



*Global Excellence in Cotton Technology    Monthly Bulletin, Volume 07, July 2026*

## **Research Finding**

### **Assessment of Processing Losses in Indian Ginning Industries**

A study conducted during 2023–2025 evaluated processing losses in 11 ginning industries across the Central, Northern, Southern cotton-growing zones of India. The assessment covered industries with varying seed cotton quality, conveying systems, ginning machinery configurations, and operational practices. Processing losses were quantified by monitoring seed cotton input, waste generated at different processing stages, lint yield, and cottonseed output.

The study revealed considerable variation in processing losses and lint quality among the industries. Processing losses ranged from 0.88–1.95% in units employing pneumatic conveying systems and 0.56–1.38% in those using belt conveying systems. The trash content in lint varied between 1.16% and 3.10%, depending on the pre-cleaning practices adopted and the quality of seed cotton processed.

Recommendations:

- Adopt best management practices to minimize processing losses and improve lint quality.
- Install pre-cleaners, avoid mixing different cotton varieties, ensure regular maintenance of ginning machinery, install humidification systems, adopt CIRCOT technologies (Deep Grooved Rollers and Kawdi Opener), and conduct structured training programmes for ginning operators.

## **98<sup>th</sup> ICAR- Foundation Day**

The 98th Foundation Day of the Indian Council of Agricultural Research (ICAR) was celebrated at the institute on July 16, 2026. The programme was attended by the institute staff and staff of the regional stations through online mode. During the forenoon session, the staff participated virtually in the celebrations organized by ICAR at New Delhi. On the occasion, the Stripper-type Cotton Harvester technology, jointly developed by ICAR-CIAE, Bhopal; ICAR-CIRCOT, Mumbai; and ICAR-CICR, Nagpur, was formally released by Shri Shivraj Singh Chouhan, Hon'ble Union Minister of Agriculture & Farmers' Welfare and Minister of Rural Development.

In the afternoon, an expert lecture on “Maintaining Harmony between Work and Life” was organized at the institute in hybrid mode. Dr. Shital Trivedi, MD (BAMS), delivered the lecture and highlighted the importance of maintaining a healthy work–life balance for personal well-being and professional effectiveness.

As part of the nationwide “Ek Ped Maa Ke Naam” campaign, a tree plantation drive was also organized at the premises of the Ginning Training Centre, ICAR-CIRCOT, Nagpur, reaffirming the institute's commitment to environmental sustainability.



## IRC Meeting

The 126<sup>th</sup> Annual Institute Research Council (IRC) Meeting of ICAR-CIRCOT was held during 20–22 July 2026. The meeting reviewed the progress of ongoing research projects, evaluated research outcomes, and deliberated on future research priorities and strategic initiatives for the institute.



## Training Organized



A five day Specialized training programme on “Characterization of Cotton Linter Pulp” was organized from July 27-31, 2026 for the participants from M/s Ashok Rai Boards, Chennai.

## Publications

### Research Papers

- Anam Shaikh, Ajinath Dukare, Charlene D'Souza, Vigneshwaran Nadanathangam. (2026) “Integrated biocatalytic  $\text{CO}_2$  utilization via carbonic anhydrase-mediated hydration and mineral carbonation”. Bioresource Technology Reports, Volume 35, 102911, ISSN 2589-014X, <https://doi.org/10.1016/j.biteb.2026.102911>. (NAAS: 10.30)
- Potkule, J. B., Kumar, M., & Annapure, U. S. (2026). “Assessing the Impact of Microwave Irradiation on Papain and  $\alpha$ -amylase”. Food Biophysics, 21(2), 74. (NAAS: 9.2)
- Mandal, N., Maity, P. P., Mridha, N., Das, T. K., Bandyopadhyay, K. K., & Adak, S. (2026). “Spatial variability of soil physical health indicators in Karnal and Kaithal districts of Haryana”. Journal of Environmental Biology, 47(4), 788-796. (Impact factor: 1.0; NAAS rating: 7.0)

### Technical Article

- V. Kumar & Sundaramoorthy . C (2026) “Quantitative Assessment of Sustainability Pillars in the Indian Textile Sector reaffirms Cotton's Primacy”. Cotton Innovations Journal, 6(4), 1-17.

## **Book Chapter**

- Jagajanantha P., Kautkar Sheshrao, Jalgaonkar Kirti, Patil Sharmila, Raja A. S. M., and Chaudhari Dnyaneshwar (2026). Cotton grading and quality evaluation: Methods, importance, challenges and scope for improvement, In: Emerging Innovations in Agricultural Engineering and Food Technology V6S1045B2, IIP Series, Volume 6, June, 2026, pp. 83-90, Iterative International Publishers IIP, E-ISBN: 978-81-69923-49-1, DOI: <https://www.doi.org/10.58532/nbennurEIAEV6B2P4C1>.

