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I Scientist (GPB) and Head,
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Research Notes Clipping

Elucidating the chitin regulatory network from pink bollworm

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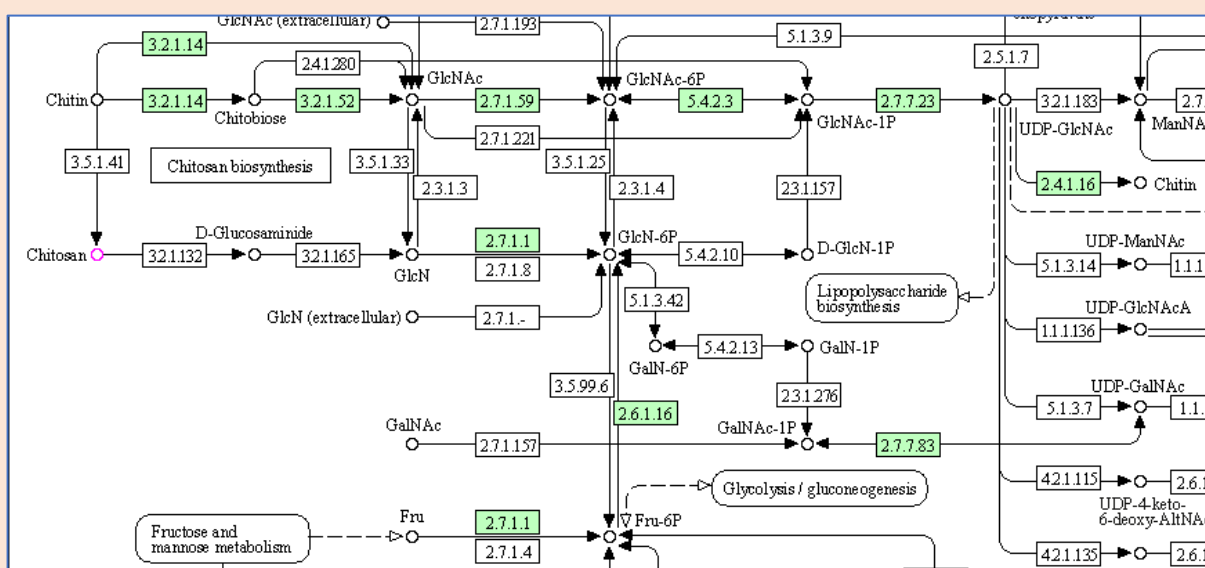
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Chitin, a polymer comprising N-acetyl glucosamine units, serves as a critical structural component within the extracellular matrix of insects. Being absent in higher plants and animals, the chitin biosynthesis pathway represents an attractive target for insecticidal interventions. In recent times, the pink bollworm (*Pectinophora gossypiella*) has emerged as a significant pest affecting cotton crops in India. Furthermore, the challenge has been exacerbated by the development of resistant pink bollworm populations against *Bacillus thuringiensis* (Bt) toxins.

Of late, we have conducted a comprehensive investigation into the molecular aspects of chitin biosynthesis in the pink bollworm. We identified key genes and isoforms associated with chitin regulation using an *in silico* approach. Moreover, we sequenced the transcriptome of pink bollworm larvae from the Nagpur population, resulting in the identification of 57,751 mRNA transcripts, with annotations for 30,124 genes. Furthermore, we successfully amplified two RNA interference (RNAi) target genes involved in the pink bollworm's chitin biosynthesis pathway, validating their full-length sizes and gene expressions. Additionally, we constructed a KEGG pathway for the identified chitin biosynthesis genes and elucidated protein-protein interactions among chitin biosynthesis enzymes using STRING analysis. Our study offers a comprehensive perspective on the putative chitin biosynthesis gene network in the pink bollworm, providing a foundation for the development of innovative strategies for the management of pink bollworm infestations in cotton crops.



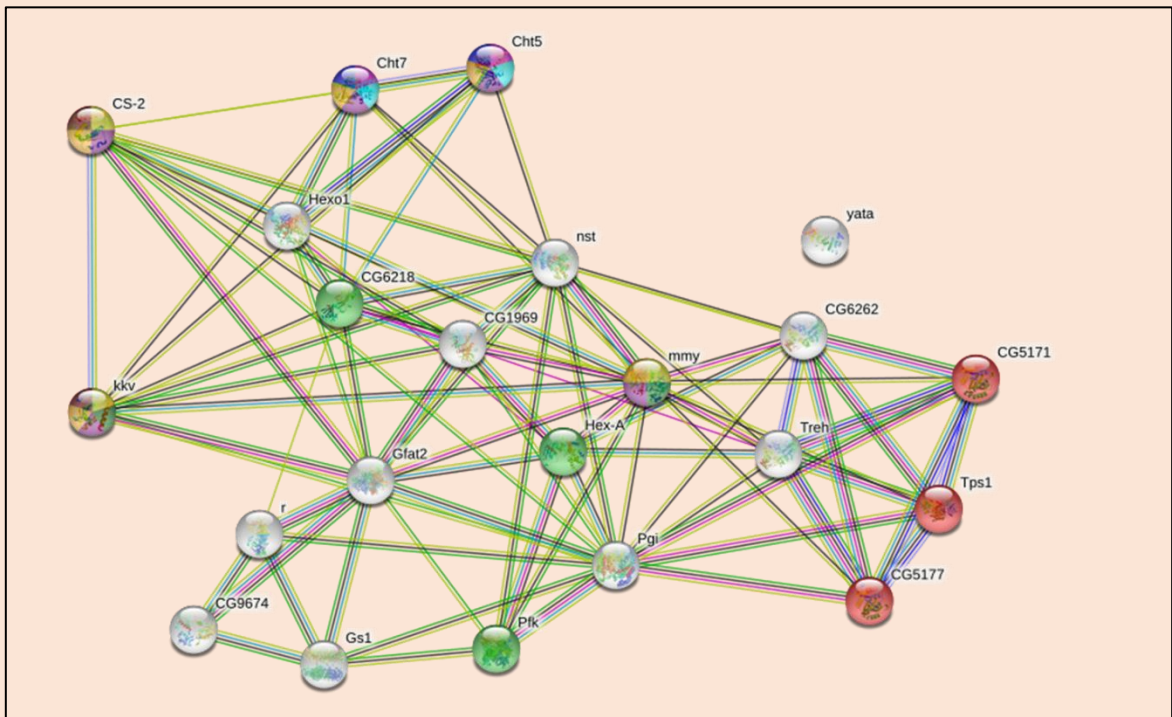


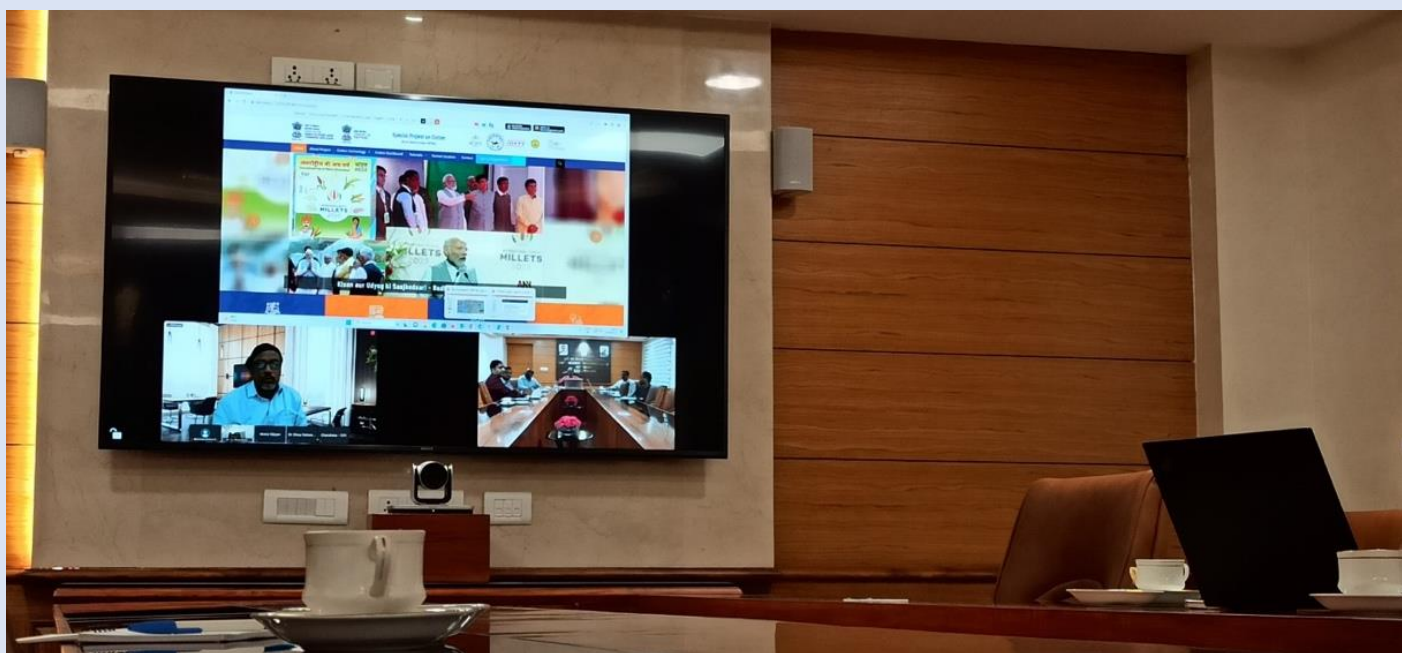
Figure 2: STRING analysis for chitin regulatory proteins

CICR Happenings

Meeting to review the project 'IRM: Dissemination of pink Bollworm Management Strategies 2023-24' and Special Project on cotton of ICAR-CICR held on 22.08.23

A meeting to review the project 'Insecticide Resistance Management (IRM): Dissemination of Pink bollworm Management Strategies 2023-24' and Special Project on cotton of ICAR-CICR was held on 22.08.23 in Hybrid Mode under the Chairpersonship of Shri. Rabindra Prasad, Director (Crops), Department of Agriculture & Farmers Welfare (DA&FW), Ministry of Agriculture and Farmers Welfare, Government of India. Dr. Y. G. Prasad, Director, ICAR-CICR, Nagpur, Dr. A. L. Waghmare, Director, DCD, Nagpur attended virtually.

