists of all the ICAR institutes in Nagpur and apprised them about steps initiated to streamline working of ASRB in transparent manner. He also interacted with the scientists and answered their queries.



Indian Express CICR awarded for innovation 26.2.14

NAGPUR: The Central Institute for Cotton Research (CICR) here was conferred the Mahindra Samriddhi India Agri Award's Best Research Institute - Krishi Sansthan Samman on Tuesday. CICR received a cash prize of Rs 2.11 lakh, a shield and a citation from Tariq Anwar, Minister of State for Agriculture and Food Processing, in a function held at Hotel Ashok, New Delhi. The institute was recognised for its innovative inventions patented as Bt detection kits, which empowered farmers to identify good quality Bt seeds from spurious ones. The institute was also recognised for developing concepts of eco-friendly pest management and pioneering the implementation of insect resistant management strategies. **ENS**

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Times of India 1.3.14

TIMES

Some say good morning to GM trials, others have nightmares

Scientists, Industry Hail Approval, Activists Question Move

Snehlata Shrivastav | TNN

Nagpur: The clearance to genetically modified crops (rice, wheat, maize and cotton) by the union environment and forest minister M Veerappa Moily has been expectedly received with diverse reactions by the scientific community, biotech industry and activists. Scientists see it as a positive step while activists are strongly condemning it.

Scientists and industry were desperately waiting for this decision after the Genetic Engineering Approval Committee (GEAC) cleared it two years ago. But the then minister Jayanti Natrajan had kept it on hold, saying the matter was sub judice, as the Supreme Court of India is yet to decide on a PIL filed by Aruna Rodrigues.

"It's good that the government has woken up from its slumber of over two years. It should not take two years for a government to announce clearance after the GEAC has given the green signal. Unfortunately such things happen only in India. The research community, including universities, should have reacted more sharply to the delay," said deputy director general of crop sciences in Indian Council of Agricultural Research (ICAR) Swapan Datta. But he expects extreme transparency in the evaluation system and wants all information in the public domain.

PROS & CONS OF GM TRIALS

- ▶ GM technology can be answer to food security by increasing productivity
- ▶ GM can minimize use of insecticides and pesticides, which harm environment severely, and save a lot of investment
- ▶ GM or Bt can act as crop protection tool against drought, salinity and issues associated with climate change
- ▶ Open field trials could contaminate other crops
- ▶ Biosafety trials are not being conducted on more than one generation, which does not prove that there is no chronic toxicity
- ▶ Genetic intervention could have unintended harmful effects on the physiology of the variety

The Association of Biotech Led Enterprises-Agriculture Group (ABLE-AG) too reacted on expected lines. Ram Kaundinya, chairman of the association of both domestic as well as MNC industry, said that the industry had

some results, how can we preempt the results. The trials are anyway conducted as per global protocols," he said.

Supporting Mayee's views, director of Central Institute of Cotton Research (CICR) Keshav Kranthi said there was no ban or stay on GM trials by apex court to prevent the trials. "However, there is no denying that the finer aspects of the trials, like biosafety research levels should not be compromised. No government should stop science," he said.

Similarly, vice chancellor of Panjabrao Deshmukh Krishi Vidyapeeth Ravi Prakash Dani too stood by the scientific community. "Trials are a universal phenomenon and should not be objected to. But the process of evaluation of results should be rigorous and stringent," he said.

However, activist Aruna Rodrigues, who has filed a PIL in the Supreme Court,

GM crops, vehemently opposed the move by Moily. She said that it was morally indefensible for this government to announce such a decision at this time.

"What is the legitimacy of this announcement when the Parliament is not in session, and the elections are round the corner. Doesn't this raise questions on the integrity of this government, which didn't wait for the Supreme Court's decision, which could go against GM trials. The Technical Expert Committee report too was against it," she told TOI.

She alleged that the minister has just gone along with the PM and agriculture minister Sharad Pawar, who do not realize the gravity of the set back this could bring to agriculture due to irreversible damage.

Vandana Shiva, who opposes the trials as a scientist, says that the trials were not at all scientific research. Research can be done in green houses and tested on rats, and need not be open trials. "Open field trials means playing with environment. If one wants to test the pollination distance, it can be done on local varieties. Trials by Bayer in USA contaminated the entire rice there and the country lost all exports. This decision proves that companies have hired government agencies. The scientists supporting GM must be out of their minds to call

GROWING CONTROVERSY

been waiting for this for two years. "Trials are a part of research. Trials lead to new information and technology, and hence should not be stopped. But conducting trials in no way means approval of the technology," he said.

Former chief of Agricultural Scientists Recruitment Board CD Mayee too expressed pleasure on the go ahead to trials of GM crops by the centre. "The GEAC is a scientific body and the highest authority on such issues. Unless we conduct trials and get

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