## **Book Edited**

- Shrivastava, S., Mansuri, S. M., Sivaranjini, A., Shaikh, F. K., Patil, B., Jayanthi, R., Nandha, A., Amirtham, Patil, S., Kumari, A., Kautkar, S., Singh, A., Yadav, A. K., Khatak, A., Madhusudhanan, J., Esha, Sharma, S., & Khan, S. (Eds.). (2026). Emerging innovations in agricultural engineering and food technology (Vol. 6). Iterative International Publishers, IIP, Selfpage Developers Pvt. Ltd. <https://doi.org/10.58532/nbennurEIAEV6B2>.

## **Paper Presented**

- Dr. G. Krishna Prasad presented a technical paper titled “Sustainable Protective Gloves from Recycled Para-Aramid Fiber Blends” during the 2nd Inter-Institute Technical Conference on “Sustainable Technical Textiles: Innovation to Implementation”, organized under TEXFERENCE 2026. The conference was held on 11 July 2026 at ICT Mumbai.

## **Externally Funded Project Sanctioned**

- A new research project entitled “Design and Development of Indigenous Grinding System for Production of Ultra-fine Sized Fertilizers” has been initiated with financial support from the Department of Science and Technology (DST), Government of India. The project aims to design and develop an indigenous grinding system for the production of ultra-fine-sized fertilizers, contributing to improved nutrient-use efficiency and promoting self-reliance in advanced fertilizer processing technologies.

## **Educational Visits**

- A group of 38 students from Tilka Manjhi Agriculture College (TMAC), a constituent college of Birsa Agricultural University (BAU), Kanke, Ranchi, visited ICAR-CIRCOT, Mumbai on 16 July 2026.
- A group of 50 students from the Nagpur Institute of Technology, Nagpur, visited the Ginning Training Centre, Nagpur, on 24 July 2026.

## **HRD**

- Miss Newali S. Pathare, Technician, QEID, attended a four-day training programme on “Laboratory Management System ISO/IEC 17025:2017 and Internal Audit”, organized by the Indian Rubber Materials Research Institute (IRMRI), Thane, from 16–19 June 2026.
- Dr. N. Vigneshwaran, Principal Scientist & Head, CBPD, attended the training programme on “Compressed Biogas: Technology, Scale-up, & Feasibility Assessment”, organized by IIT Bombay, during 15–17 July 2026.

## **Awareness Programme Organised**

- Dr. Sujan Adak, Scientist, delivered an expert talk on “Cotton Quality Parameters & Post-harvest Management Practices” during a Farmers' Awareness Training Programme organized under the Kasturi Cotton Bharat initiative with the support of the Ministry of Textiles, Government of India, Cotton Corporation of India (CCI), CITI-CDRA, and TEXPROCIL. The programme was held at Sonegaon, Wardha, on 6 July 2026. Total of 60 farmers participated in the programme.

## **Stakeholders Interaction Meet**

ICAR-RABI conducted,

- An outreach session was held at the Technology Business Incubator, VJTI College, Mumbai, on July 15, 2026, to facilitate interaction with stakeholders and explore opportunities for technology development, innovation, and entrepreneurship.
- An Ecosystem partnership meeting was conducted with Mrs. Pranita Patahv, Vice President, Society for Innovation & Entrepreneurship - (SINE), IIT Bombay and Mr. Prashant Kharangate Asst. General Manager COEP's Bhau Institute: Startup Incubation Centre at Powai on July 22, 2026.