Dr V. S. Nagraire presented the impact on the implementation of the project IRM for the last five years i.e. 2018-19 to 2022-23 highlighting the reasons for occurrence of pink bollworm, increase of pink bollworm infestation in cotton growing states of North India, management strategies devised by ICAR-CICR, impact of project during last five years, critical inputs supplied to farmers and activities proposed under the project during 2023-24. In the meeting, it was suggested to revise the project by increasing number of beneficiaries/farmers and also assistance being provided through critical input.



Monitoring field visit to Gujarat under Special Project on Cotton

Field visits for the implementation and progress of the Special Project on Cotton of ICAR- CICR entitled 'Targeting technologies to agro-ecological zones- large scale demonstrations of best practices to enhance cotton productivity' in the state of Gujarat were conducted from 22nd to 25th of August, 2023. The project is being implemented in public private partnership mode under NFSM Scheme involving ICAR- CICR as nodal implementing agency in coordination with KVKs under Junagadh Agricultural University, Junagadh and private seed firms viz., Nuziveedu, Rasi and Crystal. The visit was conducted by nodal officers Dr. Vivek Shah and Dr. R. Jaya Kumaravaradan.

On the first day, the team visited KVK, Surendranagar. The meeting on briefing of the project was held involving Dr. Jijuben N. Vyas, Head and other staff of KVK along with seed company representatives from Nuziveedu and Rasi seeds having laid their trials in Surendranagar. Farmers' field in Surendranagar, sown under both HDPS and closer spacing were monitored. Overall the farmers were progressive and taken up first spray of mepiquat chloride at 40-50 DAS. Fields of Rajkot district were also monitored. The meeting on briefing of the project was organized involving Dr. N. B. Jadav along with Dr. H. C. Chhodvadia, Associate Director of Extension Education, Junagadh. Subsequently, farmers' field visits were made in Junagadh district along with the representatives from Nuziveedu seeds. Crop stage was 70-80 day old and farmers had taken up 1-2 sprays of Mepiquat Chloride. Mr. P. J. Prajapati, SMS, Crop Production and Mr. N. M. Kachhadiya, SMS, Crop Protection along with representatives from Nuziveedu seeds also visited farmers' field. In Amreli district few farmers were cultivating cotton under rainfed conditions and/or with lifesaving irrigation mainly due to water salinity. Overall crop stand was very good across Gujarat state but infestation of thrips was noticed in all the fields and management options of thrips were recommended to farmers.



Visit to KVK, Chotila Surendranagar



Farmers' field visit at Surendranagar



Visit to KVK, Gorkhijadia, Morbi



Farmers' field visit at Morbi



Interaction at office of Director of Extension Education, JAU, Junagadh



Farmers' field visit at Junagadh



Visit to KVK, Amreli



Farmers' field visit at Amreli

Monitoring visit to the cotton fields under the project “Targeting technologies to agroecological zones large scale demonstration of best practices to enhance cotton productivity” in Chandrapur district of Maharashtra

A team of scientists from ICAR-CICR, Nagpur, KVK, Sindewahi and Rasi seeds comprising of Dr. Prabhulinga T., Scientist (Entomology), V N Sidham, SMS (Entomology), KVK, Sindewahi, Mr. Sujit Kumbhare, ICAR-CICR, Nagpur, and Praful, Rasi seeds representative conducted the monitoring visit to the farmer fields under the project “Targeting technologies to agroecological zones large scale demonstration of best practices to enhance cotton productivity” at warora and Bhadravati tahsil of Chandrapur district of Maharashtra on 30-08-2023. The compliance of closer spacing, canopy management and pest and disease management practices were monitored during the field survey. The crop stage in the surveyed fields were varying from 60-80 days and are at flowering to boll formation stage. The incidence of pink bollworm was noticed in all the visited fields through the rosette flowers and farmers were advised to monitor the pest through pheromone trap @ 5/ha and upon crossing ETL are advised to take up management practices to contain the infestation of the pest. The sucking pests infestation was also noticed in the visited fields and advised to take up the management practices upon reaching their levels at ETL.



Farmer training and interactive meeting under NFSM (Kharif 2023)

Under the NFSM project, numbers of activities were carried out during the month of August 2023. Initially, farmer interactive meeting was conducted on August 17, 2023, at ICAR-KVK, Namakkal, Tamil Nadu and also a visit to Salem KVK was made and discussed with KVK personnel. A meeting was held on August 18, 2023, at TNAU, Coimbatore, under NFSM-Special Project on cotton, Co-principal investigator and Districts nodal officers of NFSM project, Programme coordinator of Districts KVK of Telangana, Andhra Pradesh and Tamil Nadu state and scientists from ATARI, Hyderabad have participated. A field visit was made in SIMA - CDRA summer cotton demonstration plots at Vadakkkipalayam, Tamil Nadu on August 22, 2023. Farmer training was conducted at Periyakrishnapuram, Vallapadi block, Salem (Dt.) organized by ICAR-KVK Salem, Tamil Nadu on August 24, 2023.





An interactive meeting cum Input Distribution event was conducted on 31 August 2023 under National Food Security Mission (NFSM) -Special Project at ICAR-CICR, Regional Station, Coimbatore. The meeting was presided by Smt. Prajakta L Verma, Joint Secretary (Fiber), Ministry of Textiles, Government of India. She explained the special features of the project are Public Private Partnership, involvement of Ministry of Agriculture and Ministry of Textiles along with other cotton stakeholders in one platform.

In this meeting, Mr. Manish Daga, Managing Director of Cotton Guru, Mumbai, Dr.A.H.Prakash, Head, ICAR-Central Institute for Cotton Research, Regional Station, (Cotton Improvement), Coimbatore, Dr.Y.G.Prasad, Director, ICAR- Central Institute for Cotton Research, Nagpur, Smt.Prajakta.L.Verma, Hon'ble Joint Secretary (Fiber), Ministry of Textiles, Government of India, Sh.Lalit Kumar Gupta, Chairman-Cum-Managing Director, Cotton Corporation of India, Mumbai,Dr.P.P.Murugan, Director of Extension Education, Tamil Nadu Agricultural University, Coimbatore, Dr.A.L.Waghmare, Director, Directorate of Cotton Development, Nagpur participated (from left). A Bulletin "Think package of practices for ELS cotton" was released during the meeting.

Seed Distribution to farmers under CICR - CCI Pilot Project

ELS cotton seeds were distributed on August 16, 2023 to selected twenty- five cotton farmers in Vadapudur, Maampalli and Sokkanur villages of Kinathukadavu block of Coimbatore district under CICR - CCI Pilot Project on “Awareness and Extension Services on Best Farm Practices for Cotton Farmers to Improve Quality, Yield and Sustainability”. Dr A Sampathkumar, Senior Scientist (Plant Pathology), Dr Sujeetha, YP-II and Shri Suresh, YP-I from ICAR- CICR, RS, Coimbatore distributed the seeds to beneficiaries.

Students visit ICAR-CICR, Regional Station, Coimbatore

Twenty five II MSc Botany students from Sree Narayana College, Kollam, Kerala visited the regional station on August 3, 2023 and interacted with Dr. K Rameash, Principal Scientist (Agricultural Entomology) and acquired knowledge on the various research activities of the Institute.

Eighty students of B. Sc (Hons.) Agriculture and BE Agricultural Engineering from Kalasalingam School of Agriculture and Horticulture, Sriviliputhur visited CICR, Regional Station on 24th August, 2023 to learn about the research activities of the Institute and to get exposure on cotton crop. Dr. P. Valarmathi, Scientist (Plant Pathology) explained the research activity pertaining to all the divisions of the station.

Five PG students from Plant Genetic Resources belonging to AD, AC & amp; RI, Trichy visited the Regional Station of ICAR, CICR, Coimbatore on August 24, 2023 as a part of their Course work. The students interacted with Dr S. Manickam, Principal Scientist (Genetics and Plant Breeding), and got exposure to the institute activities and ongoing research programmes of the station. They also made visits to the wild garden and studied about the pre-breeding activities of the station.

Happenings at AICRP centres

A Farm Field School was organized at Sade Under the Cotton Corporation of India Funded Project

A Farm Field School was organized at Sade, District Ahmednagar (Maharashtra) on August 04, 2023 under the Cotton Corporation of India Funded project “Awareness and Extension Services on Best Farm Practices for Cotton Farmers to Improve Yield, Quality and Sustainability”. Around 65 Farmers from the adopted villages of Sade, Khandambe, Brahmani, Pathare and Vambori participated in the event and discussed their queries during Field School. On this occasion, a team of subject experts comprising Dr. R.S. Wagh, Cotton Breeder, Cotton Improvement Project, MPKV Rahuri, Prof. N.K. Medhe (Cotton Agronomist), Dr. N. K. Bhute (Cotton Entomologist), Dr. B. D. Pawar and Dr. N. R. Markad interacted and guided the farmers on several issues of cotton crop production, pest management, high density cotton cultivation. At the outset, Dr. R.S. Wagh briefed about importance of best management practices for cotton cultivation. Prof. N.K. Medhe gave a detailed account on the cotton crop production technologies. Dr. N.K. Bhute explained the integrated management strategies to be followed in managing pests in cotton. Dr. B. D. Pawar and Dr. N. R. Markad had given the detailed information about selection of cotton varieties, best cotton cultivation practices on canopy management in in the cultivation of HDPS cotton. Vote of thanks was proposed by Dr. N. R. Markad.

Glimpse of the event



Visit of Hon'ble Union Minister of State for Agriculture and Farmers Welfare, New Delhi Ms. Shobha Karandlaje to Navsari Agricultural University, Surat

Ms. Shobha Karandlaje, Hon'ble Union Minister of State for Agriculture and Farmers Welfare, New Delhi visited historical and oldest Main Cotton Research Station, Surat on 17th August 2023, a part of renowned Navsari Agricultural University, Navsari. Dr. Z. P. Patel, Vice Chancellor of Navsari Agricultural University, Navsari accompanied the visit. A meeting of Scientists of Main Cotton Research Station, Surat was organized under the Chairmanship of Ms. Shobha Karandlaje, Hon'able Union Minister of State for Agriculture and Farmers Welfare, New Delhi. Dr. Z. P. Patel, Vice Chancellor, NAU, Navsari along with Dr. V. R. Naik, I/c Director of Research, NAU, Navsari graces the meeting. At the outset, Dr. Z. P. Patel briefed the Minister about the teaching, research and extension activities carried out by the NAU. Dr. M. C. Patel, Research Scientist (Cotton), Main Cotton Research Station, NAU, Surat presented the research achievements and recent activities of the center. Dr. Patel also briefed the Minister regarding policy, priorities, strategies and program for cotton improvement and sustainable cotton production. Hon'ble Minister emphasized for the need of extra-long staple (>32.5 mm fiber length) cotton in India as country imports ELS cotton. Hon. Minister appreciated the efforts of scientists.



