



A Monthly Insight into the ICAR-CIRCOT

e-NEWS letter



"I see God in every thread that I draw on the spinning wheel." - Mahatma Gandhi

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The global scenario of cotton seems bullish with world cotton consumption, estimated to increase by 5%, is set to surpass the global production during 2018-19. The International Cotton Advisory Committee (ICAC) has estimated the cotton production at 25.9 million tonnes and consumption at 27.4 million tonnes. The supply side constraints are due to decline in planting area in India, potential drought condition in West Texas, USA and adverse climate in Xinjiang region of China that accounts for 3/4th of cotton acreage in China. The increased demand for cotton in the Asian region coupled with the decline in the ending stocks will result in higher international prices for cotton. The global trade of cotton is estimated at 9.19 million tonnes.

India is set to emerge as the largest producer of the cotton for the fourth consecutive season with an estimated output of about 6.2 million tonnes despite an expected decline in the acreage under the cotton cultivation. The expected decline in the cotton acreage is due to the pink boll worm damage caused in major cotton producing states of Maharashtra and Telangana during the last season. The recent announcement of the Minimum Support Price of cotton (medium staple) at Rs. 5150/- and that of cotton (long staple) at Rs. 5450/- per quintal for the 2018-19 season, which is 28% and 26% higher than previous year can counter the tendency of the farmers to shift to other crops.

Indian cotton exports during 2018-19 is expected to increase by around 40% to 10 million bales as a result of strong overseas demand due to competitive price of Indian cotton in the international market and also due to diversion of Chinese demand for cotton from US to Indian markets.

ICAR-CIRCOT is committed to continuously render its service to the stakeholders and work towards the sustainability of the sector. The institute under its skill development activity has planned to organize specialized training programmes viz. Quality Evaluation of Cotton, Value Addition to Cottonseed, and Absorbent Cotton Technology during the month of July-August, 2018. All stakeholder are appealed to join these training programmes.

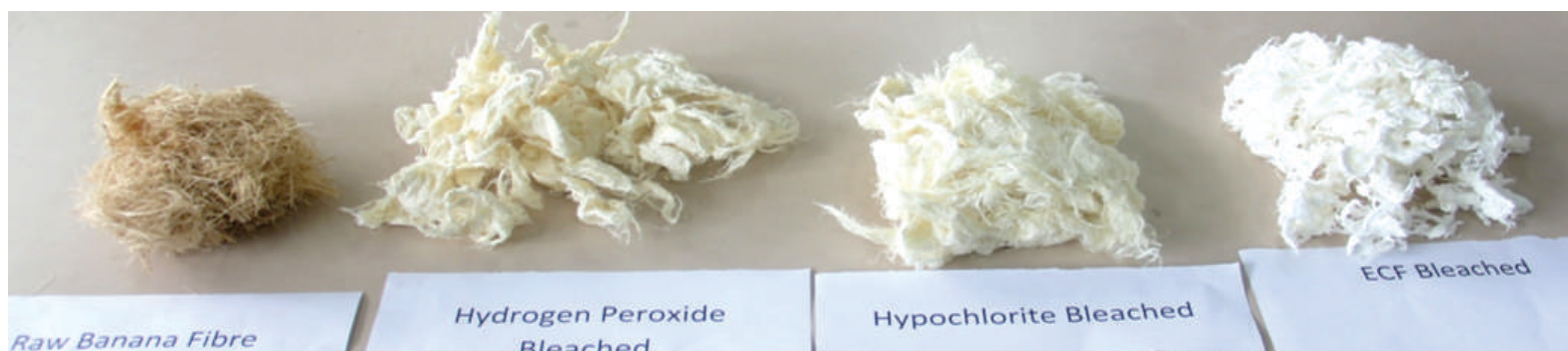
(P. G. Patil)
Director

Technology Insight

New Protocol for Bleaching Banana Fibres

Banana Fibre is one of the underutilized natural fibres available in significant quantities. The fibre is obtained from the banana pseudo-stem which is considered as waste after harvesting the fruits from the plant. Banana fibre contains cellulose, hemicelluloses, lignin and other woody material. After extraction from the stem, banana fibre looks brown in colour due to the presence of lignin and other impurities. Residual colour has to be removed through bleaching process in order to use the fibre for further applications like textile and paper making. Fibres are subjected to alkali boiling process followed by bleaching with hypochlorite or hydrogen peroxide. The hypochlorite based process produces better whiteness of banana fibres. However,