## **Other Events**

- SHITIJ 2.0, a pan-India innovation and entrepreneurship programme, was organised on 8 July 2026. ICAR-CIRCOT is implementing the programme as a Hub Institute in collaboration with the Spoke Institutes—ICAR-CIAE, ICAR-NINFET, ICAR-CAZRI, ICAR-CCRI, ICAR-IIFSR, ICAR-IIAB, and ICAR-CIARI.
- Dr. N. Vigneshwaran, Principal Scientist & Head, CBPD, attended the 3<sup>rd</sup> Institute Biosafety Committee (IBSC) Meeting of UPL, Mumbai, as the DBT nominee, in online mode on 3 July 2026.
- Dr. N. Shanmugam, Head, MPD, participated as a member in the 27<sup>th</sup> Meeting of the Textile Machinery and Accessories Sectional Committee (TXD 14) of the Bureau of Indian Standards (BIS) through video conferencing on 9 July 2026.
- Dr. A. S. M. Raja chaired the 35<sup>th</sup> Meeting of the Physical Methods of Test Sectional Committee (TXD 01) of the Bureau of Indian Standards (BIS) on 10 July 2026.
- Dr. T. Senthilkumar, Senior Scientist, participated in the 27<sup>th</sup> Meeting of the Textile Machinery and Accessories Sectional Committee (TXD 14) on 9 July 2026, the 35<sup>th</sup> Meeting of the Physical Methods of Test Sectional Committee (TXD 01) on 10 July 2026, and the 15<sup>th</sup> Meeting of the Technical Textiles for Clothtech Applications, including Narrow Fabrics and Braids Sectional Committee (TXD 39) on 23 July 2026, all organized by the Bureau of Indian Standards (BIS), New Delhi, in virtual mode.
- Dr. S. K. Shukla, Director, ICAR-CIRCOT, participated in the Maha Trace Cotton Value Chain Meeting organized by the Department of Agriculture, Government of Maharashtra, Mumbai, on 27 July 2026.

## **Superannuation**

- Mr. Raviprakash R Chhagani, Chief Technical Officer, CBPD, ICAR-CIRCOT, Mumbai superannuated on July 31, 2026.



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## शेतकऱ्यांसाठी 'खेत बचाओ अभियान' अंतर्गत कार्यक्रम मातीचे आरोग्य सुधारण्यावर आणि कापूस उत्पादन वाढविण्यावर भर

► नागपुर, विज्ञानेस प्रतिनिधी. ओटाई प्रशिक्षण केंद्र, भा.कृ.अनु.सं. केंद्रीय कापूस तंत्रज्ञान संशोधन संस्था (सिरकाट), नागपुर यांच्या वतीने 'खेत बचाओ अभियान' अंतर्गत मोहपा, कलमेश्वर, नागपुर येथे इनपुट डीलर्ससोबत संवाद कार्यक्रमाचे आयोजन करण्यात आले.

या कार्यक्रमात ओटाई प्रशिक्षण केंद्राचे वरिष्ठ शास्त्रज्ञ व प्रभारी अधिकारी डॉ. के. पांडियन, सीटी-सीडी, मुंबईचे प्रकल्प समन्वयक गोविंद वैराले, जाइडेक्स इंडस्ट्रीज प्रा. लि., नागपुरचे शुभम ढोणे तसेच अंकुर सी. चे नितिन गोंडुळे सहभागी झाले होते. डॉ. पांडियन यांनी शेतकऱ्यांचे स्वागत करून 'खेत बचाओ अभियान' या कार्यक्रमाची माहिती दिली. सध्याच्या खत संकटाचा सामना करण्यासाठी तसेच भविष्यातील शेती अधिक सक्षम करण्यासाठी मातीचे आरोग्य जपण्यात सेंद्रिय शेती आणि जैविक निविष्टांचे महत्त्व त्यांनी अधोरेखित केले. गोविंद वैराले यांनी कापसाचे उत्पादन वाढविण्यासाठी आणि अधिक उत्पन्न मिळवून शेतकऱ्यांची आर्थिक स्थिती सुधारण्यासाठी कापूस पिकात हाय डेन्सिटी प्लॉटिंग सिस्टीम



### 'पीएम किसान सन्मान निधी'चा २३ वा हप्ता जारी

कार्यक्रमानंतर 'प्रधानमंत्री किसान सन्मान निधी'चा २३ वा हप्त्याचा वितरण कार्यक्रमाला वेद प्रक्षेपण दाखविण्यात आले. यावेळी केंद्रीय संस्कृती व पर्यटन मंत्री गजेंद्र सिंह शेखावत यांनी शेतकरी कल्याणासाठी सरकारच्या विविध उपक्रमाविषयी मार्गदर्शन केले. कार्यक्रमादरम्यान शेतकऱ्यांना बायो एनपीके, मायकोरायझा आणि ड्रिंक विद्रावक जीवाणू यांसारख्या जैविक निविष्टांचे वितरण करण्यात आले. तसेच मातीतील पोषकतत्वांची उपलब्धता वाढविण्यासाठी सूक्ष्मजीवांच्या वापराचे फायदे आणि त्यांचा योग्य वापर याबाबत माहिती देण्यात आली. या कार्यक्रमात मोठ्या संख्येने शेतकरी सहभागी झाले होते.

स्वीकारण्याचे महत्त्व स्पष्ट केले.

