



CIRCOT news

Newsletter of the Central Institute for Research on Cotton Technology, Mumbai

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Number 2

Editorial

The National Agricultural Technology Project (NATP) implemented with the World Bank assistance by the Indian Council of Agricultural Research (ICAR) has clearly brought about significant impact in respect of development of a number of farm-worthy technologies. In a few select cases adoption of these technologies has enabled realisation of higher economic returns to the farmers covered under this scheme. The overall strategy of this project jointly implemented with the Department of Agriculture and Cooperation (DAC) has been to promote economic growth and social development among farming community by addressing issues of relevance through research for improved management of national resources to achieve enhanced production, productivity particularly in rain fed cultivation. Apart from these, capacity building in public sector research institutions under the National Agricultural Research System (NARS) has also been one of the mandated activities under the NATP.

Under the Team of Excellence Mode (TOE) in the production system research (PSR) strategic upstream support has been provided by NATP to location-specific production programmes. Additional areas in which support from NATP has been ensured are: research in frontier areas, development of specialised human resource in specific disciplines, support to create team of excellence in identified activities that could bring about enhancement in processing and export and similar such programmes. Establishment of Referral laboratories has been one such activity supported by NATP under the TOE mode.

A proposal for establishment of Referral laboratory for cotton textiles at CIRCOT under NATP received spontaneous support from the Council. The aim of this project was to see that the testing infrastructure available at the Institute is augmented to provide a wholesome service to the cotton textile industry in enhancing its export. With an accredited national laboratory status for physical and chemical testing of textile materials under its belt, CIRCOT has carefully planned and executed this programme of strengthening and modernisation of its facilities after ascertaining the needs of the industry so that it would be a certainty that patronage for utilising the facilities would be there, once the programme is completed.



In a project duration spanning only for twelve months, a set of twenty six instruments have been procured and installed, out of which eight have been obtained through RITES and rest of them done by CIRCOT entailing an expenditure of about Rs. 3.5 crores. Now CIRCOT has facilities for measurement of surface tension of liquids, yarn hairiness and fault analysis, monitoring dimensional changes in fabrics during laundering, colour fastness measurements after laundering, water repellency testing, flame resistance and flammability

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Editorial Committee : Dr. S. Sreenivasan, Dr. R. K. Balasubramanian, Dr. V. S. R. Murthy, Dr. S. S. Chakravarti, Dr. S. S. Chakravarti, Dr. S. S. Chakravarti



FLD OF CIRCOT TECHNOLOGIES : AWARENESS PROGRAMME ON COTTON STALK UTILISATION

An FLD on CIRCOT Technologies was organised at Jodhpuria, a village near Sirsa (Haryana) on November 4, 2004. Dr. Phundan Singh, Director, CICR, Nagpur, Dr. T.P. Rajendran, Project Coordinator (Cotton) and Head, CICR, Coimbatore, Dr. D. Monga, Head, CICR, Sirsa and the Joint Director of

Agriculture, Haryana participated in the programme. The technologies developed by CIRCOT for better utilisation of cotton stalk viz. production of particle boards and binderless boards, making compost, growing edible mushroom on cotton stalk were explained to about 200 farmers who attended the meet. A few of the scientists attached to KVK unit of Haryana Agricultural University, Sirsa also showed interest in technologies developed apart from the farmers.



A Section of Farmer Participants to the FLD on CIRCOT Technologies Programme on November 4, 2004

Continued from page 1

assessment of textiles. Also most modern facilities like Fourier Transform Infrared Spectrometer, Xray Diffractometer, Spectroflurometer, Advanced Fibre Information System have been set up under this programme. An industry-interface was also conducted at Mumbai on 24.3.05 to introduce the facilities to the industry for its enhanced utilisation. A brief proceedings of the above meeting is included

in this newsletter for the benefit of the readers.

It is fervently hoped that with these added facilities, CIRCOT would be in a better position to cater to the testing and product development needs of the industry and that in- turn the textile industry would come forward and utilise the upgraded infrastructure to enhance its export.