hypochlorite based bleaching process leads to release of harmful elemental chlorine and Absorbable Organic Halides (AOX) into environment. Even with this process, attaining desired whiteness on the fibre is very difficult. In order to address these problems, an Elementary Chlorine Free (ECF) bleaching protocol has been developed for bleaching of banana fibres. By the developed process, the banana fibre is bleached into whiter fibre compared to the hydrogen peroxide and hypochlorite bleached fibres. The new bleach process protocol can be used for producing quality paper with required brightness properties. The process can also be used for banana based textile materials for producing whiter fabrics.



Bleaching of Banana Fibres with different protocols

Trainings

Knitting & Knit Garments

ICAR-CIRCOT is probably unique institute which organized training programme on “Knitting & Knit Garments” during June 11-13, 2018. The programme was attended by scientists, academicians and private organizations. The training covered various aspects of basic and advances in knitting technology, garment production & evaluation of comfort properties of

knitted garments using Kawabata system. Experts, like Prof. Muntazir Ahmed were invited to deliver guest lectures during the training programme. Besides, a visit was arranged to Knitting Laboratory at SASMIRA, Mumbai. The programme was appreciated by the trainees and was rated 'Excellent' on very poor to excellent scale.



**Group Photo
Training Programme on
'Knitting & Knit Garments'**

**Presentations
during Training
Programme on
'Knitting & Knit Garments'**



**hands-on-training
during Training
Programme on
'Knitting & Knit Garments'**

Events

National Seminar in Hindi

A one-day national seminar in Hindi on “Advanced Processing Technology of Natural Fibres and their Value Added Products” was organized by ICAR-CIRCOT, Mumbai in collaboration with the Indian Fibre Society (IFS) on June 2, 2018 in the Jubilee Hall of the Institute at Mumbai. Dr. P. Alli Rani, Chairman-cum-Managing Director of the Cotton Corporation of India (CCI), Navi Mumbai was the chief guest and Shri Vinay Kotak, Associate Vice-President of Cotton Association of India was the guest of honour. Dr. P.G. Patil, Director, ICAR-CIRCOT, in his welcome address, spoke on the importance of natural fibres today, the work carried out by CIRCOT in the field of cotton and other natural fibres and the objective of organizing this seminar in Hindi. Dr. R.P. Nachane, Chairman, IFS stated the objectives and activities of the Indian Fibre Society. Shri Vinay Kotak, in his speech talked about the need to establish Indian cotton as a brand. Shri R.K. Gupta, General Manager (Finance/Rajbhasha), CCI delivered a presentation on the history and role of the CCI. Dr. P. Alli Rani in her inaugural address expressed happiness over coming together of various

organizations working on cotton and other natural fibres through this seminar and stressed upon the need to find out the ways to exploit the large fibre production base of the country for the betterment of its farmers. The book of articles of the seminar in the form of the special issue of the Institute Hindi home magazine 'Ambar' was released on the occasion.

The inaugural session ended with a vote of thanks by Dr. P.K. Mandhyan, the Organizing Secretary of the Seminar. It was followed by two technical sessions. The first technical session on Quality, Marketing and Textile Manufacture was chaired by Shri. M. Ahmed, Former Head of the Mechanical Processing Division and five papers were presented in this session. The second technical session on Processing and Value Addition was chaired by Dr. M.S. Kairon, Former Director, ICAR-CICR, Nagpur and Dr. R.P. Nachane, Former Head, Quality Evaluation and Improvement Division was the co-chairman. Six technical papers were presented in this session. The seminar ended with the vote of thanks by Dr. Sujata Saxena, Principal Scientist, CIRCOT and Joint Secretary, IFS.