Meeting of Hon'ble Union Minister of State for Agriculture and Farmers Welfare, New Delhi Ms. Shobha Karandlaje with NAU, Surat scientists



Visit to cotton museum at AICRP, NAU, Surat



Visit to experiments conducted under AICRP on cotton at NAU, Surat

Hon. Minister visited the cotton museum & research experiments fields of cotton and take a note of various research activities carried out at Main Cotton Research Station, NAU, Surat. The Minister also noted the contribution made by Dr. C. T. Patel for the development of First Commercial Cotton Hybrid of the world “Hybrid 4”. Ms. Shobha Karandlaje, Hon’able Union Minister of State for Agriculture and Farmers Welfare, New Delhi feels proud to visit the oldest Cotton Research Station, Surat established in 1896.

Recent Advances in Research

Can life be paused almost indefinitely – a nematode gives the answer.

A nematode encased in Siberian permafrost approximately 46,000 years ago has thawed out of the ice to demonstrate to scientists that life can be suspended indefinitely. This discovery, which was published in the journal PLOS Genetics, provides new insight into how nematodes can endure extreme conditions for such a long time. A scientist from the Institute of physiochemical and biological problems in Soil science RAS in Russia, Anastasia Shatilovich, thawed two female worms from a fossilised gopher burrow in the Arctic. The nematode was revived at the Max Planck Institute of Molecular Cell Biology and Genetics in Germany by placing them in water after being buried approximately 130 feet below the permafrost. The nematode was named *Panagrolaimus kolymaensis* after the Kolyma River in Russia. They had a very short lifespan, measured in days, and died after producing multiple generations in the laboratory. Using Radiocarbon dating, the researchers discovered the specimens were frozen between 45,839 and 47,769 years ago, during the late Pleistocene. They were able to withstand extremely low temperatures by entering a quiescent state known as cryptobiosis - the ability of an organism to enter a state of suspended metabolism in response to unfavourable environmental conditions. This state-change necessitates the execution of a combination of genetic and biochemical pathways that permit the organism to survive for extended periods. No nematode has been able to attain this level of dormancy for thousands of years at a time. Researchers have identified critical genes in the nematode that enable it to attain the cryptobiotic state. *Caenorhabditis elegans*, a contemporary nematode, also possesses the same genes and capable of entering cryptobiosis. Scientists discovered that nematodes cannot survive without a specific sugar called trehalose, and they believe that cryptobiosis may one day be engineered by humans. This study's findings can be utilised in times of global warming to learn a lot about adaptation to extreme environmental conditions and ecosystem preservation. These findings are also significant for the understanding of evolutionary processes, as generation times can be extended from days to millennia and the long-term survival of individuals of species can lead to the refoundation of otherwise extinct lineages.

Reference : Shatilovich A, Gade VR, Pippel M, Hoffmeyer TT, Tchesunov AV, Stevens L, et al. (2023) A novel nematode species from the Siberian permafrost shares adaptive mechanisms for cryptobiotic survival with *C. elegans* dauer larva. PLoS Genet 19(7): e1010798. <https://doi.org/10.1371/journal.pgen.1010798>

Contributed by: Dr. J. Gulsar Banu, Principal Scientist, ICAR-CICR, Regional Station, Coimbatore

Scientists' Corner:

- Dr YG Prasad, Director, ICAR-CICR, CAO, FAO, DDO and Dr GT Behere, Head, Division of Crop Protection, ICAR-CICR, Nagpur participated in the Zoom meeting to discuss DBT Model for Pilot Project on Cotton organised by Mr. Anmol Gupta, CITI on 01th August, 2023. All concerned officials were attending the meeting.
- Dr. S. K. Sain, Principal Scientist (Plant pathology) & Dr. Debashis Paul, Scientist (Seed Technology), ICAR-CICR, Regional Station, Sirsa organized a session of Agro Ecosystem Analysis (AESA) based Farmers Field School under CCI-CICR pilot project at village Chadiwal, Sirsa on August 01, 2023. A total of 40 farmers trained on cotton Agro Ecosystem.



- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology) attended a Kisan Mela as Chief Guest on "Promotion of Cotton cultivation in Haryana" at Chaharwala, Sirsa on August 02, 2023. Dr Kumar Discussed the general cotton scenario. He delivered a lecture on "Integrated Management of Insect-Pest in Cotton" and 350 farmers attended the programme.
- Dr A Manikandan, Senior Scientist (Soil Science) conducted a farm field school on 'Awareness and Extension Services on Best Farm Practices' for cotton farmers to improve quality, yield and sustainability on 03rd August 2023 at Kalmeshwar.
- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology), Dr. S. K. Sain, Principal Scientist (Plant pathology), Dr. Amarpreet Singh, (Scientist, SS, Agronomy), Dr. Debashis Paul, Scientist (Seed Technology) and Dr. Subhash Chandra, Scientist (SS), Plant Breeding, ICAR-CICR, Regional Station, Sirsa Attended Presentation by Dr. Y. G. Prasad, Director, ICAR-CICR, Nagpur on Environmental Risk Assessment Workshop on Non Target organism Testing at Ames, Iowa, USA on June 26-30, 2023 & by Dr. Usha Rani, Principal Scientist (Extension) on "39th Annual Conference of Association for International Agricultural and Extension Education (AIAEE) on Technology, Pluralism and Inclusiveness in Agriculture, Food and Environment at University of Guelph, Canada during April 26-29, 2023 on August 04, 2023 through virtual medium.
- Dr YG Prasad, Director, ICAR-CICR attended 'Janmanch Jansamwad' as a Chairman on 05th August, 2023. The programme was regarding Genetic Modification Technology at Shrimant Baburao Dhanwate Sabhagruh, Shankar Nagar, Nagpur.
- Dr YG Prasad, Director, ICAR-CICR and Dr Ramkrushna GI Senior Scientist (Agronomy) attended 343th Executive Council Meeting of Dr PDKV Akola on 07.08.2023 organized by Registrar, Dr PDKV, Akola.
- Dr YG Prasad, Director, ICAR-CICR along with Dr GT Behere, Dr Rishi Kumar, Dr BB Fand, Dr SP Gawande and Dr A Manikandan conducted a program on "Cotton Technologies and the package of practices for west" on 09th August, 2023.
- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology), ICAR-CICR, Regional Station, Sirsa attended a 'Dhanuka Agritech' Training program organized by ICAR-Nagpur on "Training on Cotton Technologies & Package of Practices in Western India" and delivered a lecture on "Pesticide usage in

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- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology), ICAR-CICR, Regional Station, Sirsa attended a 'Dhanuka Agritech' Training program organized by ICAR-Nagpur on “Training on Cotton Technologies & Package of Practices in Western India” and delivered a lecture on “Pesticide usage in Cotton” on August 09, 2023. About 90 participants were present in the training programme.
- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology), ICAR-CICR, Regional Station, Sirsa attended ITMC (Institute Technology Management Committee) meeting to discuss the various agenda on August 09, 2023 through virtual mode.
- Dr YG Prasad, Director, ICAR-CICR organized an online meeting to discuss about the Demonstration on Dada Lad Technology for manual canopy management on 11th August, 2023.
- Dr YG Prasad, Director ICAR-CICR organized an online meeting on 11th August, 2023 to discuss AICRP Organic cotton experiment. Dr Rishi Kumar, Dr K Sankarnarayanan, Dr Ramkrushna GI and Dr SK Sain also participated in the meeting.
- Dr YG Prasad, Director ICAR-CICR along with Dr KP Raghavendra, Senior Scientist and Nodal Officer HRD Cell participated in the first orientation workshop of the Academic Coordinators of the Hubs of IARI held on 11th August, 2023 through video Conferencing.
- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology) attended SAC meeting of KVK Sirsa on August 11, 2023. He delivered a talk on PBW management in cotton and suggested the KVK scientist to conduct more number of On-farm trails to revalidate the various recommendations in cotton.
- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology), ICAR-CICR, Regional Station, Sirsa attended SAC meeting of KVK. Fatehabad on August 16, 2023. He interacted with KVK Scientist and advised for PBW management for the cotton farmers of the district.

- Dr YG Prasad, Director, ICAR-CICR organised an interaction meeting with project KVKs of Maharashtra on 17.08.2023. Dr Arjun Tayade, Head, Crop Production & Special Project of Cotton team attended the meeting along with Director ICAR-CICR.
- Dr YG Prasad, Director, ICAR-CICR participated in the XXVII meeting of ICAR Regional Committee No. VII comprising the states of Maharashtra, Madhya Pradesh, Chhattisgarh and Goa held on 18th August, 2023 at ICAR-CIAE, Bhopal, under the chairmanship of Dr. Himanshu Pathak, Hon'ble Secretary, DARE and Director General, ICAR, New Delhi.
- Dr. Rishi Kumar, Head (I/c) & Principal Scientist (Entomology), Dr. Debashis Paul, Scientist (Seed Technology) & Dr. S. K. Sain, Principal Scientist (Plant pathology) conducted a Farmers' Training on Seed Production Techniques in Cotton under CCI-CICR pilot project at ICAR-CICR RS Sirsa on August 18, 2023. Around 70 farmers were trained on hybrid seed production in desi cotton.



