



A Monthly Insight into the ICAR-CIRCOT

e - News Letter

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Down Memory Lane

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Director's Desk...

The total cotton consumption at the global level is moderately increasing for the past few years despite the decline in the cotton's share in the world fibre demand. China's cotton consumption has gone down in the recent years on account of factors like higher domestic prices, falling man-made fibre prices and overall industrial slowdown. Despite this the world mill use is showing a positive trend as the cotton mill use outside china, especially in Vietnam and Bangladesh are growing at a faster pace.

Indian Cotton production is estimated to be around 34.1 million bales in 2015-16 as against output of over 38 million bales in the preceding year. The reduced acreage, crop loss due to pest, unexpected demand from Pakistan has helped the cotton sector to outperform and as a result the internal cotton prices have strengthened. The fall in the overall arrivals has pushed up the cotton prices to around Rs. 36000 /- per candy.

The cotton exports are expected to drop by over 10 per cent to around 6 million bales due to the rise in the domestic prices which has made cotton uncompetitive in the international market. The major export destination of Indian cotton include Bangladesh, Pakistan and Vietnam.

P.G. Patil



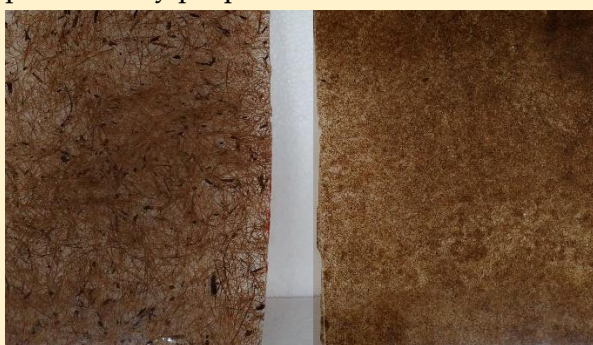
ICAR-CIRCOT, Mumbai



Technology Insight

Process for preparation of nano-lignocellulose from coconut fibres

Coconut fibres were mechanically fibrillated into nano lignocellulose in two stages viz., refining and homogenization. The coconut fibres were cut into 5 cm length and processed through conical refining for 40 min during which fibrillation occurred. The micro-lignocellulose obtained during fibrillation was passed through the high pressure homogenizer at an high operating pressure with repeated cycles to get the nano-lignocellulose with a mean size of $375.5 \text{ nm} \pm 28.8 \text{ nm}$ and average zeta potential of -27 mV . Nano lignocellulose was used as reinforcing agent in epoxy resin to form composite sheets, which showed in 52 % increase in tensile modulus and 22% increase in impact resistance. Thus produced Nano-lignocellulose has potential applications as reinforcement agents in composites for improved mechanical, electrical and permeability properties.



Raw fibre reinforced composite Fibrillated fibre composite

Training

One day Training cum workshop

Twelve students from Indian School of Design and Innovation Parsons, Mumbai attended the tailor made training-cum

workshop on chemical processing of textile materials on 22nd April, 2016. The objective of Training is to make the participants to understand fibre identification, Jigger & Dyeing processes.



Dr. Sujata Saxena, Head In-Charge & Principal Scientist, CBPD explaining the process of dyeing

Training on Double Roller Ginning Technology and Cotton Quality Evaluation

GTC organized a one week training program on “Double Roller Ginning Technology and Cotton Quality Evaluation” during 25-30th April, 2016. The program dealt with fibre quality assessment, cotton grading, DR ginning technology, cotton export and cotton by-products utilization. The session covered practical aspects of repairs and maintenance of ginning and pressing machinery and humidification in ginning industry. The trainees were taught fibre quality parameters such as fibre length, strength, fineness and maturity. Topics on cotton export, establishment of modern ginning and oil mill plants were also covered by outside experts. The trainees were demonstrated on functioning of particle board and scientific cottonseed processing units. The trainees were taken for industrial visits to M/S Bajaj steel Industry & M/S Sri Bhagirath Textiles Ltd.



Group Photo of participants with Director, CIRCOT and Faculty



Group photo: Training on Double Roller Ginning Technology and Cotton Quality Evaluation

Awareness Meet

Participation in Pradhan Mantri Fasal Bima Yojana (PMFBY)

GTC of ICAR-CIRCOT participated in Krishi Vigyan Kendra's farmers awareness meet on Pradhan Mantri Fasal Bima Yojana (PMFBY) organized by ICAR-CICR, Nagpur on 16 April, 2016. The meeting was presided over by Shri Nitin Gadkari, Hon. Union Minister of Road Transport, Highways and Shipping. Shri Krupal Tumane, Member of Parliament, Ramtek (MS) and Dr. C.D. Mayee, Ex-Chairman, ASRB were the Guests of Honour on the occasion. Shri Gadkari urged farmers that they should effectively utilize the PMFBY scheme to protect the crop from any natural disasters. Further, CIRCOT technologies, processes and products were also displayed in the agri-exhibition organised on this occasion. About three hundred farmers and stake holders attended the program.



