

# Cotton Innovate

A Monthly Newsletter from ICAR-Central Institute for Cotton Research, Nagpur



Suraksha Variety under HDPS  
Contributed by Dr. R. Raja, Principal Scientist, Agronomy, ICAR-CICR, RS, Coimbatore

## Invited Research Note

Evaluation of Cotton (*Gossypium barbadense*) germplasm lines for resistance to Tobacco streak virus (TSV) based on symptom expression

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COTTON INNOVATE

### Research Note Clipping

#### Evaluation of Cotton (*Gossypium barbadense*) germplasm lines for resistance to Tobacco streak virus (TSV) based on symptom expression

Necrosis disease caused by Tobacco streak virus (TSV) is the most devastating one in cotton. The distribution of TSV in the germplasm accessions of Extra Long Staple (ELS) cotton *Gossypium barbadense* for the period of two years 2017 to 2019 in Coimbatore revealed that the per cent disease incidence varies from 5.81% (DB 3, DB 25) to 26.60 % (ICB 71). The most economical and convenient way to manage TSV is to grow resistant varieties. Screening of germplasm to explore resistant source is a basic step towards the solution of this hazardous virus problem. The same can be utilized in the breeding programme for evolving TSV tolerant/resistance varieties of cotton. Evaluation of the susceptible/resistant *G. barbadense* lines to TSV/thrips in separate plot was carried out under field conditions.

Susceptible lines (94), Resistant lines (14) of *G. barbadense* were sown with control as Suvin with augmented design (**Fig. 1**). ICB 84, ICB 85, ICB 86, ICB 87, ICB 90, ICB 91, ICB 122, ICB 124, ICB 125, ICB 127, ICB 153, ICB 161, ICB 162, ICB 163 (14) were resistant lines. ICB 184, ICB 185, ICB 188, ICB 189, ICB 190, ICB 191, ICB 192, 193, ICB 194, ICB 195, ICB 196, ICB 198, ICB 199, ICB 200, ICB 201, ICB 202, ICB 203, ICB 204, ICB 205, ICB 207, ICB 208, ICB 209, ICB 210, ICB 211, ICB 212, ICB 213, ICB 214, ICB 215, ICB 216, ICB 217, ICB 218, ICB 219, ICB 220, ICB 222, ICB 223, ICB 224, ICB 225, ICB 226, ICB 227, ICB 231, ICB 233, ICB 235, ICB 237, ICB 238, ICB 240, ICB 241, ICB 242, ICB 244, ICB 247, ICB 248, ICB 249, ICB 250, ICB 251, ICB 254, ICB 256, ICB 257, ICB 258, ICB 259, ICB 260, ICB 261, ICB 262, ICB 263, ICB 264, ICB 265, ICB 266, ICB 267, ICB 268, ICB 269, ICB 270, ICB 271, ICB 272, ICB 273, ICB 274, ICB 275, ICB 276, ICB 278, ICB 280, ICB 283, ICB 284, ICB 287, ICB 288, ICB 290, ICB 299, ICB 300, ICB 303, ICB 306, ICB 308, ICB 310, ICB 313, ICB 317, ICB 318, ICB 320, ICB 323, ICB 325 (94) were the susceptible lines. One row each of Bhendi (Hybrid CO 4), Blackgram (CO 6) and Chilli (variety Bullet) were sown. Parameters like mean per cent TSV disease incidence and mean thrips population were observed. Biometric parameters like plant height, No. of monopodial branches, No. of sympodial branches, No. of bolls/plant and boll weight were recorded both in the susceptible and resistant lines. The symptom expression in *G. barbadense* was very distinct with dark purple necrotic spots and drying of squares. The disease incidence ranges 11.5 to 27.5 % in susceptible lines and 3.2 to 10.0 % in resistant lines. The mean thrips population ranges from 1.3 to 11.3 in both susceptible and resistant lines. Significant negative correlation of -0.07 was obtained. No significant difference was observed in biometric parameters like plant height, no. of monopodial branches, no. of sympodial branches and boll weight in both susceptible and resistant lines. However the no. of bolls per plant was higher in resistant lines when compared to the susceptible lines. The drying of squares in susceptible lines reduced the no. of bolls in the plants resulting in reduced yield. Further the identified fourteen germplasm lines of *G. barbadense* can be utilized in the breeding program as donor parents to develop resistance lines against TSV.



**Fig.1. Evaluation of the susceptible/ resistant *G. barbadense* germplasm lines against TSV under natural conditions**

## CICR Happenings

### **Live web telecasting of “Agri-Startup Conclave and Kisan Sammelan” organized at ICAR-CICR, Nagpur**

ICAR-CICR, Nagpur organized the live web telecasting of “Agri-Startup Conclave and Kisan Sammelan” organized by Ministry of Agriculture and Farmers’ Welfare, New Delhi to over 200 farmers. They were benefitted by listening to honourable Prime Minister Shri Narendra Modiji. Prime Minister inaugurated the “One Nation-One Fertilizer” Programme under which farmers will get quality fertilizer at economic rates with a single brand name “Bharat”. He informed the farmers about Farmer Producer Organization Scheme (FPOS) under which 600 Pradhan Mantri Kisan Samridhi Kendra are opened which will act as single window for all the agriculture inputs and information. The web telecast arranged at ICAR-CICR, Nagpur was inaugurated by honourable Shri Krupal Tumane Ji, Member of Parliament, Ramtek, Dr. Y. G. Prasad, Director, ICAR-CICR, Nagpur, Heads of Divisions, Head KVK, SCSP Nodal officer of ICAR-CICR, Nagpur were present on the dias. In his address, honourable Shri Tumane ji urged farmers to take up additional small-scale occupation in addition to farming. He emphasized the need to generate new generation farmers with application of technology in farming and taking up agri-business. He encouraged farmers to come forward and form FPOs to facilitate local farmers. Sh. Tumane urged farmers to take advantage of the research techniques which ICAR-CICR has recommended for profitable cotton farming. Dr. Y. G. Prasad informed that farmers across India participated in the PM Kisan Samman Sammelan event. He also informed that CICR, Nagpur is implementing technology interventions for cotton pink bollworm management in 14 districts of Maharashtra and issuing weekly voice messages to registered farmers on crop and pest management. A technical session was conducted for farmers which comprised interactive lectures on cotton nutrient and pest management as well as Lumpy Skin Disease in cattle. Kits containing seeds for up-coming rabi season and vermi-compost were distributed to the participating farmers under Scheduled Caste Sub Plan (SCSP).