Release of Annual Special Issue of Hindi Magazine 'Ambar-2017' on 'Advanced Processing Technology of Natural Fibres and their Value Added Products'



Presentation given by Dr. Kairon former Director ICAR-CICR, Nagpur during national seminar in Hindi on "Advanced Processing Technology of Natural Fibres and their Value Added Products"

Swachh Bharat Abhiyaan

As a part of the implementation of the Swachh Bharat Abhiyan, a cleanliness programme was organized in Admn IV & V sections of the Institute

on June 21, 2018. All the staff members of both the sections participated enthusiastically in the cleaning activities.



Admn IV & Admn V staff in cleaning programme

Hon'ble Prime Minister's interaction with farmers

Hon'ble Prime Minister Shri. Narendra Modi interacted with farmers from nearby villages who participated in an interaction meet organized through video conferencing at Ginning Training Centre (GTC), Nagpur. The staff members of GTC

also participated enthusiastically in the meet. During the meet, Hon'ble PM had interacted with the farmers of different states and regions of the country on the burgeoning issues of farming such as soil fertility management, value-addition to

farm produce and crop residues, crop insurance, watershed management etc. The various schemes and initiatives taken by the government for increasing the production, reducing cost of cultivation and improving the livelihood of farmers were discussed in the meet. The live interaction of Hon'ble PM with farmers of

different regions in the program provided the knowledge base on newer crop management practices and motivated the fellow participants and farmers to bring a positive change in the current farming scenario towards the prosperity of nation.



Hon'ble Prime Minister's interaction with farmers through video-conferencing at GTC, Nagpur on June 20, 2018



Live telecast of Hon'ble Prime Minister's interaction with farmers watched by staff of ICAR-CIRCOT Mumbai on June 20, 2018

International Yoga Day

An International Yoga Day was celebrated at the Institute on June 21, 2018, by organizing a Yoga workshop for all the staff members who were demonstrated different yogasanas by teachers and instructors from Shri Ambika Yoga Kutir (Thane), Ghatkopar branch. The workshop started with welcome address by Director-Incharge, Dr. (Smt.) Sujata Saxena. Shri Sudhir Sawant, Sanchalak of Shri Ambika Yoga Kutir

briefed about the importance of yoga and thereafter yogasanas were performed by all the staff members under the guidance of the instructors as per the protocol from Ayush Mantralaya. Along with Sanchalak, ten demonstrators/instructors were present to guide all the staff (65) members while performing yogasanas.



International Yoga Day celebration at ICAR-CIRCOT Mumbai

Visit

Director's Visits

- During Interface Meeting between ICAR Institutes and Department of Agriculture (Maharashtra) organised at ICAR-National Research Centre for Grapes, Pune on 20th June 2018, Director, ICAR-CIRCOT delivered a presentation on Institutes technologies for 'Doubling the Farmers Income'.
- "National Consultation on Making Agriculture Sustainable and Profitable" convened by the Hon'ble Vice-President of India under the Swarajya to Surajya Series organized by Indian Institute of Public Administration at VAMNICOM, Pune during June 21-22, 2018.
- A visit to "Mushroom Cultivation Unit" at College of Agriculture, Pune, the constituent College of the Mahatma Phule Krishi Vidyapeeth, Rahuri.
- A meeting held on 28th June 2018 at CR-1, Krishi Bhavan, New Delhi, called by the Secretary, DARE & Director General, ICAR for discussion on the implementation of the ERP System in ICAR.