Shri Nitin Gadkari, Hon. Union Minister of Road Transport, Highways and Shipping visited ICAR-CIRCOT stall.

Nanocellulose Expert Committee Meeting

The Eighth and concluding meeting of Nanocellulose pilot plant expert committee was held on 1st April 2016 in Dr. V. Sundaram Committee Room of ICAR-CIRCOT, Mumbai. The meeting was chaired by Dr. P. G. Patil, Director, ICAR-CIRCOT. The meeting was attended by Dr. R. P. Kachru, Former ADG (PE), ICAR, New Delhi, Dr. S. Sreenivasan, Former Director, CIRCOT, Dr. A. J. Shaikh, Emeritus Scientist & Former Director, CIRCOT, Dr. M. S. Banerji, Former Director, IRMRA, Mumbai, Dr. P. S. Deshmukh, Associate Professor, ICT, Mumbai, Er. A. K. Bharimalla, Sr. Scientist &

In-charge, TTD, Dr. N. Vigneshwaran, Senior Scientist, CBPD and Representative from M/s. Lafarge India Pvt Ltd, Mumbai. Dr. Patil welcomed all the members and expressed his gratitude to the committee members who devoted their time & energy and extended guidance for establishment of the nanocellulose pilot plant at ICAR-CIRCOT. Dr. Kachru urged the scientists and stakeholders to explore diversified avenues for utilization of nanocellulose from cotton and other agro biomass.



Discussion during Nanocellulose Expert Committee Meeting

All India Coordinated Research Project on Cotton: Annual Group Meeting

Annual Group Meeting 2015-16 of All India Coordinated Research Project on Cotton was held at APMC Krushi Bazar, Surat from 7-9th April, 2016. The meeting was attended by Dr. P G Patil, Director, ICAR-CIRCOT, Dr. P K Mandhyan, Senior Scientist & PI, AICRP –on Cotton, Dr. S Venkatkrishnan, Mr. R S Prabhudesai, Dr. Hamid Hasan, Mr. R K Jadhav, Chief Technical Officers and Mr. Rangari, Senior Technical Officer. The meeting was inaugurated by Shri Ramanbhai N Patel, Chairman, APMC, Surat, Gujarat. During his special address Dr. P G Patil, Director, ICAR-CIRCOT stressed upon importance of quality of cotton and need of the textile industry. He also made appeal that cotton scientist should take into consideration the quality aspects of cotton while formulating the research programme. He also highlighted the importance of utilisation of cotton stalk and thereby increase in the farmer's income. He also created awareness about scientific crushing of cotton seed. He said that by converting the cotton stalk into pellets and briquettes not only solve the problem of burning of stalk in the field but also pave the way for the green energy. Dr. P K Mandhyan, PI, presented the Fibre Quality Evaluation Report for the period 2015-16. The Central Variety Identification Committee (CVIC) meeting was attended by Dr. P G Patil, Director, ICAR-CIRCOT to consider the 44 proposals. Director, ICAR-CIRCOT put forth his valuable suggestions regarding fibre quality and spinning performance of proposed varieties. The Annual Group Meeting

continued on 8th April, 2016 with panel discussions on various aspects of the project. On the final day, 9th April, 2016, DDG (Crop Science) chaired the sessions and he deliberated on various issues related to cotton production with the scientists.



Releasing of Fibre Quality Evaluation Report for the period 2015-16



Dr. P G Patil, Director, ICAR-CIRCOT delivering lecture

116th Institute Research Council (IRC) Meeting

The One Hundred and Sixteenth Meeting of IRC was held on April 02, 2016 to review the progress of research work and to consider the new project proposals. Dr. P.G. Patil, Director Chaired the meeting. Dr. R.P. Kachru, former ADG (PE), ICAR, Dr. S. Sreenivasan and Dr. A.J. Shaikh, former Directors of ICAR-CIRCOT attended the meeting as subject

matter specialists. Heads of Division, Scientists and Sr. Technical Officers attended the meeting. During meeting 23 ongoing project discussed for its progress, 6 new projects, after deliberation, were approved.

Celebration of 125th Anniversary of Dr. B.R. Ambedkar

The 125th Anniversary of Dr. Babasaheb Ambedkar, the architect of Indian constitution was celebrated on 13th April, 2016. All the staff paid homage to the great leader.



Discussion during IRC Meeting



Staff paying Homage to Dr. Babasaheb Ambedkar, the architect of Indian Constitution

Swachh Bharat Abhiyan

The staff of the Institute formed a human chain and removed scrap materials and cotton waste from Mechanical Processing Division on 28th April, 2016. Fifty-three staff members participated in this programme.