## ICAR-CICR celebrates World Cotton Day

ICAR-CICR celebrates World Cotton Day on 07<sup>th</sup> October, 2022, with gusto and fervor by distributing inputs to cotton farmers. On this occasion, 120 B.Sc. (Hons.) students from Shri Sant Shankar Maharaj College of Agriculture, Pimpalkhata, Dhamangaon Railway station, Amravati were given awareness about sustainable laboratory practices, field experiments on cotton research and clean cotton production.



## Joint Secretary, Ministry of Textiles, visits ICAR-CICR, Nagpur

Smt. Prajakta L Verma, Joint Secretary, Ministry of Textiles, Government of India has visited ICAR-CICR on October 1, 2022. She visited the research fields of ICAR-CICR, Nagpur and offered her valuable thoughts on improvement of cotton research to suit the demands of Industry.



## Students visit ICAR-CICR, Nagpur

Basics of Cotton Research were taught and practical demonstrations were conducted for 20 B.Sc. Biotechnology students of RTM Nagpur University on 7<sup>th</sup> October 2022.



## Swatch Bharat Abhiyan -2022

Swatch Bharat Abhiyan -2022 was observed in our institute premises on October 7, 2022.





**ICAR-CICR observes National Unity Day and Vigilance week:**

“Vigilance Awareness Week” was celebrated at ICAR-CICR, Nagpur on 31<sup>st</sup> October, 2022 to 06th November, 2022. The Theme for the Week is “Corruption-free India for a Developed Nation”. In this connection, Director ICAR-CICR Nagpur and all the staff of ICAR-CICR Nagpur took a pledge at 11.00 hrs on 31<sup>st</sup> October, 2022.



National Unity Day (Rashtriya Ekta Diwas) and Vigilance awareness week was organized at ICAR- Central Institute for Cotton Research, Regional Station, Coimbatore on October 31, 2022. Rashtriya Ekta Diwas was celebrated to remember the birth anniversary of Sardhar Vallabhbhai Patel. The observance week commenced with an integrity pledge administered by Dr Sundaravadivelu, Drawing and Disbursing Officer (i/c) of the regional station and all the staff members of the Regional Station participated in the oath-taking ceremony.



### **Students visit ICAR-CICR, Regional Station, Coimbatore**

Ninty-six B. Sc. (Ag.) students from SRSIAT, Dindigul visited the Regional Station of ICAR, CICR, Coimbatore on October 12, 2022 as a part of their study tour programme. The students interacted with Dr P. Valarmathi, Scientist (Plant Pathology), and got exposure to the institute activities. They got acquainted with the inception, research activities and significant achievements in various areas of the Station.



One hundred and fifteen B. Sc. (Ag.) students from Joever Agricultural College, (TRIARD) Valikandapuram, Perambalur District visited ICAR, CICR, Regional Station on October 12, 2022. The students interacted with Dr. K Baghyalakshmi, Scientist (Genetics and Plant Breeding) and got exposure to the institute activities.

## Scientists' Corner:

- Dr YG Prasad, Director, ICAR-CICR, Nagpur, All HoD's of Institute, Dr. G. Balasubramani, Principal scientist, Biotechnology, Dr Sunil Mahajan, Principal Scientist, Seed technology, Dr M V Venugopalan, Head, PME unit, Dr C N Naik, Senior Scientist, Entomology, Dr Ramkrushna, Senior Scientist, Agronomy, Dr Rachna Pande, Senior Scientist, Entomology, Dr S Gawande, Senior Scientist, Plant Pathology and Dr A Manikandan, Senior Scientist, Soil Science had an interaction meeting with Smt. Prajakta L Verma, Joint Secretary, Ministry of Textiles, Gol regarding current cotton scenario and the challenges of cotton cultivation on October 1, 2022.
- Dr YG Prasad, Director, ICAR-CICR, Nagpur participated in the World Cotton Research Conference-7 at the Steigenberger Hotel, Tahrir Square Cairo, Egypt from 04-07th October, 2022.
- Dr. AH Prakash Project Coordinator and Head, Dr. K Sankaranarayanan, Principal Scientist (Agronomy), Dr. S Usha Rani, Principal Scientist (Agricultural Extension), Dr. M. Sabesh Senior Scientist (Computer application) and Dr. J Gulsar Banu, Principal Scientist (Nematology), participated in the WCRC -7 at Cairo, Egypt from 4th to 7th October 2022.
- Dr Rishi Kumar, Principal Scientist (Entomology), ICAR-CICR, Regional Station, Sirsa attended the WCRC-7 conference in Egypt and presented a paper on "Within plant distribution, dynamics and eco-compatible management of thrips (Thripidae: Thysanoptera), an emerging pest of cotton in India" during October 4-7, 2022.



- Dr S Manickam, Principal Scientist (Genetics and Plant Breeding) was a member of Selection Committee for the promotion of 46 Scientists of faculty of Plant Breeding and Genetics under Career Advancement Scheme during 6th October, 2022
- The IGIC field visit organised on 10th October 2022 in Field No. D1 to examine promising jassid resistant and better fibre quality lines developed in the project "Breeding of upland cotton for improved fibre yield, quality and resistance to biotic stress (Jassid)" for registration of these lines as genetic stocks with unique traits. Dr V N Waghmare, Head, Crop Improvement Division, Dr M V Venugopalan, Head, PME Unit, Dr Rahul Fuke, Scientist, Plant Breeding and Genetics and Dr Vinita Gotmare, Principal Scientist, Plant Breeding and Genetics had attended the meeting along with Director, ICAR-CICR, Nagpur.
- Dr SK Verma, Principal Scientist (Plant Breeding) & Head (I/C), Dr. Rishi Kumar, Principal Scientist (Entomology) and Dr. S. K. Sain, Principal Scientist (Plant Pathology), ICAR-CICR, Regional Station, Sirsa monitored Common Zonal Trials conducted for evaluation of GEAC approved Bt Cotton hybrids during October 12-13, 2022 at six centers of ICAR and SAUs.