Dr. P. G. Patil, Director, ICAR-CIRCOT during visit to Mushroom Cultivation Unit and High-Tech Floriculture and Vegetable Project at College of Agriculture, Pune

Students Visits

- The 10th Std students from Kerala visited the Institute on 13th June 2018 to know about the basics of cotton and ongoing technologies in the field of Textile. This educational visit was a part of the Talent Search programme conducted by the Government of Kerala. The 30 meritorious students from different schools were selected from all over the Kerala state to get the insight of advanced technologies in various fields including Textile.
- A batch of 15 students of BSc (Agri.) from V. K. S. college of Agriculture, Dumraon (Buxar) under the jurisdiction of Bihar Agricultural University, Sabour (Bhagalpur) visited the Institute on July 30, 2018. The visit included brief orientation to Quality Evaluation and Improvement Division, Mechanical Processing Division and Nano Technology Lab of the institute.



Students of Talent Search Programme Kerala at ICAR-CIRCOT Mumbai



Students of Bihar Agricultural University, Sabour at ICAR-CIRCOT Mumbai

Participation

Meetings

- Dr. P. K. Mandhyan, Head I/c QEID attended sub-committee meeting held on June 16, 2018 to discuss and finalize the terms of reference for

the survey of delivery of loose cotton at the production stage, consumption of cotton in Non-Mill/Non-SSI units and in Non-Textile

usage. He also attended the Cotton Advisory Board meeting held at Textile Commissioner's office.

- National Consultation for “Making Agriculture Sustainable and Profitable” under the Swarajya to Surajya Series was organized by Indian Institute of Public Administration at VAMNICOM, Pune during June 21-22, 2018. The National Consultation was inaugurated by Hon'ble Vice President of India Shri M. Venkaiah Naidu in the presence of Mr. Devendra Fadnavis, Chief Minister of Maharashtra, Shri Sharad Pawar and Dr. M. S.

Swaminathan. Dr. P. G. Patil, Director, ICAR-CIRCOT, Dr. C. Sundaramoorthy, and Dr. S.V. Ghadge Senior Scientists functioned as rapporteur of the session on 'Agricultural Trade Policy'. The recommendations that emerged from the discussions of session were presented to the Hon'ble Vice President of India during the valedictory function.

- Dr. P. K. Mandhyan, Head I/c QEID participated in the Stakeholders meet on Natural Fibres chaired by Hon'ble Union Minister of Textiles on June 23, 2018 at Udyog Bhavan, New Delhi.



Director, ICAR-CIRCOT & Senior Scientists during National Consultation Programme

Radio Talk on AIR Asmita Vahini

Dr. P.S. Deshmukh, Senior Scientist delivered a Radio Talk on the topic “Tools and implements for intercropping of khariff crops in Konkan” in

Marathi on All India Radio (Akashvani), Asmita Vahini, Mumbai. The programme was broadcasted at 7:30 pm on June 25, 2018.



Dr. P. S. Deshmukh, Sr. Scientist, ICAR-CIRCOT in a Radio Talk show on All India Radio (Akashvani), Asmita Vahini

Human Resource Development

Hindi Workshop

A Hindi workshop on “भारत सरकार कि राजभाषा नीति और उसके अनुपालन में समस्याएं और समाधान” conducted by Dr. Susheel Kumar Sharma, Deputy General Manager (Rajbhasha), Western Railway,

Mumbai for scientific, technical and administrative staff of the Institute was organized on June 23, 2018.

Awareness Programmes

Mera Goan Mera Gourav

Ginning Training Centre of ICAR-CIRCOT, Nagpur organized one-day Kisan Goshthi on “Utilisation of Cotton Stalks for Preparation of Value Added Products” at village Dorli, Dist. Wardha on June 26, 2018 under 'Mera Goan Mera Gourav' Initiative. The ICAR-CIRCOT team led by Er. Varsha Satankar, Scientist, GTC, Nagpur explained about the Institute's technologies to

farmers about preparation of briquettes, pellets, mushrooms, composts, etc. from cotton stalks. She also informed about various Central Govt. schemes like MUDRA, Stand-Up India for entrepreneurship development, especially in rural areas. The experts' team also visited farmers' field and got acquainted about various farming related issues. The farmers were suggested about

various measures to decrease the uses of inorganic fertilizers, reduce input costs, and manage pest and diseases. The team lively demonstrated the

method of mushroom production from cotton waste at village level.