S. Sreenivasan
Director

AWARENESS PROGRAMME ON CIRCOT TECHNOLOGIES/PRODUCTS AND PROCESSES

An Awareness Programme on CIRCOT Technologies/Products and Processes was held on the afternoon of November 4, 2004 at CICR, Sirsa. In addition to the remarks by cotton experts present at the meeting, technologies developed by CIRCOT such as the ginning

machines, training programmes conducted at the headquarters and the ginning training at GTC, Nagpur, various methods of utilizing cotton stalks in an attempt to generate additional income for the farmers were explained by Dr. K.M. Paralikar, Head of Transfer of Technology Division and Shri R.M. Gurjar, Principal Scientist, CIRCOT. Also Dr. R.H. Balasubramanya, Head, Chemical & Biochemical Processing Division explained the



WELCOME TO
AWARENESS PROGRAMME ON
COTTON TECHNOLOGIES, PROCESSES PRODUCTS
• AT 200 P.M. ON NOVEMBER 4, 2004 •
ORGANIZED BY
CENTRAL WAREHOUSE FOR RESEARCH ON COTTON TECHNOLOGY (CIRCOT)
REGIONAL UNIT, CER CAMPUS, SIRSA 125055



Shri V.P. Nagpal, Branch Manager, CCI, Sirsa, addressing the Awareness Programme on CIRCOT Technologies/Products and Processes on November 4, 2004

preparation of edible mushrooms on cotton plant stalks and compost preparation from ginnery waste. A large number of participants drawn from ginneries in the north and paper industry evinced keen interest in the technologies developed by CIRCOT.

AWARENESS PROGRAMME ON GINNING MODERNISATION AND HUMAN RESOURCE DEVELOPMENT

An Awareness Programme was held at The South India Hosiery Manufacturer's Association Hall, Tirupur on December 30, 2004. Shri Mohan P. Kandaswamy, President, The South India

Hosiery Manufacturer's Association was in the Chair. Apart from presentation on the CIRCOT technologies, M/s. Super Spinning Mills, Coimbatore presented their efforts to reduce contamination in cotton at the ginning industry. Dr. T.P. Rajendran, Head, CICR, Coimbatore also made a presentation on the governmental efforts for producing quality cottons. Dr. K.R. Krishna Iyer, Consultant, Technology Mission on Cotton outlined the Governmental programme on modernisation of the ginning industry through the Technology Mission and stressed that the ginners in Tamil Nadu should come forward to modernise the ginneries. The following presentations were made in the meeting.



Dr. S. Sreenivasan, Director, CIRCOT addressing the ginneres

1. *Ginning Machineries and Ginning Training*
— Dr. K.M. Paralikar, Head, TTD
2. *Production of Compost and Absorbent Cotton from Ginnery Waste* — Dr. R.H. Balasubramanya, Head, CBPD
3. *HVI System for Measurement of Cotton Quality and CIRCOT Calibration Cotton* -
Dr. S. Sreenivasan, Director, CIRCOT

The meeting had large attendance by participation from the ginnery and spinning mills.

Another Awareness Programme on Ginning Modernisation and Human Resource Development was held at Vidarbha Industries Hall, Nagpur on January 29, 2005 under the aegis of Technology Mission on Cotton - Mini Mission II. Shri Vishwa Nath, Advisor, TMC MM III & IV inaugurated the meet. Ginning



Shri Vishwa Nath, Advisor, TMC MM III & IV addressing the audience

modernization and best management practices developed under the TMC would go a long way in producing contaminant free cotton for use by the industry. Shri Viswa Nath emphasized in his opening address. This was followed by presentations from Dr. S. Sreenivasan, Director, Dr. K.M. Paralikar, Head, TTD and Shri P.G. Patil, In-charge, GTC. The programme was attended by about 70 participants. The meeting ended with a resolution for unified action by all concerned in the cotton chain to reduce the trash in cotton and make the material contaminant-free.

Under the National Agricultural Technology Project (NATP), ICAR sponsored Referral Laboratory Project under the Team of Excellence Mode at CIRCOT, on Thursday the 24th March, 2005 at 11.00 A.M., a CIRCOT — Industry Interface Meet was organized by CIRCOT at the Jubilee Hall. Dr. J.C. Katyal, DDG (Education) & National Director, NATP, ICAR, New Delhi presided over the meet and Thematic Remarks were rendered by Dr. Pitam Chandra, ADG (PE), ICAR. Another key personality who participated in the Meet was Mr. Sudhir Bhargava, Member, Governing body ICAR. Apart from Scientist and Technical Officers of CIRCOT, about 30 dignitaries representing the textile industry and trade attended the meet.