- Dr YG Prasad, Director, ICAR-CICR, Nagpur along with Dr S Manickam, Principal Scientist, Plant Breeding and Genetics participated in the XXVI Meeting of ICAR Regional Committee No. II comprising the States of West Bengal, Odisha, Telangana, Andhra Pradesh and the Union Territory of Andaman & Nicobar Islands on the 14th October 2022 at ICAR-National Rice Research Institute, Cuttack.
- Dr YG Prasad, Director, ICAR-CICR attended as Guest of Honor for ESI Awards (2021) ceremony and chaired for presentation in the Entomological Society of India (ESI) Annual Workshop – 2022 by the ESI Awardees on 14th October, 2022 organized by Entomological Society of India, Division of Entomology, ICAR-IARI, New Delhi.
- Dr SK Verma, Principal Scientist (Plant Breeding) & Head (I/C), Dr. Rishi Kumar, Principal Scientist (Entomology) and Dr. Debashis Paul, Scientist (Seed Technology), ICAR-CICR, Regional Station, Sirsa visited and monitored the trial 'Evaluation of commercially available Bt-cotton hybrids for the state of Haryana' at CCS-HAU, Hisar and ICAR-CICR, Regional Station, Sirsa on October 17, 2022.



- Dr. A. Manikandan Sr. Scientist (Soil Science) had been awarded second prize for the oral presentation entitled "Humic acid complexation of macronutrients and their interaction with micronutrients under rainfed cotton" in the National Symposium on 100 glorious years of cotton research and way forward held at Centre for Plant Breeding and Genetics, TNAU, Coimbatore from 18-19 October 2022.



- Dr Rishi Kumar, Principal Scientist (Entomology) presented a lead paper "Whitefly Outbreaks in North Cotton Growing Zone of India and its impact in cotton" in the National Symposium on "100 Glorious Years of Cotton Research and Way Forward" also acted as Chairperson in the technical session of "Crop Protection" held at Centre for Plant Breeding and Genetics, TNAU, Coimbatore, Tamil Nadu during October 18-19, 2022, through hybrid mode.
- Dr. S. Manickam, Principal Scientist (Genetics and Plant Breeding) acted as chairman of the Technical Session-I: Crop Improvement and Biotechnology in National Symposium on "100 glorious years of cotton research and way forward" during October 18, 2022
- Dr S Manickam, Principal Scientist (Genetics and Plant Breeding) gave a lead lecture on Fibre quality improvement in India - Breeders' perspective. In: National Symposium on "100 glorious years of cotton research and way forward" organized by Indian Society of Plant Breeders (ISPB), Centre for Plant Breeding and Genetics, Tamil Nadu Agricultural University, Coimbatore during October 18, 2022

- Dr YG Prasad, Director, ICAR-CICR along with Dr AH Prakash participated in the meeting of the Committee to recommend NOC for Transfer/Sale/Purchase/Change in name of GEAC approved BT cotton hybrids held on 19.10.2022 under the Chairmanship of ADG (Seeds), ICAR, New Delhi through virtual mode.
- Dr YG Prasad, Director ICAR-CICR conducted meeting on 19th October, 2022 to discuss about the Project proposal under NEH fund for the financial year 2022-23. Dr. Ramkrushna GI, Senior Scientist, Agronomy attended the meeting.
- Dr YG Prasad, Director ICAR-CICR, Nagpur participated as speaker in the XXXI Annual Review Meeting of AICRP on Biological Control of Crop Pests on 20- 21st October 2022 at North Block Auditorium, GKVK, University of Agricultural Sciences, Bengaluru through hybrid mode.
- Dr. S. Manickam, Principal Scientist (Genetics and Plant Breeding) was a member of Selection Committee for Foundation Day Award in Scientist and Senior Scientist Category and Principal Scientist Category October 26, 2022
- A virtual meeting was held on 28th October 2022 regarding Development of Master Plan for Cotton Textile Value Chain and discuss the pilot project proposal on cotton of ICAR-CICR, Nagpur. The meeting was chaired by Smt. Prajakta L Verma, IAS, Joint Secretary (Fibre -I), Ministry of Textiles. Sh. Suresh Kotak, Dr Pradeep Kumar Agarwal, Dr R K Singh, ADG, Crop Sciences, ICAR, Dr AH Prakash, PC & Head, CICR, RS, Coimbatore and Dr K Sankaranarayanan, Principal Scientist, Agronomy participated in the meeting along with Director ICAR-CICR, Nagpur
- Dr. A. Manikandan, Sr. Scientist (Soil Science) reviewed two research articles for *Frontiers in sustainable food systems* and *Current Agriculture Research Journal* during October 2022.

## Publications

- Blaise, D., Majumdar, G., Manikandan, A., Santosh, S. and Velmourougane, K., 2022. Subsoiling and crop rotation improve root growth of Bt-cotton in Vertisols. *Current Science*, 123(7), pp.874-880.
- Venugopalan, M.V., Chakraborty, A., Bagadkar, A.J., Manikandan, A. and Mani, J.K., Ecosystem level CO<sub>2</sub> exchanges from a rainfed cotton production system using eddy covariance technique. *World Cotton Research Conference-7 2022/10/4*. 488-496. ISBN: 978-1-7923-8630-5 (eBook)
- Manikandan A., DK Sahu., D Blaise, and PK Shukla. Biochemical and physiological responses of cotton cultivars on differential sodium chloride stress. 6th National Conference on Salinity Management for land degradation neutrality and livelihood security under changing climate. Indian Society of Soil Salinity and Water Quality, Karnal held at ADAC&RI, Truchirappalli. 2022/10/11.
- A Manikandan, D. Blaise, R Deshmukh and C. Mundafale. Humic acid complexation of macronutrients and their interaction with micronutrients under rainfed cotton. *National Symposium on 100 glorious years of cotton research and way forward*. 2022/10/18. 1(1), 57. Department of Cotton, TNAU Coimbatore.