नितिन गोंडुळे यांनी उत्पादकता वाढविण्यासाठी तसेच क्रीड व रोगांविरुद्ध सहनशीलता किंवा प्रतिकारशक्ती विकसित करण्यासाठी जमिनीच्या प्रकारानुसार योग्य बियाण्यांची निवड करण्याची गरज सांगितली. याशिवाय योग्य बियाणे आणि शेती पद्धतींची निवड कापूस शेतीतून अधिक लाभ मिळवून देण्यात महत्वाची भूमिका बजावते, असेही

त्यांनी नमूद केले. यानंतर शुभम ढोणे यांनी मातीच्या आरोग्याची सद्यस्थिती, नैसर्गिक परिसंस्था आणि संसाधनांचे संवर्धन करून शाश्वत शेतीसाठी मातीतील पोषकतत्वांचे संतुलन पुनर्स्थापित करण्याची गरज यावर प्रकाश टाकला. रासायनिक खतांच्या अति व चुकीच्या वापरामुळे माती आणि पर्यावरणावर होणाऱ्या दुष्परिणामांवाबतही त्यांनी माहिती दिली.

## मिट्टी की सेहत सुधारने और कपास उत्पादन बढ़ाने पर जोर

■ नागपुर, बिजनेस रिपोर्टर. ओटाई प्रशिक्षण केंद्र, भा.कृ.अनु.सं. केंद्रीय कापूस प्रौद्योगिकी अनुसंधान संस्थान (सिरकाट), नागपुर द्वारा 'खेत बचाओ अभियान' के तहत मोहपा, कलमेश्वर, नागपुर में इनपुट डीलरों के साथ बातचीत का कार्यक्रम का आयोजन किया गया. कार्यक्रम में ओटाई प्रशिक्षण केंद्र, नागपुर के वरिष्ठ वैज्ञानिक एवं प्रभारी अधिकारी डॉ. के. पांडियन, सीटी-सीडी, मुंबई के प्रोजेक्ट को-ऑर्डिनेटर गोविंद वैराले, जाइडेक्स इंडस्ट्रीज प्राइवेट लिमिटेड नागपुर के शुभम ढोणे और अंकुर सीड्स के नितिन गोंडुले शामिल हुए. डॉ. पांडियन ने किसानों का स्वागत कर उनके लिए आयोजित 'खेत बचाओ अभियान' कार्यक्रम के बारे में जानकारी दी. उन्होंने मौजूदा उर्वरक संकट से निपटने और भविष्य को बेहतर बनाने के लिए मिट्टी की सेहत बनाए रखने में जैविक खेती और जैविक इनपुट के महत्व पर जोर दिया. वैराले ने कपास की पैदावार बढ़ाने और ज्यादा

### किसानों के लिए कार्यक्रम आयोजित

फसल उत्पादन से किसानों की स्थिति सुधारने के लिए कपास में हाईडेंसिटी प्लॉटिंग सिस्टम अपनाने के महत्व पर प्रकाश डाला. वहीं नितिन गोंडुले ने उत्पादकता बढ़ाने और कीट व बीमारियों के प्रति सहनशीलता या प्रतिरोधक क्षमता विकसित करने के लिए मिट्टी के हिसाब से सही बीजों की पहचान करने की जरूरत के बारे में बताया. साथ ही उन्होंने सही बीजों और खेती के तरीकों के चुनाव की भूमिका का भी जिक्र किया. शुभम ढोणे ने मिट्टी की सेहत की मौजूदा स्थिति और प्राकृतिक इकोसिस्टम व संसाधनों को बचाकर टिकाऊ खेती के लिए मिट्टी के पोषक तत्वों पर प्रकाश डाला.

### 'PM किसान सम्मान निधि' की 23वीं किस्त जारी

कार्यक्रम के बाद 'प्रधानमंत्री किसान सम्मान निधि' की 23वीं किस्त जारी करने के कार्यक्रम का लाइव प्रसारण दिखाया गया जिसमें केंद्रीय संस्कृति और पर्यटन मंत्री गजेंद्र सिंह शेखावत ने किसानों के कल्याण के लिए सरकार की पहलों के बारे में किसानों को संबोधित किया. कार्यक्रम के दौरान किसानों को बायो एनपीके, माइकोराइजा और जिक घोलने वाले बैक्टीरिया जैसे जैविक इनपुट बांटे गए. साथ ही मिट्टी में पोषक तत्वों को बढ़ाने में सूक्ष्मजीवों के फायदे को पाने के लिए इनके इस्तेमाल के बारे में भी जानकारी दी गई. इसमें बड़ी संख्या में किसान शामिल हुए.

## Contact us

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