Dr. S. Sreenivasan, Director, CIRCOT while describing the objectives of NATP, mentioned

that the establishment of referral laboratory at CIRCOT was a milestone event for the institute. He also expressed confidence that as in the past, the industry would make the best possible use of the additional testing facilities commissioned at CIRCOT.

Dr. G.F.S. Hussain, Principal Scientist & Head, Quality Evaluation and Improvement Division and Principal Investigator of the Referral Laboratory Project gave a presentation on the Establishment of Additional Facilities created at CIRCOT.

The following internal seminars were arranged for the Scientific and Technical personnel at the Institute.

Zinc Oxide Nanomaterials — Shri Virendra Prasad on October 25, 2004.

New Dimensions in Agriculture — Dr. R.P. Kachru, Retd. ADG (Engg.), ICAR on December 8, 2004.

- *Global Non-Woven Industries* — Dr. Subhash K. Batra, North Carolina State University, USA on December 13, 2004.
- *Modern XRD Instrumentation and its Applications* — Shri S. Sekar and Shri M.V. Vivekanandan on February 11, 2005. This lecture was in connection with the training undergone at the Applications Laboratories, PANalytical B.V., Almelo, The Netherlands.

HALF-YEARLY STAFF RESEARCH COUNCIL MEETING

A Half-Yearly Staff Research Council meeting was held on November 6 and 8, 2004 in which discussion was held on the progress of research work carried out on projects during April 2004 to September 2004. Dr. S. Sreenivasan, Director

was in the Chair and all the HODs, Scientists and Technical Officers of the respective divisions attended all the sessions. A new project viz. Application of Nanoparticles in Paper Coating was approved in the Third Core Area i. e. Finishing and Dyeing of Cotton with Natural and Environment Friendly agents after incorporating the suggestions/recommendations of the SRC.



Dr. S. Sreenivasan, Director, CIRCOT making a point during the Half-yearly SRC meeting

RESEARCH ADVISORY COMMITTEE MEETING

The Eleventh Research Advisory Committee Meeting took place during January 19 & 20, 2005 presided over by Dr. P.R. Roy, Chairman, RAC and former Group Advisor, Arvind Mills, Ahmedabad. There were discussions on the ongoing research projects after the presentation by the Heads of Divisions. New project proposals for 2005-06 were discussed in the eleventh RAC keeping the recommendations/suggestions of the SRC in view.

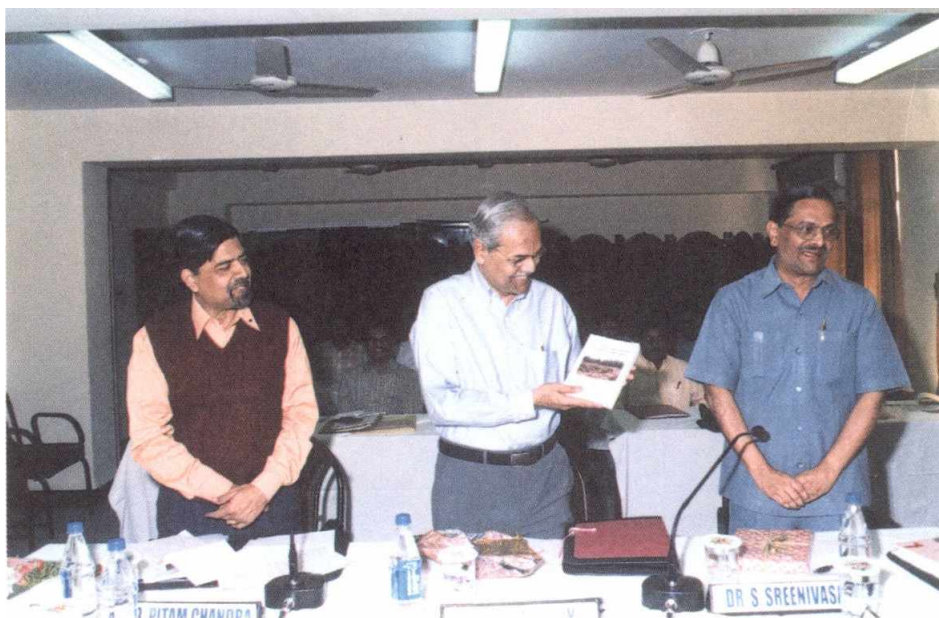
In the meeting there was a discussion on the Vision 2020 — CIRCOT Perspective Plan and suggestions / recommendations by the

members were taken note of for incorporation in the document.