## Cotton Trade Scenario during October '2022

### International Cotton Price Movement

Movement in benchmark prices was mixed over the past month. After rising most of the month, the A Index also fell near the end of August, dropping from 134 to 122 cents/lb. The China Cotton Index (CC 3128B) has been the lowest of all cotton benchmarks since the middle of August. Prices moved slightly lower recently, with current values touching the lowest levels since January 2021 (103 cents/lb, when they were 26 cents/lb higher than the NY/ICE Nearby). The CC Index traded between 15,650 and 16,000 RMB/ton in domestic terms over the past month.

#### International Price of Cotton (cents/lb)

	Sep 2022)	Aug 2022	Sep 2021-Aug 2022
NY Nearby	110.20	109.10	120.30
A Index	123.40	123.70	135.70
CC Index	103.40	103.80	143.70
Indian Spot	142.70	145.60	135.90
Pakistani Spot	118.80	117.80	120.90

Source: [www.cottoninc.com](http://www.cottoninc.com)

Indian spot prices (Shankar-6 quality) have been the highest benchmark since late June (after surpassing the A Index, which includes shipment to East Asian ports). Over the past month, values eased slightly, from 158 to 143 cents/lb or from 96,000 to 89,000 INR/candy. The INR was steady against the USD, around 80 INR/USD. With the outbreak of flooding, Pakistani spot prices increased from 102 to as much as 127 cents/lb by the end of August. More recently, prices retreated to 117 cents/lb. In domestic terms, prices increased from 18,000 to 22,000 PKR/maund. The PKR weakened against the USD, from 215 to 230 PKR/USD over the past month.

### Domestic Trade Scenario

#### State wise Wholesale Prices Monthly Analysis for Cotton September '2022 (Rs/Qtl)

States	Prices Sep ' 2022	Prices Aug '2022	Prices Sep '2021	% Change (Over Previous Month)	% Change (Over Previous Year)
Andhra Pradesh	8963	10246		-12.53	
Gujarat	8832	10517	5715	-16.02	54.53
Haryana	8981	9480		-5.26	
Karnataka	8689	10264	10186	-15.34	-14.7
Madhya Pradesh	7382	9682	4706	-23.75	56.87
Maharashtra		8630	5146		
Punjab	8953		6589		35.88
Rajasthan	8923	9214	7000	-3.16	27.47
Tamil Nadu	8847	11172	6988	-20.82	26.6
Telangana	7892	9214		-14.35	
Others	9357	9889		-5.39	
Average	8682	9831	6619		

Source: <https://agmarknet.gov.in>

Textile mills across India are waiting for the prices to stabilize to revive production. Several textile mills that use cotton as raw material are operating at less than 50% capacity at present because cotton prices had gone up to Rs.1 lakh a candy during the previous season and now have come down to Rs. 70,000 per candy.

## CICR holds training prog on mgmt of cotton diseases

**A** two-day masters training programme on 'Identification and integrated management of cotton diseases' for field facilitators and supervisors of better cotton initiative (BCI) was organized at ICAR-Central Institute for Cotton Research (CICR), recently. **YG Prasad**, director, CICR, inaugurated the programme and emphasized the importance of **on-farm training** to understand the fundamental concepts of cotton cultivation, especially crop protection under changing climate scenario. **Saleena Pookunju**, manager (implementation, capacity building), BCI, India introduced the **52 trainee participants** who are mainly involved in dissemination of better cultivation practices and monitoring of different villages in Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh, **Maharashtra**, Andhra Pradesh, **Telangana** and Karnataka. **MV Venugopalan** (I/c PME Cell) in his talk urged the participants for proper **diagnosis of cotton diseases** so as to implement suitable management strategies. **Nandini Gokte-Narkhedkar** informed the participants on emerging diseases like TSV, boll rot, target leaf spot and grey mildew under changing climate scenario. **DT Nagrale** proposed a vote of thanks.



Times of India, 2 October, 2022

## Community News



## ICAR-CICR organises farmer interaction meet at Amravati

ICAR-Central Institute for Cotton Research (CICR), Nagpur conducted scientist-farmer interaction meet and input distribution programme for cotton farmers at Nimbhi village of Amravati district recently under the aegis of ICAR-National Food Security Mission (NFSM)-Commercial crops project and front-line demonstrations (FLDs) on cotton.

MP Dr Anil Bonde was the chief guest. In his inaugural address, Dr Bonde urged the cotton farmers for compulsory

soil testing and use of precision agriculture for doubling the cotton production.

Around 200 cotton farmers and women from self help groups (SHGs) of Nimbhi and administrative officials participated. The programme was organised to make farmers aware of better cotton cultivation practices and distribute cotton farming aids (nano urea, NPK consortia, zinc sulphate neem oil, yellow sticky traps, pheromone traps (pink bollworm) and CICR-lures.

