



Technology of the Month

Cotton based heat generating textiles



A technology on 'cotton based heat generating textiles' that are flexible, light weight, safe and have better comfort properties is developed by Dr. P. Jagajanantha and his team from ICAR-CIRCOT, Mumbai. The specially designed yarns are used in heat generating smart textile products for use in automobile seat covers, thermal jackets, heating gloves, warm mouse pads and heating pads etc. The technology has been selected among the Top 5 technologies under agricultural engineering SMD of ICAR for the year 2023 and released at the hands of Hon'ble Shri Parshottam Rupala, Union Minister for Fisheries, Animal Husbandry & Dairy in the presence of Shri Kailash Choudhary, Union Minister of State for Agriculture and Farmers Welfare and Dr. Himanshu Pathak, Secretary (DARE) and Director General (ICAR) during the 95th ICAR Foundation Day and Technology Day celebrated on 16th July, 2023 at National Agriculture Science Complex, Pusa, New Delhi.

ICAR Foundation Day and Technology Day



- On the occasion of 95th ICAR Foundation Day, a grand program was organized during July 16-19, 2023 at Dr. C. Subramaniam Auditorium of NASC Complex in New Delhi.
- Dr. S. K. Shukla, Director along with Dr. A. K. Bharimalla, Principal Scientist; Dr. P. Jagajanantha, Senior Scientist; Mr. Ravi Chhangani, CTO; Mrs. Prachi Mhatre, ACTO and Hemant Ladgaonkar, Business Manager, R-ABI participated in the program.
- Twelve technologies of ICAR-CIRCOT developed during the last three years have been certified during the Technology Day.

QRT Meeting



- QRT meeting of the institute was held during July 24-25, 2023. QRT team is chaired by Dr. K. K. Singh, Vice Chancellor, Sardar Vallabhbhai Patel University of Agriculture & Technology, Modipuram, Meerut. It reviews the performance of the Institute for the period 2017-2022.

Review meeting on Inter-Institutional Project



- A meeting was held under the chairmanship of Dr. S. K. Shukla, Director, ICAR-CIRCOT, Mumbai on 5th July 2023 to review the progress of the Inter-Institutional project "II-02: Efficacy evaluation of ICAR-CIRCOT Nano-ZnO as nanofertilizer in field crops". In addition to scientists from ICAR-CIRCOT, scientists from ICAR-IIPR, Kanpur; ICAR-CICR, Nagpur & Coimbatore; and, ICAR-NIASM, Baramati presented their progress of research.

Outreach Activities



- ICAR-CIRCOT exhibited its technologies during the 95th ICAR Foundation cum Technology Day celebration from 16 to 19 July 2023 in New Delhi.
- Various products of ICAR-CIRCOT were displayed for the stakeholders.

Skill Development Activities



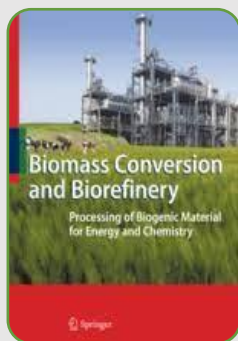
- Four batches of 3-days training on “Best Post-harvest Management Practices for Production of Premium Cotton Bales” under SMART Cotton were conducted at the Ginning Training Centre, ICAR-CIRCOT, Nagpur (during July 17-19, 2023; July 20-22, 2023; July 24-26, 2023 and July 27-29, 2023). Total 175 participants attended this training.

Awards and Accolades



- Dr. Manoj Kumar and Dr. D.M. Kadam were honoured with the prestigious "Shri Nilesh Patel (N.K. Proteins) Innovation Award for Cottonseed & Cottonseed Oil Supply Chain" at the 4th SEA-AICOSCA Cottonseed, Oil & Meal Conclave 2023 at Aurangabad during 7-8 July, 2023. The awards were bestowed upon them by Shri Abdul Sattar, the Agriculture Minister of Maharashtra.
- G. Krishna Prasad, T. Senthilkumar, P Jagajanantha, ASM Raja. N Vigneshwaran, N Shanmugam, received Best Paper Award for the paper, “Development of Cotton Nonwoven Based High Performance Secondary Wound Dressing Material” in Second International Conference on -Integration of Advanced Technologies for Industry 4.0 (ICIATI 2023) organized by KCG College of Technology, Chennai, during 23-24th June 2023.
- T. Senthilkumar, G. Krishna Prasad, A.S.M Raja, V.G. Arude, P. Jagajanantha, N. Shanmugam received Best Paper Award for the paper, ‘Sustainable approach: process protocol for spinning of recycled cotton/polyester blended yarn’, in “Second International Conference on -Integration of Advanced Technologies for Industry 4.0 (ICIATI 2023) organized by KCG College of Technology, Chennai, during 23-24th June 2023.