Field visit during awareness programme organized at village Dorli, Dist. Wardha

Publications

Research paper

Jagajanantha, P., Mageshwaran, V., Satankar, V. and Patil, P. G. (2018). Eco-friendly process of absorbent cotton preparation for rural entrepreneurship, International Journal of Current Microbiology and Applied Sciences, 7(6):

1097-1103 (NAAS rating: 5.38)

Popular Article

- महर्षि तोमर, रितु, मनोज कुमार, रेखा बलोदी | अधिक दूध उत्पादन के लिये पोषक पशु आहार का महत्व - . कृषिसेवा, May 2018

Agri-Business Incubation

Technologies Available for Incubation at the ICAR-CIRCOT ABI Centre

- 1) Ecofriendly preparation of absorbent cotton for medical & hygiene products.
- 2) Nanofinishing Technologies for Cotton Textiles
 - a) Antimicrobial
 - b) UV protection
 - c) Water repellency
- 3) Cotton rich blends for functional textile applications
- 4) Innovation Finishing processes for garments & home textiles: Mosquito repellent, pesticide protection cloths & denim fading
- 5) Software module for non-metameric color matching in textiles
- 6) CIRCOT Calibration Cotton for global outreach
- 7) Sustainable business model for cotton at village level:
 - a) Quality based trading

- b) Supply chain logistics for cotton stalk (custom hiring)
- c) Value addition to cotton biomass
- d) CIRCOT mini card for sliver preparation
- 8) Microbial Degossypolisation cottonseed meal for use as feed in poultry, fish & piggery sectors
- 9) Enhancing farmers and other stakeholders income by Cotton value chain: via startup & entrepreneurship development
- 10) Cotton Trading based on Quality Parameters for better price remuneration by Farmers



Upcoming Events

Specialized training programmes for the year 2018-19

S.No.	Title of Training	Period	Fees (Rs) (excluding GST)
1	Value addition to Cottonseed	26-28 July, 2018	12,000
2	Absorbent Cotton Technology	02-04 Aug., 2018	15,000
3	Quality Evaluation & Spinning performance of Indian Cottons using Advanced Techniques	04-07 Sept., 2018	10,000
4	Advances in Applications of Nanotechnology	24-28 Sept., 2018	25,000
5	Electrospinning for Nanofibre Production & its Applications	03-05 Oct., 2018	10,000
6	Basic & Advanced Statistical Techniques for Research	12-15 Nov., 2018	6,000
7	Spectroscopic & Chromatographic Techniques for Material Characterization	27-29 Nov., 2018	10,000
8	Instrumental Evaluation of Clothing Comfort	10-15 Dec., 2018	50,000
9	Characterization of Materials Using X-Ray Diffractometer (XRD)	27-29 Dec., 2018	30,000
10	Advances in Microscopy	17-19 Jan., 2019	15,000
11	Basic and Advanced Techniques for Evaluation of Textile Materials	17-19 Jan., 2019	10,000
12	Fibre Reinforced Composite	04-06 Feb., 2019	10,000
13	Customized training programme for students & academia*	Two days (Dates can be finalized as per the requirement)	3,000
	Customized training programme for students & academia*	One day (Dates can be finalized as per the requirement)	1,500

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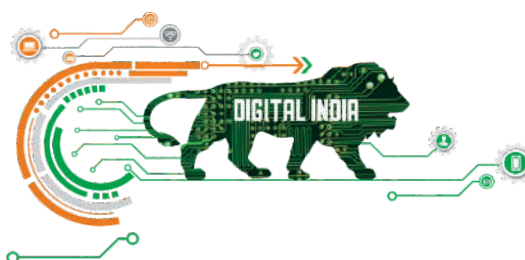
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