Lokmat times, 4.10.2022

मंगळवार, १८ ऑक्टोबर २०२२

## सकाळ अग्रोवन

## कापूस पीक तंत्रज्ञान कार्यशाळेचे आयोजन

वर्धा : 'कपाशी पिकाची लागवड सरी वरंवा पद्धतीने केल्यास पीक अतिवृष्टीमध्येदेखील टिकून राहते. उत्पादन वाढीसाठी तसेच पिकाच्या पोषण करिता सूक्ष्म अन्नद्रव्यांचा वापर करणे गरजेचे आहे,' प्रतिपादन डॉ. सी. डी. मायी यांनी केले. कृषी विज्ञान केंद्र, सेलसुरा, ऑग्राव्हिजन फार्मेशन, नागपूर, साकथ एशिया बायोटेक्नॉलॉजी सेंटर, जोधपूर, कृषी विभाग, पीआय फार्मेशन, सीआयसीआर नागपूर व स्मार्टकॅम टेक्नॉलॉजी लिमिटेड पुणे यांच्यातर्फे कापूस पिकासाठी नवीन तंत्रज्ञान या विषयावर कार्यशाळेचे आयोजन केले होते. त्यावेळी डॉ. मायी बोलत होते. या वेळी कृषि विद्यापिठाचे विस्तार शिक्षण संचालक डॉ. डी. बी. उंदिरवाडे, कृषी विज्ञान केंद्र केंद्राचे वरिष्ठ शास्त्रज्ञ व प्रमुख डॉ. जीवन कतोरे, प्रबंधक डॉ. अक्षय खरात उपस्थित होते. डॉ. अंकिता अंगईतकर यांनी कार्यक्रमाचे संचालन केले, तर अमरार डॉ. वशिरे यांनी मानले. कार्यक्रमाकरिता डॉ. रूपेश झाडोडे, डॉ. सचिन मुळे, गजानन म्हसाळ, डॉ. प्रेरणा घुमाळ, डॉ. सविता पवार, पायल उजाडे, किशोर सोळंके, वैशाली सावके, समीर शेख, दिनेश चव्हाटे, माथुरी डफाळे यांनी परिश्रम घेतले.

## पीक वाढीनुसार व्यवस्थापन करणे गरजेचे

नागपूर, ११ ऑक्टोबर  
केंद्रीय कापूस संशोधन संस्था, नागपूरच्या वतीने उमरेड तालुक्यातील निशातघाट, चारगाव, मुरादपूर, खापरी व सुराबडी या गावातील कापूस उत्पादक शेतकऱ्यांसाठी नुकताच कपाशीवरील गुलाबी बोंडअळी व्यवस्थापन कार्यक्रमांतर्गत शिवार फेरी व कीड/रोग मार्गदर्शन कार्यक्रम आयोजित करण्यात आला होता. यावेळी डॉ. दीपक नाराळे यांनी शेतकऱ्यांना कपाशीवरील गुलाबी बोंडअळी, रसशोषण करणाऱ्या किडी, विविध रोग व बोंडसड समस्या व्यवस्थापनाबाबत प्रत्यक्ष शेतात जाऊन विस्तृत मार्गदर्शन केले. गुलाबी बोंडअळी कीटक प्रतिकारकता व्यवस्थापन प्रकल्पांतर्गत उमरेड तालुक्यातील निशातघाट, चारगाव, मुरादपूर, खापरी व सुराबडी या गावांमध्ये पीक वाढीच्या अवस्थेनुसार कीड व्यवस्थापन, शेतकऱ्यांच्या शेतात प्रत्यक्ष भेटी, शिवार चर्चासत्र, गुलाबी

बोंडअळी व्यवस्थापन सहिष्य वाटप, बोंड अळी साठी कामगांध व रस शोषण करणाऱ्या किडीसाठी चिकट सापळ्यांची स्थापना, मोबाइल आधारित ध्वनी संदेश आदी उपक्रमांद्वारे शेतकऱ्यांना मार्गदर्शन केले जात आहे. गुलाबी बोंडअळी, रस शोषण किडी व बोंडसड रोगाविषयी रणनीतीची माहिती यावेळी शेतकऱ्यांना देण्यात आली. प्रकल्पांतर्गत नोंदणीकृत शेतकऱ्यांना यादरम्यान कीटकनाशक व गुलाबी बोंडअळी व्यवस्थापन माहिती प्रत्यक्ष सुद्धा वाटप करण्यात आली. हा प्रकल्प वरिष्ठ शास्त्रज्ञ तथा जिल्हा समन्वयक डॉ. दीपक नाराळे, डॉ. सुभाष पाटील यांच्या मार्गदर्शनात राबविण्यात येत आहे. या कार्यक्रमाच्या यशस्वीतेसाठी प्रकल्पातील वरिष्ठ संशोधन सहकारी आकांक्षा हुमने, जयश्री खोत्राडे व तालुक्यातील कापूस उत्पादक शेतकऱ्यांचे सहकार्य लाभले.

◀(तमा वृत्तसेवा)

## Cotton rates may disappoint farmers

Shishir.Arya@timesgroup.com

**Nagpur:** Initial trends show that the cotton crop may not bring a windfall gain for farmers like it happened last year. Farmers have reported lower output this year as compared to 2021.

They were hoping for the rates to remain at the Rs12,000 a quintal and above like the previous year, but trade sources say their expectations may not be met. If not rock bottom, the prices still would be at a moderate level, a little over the MSP of Rs6,000 a quintal.

Cotton is the major crop of the region, grown in most of Vidarbha except parts of eastern districts like Gondia, Gadchiroli and Bhandara, which form the paddy belt. The output was down even in 2021 but it was compensated



**CAUGHT ON THE WRONG FOOT:** A low demand domestically, and a falling trend in international rates have resulted in the price dipping

by the higher prices. The losses are higher due to excessive rains this year, which has delayed boll formation also. Farmers are hoping for the rates to touch Rs12,000 again to compensate their losses.

A likely low price is being attributed to two reasons. A low demand domestically, and a falling trend in international rates. Cotton rates are derived from the price of lint (processed cotton after removing seeds) per pound quoted in dollars.

Veteran farm activist Vijay Jawandhia said lint is at \$1.03 a pound in the global market. Last year it was \$1.70 per pound. Domestically, this takes the rates to Rs1 lakh a candy or per 356kg of lint.

At the current rate of \$1.03 a pound, the price of a candy in rupee terms comes to Rs65,000. This means the rates of raw cotton would re-

main at Rs8,000 to 8,500 a quintal for the farmers. It would come down to over Rs7,500 after deducting the ginner's margin and transportation cost, he said.

On the other hand, farmers are expecting a price of Rs12,000 and above.

An exporter from Mumbai said there are reports of a better crop elsewhere in the country, moreover, even the industry is not keen on buying at higher rates. There may be lower yield but the overall outlook for the country is better.

Cotton is expected to reach the markets post Diwali. Arrival pressure is expected to further reduce the rates at least for the initial period. Farmers are already disappointed with soyabean rates, which are at Rs4,500 a quintal, which they say may not be enough to recover their input costs also.