A pamphlet on **Production of Compost from Ginnery Waste (Kannada)** was released by Dr. Roy and Shri Nand Kishore Kajliwal, Chairman, Nath Group of Companies and Member, RAC released a booklet on **Everything about Cotton Plant Stalks** (in Marathi)

STAFF RESEARCH COUNCIL MEETING

The One Hundred and Fifth Staff Research Council meeting was held during March 14 to 16, 2005 in which discussions were held on the progress of research work carried out on all the projects that are in operation at the Institute



Dr. P.R. Roy Chairman, RAC releasing a pamphlet on the Production of Compost from Ginnery Waste (Kannada) during the Eleventh Research Advisory Committee Meeting on January 20, 2005

including the externally aided projects during 2004-2005. A programme of work for 2005-2006 was finalized in the 105th meeting. Dr. S. Sreenivasan, Director was in the Chair and all the Heads of Divisions, Scientists and Technical Officers of the respective divisions attended all the sessions. The following new project proposals have been approved after incorporating **the suggestions/** recommendations of the 105th SRC.

Core Area I : Improvement of Ginning of Cotton

1. Effect of Different Machine Settings and Raw Material Parameter on Production and Quality of Cotton in Roller Gins
2. Design and Development of Acid Delinting Machine for Cotton seed to be used as Planting Material
3. Development of a Technical Manual for Trouble Shooting in Modernised Ginneries
4. Development of a Fabric based Roller for

Double Roller Gin

An Efficient Database Management System for Running a Modernised Ginnery

Core Area II : Evaluation and Improvement of Quality of Fibre, Yarn and Fabric

1. Wear Comfort Studies on Knitted Fabrics
2. Development of Reliability Indices for Quality Parameters of Cotton Strains
3. Designing a Test Simulator and Studies on Cleaning Behaviour of Indian Cottons
4. Assessment of Competitiveness of Cotton Yarn Produced in India in the Changing Global Textile Trade.

MANAGEMENT COMMITTEE MEETINGS

The fifty-ninth and the sixtieth meetings of the Institute Joint Council were held on October 30, 2004 and February 26, 2005 respectively. Regular items like confirmation of minutes of the previous meeting, action taken on the



Shri Suresh Varpudkar and Shri Nand Kishore Kajliwal, Members, RAC releasing the leaflet on Ginning Training Course - A Practical Programme on Ginning Technology for Ginning Personnel in Marathi and Hindi respectively during the 59th Management Committee Meeting on October 30, 2004

recommendations of the committee, progress of works, action taken on the recommendations of the IJC and Grievance Committee formed topics of discussion in both the meetings. Progress on the on-going research highlights too formed part of the discussions. Appointments of AMA for the employees were also approved.

Two leaf-lets on **Ginning Training Course - A Practical Programme on Ginning Technology for Ginning Personnel** in *Marathi* and *Hindi* were released by Shri Suresh Varpudkar and Shri Nand Kishore Kajliwal respectively during the fifty-ninth management committee meeting.

VIGILANCE AWARENESS WEEK CELEBRATION

As per directives from the Govt. of India, the week beginning from October 31 to November 6 every year has to be celebrated as Vigilance

Awareness Week. An essay competition on the subject of **Need for Vigilance in Scientific and Technical Issues in R&D Institutions in the Wake of World Trade Organisations** was organised on November 3, 2004 for the Scientific and Technical personnel and another on **Need for Vigilance in Government Offices** for the Administrative and Technical personnel. A **Slogan Competition** was also arranged on the topic of Vigilance Awareness. Prizes were awarded to the first two best entries each in Hindi, Marathi and English. The following were the winners in the essay competition conducted during the Vigilance week.