ICAR-CIRCOT Staffs at Cleaning activities

Director Vist

1. Dr. P. G. Patil, Director, ICAR-CIRCOT attended a meeting chaired by Sh. Radha Mohan Singh, Hon'ble Union Minister of Agriculture & Farmers Welfare, Govt. of India to discuss the promotion of desi cotton varieties to ensure economic profitability to the farmers at ICAR, Krishi Bhavan, New Delhi on 4th April, 2016.
2. Dr. P. G. Patil, Director, ICAR-CIRCOT, attended Central Cotton Variety Identification Committee meeting as an "Expert Member" nominated by ICAR, held at Agricultural Produce Market Committee (APMC), Krishi Bazar, Surat on 7th April, 2016.



Dr. P G Patil, Director, ICAR-CIRCOT and Dr. P. K. Mandhyan, Senior Scientist at QEU, Surat

3. Dr. P. G. Patil, Director, ICAR-CIRCOT, visited CIRCOT Quality Evaluation Unit at Surat on 8th April, 2016 to monitor the research activities and also discussed with Officer In-charge of the Unit about working of the Unit.

Personnel

1. Er. V. G. Arude, Scientist, MPD resume the charge of In-charge Head, Mechanical Processing Division w. e. f. 13th April, 2016.
2. Shri. D.U. Patil, Chief Technical Officer, Joined GTC, CIRCOT, Nagpur on 18th April, 2016 (FN) who got transfer from ICAR-Indian Institute of Water Management, Bhuvaneshwar, Odisha.

Upcoming Event

Tentative calendar for Training course on "Quality Evaluation of Cotton" at ICAR-CIRCOT, Mumbai (2016-17)

Batch No.	From	To
1.	09-05-2016	13-05-2016
2.	06-06-2016	10-06-2016
3.	11-07-2016	15-07-2016
4.	25-07-2016	29-07-2016
5.	08-08-2016	12-08-2016
6.	22-08-2016	26-08-2016
7.	19-09-2016	23-09-2016
8.	07-11-2016	11-11-2016
9.	19-12-2016	23-12-2016
10.	09-01-2017	13-01-2017
11.	06-02-2017	10-02-2017
12.	20-02-2017	24-02-2017

Course Contents

- Advances in Ginning Technologies
- Cotton Grading
- Cotton Crop By-products
- Fibre Length Measurement using Conventional Instruments
- Demonstration in Fibre Fineness and Maturity
- Cotton fibre Testing using High Volume Instrument (HVI) and Advanced Fibre Information System (AFIS)
- Mechanical Processing of Cotton
- Techno Entrepreneurial Activities and Business Planning and Development

For More details Contact:

- Mr. Dilip Kamble 09004892934
- Mr. Anand Jadhav 09821760036

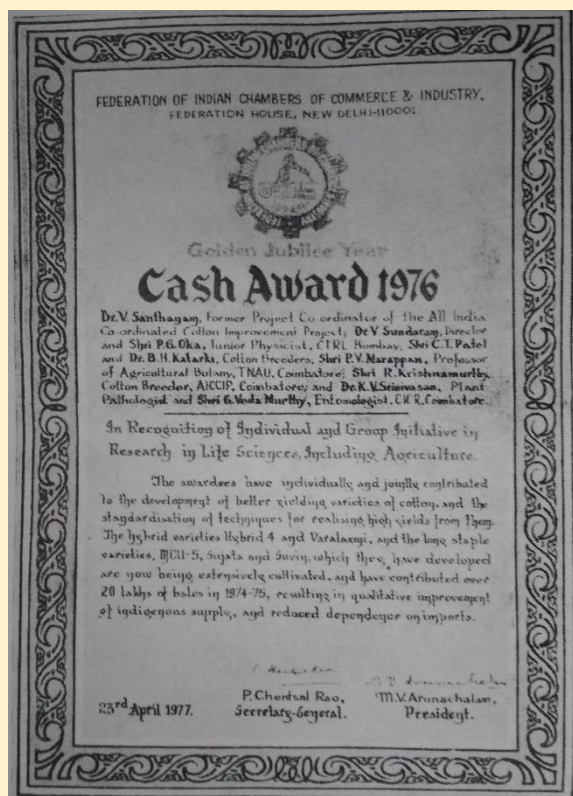
Landline: 022-24127273/76, Extn No: 118

Fax: 24157239/24130835

Email Id: circottraining@gmail.com



Dr.V. Sundaram, former Director ICAR-CIRCOT received the FICCI cash award for 1976 for their outstanding contribution in AICCIP Project, at the hands of the Honourable Prime Minister of India, Shri Morarji Desai on the occasion of the FICCI Golden Jubilee Meeting held at New Delhi in April, 1977.



Facsimile of the Certificate presented by FICCI to individual members of the team of scientists working in the AICCIP



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