Times of India, 6 October, 2022

## CICR holds farmers' training to mark World Cotton Day

Staff Reporter

WORLD Cotton Day, recognised by United Nations, was celebrated at ICAR-Central Institute for Cotton Research (CICR) by organising farmers' training-cum-input distribution programme under Scheduled Caste Sub-Plan (SCSP).

The farmers were made aware of the importance of cotton crop, economics of developed and developing countries worldwide, and challenges it faced. Dr Blaise D'Souza, Director-in-Charge, chaired the programme. Dr Nandini Gokte, Head, Division of Crop Protection; Dr Si N. Rokde, Head In-charge, Kishik Vikas Kendra (KVK); and Dr Jayant Meshram, Principal Scientist, Division of Crop Production and Nodal Officer for



Dr Blaise De-Souza, Director In-Charge, ICAR-CICR, distributing inputs for cotton cultivation to farmers on the occasion of World Cotton Day. Also seen are Dr Nandini Gokte, Dr S N Rokde, Dr Jayant Meshram and Sunita Chauhan.

SCSP also were present on the dais.

About 60 Scheduled Caste farmers of Narkhed, Katol, Saoner, and Parsooni tehsils of Nagpur district under SCSP scheme and 25 students of

National Service Scheme (NSS) from Rashttrasant Tukadoji Maharaj University participated in the programme.

Dr Blaise D'Souza called for popularising the use of indigenous desi variety of cotton to

complement global climate change.

Dr Nandini Gokte-Narkhedkar spoke on use of bio-control agents to combat diseases and pest in cotton crop. Dr Jayant Meshram informed the targeted beneficiaries about the income-generation schemes for Scheduled Castes, and their development and lifestyle improvement under skill development programme through science and technology. The beneficiary farmers were requested to take advantage of the information about planning of various crop demonstrations under SCSP and also to take advantage of voice message service implemented on behalf of CICR.

A workshop on integrated cotton crop management was also

organised.

Dr Ramakrishna, Senior Scientist, spoke on nutrient and weed management. Dr Babasaheb Fund, Senior Scientist, spoke on Pink Bollworm management. Dr Deepak Nagrale spoke on Boll Rot and its integrated management in cotton. Various inputs such as bio-fertilisers, chemical fertilisers, fungicides, insecticides, and cotton-picking bags were distributed to the participating farmers. They benefited from live cotton demonstration in technology park and Integrated Farming System module established at ICAR-CICR farm.

Dr Rahul Phuke, Dr Shailesh Gawande, and Dr Neelkanth Hiremani conducted and coordinated the programme.

The Hitvada, 19 October, 2022

# CICR organises national-level training programme on mgmt of cotton diseases

■ Staff Reporter

TWO-DAY masters' training programme on 'Identification and Integrated Management of Cotton Diseases' for field facilitators and supervisors of Better Cotton Initiative (BCI) was organised at ICAR-Central Institute for Cotton Research (CICR), Nagpur recently.

Dr Y G Prasad, Director, CICR, inaugurated the training programme and emphasised upon importance of on-farm training to understand the fundamental concepts of cotton cultivation, especially crop protection under changing climate scenario. Highlighting the need for ecologically sound, easily transferable technologies in cotton, he also briefed about the need for proper identification of cotton pest and diseases, pesticide usage and cotton yield.

Saleena Pookunju, Manager (Implementation, Capacity Building), BCI, introduced 52 trainee participants mainly involved in dissemination of better cultivation practices and monitoring of different villages across cotton growing zones viz. Punjab, Haryana, Rajasthan, Gujarat, Madhya Pradesh, Maharashtra, Andhra Pradesh, Telangana, and Karnataka. Dr M V Venugopalan, In-charge, PME Cell, urged the participants



Trainee participants from Better Cotton Initiative interacting with Director and staff of ICAR-CICR at Nagpur, during the session.

for proper diagnosis of cotton diseases to implement suitable management strategies. Dr Nandini Gokte-Narkhedkar, In-charge Head, Division of Crop Protection, informed the participants about emerging diseases like TSV, boll rot, target leaf spot, and grey mildew under changing climate scenario. The main focus of the training was to educate the participants on different crop protection practices especially identification of diseases and their integrated management techniques for improving cotton productivity.

The training was coordinated by Dr S P Gawande, Dr D T Nagre, and Dr N S Hiremani, Scientist, Crop Protection Division. The technical session comprised interactive discussion and lectures on 'Seedling and Viral Diseases, Fungal Foliar Diseases, Bacterial Blight and

Boll Rot Complex, Nematode Diseases in Cotton and Their Integrated Management'. Trainees were exposed to field and laboratory for practical demonstration in identifying and diagnosing cotton diseases. They were also briefed about the institute's technology demonstration plots by Dr Ramakrushna G I and Dr B B Fand during the field visit. Mithila Meshram and Akshay Kamble assisted the lab and field visits. Dr Blaise DeSouza, In-charge Head, Division of Crop Production, chaired the concluding session of training programme and emphasised on enrichment of organic matter in the soil for improvement of soil fertility and microbiome. Akhil Dev from BCI acknowledged the efforts of ICAR-CICR in imparting knowledge to field staff of BCI. Dr D T Nagre proposed a vote of thanks.

# नागलवाडीत तयार होणार फ्रूट जॅम

विषयतज्ज्ञ डॉ. दीपा लाल यांचे आव्हान

◆ नागपूर, १४ ऑक्टोबर - रोजगार मागणारे नको तर उद्योजक बना अशा स्वरूपाचा मंत्र केंद्रीय मंत्री नितिन गडकरी यांनी वारंवार दिला आहे. म्हणूनच की काय पंतप्रधान नरेंद्र मोदी यांच्या मार्गदर्शनाखाली आत्मनिर्भर भारत हा प्रकल्प सुरू झाला आहे. हाच आत्मनिर्भरपणा आपल्याला प्रत्येक क्षेत्रात आणायचा आहे. त्या अनुषंगाने भारत सरकारच्या वतीने आर्या प्रकल्प सुरू करण्यात आला आहे.

