

# ICAR-CIRCOT news



Global Excellence in Cotton Technology

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# AI based prediction model for Highest Spinnable Count Index

ICAR-CIRCOT has Highest Spinnable Count Index (HSC) index, a single integrated value, to rank cottons grown in India. HSC index is calculated after spinning cotton to 2 counts namely under spun and over spun based on CIRCOT CSP standards and evaluating its lea strength. Machine learning is the key technology in artificial intelligence. Today, machine learning is able to pick up knowledge from examples and it is able to code implicit knowledge. Cotton fibre parameters namely UHML, strength, micronaire, elongation and uniformity were used in the development of machine learning models for predicting highest spinnable count. Important variables for determining the highest spinnable count of yarn is found to be UHML and fibre strength in both the models namely automl and regression.

#### **Collaboration**

- MoU signed between ICAR-CIRCOT & M/s. Materra India Pvt Ltd., a plant-centric technology company working towards climate-resilient cotton agriculture regarding quality improvement and processing of cotton on 3<sup>rd</sup> March 2023
- MoA signed between ICAR-CIRCOT R-ABI and the Start-up, M/s Ocean farms (in the field of Seaweed Cultivation) on 28th February 2023





•Dr. Himanshu Pathak, Secretary (DARE) & Director General (ICAR), visited ICAR – Central Institute for Research on Cotton Technology, Mumbai on 20th March 2023 and inaugurated the Advanced Biomass Characterization Laboratory, Nanoparticle Characterization Laboratory, and Cotton Fibre Processing Facility. Dr. Pathak also visited the existing infrastructural facilities of the Institute. During an interaction meeting with the scientists and technical staff of the Institute, Dr. Pathak appreciated the performance of the Institute in terms of sophisticated facility creation, technology development & licensing, revenue generation and incubation & start-up funding activities.

# **Technology Incubation / Demonstration**



- •Dr. Ashok Kumar Bharimalla, Dr. C. Sundarmoorthy and Dr. Jyoti Dhakane-Lad participated in the workshop on "Synergy of Innovation and Incubation in Agri Start-up Ecosystem" on March 13, 2023, at NRC for Grapes, Pune jointly organized by ICAR-CIRCOT R-ABI Mumbai and ABI NRCG Pune, ABI, DOGR, Pune and DFR, Pune.
- •Online expert lecture for ICAR-CIRCOT R-ABI agri-startups on "Digital media marketing: Facebook" by Dr. Ranjit Bijoor, Director (Asia & Middle East), British Learning was organized on 9th March 2023. It was attended by 40 participants.
- ICAR-CIRCOT Trapezoidal shaped rapid burning briquette based Crematorium Technology was showcased by M/s. Superb Group, Nagpur in 8<sup>th</sup> Smart City Expo during 27 29 March 2023, at Pragati Maidan, New Delhi.

#### **Outreach Activities**



- •Ginning Training Centre (GTC) of ICAR-CIRCOT, Nagpur conducted a program under MGMG on 20<sup>th</sup> March 2023 to create awareness among the farmers on "Importance of timely harvesting and safe storage of cotton to maintain the quality, to avoid the losses and damage to crop due to unseasonal rain and storm". Total three villages Mohpa, Masepathar and Ubali, Taluk Kalmeshwar, District Nagpur were covered.
- •A group of 23 farmers from Institute of Horticultural Technology, Gujrat visited GTC of ICAR-CIRCOT, Nagpur on 14<sup>th</sup> March 2023. They were demonstrated the facilities available in the GTC



### **HRD**

•Three days skill development programme on soft skills development for the Technical, Administrative and supporting staff of the institute was organized during 1-3 March 2023 for 26 staff.



### **Stakeholder Interaction**

- •Dr. S. K. Shukla, Director participated in ICAR-Industry Stakeholders Consultation Meet hosted by Agrinnovate India on March 6, 2023 at NASC Complex, New Delhi.
- •Dr. S. K. Shukla and his team of Scientists interacted with Dr. Anuradha Misra, Group Senior Manager R&D, Advanced materials, M/s. Asian Paints Limited, Navi Mumbai on March 30, 2023 for possible collaboration in the field of application of ICAR-CIRCOT Nanocellulose in paint formulations.



#### **International Event**

• Rubber based indoor pots developed using ICAR-CIRCOT technology is displayed in Melbourne Intrnational Flower and Garden Show, Australia during 27 March to 2 April, 2023 by www.shizenpots.com



### **Skill Development Programme**

•Training programme on "Advanced characterization of cotton quality and its spinning & Dyeing performance" for SC beneficiaries was conducted during 13 - 15 March, 2023. There were 15 participants for the programme.