- Dr YG Prasad, Director, ICAR-CICR conducted Zoom meeting to discuss Web Portal & DBT- Special Project on Cotton on 19th August 2023. All HoDs and Special Project on cotton team attended the meeting.
- Dr YG Prasad, Director, ICAR-CICR, Nagpur participated as an expert in the Stake holder Meeting cum Workshop on Quality Control Order (QCO) BIS 12171:2019 for Cotton bales on 20th August 2023 organised by Director CIRCOT, Mumbai through virtual mode. Dr YG Prasad, Director, ICAR-CICR, Nagpur attended workshop and identify various climate hazards and relevant adaptation options in different regions of the country during 21-22nd August 2023 at ICAR-CRIDA, Hyderabad organized by Director, ICAR-CRIDA, Hyderabad.
- Dr YG Prasad, Director, ICAR-CICR Nagpur inaugurated the HDPS Workshop organized by CITI-CDRA & KVK, Selsura, Tah Devali Dist. Wardha inaugurated the HDPS Workshop on 24.08.2023 at KVK, Wardha. Dr Prashant Mohota, MD, CITI-CDRA, Dr Ramkrushna, Dr Shailesh Gawande, Dr Rupesh Zadode, Dr Govind Vairale, and Dr Rachna Pande attended workshop.
- Dr. D. Blaise, Principal Scientist, Agronomy, attended the 81st IMC Meeting of CIRCOT (Virtual Mode) and participated in the brainstorming Session on 'Implementation of Green Credits' organized by NAAS, New Delhi on 24 Aug. 2023.
- Dr YG Prasad, Director, ICAR-CICR along with Special Project on Cotton team participated in the meeting to discuss Special Project on Cotton organized by ATARI, Bangalore on 25th August 2023 through virtual mode. All Heads of KVK and incharges attended the meeting.
- Dr YG Prasad, Director, ICAR - CICR along with All HoD's, CAO and FAO attended a virtual meeting of CORPUS fund on 25th August 2023 under the chairmanship of Hon'ble Secretary, DARE and DG, ICAR
- Dr YG Prasad, Director, ICAR-CICR, Nagpur attended HMoT interactive meeting with TAG on 31st, August, 2023 at Coimbatore organized by Textile Commissioner, Mumbai.

- Dr. S. K. Sain, Principal Scientist (Plant pathology) & Dr. Amarpreet Singh, Scientist (SS), (Agronomy) and Dr. Subhash Chandra, Scientist (SS), Plant Breeding ICAR-CICR, Regional Station, Sirsa conducted a Farmer training on IPM and Organic Cotton Production Techniques under CCI-CICR pilot project at Village Jamal, Sirsa on August 30, 2023. 100 farmers were trained.



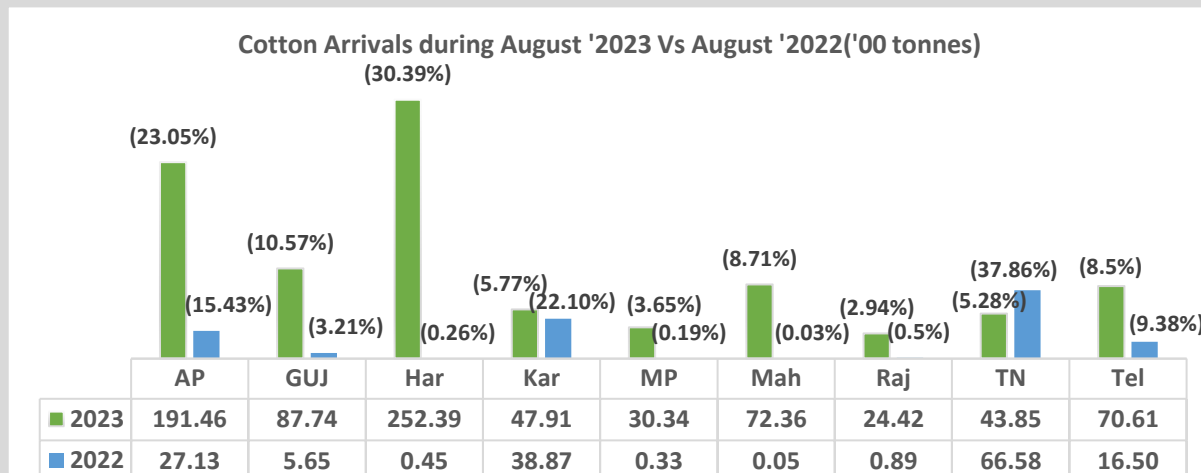
Publication

- Rishi kumar*, Amarpreet singh, R A Meena and Anil kumar.2023. Effect of attractants on activity and abundance of insect pollinators in cotton (*Gossypium hirsutum*). Indian Journal of Agricultural Sciences 93 (5): 539–543, May 2023/Article <https://doi.org/10.56093/ijas.v93i5.100190>

Cotton Trade Scenario during the month of August '2023

Dr. Isabella Agarwal, Principal Scientist , Agricultural Economics, CICR, RS, Coimbatore

The total cotton supply for October 2022 to August 2023 is estimated at 332.30 lakh bales, which consists of arrivals of 296.80 lakh bales, imports of 11.50 lakh bales and the opening stock estimated at 24 lakh bales at the beginning of the season.



According to the Cotton Corporation of India (CCI), MY 2022/23 crop arrivals as of August 31, 2023, are estimated at 25.2 million 480 lb. bales (32.3 million 170-kilogram bales/5 MMT), 94 percent of total estimated production for MY 2022/23. The pace of arrivals has slowed down since new 2023/24 MSP rates were announced by the government effective from October 1. Farmers across the country expect the minimum selling price to reflect the newly announced MSP rates or higher. Post discussions with the farmers and trade indicate that farmers in Maharashtra are holding around 15-20 percent of their crop. In Gujarat, farmers are holding around 5-10 percent of their production, which will likely arrive in the new marketing year. The cotton price hovered around Rs.6500 to Rs.7600 per quintal.

Kharif 2023 Cotton Sowing Position during Aug '2023 Vs '2022 (area in mill ha)

State	2023/24	2022/23	% Change
Andhra Pradesh	0.369	0.572	-35.49
Telangana	1.823	1.957	-6.85
Gujarat	2.678	2.538	5.52
Haryana	0.665	0.651	2.15
Karnataka	0.656	0.78	-15.90
Madhya Pradesh	0.65	0.625	4.00
Maharashtra	4.192	4.199	-0.17
Odisha	0.234	0.216	8.33
Punjab	0.169	0.249	-32.13
Rajasthan	0.79	0.653	20.98
Tamil Nadu	0.013	0.017	-23.53
Others	0.017	0.026	-34.62
All India	12.255	12.482	-1.82

Source: Ministry of Agriculture and Farmers Welfare, GOI

Sowing in Northern and Central India is complete, with a five per cent increase in area in North India, and a two per cent increase in Central India. Sowing in Southern India is nearly complete, almost 14 per cent lower than last year. However, an additional winter-planted (rabi) area will be reflected by the end of the marketing year. Cotton planted area reached 12.3 million hectares, two per cent lower than last year, and one per cent higher than the five-year average.

कापूस पिकात गुलाबी बॉड अळीचा शिरकाव

पूर्वहंगामीला अधिक फटका; १० हजार हेक्टरवर प्रादुर्भाव

चंद्रकांत जाधव : अंग्रोजन वृत्तसेवा

जळगाव : खानदेशात कापूस पिकात गुलाबी बॉड अळीचा शिरकाव झाला आहे. पूर्वहंगामी पिकात अधिकचे नुकसान होत असून, शेतकरी या समस्यांमुळे चिंतेत आहेत. सुमारे १० हजार हेक्टर क्षेत्रात ही समस्या दिसत असल्याची माहिती आहे.

कापसासाठी जळगाव किंवा खानदेशात आधाडीवर आहे. जळगाव देशात सर्वाधिक कापूस लागवड करणारा जिल्हा आहे. राज्यात सर्वाधिक साडेपाच ते पाच लाख ७० हजार हेक्टर एवढ्या क्षेत्रात कापसाची एकट्या जळगाव जिल्ह्यात लागवड केली जाते. घुळे, नंदुरबार व जळगाव जिल्ह्यात मिळून यंदा साडेआठ लाख हेक्टरवर कापसाची लागवड झाली आहे. जळगावात साडेपाच लाख हेक्टर, घुड्यात दोन लाख आणि नंदुरबारत सुमारे १८ हजार हेक्टरवर



कापूस पीक आहे. यात मे अखेरीस किंवा जूनच्या पहिल्या आठवड्यात पूर्वहंगामी कापसाची लागवड झाली असून, ही लागवड खानदेशात एकूण दीड लाख हेक्टरवर आहे. जळगाव जिल्ह्यात सुमारे १५ हजार हेक्टरवर पूर्वहंगामी कापूस पीक आहे. हे पीक दोन महिने पाच दिवस ते दोन महिन्यांचे झाले आहेत.

पान १ वरून

त्यात मागील आठवड्यातच अनेक भागातील पूर्वहंगामी कापूस पिकात गुलाबी बॉड अळी दिसून आली आहे. याची माहिती शेतकरी-यांनी स्थानिक कृषी यंत्रणा, कृषी संशोधन केंद्रांना किंवा शासनांना दिली आहे.

या समस्यांमुळे कृषी विभागाचे गुलाबी बॉड अळी नियंत्रणासंबंधीचे कार्यक्रम निरुपयोगी ठरल्याचेही अधोरेखित झाले आहे. याचवेळी कृषी विभागाचा १ जूननंतर कापूस विभागे विक्री व लागवडीच्या कार्यक्रमाचे अपयशदेखील पुन्हा एकदा समोर आले आहे. गुलाबी बॉड अळीची समस्या मागील पाच हंगाम कापूस पिकात मोठी हानी करीत आहे. शेतकरी, उद्योगातून गुलाबी बॉड अळी व इतर रोगांसाठी प्रतिवारक, उत्पादनसम वागनाची सातत्याने मागणी केली जात आहे. पण कुणी देखल घेत नसल्याने हानी सुकच आहे. या अळीमुळे कापसाचा रबीही खालावत असून, कोटवण्याची नुकसान शेतकरी, उद्योगांचे दरवर्षी होत आहे.

खानदेशात तापी, गिरणा, पंढर, अनेर, सुसरी, गोमाई, वापू नदीकाठी व लागवडीत पूर्वहंगामी कापूस पीक अधिक आहे. जळगाव जिल्ह्यात सर्वाधिक लागवड जांभेरात झाली आहे. यापठोगाट अमळनेर, पारोळा, जळगाव, चोपडा, यावल, घुड्यातील शिंदखेडा, शिरपूर, नंदुरबारत नंदुरबार, शहाद, तळोदा भागात कापूस पिकाची लागवड बऱ्यापैकी झाली आहे.