Publications



- Kannaujia, P., Dukare, A., Kale, S., Nath, P., and Singh R. K. (2023). Effect of mulch type on physico-chemical quality of tomato (*Solanum lycopersicum*) in semi-arid region of India. Indian Journal of Agricultural Sciences. 93 (6): 676–679. (NAAS- 6.37)
- Singh, S. K., Pathak, P. K., Gurjar, B and Kautkar, S. 2023. Design and development of a defluffing machine for dinanath grass seeds (*Pennisetum pedicellatum*). Agricultural Mechanization in Asia, Africa and Latin America, 54(1):42-48 (NAAS -6.29)
- P. Gracy, K.M. Pachiyappan, T. Murugan, T. Senthilkumar, G. Krishna Prasad & Senthil Kumar “Dynamic mechanical behavior of coir fiber composite using Taguchi’s parametric design approach”. Biomass Conv. Bioref. (2023). (NASS Rating 10.05)
- Soni, S., Babel, R., Srivastava, M., Saxena, S., Arputharaj, A. (2023). Review on Recent Developments in Fabric Softeners: Focus on Improvement in Functionalities and Sustainability, Journal of Community Mobilization and Sustainable Development 18 (2), 399-406 (NAAS- 5.67).
- Dukare A., Sharma K., Vigneshwaran, N., Nehete, L and Saxena, S (2023), Valorization of cotton seed hulls as a potential feedstock for the production of thermostable and alkali-tolerant bacterial xylanase. Accepted for publication in Bioenergy Research journal (NAAS-9.85) (IF-3.6). (Accepted paper for publication).

Glimpses of Activities

Tech on 'Heat generating smart cotton textiles' of ICAR-CIRCOT, Mumbai launched



The Indian Council of Agricultural Research (ICAR) celebrated its 95th Foundation Day on 16 July 2023 at National Agriculture Science Complex, Pusa, New Delhi. Narendra Singh Tomar, Union Minister of Agriculture and

Farmers Welfare was the Chief Guest of the program & attended the meeting virtually. Parshottam Rupala, Union Minister for Fisheries, Animal Husbandry & Dairying, Kailash Choudhary, Union Minister of State for Agriculture & Farmers Welfare and Dr. Himanshu Pathak, Director General, ICAR graced the occasion. Rupala inaugurated an exhibition showcasing innovative technologies developed by 113 ICAR research institutes.

FPJ Mumbai, 18-7-2023



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केंद्रीय कापूस तंत्रज्ञान शास्त्रज्ञांना पुरस्कार

मुंबई, दि. १३ : प्रतिनिधी

'भारतीय द्रावक एक्सट्रॅक्टर्स संघटना' आणि 'अखिल भारतीय कापूस बियाणे क्रशर संघटने'द्वारे फर्न रॅसिडेन्सी, छ. संभाजीनगर येथे चौथ्या कापूस बियाणे, तेल आणि जेवण परिषद २०२३चे आयोजन करण्यात आले होते.

भारतीय कृषी संशोधन परिषदेच्या- केंद्रीय कापूस तंत्रज्ञान संशोधन संस्था, मुंबई कडून, डॉ. एस. के. शुक्ला (संचालक), डॉ. डी. एम. कदम, डॉ. व्ही. जी. आरुडे आणि डॉ. मनोज कुमार यांनी या परिषदेमध्ये सक्रिय सहभाग घेतला. 'भारतीय द्रावक एक्सट्रॅक्टर्स संघटना' आणि 'अखिल भारतीय कापूस बियाणे क्रशर संघटने'ने कापूस बियाणे आणि कापूस बियाणे तेल पुरवठा साखळीतील उत्कृष्ट योगदानाबद्दल पुरस्कार प्रदान केले.