- Dr. N. Shanmugam, Principal Scientist & Head I/c. MPD and Dr. N. Vigneshwaran, Principal Scientist attended the International Conference on "Blended Learning Ecosystem for Higher Education in Agriculture" organized by ICAR, New Delhi, during 21 23 March, 2023 in a hybrid mode.
- Dr Sujata Saxena, Principal Scientist & Head I/c CBPD, and Dr. A. Arputharaj Senior Scientist attended Regional Level Workshop on 'Use of Biomass in Thermal Plants under National Mission Samarth' organized by MAHAGENCO at Pune on 28<sup>th</sup> March 2023 and presented a paper on 'Sustainable Crop Residue Management Solutions'.
- Dr. G. Krishna Prasad, Scientist, attended the 6<sup>th</sup> Meeting of Technical Textiles for Mobiltech Applications Sectional Committee, TXD 38, organised by BIS on 17<sup>th</sup> March 2023.
- Dr Sujata Saxena, Principal Scientist & Head I/c CBPD attended the Global Millets (Shree Anna) Conference held at New Delhi on 18 19 March 2023

# कृषी स्टार्टअपसाठी २५ लाखांचे अनुत

राष्ट्रीय कृषी विकास योजनेंतर्गत केंद्र व राज्याचा अभिनव उपक्रम; ३१ मार्चपर्यंत ऑनलाइन अर्ज करता येणार

पुणे : पुढारी वृत्तसेवा तरुण किंवा शेतकः यांनी कृषीशी कोणस्वाही प्रकारचा स्टार्टअप सुक सेस, या स्टार्टअपसध्ये काही तरी सेसल, ता केंद्र व एग्य शास्ताच्या हुणी विकास योजनेंतर्गते ५ किंवा ख अध्याचे अनुतान रोण्यात येते. तरी येत्या ३१ मार्वअखेरपर्यंत । ३ अर्ज करण्याचे आवाहन राष्ट्रीय

अनिशाह अर्थ काण्याचे आखात र राष्ट्रीय कृषी विकास योजनेश (राष्ट्रार) मुख्य कृषी विकास योजनेश (राष्ट्रार) मुख्य इति अग्रोक वार्यमुख्य प्रांती येवे केले. राज्यातील विशेष कृषी रार्टाट्यम्या रास्ताद रेच्यामात्री विशेष कृषी रार्टाट्यम्या केंद्रारण वतीने पार्याविण्यात येव आसील्या विकास राक्युक्तेमा रिरम्या कृषी राष्ट्र प्रांतीय कर्माताल मांजी योगील राष्ट्रीय दाश संसोधन कंट्र मेथे आसीला करण्यात आसी होत्य येळा व्हां सार्वायुक्त करण्यात आसी होत्युक्त



राष्ट्रीय दाश्र संशोधन केंद्र येथे आयोजिन एकदिवसीय कार्यशालेन उपस्थिन मान्यवर करियमार्थित कार्यमार्थित उपस्थित मान्यवर. महिला, सेतकरी उपस्थित होते. देवातील युक्क, बेरोजगार तरणांना व सेतक-पांना प्रोत्साहत देण्यासाठी राष्ट्रीय कृषी विकस्स बोबना मुस्त बेत्ती आहे. या वोडस्नेजर्गत विविध्य कृषी विद्यान बेत्रीय सारीव्यासा वेत आसरेल्या अँग्री विद्यानेस इन्बर्युवेशन मेंटरच्या व अन्य वैर्यान्यक स्वरूप्यान्त

राष्ट्रीय द्राक्ष संत्रीपन केंद्र येथे अवयंजित हैं व्यवस्थापक की, विजय महाजन, गुण्ट्रीय द्राव व्यवस्थापक की, विजय महाजन, गुण्ट्रीय द्राव संत्रीपन केंद्राचे व्यवस्थापक ठी, कीतिक वेनजी, पारतीय करतीत्यादन संत्रीपन आणि संस्थेषे व्यवस्थापक ठी, के, पी, प्राप्त द्रावित होते. या कार्यसायक ठी, के, पी, प्राप्त द्रावित होते. या कार्यसायक ठी, के, पी, प्राप्त द्रावित अनेक नावी-यवृत्त कृषी स्टार्टअय सुक्ष केतेले युवक,

एकाट नारी-न्यूर्ग, अधिना संशोधन करणाय, वर्ष करता चेहन. स्टामाने अध्याप केष्णा स्थापन करणाया कर्मान्य करणाया कर्मान्य कर





#### **ICAR-CIRCOT TRAPEZOIDAL SHAPED RAPID BURNING BRIQUETTE BASED CREMATORIUM**

#### **Eco-friendly Green Crematorium**





Efficient, Rapid Burning and Cost effective Crematorium

A Proprietary Item of CIRCOT

A Research Organization under Indian Council of Agricultural Research (ICAR), Ministry of Agriculture and Farmers welfare



SUPERB GROUP

# Media Coverage







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