उत्तरेकडे अधिक प्रादुर्भाव

देशात महाराष्ट्र, तेलंगणात क्वाल क्षेत्रात कोरडवाहू कापूस असतो. परंतु जेथे पूर्वहंगामी किंवा बागायती कापूस अधिक आहे, तेथे गुलाबी बॉड अळी यंदाही अधिक प्रादुर्भाव झाला आहे. उत्तर भारतात पंजाब, हरियाणा, राजस्थान यासह गुजरात, मध्य प्रदेशातही पूर्वहंगामी कापूस पिकात गुलाबी बॉड अळीचा यंदाही प्रादुर्भाव अधिक आहे. यामुळे उत्तरेकडे सुमारे १३ लाख हेक्टरवर बागायती कापूस पीक असून, या क्षेत्रात गुलाबी बॉड अळीचा शिरकाव जूनमध्येच झाला होता. तेथे पीक आता सुमारे साडेतीन ते तीन महिने २० दिवसांचे झाले आहे.

गुलाबी बॉड अळीच्या समस्यांमुळे पुढे कैऱ्या उमलण्यासंबंधी अडचण येईल. बॉडे अर्बवट उमलतील. त्यामुळे कापूस काळ, लळसर होऊन त्याचा दर्जाही खराब होईल. परिणामी शेतकऱ्यांमोर कमी दर कमी उत्पादन व हानी या समस्या पुन्हा एकदा उभ्या ठकतील. मागील हंगामा कापसाला सरासरी दर साडेसहा हजार रुपये प्रतिक्विंटल एवढाच मिळाला आहे. पुढील दरांचे भविष्य कसे आहे, हे स्पष्ट नाहीत. त्यात गुलाबी बॉड अळी, सततचा पाऊस आदी नैसर्गिक समस्यांमुळे शेतकऱ्यांचे तोंडचे पाणी पळाले आहे.

पतंग दिसले आणि खर्च सुरू झाला...

खानदेशात अनेक शेतकरी गुलाबी बॉड अळीसंबंधी सातत्याने निरीक्षण करतात. त्यात शेतात जसे गुलाबी बॉड अळीला पुरक असलेले नरपतंग दिसले, तशी शेतात कामगंध सापळे लागणे, कीटकनाशकांची फवारणी सुरू केली, एकदा पाच कामगंध सापळे लवले जात आहेत. तसेच प्रतिबंधात्मक पत्तारण्या शेतकरी घेत आहेत. यासाठी एकरी ११०० ते १२०० रुपये खर्च सुरुवातीलाच आला आहे.

मागील काही हंगामात कापूस पिकात दुसऱ्या किंवा तिसऱ्या वेचणीनंतर गुलाबी बॉड अळीमुळे नुकसान झाल्याचे दिसले आहे. परंतु यंदा सुरुवातीच्याच काळात किंवा पहिल्याच वेचणीला जळगाव जिल्ह्यात गुलाबी बॉड अळीने पिकात हानी होईल, असे दिसत आहे. फरवड कापूस पीक किंवा अगदी एप्रिल, मेपर्यंत शेतात कापसाच्या पन्हाटी उभ्या दिसत होत्या. यामुळे गुलाबी बॉड अळीचे जीवनचक्र नष्ट झाले नाही. तिची जीवनासाखळी विकसित होत गेली आणि

नागपूर, गुरुवार, १० ऑगस्ट २०२३

सकाळ अंग्रोजन

'एचडीपीएस इन कॉटन' पुस्तिकेचे प्रकाशन

केंद्रीय कापूस संशोधन संस्थेचा पुढाकार

अंग्रोजन वृत्तसेवा

नागपूर : अतिसंघन कापूस लागवडीबाबत शेतकऱ्यांसह अभ्यासकांच्या मनात असलेल्या प्रश्नांना सर्पंक उत्तरे देणारी 'एचडीपीएस इन कॉटन' ही पुस्तिका केंद्रीय कापूस संशोधन संस्थेकडून प्रकाशित केली आहे. दिल्लीत केंद्रीय कृषी सचिव मनोज आहुजा, वस्त्रोद्योग सचिव रचना शहा यांच्या उपस्थितीत या पुस्तिकेचे एका विशेष सोहळ्यात प्रकाशन करण्यात आले.

जागतिक स्तरावर कापूस लागवडीखालील १३० लाख हेक्टर क्षेत्र असलेल्या भारताची उत्पादकता तुलनेत सर्वात कमी आहे. परिणामी, देशाची कापूस उत्पादकता वाढावी यासाठी केंद्र सरकारच्या निघातून यंदा अतिसंघन कापूस लागवड प्रकल्प राबविला जात आहे. केंद्रीय कापूस संशोधन संस्थेचे या प्रकल्पात तांत्रिक सहकार्य असून, अंमलबजावणी केव्हीकेच्या माध्यमातून होत आहे. मात्र या प्रकल्पाच्या अनुषंगाने अनेक प्रश्न शेतकरी

आणि अभ्यासकांच्या मनात आहेत. त्या प्रश्नांची उत्तरे देण्यासाठी कापसात अतिसंघन लागवड प्रश्न आणि उत्तरे (क्यू अँड ए) अशा आशयाची एक विशेष पुस्तिका 'सीआयसीआर'कडून प्रकाशित करण्यात आली आहे. भारतात कापसाखालील लागवड क्षेत्र, कापसाचा हेगणार विनियोग, त्यावर आधारित अर्थव्यवस्था, भारतीय शेतपध्दतीत रुजणाऱ्या कापसाच्या विविध प्रजाती, देशाच्या कोणत्या क्षेत्रात कापसाची लागवड होते, जागतिक स्तरावरील लागवड क्षेत्र आणि उत्पादकता, देशाची उत्पादकता आणि क्षेत्र, विविध भागातील लागवड अंतर आणि पध्दती, अशा विविध शंकांचा वेध पुस्तिकेच्या माध्यमातून करण्यात आला आहे.

दिल्लीत केंद्रीय कृषी सचिव मनोज आहुजा, वस्त्रोद्योग सचिव रचना शहा यांच्या उपस्थितीत या पुस्तिकेचे एका विशेष सोहळ्यात प्रकाशन करण्यात आले. या वेळी केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद उपस्थित होते.



नागपूर : दिल्ली येथे एका विशेष सोहळ्यात 'एचडीपीएस इन कॉटन' या पुस्तिकेचे दिल्लीत केंद्रीय कृषी सचिव मनोज आहुजा, वस्त्रोद्योग सचिव रचना शहा, संचालक डॉ. वाय. जी. प्रसाद यांच्या प्रकाशन करण्यात आले.

पंजाबमध्ये कापूस लागवड क्षेत्रात यंदा २७ टक्के घट

अशिफारशीत वाणामुळे राज्यात रोगाचा प्रादुर्भाव

विनोद इंगोले : अंग्रोजन वृत्तसेवा

नागपूर : अशिफारशीत किंवा असंमत संकरित कापूस वाणाच्या लागवडीमुळे पंजाबमध्ये गेल्या हंगामात मोठ्या प्रमाणावर लीफ कल्ल व्हायस या रोगाचा प्रादुर्भाव वाढल्याने पीक नुकसान होऊन शेतकऱ्यांना मोठ्या प्रमाणात आर्थिक फटका बसला. अन्य कारणांसह या समस्यांचा परिणाम होऊन यंदा कापसाखालील क्षेत्रात २७ टक्के घट झाल्याचा याचा नागपूर येथील केंद्रीय कापूस संशोधन संस्थेकडून करण्यात आला आहे.



राज्यासाठी करण्यात आली आहे. मात्र मागील हंगामात शिफारस नसलेल्या म्हणजे अनधिकृत कापूस वाणाची लागवड झाली. परिणामी या रोगाचा मोठा प्रादुर्भाव झाला. शेतकऱ्यांचे मोठ्या प्रमाणात नुकसान झाले. पंजाबमध्ये गेल्या हंगामात २.४ लाख हेक्टरवर कापसाची लागवड होती. मात्र अन्य कारणांसह या रोगाच्या प्रादुर्भावाचा परिणाम होऊन यंदा पंजाबमध्ये कापसाखालील क्षेत्र गेल्यावर्षाच्या तुलनेत २७ टक्के कमी होत ते १.७ लाख हेक्टरपर्यंत खाली आले आहे.

पंजाबमध्ये असंमत संकरित कापशी वाणाची लागवड झाल्याने लीफ कल्ल व्हायस रोगाचा प्रादुर्भाव वाढला. शेतकऱ्यांना त्यामुळे महिनाभरातच पीक काढावे लागले. या अनुभवामुळे यंदा या भागात कापूस लागवड क्षेत्रात २७ टक्के घट नोंदविली गेली आहे.

- डॉ. वाय. जी. प्रसाद, संचालक, केंद्रीय कापूस संशोधन संस्था, नागपूर.

Deficit rainfall may hit cotton yield; CICR issues advisory

'Timely interventions could help mitigate crop loss'

BHARAVI SHRIVASTAV NAGPUR

This year there has been a delay in monsoon almost all over India which led to late sowing of cotton crops. The delay is likely to adversely affect the total productivity of cotton across India which may cause huge losses for farmers. But the city based ICAR-Central Institute For Cotton Research (CICR) has come up with crop management practices which if followed by farmers can minimize losses and also give near normal productivity. The ICAR-CICR recently issued a cotton advisory to the Department of Agriculture stating contingency measures for farming under deficit rainfall conditions. The advisory, translated into all main languages of the country, is being distributed to resident



Weak root development of the cotton seed crop due to deficit rainfall after sowing.

cotton growing farmers to provide them with an insight about crop protection measures, diseases and its management. Additionally, the cotton farmers who are registered with ICAR-CICR are being informed about crop management practices through WhatsApp voice notes. The ICAR-CICR, in addition to the advisory, is also conducting demonstrations of various techniques in agriculture like mulching, canopy manage-

- ICAR-CICR is conducting demonstrations of various techniques in agriculture like mulching, canopy management and high density plant technology for the farmers.
- Deficit rainfall conditions during flowering and boll development stages will have more impact in light soil areas in Maharashtra where cotton is cultivated predominantly under Rainfed conditions. In majority areas where there is no scope for providing irrigation. "We are trying to reach the door of almost every farmer through our own channels as well as through the extension departments of the eleven different cotton growing states," he added.