नागपुरातील कृषी विज्ञान केंद्राच्या मार्फत हा प्रकल्प राबविला जात आहे. त्या अनुषंगाने नागलवाडी हिंगणा येथील अभिरुची महिला बचत गटातील महिलांना आर्या प्रकल्पांमार्फत फ्रूट जॅम मशीन दिली अन् तिला कसे चालवायचे याचेही प्रशिक्षण देण्यात आले. यामुळे येणाऱ्या काळात नागलवाडी फ्रूट जॅम तयार करण्याचे केंद्र ठरेल. आर्या अंतर्गत दिलेली ही मशीन फ्रूट जॅम



फ्रूट जॅम तयार झाल्यानंतर ते दाखविताना जयश्री खोब्रागडे, डॉ. दीपा लाल, सुवर्णा पाटील, कुंदा चवने आणि इतर

तयार करण्यासाठी सर्वोत्तम मानली जाते. या यंत्राचा नेमका कसा उपयोग करायचा याची शास्त्रोक्त माहिती उद्यान विद्या विषयातील तज्ज्ञ डॉ. दीपा लाल यानी दिली. त्यांनी सहजतेने मिळणाऱ्या केळी, अननस, सफरचंद, सीताफळ, पपई आदी फळांचा उपयोग करून आपण फ्रूट जॅम तयार करू शकतो. हेच फ्रूट जॅम आपल्याला आत्मनिर्भर बनविण्यासाठी कारणीभूत ठरेल

असेही डॉ. दीपा लाल यानी स्पष्ट केले.

सीआयसीआरचे संचालक डॉ. वाय.जी.प्रसाद, कृषी विज्ञान केंद्राचे प्रमुख शास्त्रज्ञ डॉ. सुनील रोडे यांच्या मार्गदर्शनाखाली हे प्रशिक्षण देण्यात आले. याकरिता सुवर्णा पाटील, कुंदा चवने यानी श्रेयक परिश्रम घेतले. आता अभिरुची महिला बचत गटातील महिलांचा व्यवसाय सुरू झाला असून, पुढील काळात

आर्या प्रकल्प उत्तमच : जयश्री खोब्रागडे

विभागाने मानवाला भरभरून दिले आहे. फक्त आपण त्याचा उपयोग व्यवस्थित करायला हवा. आम्ही हीच भूमिका घेत आहोी सहजतेने उपलब्ध असलेल्या फळांना घेऊनच फ्रूट जॅम नेमके करायचे करा हे अभिरुची महिला बचत गटातील सदस्यांना शिकवले आहे. फ्रूट जॅम पूर्णतः आरोग्यवर्धक आहे. कारण ते तहान मुलेच आवडीने खातात. म्हणूनच आम्ही यात कुठल्याही रसायनांचा उपयोग करणे टाकलेले आहे. दरम्यान आर्या प्रकल्प उत्तम असून याचा लाभ महिला बचत गटांनी घ्यावा. असे आवाहन आर्या प्रकल्पाच्या वरिष्ठ संशोधन सहकारी जयश्री खोब्रागडे यानी केले.

नवकीच यामुळे नागलवाडी गावात आर्थिक उदात्तात वाढेल असाही विश्वास जयश्री खोब्रागडे यानी व्यक्त केला. (निहा वृत्तवाक्य)

The Hitavada, 6 October, 2022

Tarun Bharat, 15 October, 2022

# PM launches 'One Nation-One Fertilizer' programme online

■ Staff Reporter

ICAR-Central Institute for Cotton Research (ICAR-CICR), Nagpur in association with Ministry of Agriculture and Farmers' Welfare conducted the live web telecasting of 'Agri-Startup Conclave and Kisan Sammelan' recently.

More than 200 farmers attended the programme. Prime Minister Narendra Modi launched the 'One Nation-One Fertilizer' programme during the event. Modi addressed the farmers via video conferencing during the launch.

The objective behind this 'One Nation-One Fertilizer' programme is to provide fertilizer at economic rate to farmers. Modi also informed about Farmer Producer Organisation Scheme (FPOS) under which 600 Pradhan Mantri Kisan Samridhi Kendra are opened which



will act as single window for all agri inputs and information.

The web telecast was inaugurated by MP Krupal Tumane. Dr Y G Prasad, Director, ICAR-CICR, presided over the event. Tumane, in his address, urged farmers to take advantage of the research techniques which ICAR-CICR has recommended for cotton farmers.

A technical session was conducted for farmers which comprised interactive lectures on cotton nutrient and pest management as well as Lumpy Skin disease in cattle. Kits containing seeds for upcoming Rabi season and vermi-compost were distributed to the participants under Scheduled Caste Sub Plan (SCSP).

The Hitavada, 18.10.2022

WWW.INDIANEXPRESS.COM THE INDIAN EXPRESS, SATURDAY, OCTOBER 29, 2022

DAYS AFTER REGULATOR'S NOD FOR GM MUSTARD

# Herbicide-tolerant cotton set to get recommendation for release

HARISH DAMODARAN NEW DELHI, OCTOBER 28

AFTER DELHI University's transgenic hybrid mustard, India's biotech regulator is set to recommend the "environmentally safe" release of genetically modified (GM) cotton of German multinational company Bayer AG that allows farmers to spray the herbicide glyphosate.

The transgenic cotton - Bollgard II Roundup Ready Flex (RR-II RRF) - contains three genes: the first two (cryIAC and cry2Ab) being isolated from a soil bacterium, *Bacillus thuringiensis* or Bt, and coding for proteins toxic to the American bollworm, spotted bollworm and tobacco caterpillar insect pests. The third gene, *hpt-neoR*, is sourced from another soil bacterium, *Agrobacterium tumefaciens* to incorporate into cotton makes the crop "tolerant" to glyphosate. This herbicide cannot be applied on normal cotton, as the chemical does not distinguish between the crop and weeds. The regulatory body Genetic Engineering Appraisal Committee (GEAC), in a meeting on July 27 had constituted an expert sub-committee, under Department of Biotechnology (DBT) secretary Sanjay Kumar Mishra to conduct a detailed review of the application by the company. The expert sub-committee's members also included the director of the Indian Agricultural



The cotton allows farmers to spray glyphosate herbicide.