डॉ. मनोज कुमार आणि डॉ. डी. एम. कदम यांना प्रतिष्ठित 'नीलेश पटेल (एन. के. प्रोटीनस) इनोव्हेशन अवॉर्ड फॉर कॉन्टिनसिड आणि कॉन्टिनसिड ऑईल



सल्ला' पुरस्कार देऊन गौरविण्यात आले. डॉ. मनोज कुमार यांना कापसाच्या बियाण्यामधून अति कमी गॉसिपॉल प्रथिने काढण्याच्या संशोधन कार्यासाठी २० हजार रुपयांच्या रोख पुरस्कारासह प्रथम पारितोषिक मिळाले. डॉ. डी. एम. कदम यांना कापूस बियाणे प्रथिने काढण्यासाठी प्रायोगिक यंत्रसंचाची रचना आणि विकास यावर केलेल्या संशोधनासाठी १५ हजार रुपयांच्या रोख पुरस्कारासह द्वितीय पारितोषिक प्रदान करण्यात आले. कृषिमंत्री अब्दुल सत्तार यांच्या हस्ते त्यांना हा पुरस्कार प्रदान करण्यात आला. डॉ. डी. एम. कदम यांनी 'तेलविरहित कापसाच्या केकभासूत प्रथिने काढण्यासाठी प्रायोगिक यंत्रसंचाची रचना आणि विकास व त्याचे मूल्यवर्धन' या विषयावर त्यांचे पुरस्कारपत्र संशोधन सादर केले. डॉ. मनोज कुमार

देशातील कापूस प्रक्रियेमध्ये होणार वाढ...

डॉ. शुक्ला यांनी कापूस लिटर आणि कापूस बियाणे पेडीचे मूल्य वाढविण्यासाठी व्यवहार्य उपाय सुचवले. शिवाय, त्यांनी आदर्श पोल्टी अन्न म्हणून कापूस बियाणे पेडीचा प्रचार करण्यावर भर दिला आणि मशरूम लागवडीसाठी 'बॅडिंग मटेरियल' म्हणून कापूस बियाण्याच्या टरफलाचा वापर करण्यावर भर दिला. डॉ. आरुडे यांनी कापूस बियाण्याच्या शाखोक्त प्रक्रियेशी संबंधित विविध महत्वाच्या समस्यांचे निराकरण केले आणि देशातील कापूस बियाणे प्रक्रिया वाढविण्यासाठी प्रभावी पद्धतीची शिफारस केली.

यांनी 'प्रथिने पुनर्शोध: अति कमी गॉसिपॉल प्रथिने सह कापूस बियाणे प्रथिने उद्योगात क्रांती' या पुरस्कारपत्रास संशोधन कार्याचे निराकरण केले. डॉ. एस. के. शुक्ला यांना कापूस बियाण्याच्या मूल्यवर्धनाशी संबंधित विविध पैलूंचे चर्चा करण्यासाठी प्रतिष्ठित पॅनेल सदस्य म्हणून आमंत्रित करण्यात आले होते.

TPL-174 - 1D5 Chabha - March 2023

The Only National Textile Daily

Tecoya Trend

VOL. LIII No. 130 MUMBAI, TUESDAY, JULY 18, 2023 PRICE: Rs. 5.00

QCO on polyester yarns effective 5th Oct 2023

By Our Staff Reporter

MUMBAI JULY 17— Partially Oriented Yarn will come into force on the 05th day of October, 2023. The Bureau of Indian Standards shall be the certifying and enforcing authority of the QCO for the above mentioned Yarn. Polyester Yarns. The QCO will not apply Continuous Filament Fully Drawn Yarn and Polyester

Better Cotton signs UN pledge for traceability and transparency

From Tecoya NewsDesk

MUMBAI, JULY 17— key enablers for sustainability and circularity. Better Cotton has signed the United Nations Economic Commission for Europe framework to ensure credible

Increasing MSP year after year is not a good sign: Secy AICOSCA

By Our Staff Reporter

MUMBAI, JULY 17— He expressed concern over no positive increase in Indian cotton yield and added that the increase in yield has to be achieved, step by step, by the farming community. Mr. Kotirao also stressed on 'Scientific Processing of Cottonseed' for more cottonseed oil extraction vis-a-vis traditional processing as scientific processing will result in more oil extraction of 3-4 lakh tonnes. He also pointed out that at present Scientific Processing of cottonseed is confined only to the State of Telangana. Mr. Kotirao felt that if the entire available cottonseed is scientifically processed we can get 5/6 lakh tonnes of extra edible oil, which will result in reduction in import of huge quality of edible oil, the present trend. Dr. S. K. Shukla, Director, Central Institute Research on Cotton Technology (CIRCOT) during the conference also mentioned about promoting scientific processing of cottonseed, though the same will require huge investment on machineries of about Rs. 15 crores. During the panel discussion at the conference, it was impressed upon production of more Linters which have high value addition and production of Viscose from Linters in place of 'wood pulp' as raw material. There was also mention of high protein content of (30% to 40%) in cottonseed meal and hence its utilization.

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