Dr Prasad said that despite a delay of almost a month in sowing in all cotton growing districts in the country, the area under cotton is near normal.

common type of diseases observed in the crops due to deficit rainfall." Dr Prasad added that these form a part of the advisory.

Deficit rainfall conditions during flowering and boll development stages will have more impact in light soil areas in Maharashtra where cotton is cultivated predominantly under Rainfed conditions. In majority areas where there is no scope for providing irrigation. "We are trying to reach the door of almost every farmer through our own channels as well as through the extension departments of the eleven different cotton growing states," he added.

Sakad Agroone, 11 August, 2023

Lokmat Times, 11 August, 2023

... तर 'एचटीबीटी'च्या चाचण्या घेणार 'सीआयसीआर'चे संकेत; मजूर समस्या आणि खर्चाला पर्याय



विनोद इंगोले / अंग्रोवन वृत्तसेवा

नागपूर : केंद्रीय कापूस संशोधन संस्थेचा (सीआयसीआर) एचटी (हर्बिसाइड टॉलरंट) बीटी तंत्रज्ञानाला असलेला विरोध मावळल्याचे संकेत आहेत. कापूस पिकात मजुरांवर अधिक खर्च होत असल्याचा हवालाला देत संस्था प्रशासनाने या तंत्रज्ञानाला परवानगी मिळाल्यास संस्था प्रक्षेत्रावर चाचण्याही घेणार असल्याचे सांगितले.

“ भारत सरकार जैवसुरक्षा लक्षात घेऊन याला परवानगी देत असेल, तर शेतकरीस्तरावर तंत्रज्ञान स्वीकारण्याबाबत निर्णय होणे अपेक्षित आहे. सर्व परवानगी मिळाल्यानंतर इतरांचा विरोध अनाठायी वाटतो. जागतिकस्तरावर मका, कापूस, ऊस, सोयाबीनसह विविध पिकांत जीएम तंत्रज्ञानाचा अंतर्भाव आहे. भारतात मजूर उपलब्धतेची समस्या आणि त्यावर होणारा खर्च लक्षात घेता, याला परवानगी मिळाली पाहिजे.

- डॉ. वाय.जी. प्रसाद, संचालक, केंद्रीय कापूस संशोधन संस्था, नागपूर

केंद्रीय कापूस संशोधन संस्थेच्या सूत्रांनी दिलेल्या माहितीनुसार, कापूस पिकात हेक्टरी सरासरी १ लाख रुपयांचा खर्च अपेक्षित धरल्यास त्यातील सुमारे ४५ टक्के खर्च हा मजुरांच्या माध्यमातून होणार तणनियंत्रण, वेचणी अशा कामांवर होतो. त्यातच प्रामाण्य भागात मजुरांच्या उपलब्धतेची समस्यादेखील गेल्या काही

काळापासून गंभीर झाल्याची स्थिती आहे. परिणामी, तणाला प्रतिकारक तंत्रज्ञान उपलब्ध झाल्यास तणनियंत्रणाच्या समस्यांपासून काही अंशी शेतकऱ्यांना दिलासा मिळण्यास मदत होणार आहे. जागतिकस्तरावर २० देशांकडून 'जीएम' पिकांच्या लागवडीला प्रोत्साहन दिले जात आहे.

पान ४ वर >

आठ राज्यांत अतिघन पद्धतीने कापूस लागवड

कापसाची उत्पादकता वाढविण्यासाठी केंद्राचा पुढाकार

विनोद इंगोले : अंग्रोवन वृत्तसेवा

नागपूर : जागतिकस्तरावर लागवड क्षेत्र सर्वाधिक असताना उत्पादकतेत मात्र भारताची पिछाडी आहे. त्या पाठवर्षपूर्वीवर देशातील आठ कापूस उत्पादक राज्यांत अतिघन कापूस लागवड प्रकल्प (एचडीपीएस) राबविला जात आहे. दहा हजारांवर शेतकरी यात सहभागी असून ७७५० हेक्टरवर प्रकल्पातून कापसाची लागवड करण्यात आल्याची माहिती केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद यांनी दिली.

जाग्या एवढ्या कापूस लागवड क्षेत्रात सर्वाधिक १३० लाख हेक्टर क्षेत्र एकत्रा भारत आहे. परंतु भारताची कापूस उत्पादकता प्रती हेक्टर ३५० किलो रई इतकी अल्प आहे. ही बाब गणितीय भेद नेंद सरकारने 'प्रोजेक्ट ऑन कॉन्ट'ची घोषणा केली. या माध्यमातून महाराष्ट्रसह राजस्थान, गुजरात, कर्नाटक, आंध्र प्रदेश, तेलंगण, तमिळनाडू, मध्य प्रदेश या राज्यांपेथे कापूस उत्पादकता वाढविण्यावर भर देता जाणार आहे. त्यासाठी या एव्यात प्रायोगिकत्वावर अतिघन पद्धतीने कापूस लागवड करण्यात आली आहे.

“ सिडो सिडोआए व इतर काही संस्था यात भागीदार आहेत. सीसीआय, टेक्स्टाईल असोसिएशनकडून उत्पादित रजेंडर कापसाचा खरेदीची तत्वर केली आहे. अतिघन पद्धतीने लागवड करताना केंद्राची मॅनेजमेंटला सर्वाधिक मंलून राहते. तंत्रज्ञानविषयक पाठोपाठि रसएएए व इतर प्लॅटफॉर्मवर शेतकऱ्यांपर्यंत पोहोचविण्यात येणार आहे.

- डॉ. वाय. जी. प्रसाद, संचालक, केंद्रीय कापूस संशोधन संस्था, नागपूर.



अमरावती : नांदरूप येथील प्रदीप काळे या शेतकऱ्याच्या शेतातील अतिघन पद्धतीने लागवड केलेल्या पिकाची पाहणी केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद यांनी केली. तसेच शेतकऱ्याशी संवादाही साधला.

आठ राज्यांत अतिघन पद्धतीने कापूस लागवड

> पान १ वरून

या माध्यमातून रईची प्रती किलो प्रती हेक्टर उत्पादकता ५०० ते ६०० किलोग्रॅम नेण्याचे प्रस्तावित आहे. म्हणजे कपसाची एकरी उत्पादकता चार ते सहा किंन्टलवरून ८ ते ९ किन्टल प्रती एकएपर्यंत कापूस उत्पादकता नेण्याचा प्रकल्पाचा उदेश असल्याचे केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद यांनी सांगितले. प्रकल्पातून शेतकऱ्यांना बियाणे, निविद्या व तंत्रज्ञानविषयक बाबी दिल्या जातील. तंत्रज्ञान विस्ताराचे कार्य त्या-त्या

भागातील केव्हीकेमार्फत केल्या जातील. जमिनीचा पोत व इतर पोषक घटक विचारात घेत घन ते अतिघन लागवड केली जाईल. अतिघन पद्धतीत ३ बाय अर्धा फूट असे लागवड अंतर असून ७४ हजार प्रती हेक्टर अशी झाडांची संख्या यात राहते. पारंपरिक पद्धतीत झाडांची संख्या जेमतेम १८ हजार इतकी आहे. आठ राज्यांत दहा हजार शेतकऱ्यांच्या माध्यमातून ७७५० हेक्टरवर, तर महाराष्ट्रात चार हजार हेक्टरवर याची अंमलबजावणी होत असून अकोला जिल्ह्यात ७०० हेक्टर इतके सर्वाधिक क्षेत्र आहे.

Sakal Agroone,
17 August, 2023

> पान १ वरून

त्या माध्यमातून १९० लाख हेक्टर क्षेत्रात विविध प्रकारच्या 'जीएम' पिकांची लागवड होते. तणाला प्रतिकारक तंत्रज्ञानाचा अंतर्भाव असलेल्या पिकाखालील क्षेत्र ८१.५ लाख हेक्टर म्हणजे जैवतंत्रज्ञानाचा समावेश असलेल्या एकूण लागवड क्षेत्रापैकी ४५ टक्के इतके आहे. तणाला प्रतिकारक आणि कीड-रोग प्रतिरोधक तंत्रज्ञानाखालील क्षेत्र ८५.१ हेक्टर असून, त्याची टक्केवारी ४३ इतकी आहे. भारत व अपवाद वाळता एखाद्या देशात केवळ कीड-रोग प्रतिरोधक

तंत्रज्ञानाचा वापर होत असून, हे क्षेत्र २२.८४ लाख हेक्टर इतके आहे. त्यामुळे भारतातही एचटी तंत्रज्ञानाला प्रोत्साहन मिळावे अशी अपेक्षा सीआयसीआरचे संचालक डॉ. वाय. जी. प्रसाद यांनी व्यक्त केली. अनुवांशिक अभियांत्रिकी मूल्यांकन समितीच्या (जीईएसी) अखत्यारीत सच्या संशोधनात्मक पातळीवरील चाचण्यांचा विषय विचाराधीन आहे. त्यांची परवानगी मिळाल्यानंतर सीआयसीआर एचटीबीटीच्या ट्रायल घेण्यास तयार आहे. मजुरांची समस्या असल्यामुळे हे करणे भाग असल्याचा दावा त्यांनी केला.

मंगळवार, १५ ऑगस्ट २०२३
सकाळ अंग्रोवन



अमरावती : नांदरूप येथील प्रदीप काळे या शेतकऱ्याच्या शेतातील अतिघन पद्धतीने लागवड केलेल्या पिकाची पाहणी केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद यांनी केली. तसेच शेतकऱ्याशी संवादाही साधला.