The Indian Express has learnt that the panel has given its approval for said genetically modified (GM) crop event. "The review was completed last week and the sub-committee's report will be taken up at the next meeting of the GEAC," said an ICAR official, who requested anonymity. GEAC is a body under the Ministry of Environment, Forest and Climate Change that approves GM products for their testing and commercialisation (environmental release). The expert sub-committee's members also included the director of the Indian Agricultural

with its parental lines for seed production, commercial cultivation and breeding of new hybrids. The GEAC meeting took place on October 18, 10 days after the expert sub-committee's report was submitted.

RR-II RRF cotton had already undergone mandatory research and field trials by 2012-13. The dossier containing the results of these trials were submitted by its original developer, Monsanto, to the GEAC in March 2013. Amid the regulatory uncertainty and no decision being taken, the American company withdrew its application seeking environmental release of the herbicide-tolerant GM cotton product.

In 2018, Monsanto was acquired by Bayer following which the latter, through Malyca, resubmitted its application early this year. "The atmosphere has changed considerably in the last 7-8 months. There is more appreciation of the need to create an atmosphere to promote agricultural research and allow new products to boost crop yields," said the official quoted above. The real push in this direction, according to him, has come from Prime Minister Narendra Modi's independence Day speech where he made a strong pitch for "anushthan" (research), [A Anusandhan was added to the slogan given by previous prime ministers that extolled the "jawan" (soldier) "kisan" (farmer) and "vignani" (scientist)]

शनिवार, १५ ऑक्टोबर २०२२

सकाळ अॅग्रोवन

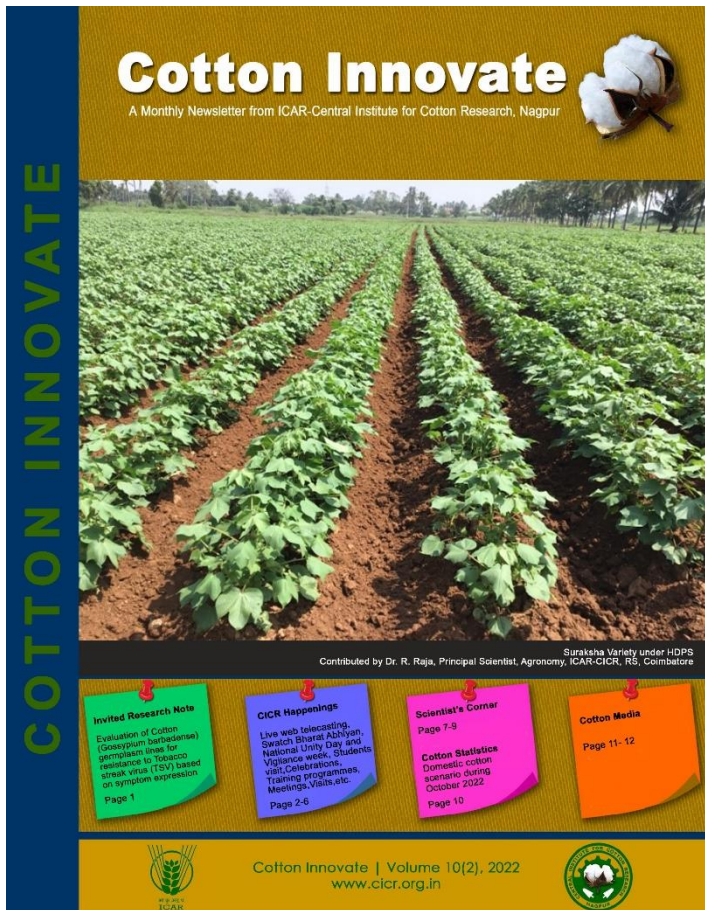
# क्रॉपटेक कॉटन कॉम्प्लेक्स खत बाजारात दाखल

मुंबई : कापूस पिकाचे पोषण वाढवण्यासाठी महाजनतर्फे क्रॉपटेक कॉटन खत विकसित करण्यात आले आहे. हे खत मुख्य अन्नद्रव्यांसोबतच द्रव्य आणि सूक्ष्म अन्नद्रव्यांनी समृद्ध आहे. या खताची ग्रेड ही राष्ट्रीय खत कायद्याप्रमाणे नोंदणीकृत आहे. कापूस पिकासाठी हे पहिले कॉम्प्लेक्स आणि न्यूट्रिएंट अनलॉक तंत्रज्ञानावर आधारित खत आहे. हे खत जमिनीची पोषक अवस्थेच्या गरजेनुसार मुख्य, द्रव्य आणि सूक्ष्म पोषक घटकांची आवश्यकता पूर्ण करत असल्याचा दावा कंपनीने केला आहे.

मार्केट ट्रेण्ड

विविध रासायनिक कृषी विद्यापीठ आणि भारतीय कृषी संशोधन परिषद तसेच केंद्रीय कापूस संशोधन संस्था, धारवाड कृषी विद्यापीठ, डॉ. पंजाबराव देशमुख कृषी विद्यापीठ अकोला, आणि वसंतराव नाईक मराठवाडा कृषी विद्यापीठ, परभणी येथे २०१७ ते २०१९ या तीन वर्षांसाठी 'क्रॉपटेक कापूस पोषण सोल्यूशन' या अभ्यासातून असे दिसून आले, की या खताचा वापर केलेल्या क्षेत्रावर, प्रति झाड २ ते ३ चावीय फळ फांडा लागल्या, प्रति झाड १० ते १५ जास्त बोंडे लागली, ७ टक्के अधिक वजनदार बोंडे मिळाली. उत्पादनात १५ टक्क्यांपर्यंत वाढ झाली आहे.

अॅग्रीव्हिजन फाउंडेशनचे डॉ. चारुत मायी म्हणाले की, क्रॉपटेकच्या प्रत्येक दाण्यामध्ये न्यूट्रिएंट अनलॉक तंत्रज्ञानावर आधारित मुख्य, द्रव्य आणि सूक्ष्म पोषक घटक आहेत. यामुळे पोषक घटक जमिनीमध्ये शोषून घेण्याची तसेच रोपांदारे ते वापरण्याची परिणामकारकता वाढते.



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