आठ राज्यांत अतिघन पद्धतीने कापूस लागवड

> पान १ वरून

या माध्यमातून रईची प्रती किलो प्रती हेक्टर उत्पादकता ५०० ते ६०० किलोग्रॅम नेण्याचे प्रस्तावित आहे. म्हणजे कापसाची एकरी उत्पादकता चार ते सहा किंन्टलवरून ८ ते ९ किन्टल प्रती एकएपर्यंत कापूस उत्पादकता नेण्याचा प्रकल्पाचा उदेश असल्याचे केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद यांनी सांगितले. प्रकल्पातून शेतकऱ्यांना बियाणे, निविद्या व तंत्रज्ञानविषयक बाबी दिल्या जातील. तंत्रज्ञान विस्ताराचे कार्य त्या-त्या

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सिरसा भास्कर 19-08-2023

कीट और रोग नियंत्रण पर प्रशिक्षण शिविर में पहुंचे 100 से ज्यादा किसान



सिरसा | केंद्रीय कपास (कीट विज्ञान) ने किसानों को अनुसंधान केंद्र में शुक्रवार को नरमा व कपास में बीज उत्पादन, कीट और रोग नियंत्रण पर एक विशेष प्रशिक्षण शिविर लगाया गया। पायलट प्रोजेक्ट के तहत कार्यक्रम में 100 प्रतिभागी उपस्थित हुए। जिसमें केंद्र प्रभारी डॉ. ऋषि कुमार प्रधान वैज्ञानिक (कीट विज्ञान) ने किसानों को नरमे और कपास के कीटों पर नियंत्रण बारे जानकारी दी। डॉ. एसके सैन ने कपास में रोगों की रोकथाम के लिए किसानों को जागरूक किया, वहीं डॉ. अमरप्रित सिंह ने खरपतवारों एवं पोषक तत्वों की कमी के लक्षणों की पहचान और प्रबंधन हेतु चर्चा की।

CICR organises 'farmer field school' on cotton cultivation



CICR experts guiding the farmers during the farmer field school programme at Telkamthee village in Kalmeshwar.

As a part of its pilot project, ICAR-Central Institute for Cotton Research (CICR) conducted a farm field school on 'Awareness and Extension Services on Best Farm Practices' for cotton farmers to improve quality, yield and sustainability at Telkamthee village of Kalmeshwar taluka recently. The initiative aimed to make cotton farmers aware of the best farming practices including minimising pest infestation so that they adopt new ways to achieve bumper yield. About 50 cotton farmers attended the programme held at Vitthal temple. The project was funded by

the Cotton Corporation of India, Mumbai, under the leadership of Dr YG Prasad, director, CICR, Nagpur. Dr A Manikandan, senior scientist (soil science) explained the farmers about the balanced role of nutrition in cotton crop while demonstrated how to manage cotton canopy. Dr R Jaya Kumaravaradan, scientist (agricultural economics) conducted the programme while Nagesh Naoghare, Shubam Gautre and Ritik Manapure and young professionals coordinated the overall arrangements of the programme.

Lokmat Times, 21.08.2023

LOKMAT TIMES • Anchor

Cotton ginners concerned over inclusion in BIS

No other agri commodity has BIS obligation

BHAIRAVI SHRIVASTAV
NAGPUR

Cotton ginners under the banner of Vidarbha Cotton Association (VCA) have expressed concern over a union government resolution that imposes stringent Bureau of Indian Standards (BIS) regulations on them.

Contravention of the BIS regulations has strict provisions leading to imprisonment up to two years or/and fine not less than two lakh rupees which may extend up to ten times the value of goods.

Ginners contend that though they "are a vital segment of the cotton supply chain" they are only involved in processing cotton produced by farmers and are not directly manufacturing it. They have pointed out that farmers pluck cotton several times in a season and stock it together



bringing mixed cotton to the market making it a non-homogenous product. "This contributes to 25 to 40 percent variation in quality parameters", they have noted.

The Cotton Association has written to the union government and also met the local MP and union minister for surface transport, Nitin Gadkari stating that no other agri-commodity has QCO/BIS obligation and bringing cotton under the stringent regime would not only kill their business but also directly impact the agricultural sector. "Earlier it was implemented on soyabean but was removed due to impractical obligations," they have pointed out.

Listing regulations that will be impossible to comply with, the Association has said

Bullet Points

- India has thousands of varieties of cotton hybrids
- One farmer cultivates about 3-4 varieties of cotton
- Manual handling of cotton is extensive
- Maharashtra produces 80 lakh bales of cotton per annum
- Central India will face brunt post-implementation of BIS
- 8 out of 11 districts in Vidarbha are primarily cotton growing
- 400 plus ginning factories in Vidarbha

that cotton procured during monsoon has a high amount of natural moisture which could be in the range of 12 to 18 percent which is more than what is being permitted under the BIS regulations. Poor cotton picking practices, hot climatic conditions etc also result in high trash content in cotton which again contravenes the BIS, the cotton body has said.

Contd on Page 3

Cotton ginners concerned over inclusion in BIS

Contd from Page 1

The Association has said that the ginners trade is "predominantly business to business (B2B) with buyers having their own testing facilities and knowledge of individual trade contracts". The proposed BIS implementation "threatens to render this established system obsolete resulting in wasted time, re-

sources and effort without substantial benefit to the industry," the Association has observed, demanding that they be kept out of the ambit of the government resolution.

After meeting Gadkari on the issue, they said the minister was "positive" and had assured them of trying to arrange a meeting with the union minister for textiles, Piyush Goyal, in this regard.

Lokmat Times
21 August, 2023

कापूस व्यवस्थापनाचे शेतकऱ्यांनी गिरविले धडे 'सीआयसीआर'ची तेलकामठीत शेतीशाळा

अॅग्रीव्हन वृत्तसेवा

नागपूर : भारतीय कृषी संशोधन परिषदेअंतर्गत असलेले या केंद्रीय कापूस संशोधन संस्थेच्या वतीने शास्त्रोक्त कापूस लागवड आणि व्यवस्थापन या विषयावर शेतीशाळेचे आयोजन करण्यात आले. उत्पादकता वाढीसंदर्भात या प्रकल्पातून मार्गदर्शन करण्यात आले.

कापूस लागवड करणाऱ्या शेतकऱ्यांसाठी सर्वोत्तम शेती पद्धतीबद्दल जागरूकता आणि विस्तार सेवा या विषयावर एक पथदर्शी प्रकल्प सुरू करण्यात आला आहे. भारतीय कापूस महामंडळ मुंबईच्या वतीने हा प्रकल्प अर्थसाहाय्यीत आहे. भारतातील पंजाब, हरियाणा, राजस्थान, गुजरात, मध्य प्रदेश, महाराष्ट्र, तेलंगण, आंध्र प्रदेश, कर्नाटक आणि तमिळनाडू या प्रमुख ११ कापूस उत्पादक राज्यात याची अंमलबजावणी केली जात आहे. केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय.जी. प्रसाद,



नागपूर : तेलकामठी येथे आयोजित शेतीशाळेत शेतकऱ्यांना मार्गदर्शन करताना सीआयसीआरचे तज्ज्ञ.

मुख्य शास्त्रज्ञ (कृषी विस्तार) यांच्या नेतृत्वाखाली राज्यातील कृषी विद्यापीठांचा समावेश करून तो राबविण्यात येत आहे. या प्रकल्पाचे समन्वयन सीआयसीआरच्या कोईम्बतूर येथील प्रादेशिक केंद्रावरून होत आहे.

प्रकल्पाचा एक भाग म्हणून नागपूरच्या कळमेश्वर तालुक्यातील तेलकामठी गावात शेती शाळेचे आयोजन करण्यात आले. ५० कापूस उत्पादक शेतकऱ्यांचा यामध्ये सहभाग

होता. ज्येष्ठ शास्त्रज्ञ डॉ. ए. मणिकंदन यांनी कापसाच्या संतुलित पोषणाची माहिती दिली. डॉ. रामकृष्ण जी. आय. यांनी गळ फांदा काढून कपाशाची वाढ संतुलीत करण्यास सांगितले. यावेळी वरिष्ठ शास्त्रज्ञ डॉ. शैलेश गावंडे, बाबासाहेब फंड यांनी किडरोग निवारण विषयक माहिती दिली. यावेळी डॉ. आर. जया कुमारवरदन, नागेश नवचरे, शुभम गौतरे, रितीक मानापुर्णे यांची उपस्थिती होती.

Sakad Agroone, 22 August, 2023

Vidginners up in arms over BIS for cotton, plan mega agitation

Sarfaraz Ahmed
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Nagpur: The Vidarbha Cotton Association (VCA) — comprising over 400 ginners, cotton growers, traders, brokers — is upset with the proposed implementation of quality measures for cotton bales by the Bureau of Indian Standards (BIS).

The association said that Vidarbha region would be severely impacted from the decision as 8 of the 11 districts are primarily growing the cash crop and there are many variations in the quality of cotton.

The VCA said that there are variations in the variety of seed available to farmers, climatic conditions differ, and pest infestation. They fear that poor picking practices, poor handling, storage and multiple pickings round the year would lead to poor ratings.

On Tuesday, the VCA is holding a mega meet of its members to protest the decision at Kalmeshwar and Hinganghat.

The cotton bales quality control order (QCO-BIS) as per the Gazette notification dated March 1, 2023, places cotton bales under the purviews of BIS Act 2016. Sub-

MANY ISSUES AND CONCERNS

- ▶ The new rule, though put on hold, shall discourage procurement of cotton in the upcoming season
- ▶ BIS adds an additional layer of burden on the industry
- ▶ Industry lacks lab infrastructure for getting two samples tested
- ▶ Ginning practices can be standardized but can't guarantee uniform results
- ▶ It will put indirect burden on farmers

Due to this natural variation, the final cotton product lacks uniformity, making it difficult to comply with strict BIS parameters. Variations of seed quality and climatic conditions cause the characteristics of cotton to change annually, further complicating compliance with the standardized norms

VIDARBHA COTTON ASSOCIATION

sequently, the BIS has sought comments on the amendments. The quality requirements would include staple length, trash content, moisture content, strength of fibre, micronaire value for ginned cotton in pressed bales.

Quality requirements for pressed bales include di-

mensions, bale mass, packing, labels, and certification marking. For every 100 bales, two bales would be randomly drawn for testing.

Among the major amendments, a new section on BIS certification marking to indicate adherence to BIS standards was made.

The ginning industry

members feel cotton being a natural fibre, it is cultivated in various regions and at different times throughout the year, leading to non-homogeneous produce. "Due to this natural variation, the final cotton product lacks uniformity, making it difficult to comply with strict BIS parameters consistently. Variations of seed quality and climatic conditions cause the characteristics of cotton to change annually, further complicating compliance with the standardized parameters," the VCA said.

The VCA also pointed out that no other agri-produce has QCO/BIS obligations. "Earlier, it was implemented on soyabean but was removed shortly due to impractical obligations and that indirectly affected farmers," it said.

The VCA questioned the testing process. "How can 50-100gram randomly chosen bales from a lot of 17,000kg material guarantee parameters of non-homogeneous agricultural products," it said.

The VCA has submitted a letter to Union minister Nitin Gadkari seeking his support in the case. It pointed out that the move will also impact the livelihoods of farmers and stakeholders.

कापसाचे उत्पादन वाढविण्यासाठी प्रयत्न

डॉ. एम. रामास्वामी यांची माहिती

◆ नागपूर, २३ ऑगस्ट

कापसाचे उत्पादन व शेतकऱ्याची उत्पादकता वाढविण्यासाठी सरकारच्या सहकार्याने प्रयत्न केले जात असल्याची माहिती रासी सीड्सचे व्यवस्थापकीय संचालक डॉ. एम. रामास्वामी यांनी दिली.

डॉ. रामास्वामी म्हणाले की, महाराष्ट्रात कापूस उद्योगाची भरभराट होण्यासाठी 'हाय डेनसिटी प्लानिंग सिस्टिम' (एचडीपीएस) हा उत्तम पर्याय आहे. रासी बियाणे एकरा कापूस उत्पादकता वाढवून शेतकऱ्यांना आर्थिकदृष्ट्या सक्षम करण्यासाठी वचनबद्ध आहे. कपाशीची लागवड कमी अंतरावर करून हेक्टर/एकरा झाडांची संख्या म्हणजेच घनता वाढविणे, यालाच सघन लागवड पद्धत म्हटले जाते.

आंतरराष्ट्रीय कापूस तज्ज्ञ, कृषी व पर्यावरण संशोधन कॅन्ट्रिन इन्कॉर्पोरेट, रूयसएचे उपाध्यक्ष डॉ. केटर हेक



शेतकऱ्यांशी संवाद साधताना डॉ. एम. रामास्वामी व डॉ. केटर हेक

म्हणाले की, डॉ. रामास्वामी यांच्यासह महाराष्ट्रातील विविध भागात प्रत्यक्ष शेतकऱ्यांच्या बांधावर जाऊन आलो. कोरडवाहू शेतकऱ्यासाठी कापूस हे महत्वाचे नागदी पीक आहे. कापसाची उत्पादकता वाढावी यासाठी अनुरूप लागवड पद्धत अवलंब करणे आवश्यक असून सघन कापूस लागवड पद्धत वरदान आहे.

आज रासी सीड्सतर्फे शेतकरी प्रतिनिधींसोबतही संवाद झाला. कंपनीचे उपाध्यक्ष डॉ. केटर हेक,

केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद, ज्येष्ठ कृषितज्ज्ञ डॉ. सी.डी. मायी उपस्थित होते. देशातील कापसाचे एकूणच सरासरी उत्पादन कमी झाले आहे. कापूस उत्पादन क्षेत्रातील हवामान व भौगोलिक परिस्थितीचा अभ्यास करावा लागेल. शेतकऱ्यांच्या बांधावर जाऊन अडचणी जाणून त्या सोडवाय्या लागतील. अद्यावत तंत्रज्ञान त्याला उपलब्ध करून द्यावे लागेल, असे डॉ. मायी म्हणाले.

Tarun Bharat, 24 August, 2023

Times of India, 22 August, 2023

अतिसघन लागवड प्रकल्प कोरडवाहू शेतकऱ्यांसाठी लाभदायी

डॉ. वाय. जी. प्रसाद : सेलसूरा केव्हीकेत कार्यशाळा

अंमोवन वृत्तसेवा

वर्धा : जागतिक स्तरावर कापूस लागवड क्षेत्र अधिक असले तरी भारताची प्रतिहेक्टर उत्पादकता कमी आहे. त्यात वाढ होण्याच्या उद्देशाने अतिसघन पद्धतीने कापूस लागवडीला प्रोत्साहन दिले जात असून हा प्रकल्प कोरडवाहू शेतकऱ्यांसाठी वरदान ठरेल, असा विश्वास केंद्रीय कापूस संशोधन संस्थेचे संचालक डॉ. वाय. जी. प्रसाद यांनी व्यक्त केला.

सेलसूरा (वर्धा) केव्हीकेमध्ये आयोजित अतिसघन कापूस लागवड विषयक कार्यशाळेत ते बोलत होते. डॉ. प्रसाद म्हणाले, की देशाच्या आठ कापूस उत्पादक राज्यांमध्ये या प्रकल्पाची अंमलबजावणी होत आहे. महाराष्ट्रात कॉन्फेडरेशन ऑफ इंडियन टेक्सटाईल इंडस्ट्रीज (सिटी सीडीआरए) यांच्या माध्यमातून वर्धा व नागपूर जिल्ह्यांत १००१ एकर क्षेत्रात प्रकल्प

राबविण्यात येत आहे. वर्धा जिल्ह्यात २७२ शेतकऱ्यांद्वारे ४८६ एकरमध्ये सघन कापूस लागवड करण्यात आली आहे. त्याकरिता शेतकऱ्यांनी प्रतिएकरा सहा पाकीट बियाण्यांची गरज राहते. तसेच वनस्पती वाढ नियामक (पीजीआर) व एकात्मिक कीड व्यवस्थापन यावर होणाऱ्या खर्चाची रक्कम शेतकऱ्यांच्या खात्यात डीबीटीद्वारे हस्तांतरित केली जाणार आहे.

सिटी सीडीआरएचे प्रकल्प समन्वयक गोविंद वैराळे यांनी प्रास्ताविक केले. वर्धा जिल्हा अधीक्षक कृषी अधिकारी प्रभाकर शिवणकर, केव्हीकेचे डॉ. जीवन कतोर, डॉ. रामकृष्ण, डॉ. रचना पांडे, डॉ. राजकुमार रामटेके, शैलेश गावंडे यांनी मार्गदर्शन केले. अंकुर सीडचे जनरल मॅनेजर अमोल शिरसाट, समीर वड्याळकर, गौरव मानकर, आशिष बिसेन उपस्थित होते. प्रगतिशील शेतकरी संजय मडवे, विकास बोंद्रे, उल्हास जैन यांचा गौरव करण्यात आला.



वर्धा : सेलसूरा केव्हीकेमधील अतिसघन कापूस लागवड कार्यशाळेत प्रगतिशील शेतकऱ्यांचा गौरव करताना 'सीआयसीआर' संचालक डॉ. वाय. जी. प्रसाद (मध्यभागी), प्रभाकर शिवणकर (डावीकडे), गोविंद वैराळे (उजवीकडे) व इतर.

Sakad Agroone, 29 August, 2023



Cotton supply situation comfortable so far: SIMA

The Hindu Bureau
COIMBATORE

Cotton arrivals so far during the current season that began in October 2022 has crossed 318 lakh bales, according to the Cotton Corporation of India's data, the Southern India Mills' Association (SIMA) said.

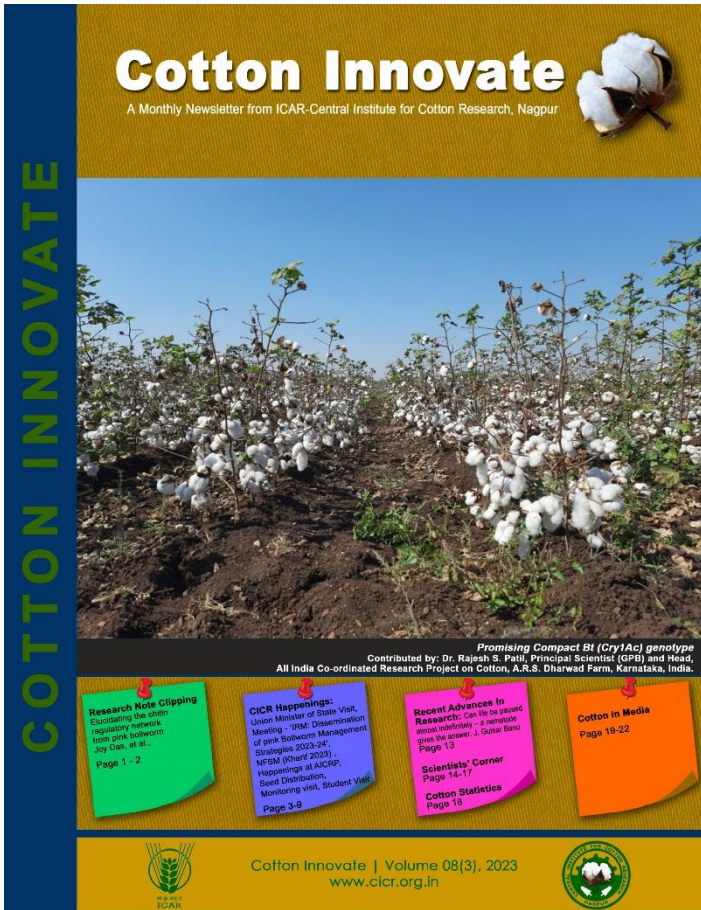
There were reports that the cotton crop size this season would be 311.18 lakh bales, SIMA Chairman Ravi Sam said in a release, adding this probably referred to ginning production.

The Committee on Cotton Production and Consumption had estimated total output at 343 lakh bales and opening stock at 39.48 lakh bales. This data should be the benchmark for trade and industry, Mr. Sam observed.

Cotton prices increased by ₹3,000 a candy in the last few days and were quoted at more than ₹60,000 a candy on Saturday amid fears of lower production.

The predominantly cotton-based textile industry is facing challenges owing to high volatility in cotton prices and 11% import duty on cotton. Cotton textile exports, including ready-made garments, slid 23% in 2022-2023 and 18% in April-June. Cotton availability was not a challenge but stability and competitive prices were crucial for industry, SIMA said.

The Hindu
20 August, 2023



Produced and published by

Dr. Y. G. Prasad, Director, ICAR-CICR, Nagpur

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Dr. Debashis Paul

Publication Note: Cotton Innovate is an Open Access monthly newsletter of ICAR-CICR, Nagpur available online at <https://cicr.org.in/cicr-cotton-innovate/>

Published by

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Citation: Cotton Innovate 2023, ICAR-Central Institute for Cotton Research, Nagpur, India, Volume: 08 (03), pp-22, available at <https://cicr.org.in/cicr-cotton-innovate/>

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