For Scientific / Technical Staff

English

I prize: Shri Achchhelal Yadhav

II prize : Shri A.K. Chaphekar

Hindi

I prize: Smt. K.R. Joshi

II prize Shri R.R. Gosai

Marathi

I prize: Shri B.K. Sawant

For Administrative / Supporting Staff

Hindi

I prize: Shri R.D. Shambharkar

Marathi

I prize: Smt. S.D. Dudam

II prize : Shri S.N. Bandre

Winners in the Slogan Competition

English

I prize: Shri A.K. Chaphekar

Hindi

I prize: Shri S.G. Phalke

II prize : Smt. V.N. Walzade

Marathi

I prize: Shri J.R. Mangale

II prize : Shri A.R. Gujar

Two talks viz. **Importance of Vigilance Awareness** by Smt. Lathika Goel, Deputy Vigilance Officer, BARC, Mumbai and **Psychology of Corruption in Indian Context** by Major Vijaya Kumar (Retd.) was arranged on November 3, 2004 in which Major Vijaya Kumar (Retd.) brought out in clear terms the need to be vigilant and efforts being made by the Govt. of India in this direction.



Dr. S. Sreenivasan, Director, CIRCOT presenting a bouquet to Mrs. Lathika Goel, Deputy Vigilance Officer, BARC, Mumbai

COMMUNAL HARMONY WEEK

As per the directives from the Secretary, National Foundation for Communal Harmony, New Delhi, November 10 to 25, 2004 was

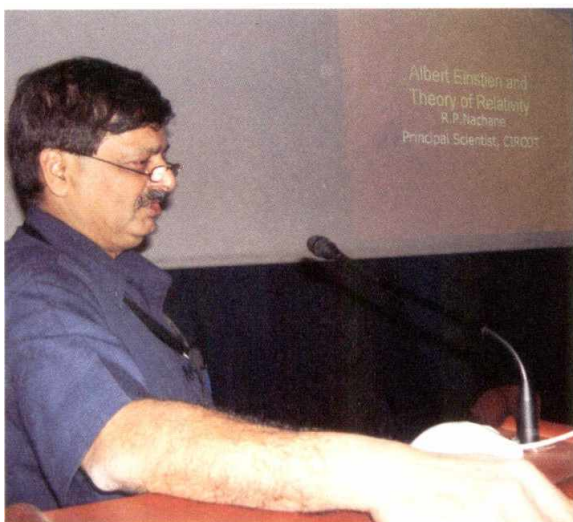
celebrated as Communal Harmony Week. During this occasion donations were collected from the staff and were sent to appropriate authorities for use in rehabilitation of child victims of communal, caste, ethnic or terrorist violence, etc.

NATIONAL INTEGRATION WEEK

The period from November 19 - 25, 2004 like previous years was celebrated as National Integration Week. The staff took pledge for maintaining communal harmony in the country and to preserve the integrity of the nation.

NATIONAL SCIENCE DAY

The National Science day is being celebrated every year to mark the discovery of Raman Effect by the Nobel Laureate Sir C.V. Raman. As per the directives of the Government of India, the theme for celebration for this year was **Celebration of Physics**. As this year marks



Interesting Events in the Life of Sir Albert Einstein by Dr. R.P. Nachane, Principal Scientist, CIRCOT



Management and Science lecture by Dr. A.K. Sengupta, Director, SIES College of Management Studies, Nerul, Navi Mumbai

the completion of 100 years of discovery of **Sir Albert Einstein's Theory of Relativity** a lecture was arranged on 28-02-2005 for all the staff of the Institute. This lecture was delivered by Dr. R.P. Nachane, Principal Scientist, CIRCOT. Another lecture on **Management and Science** was delivered by Dr. A.K. Sengupta, Director, SIES College of Management Studies, Nerul, Navi Mumbai on March 1, 2005.

The first talk was a popular one on the life of the scientist and a few interesting events that shaped Sir Einstein. The second talk dealt with the similarities of the management studies and science. Both the lectures were well attended by the staff.

CIRCOT CALIBRATION COTTON

CIRCOT is offering indigenously prepared Calibration Cotton Standards having quality characteristics similar to those of USDA Calibration Cottons.

Two sets of calibration cotton standards are available:

- One set comprises five samples coded A-1, M-4, D-1, E-4 and E-5 for conventional instruments such as Fibrograph, Micronaire and Stelometer
- The second set consists of five cottons coded as HM-5, HC-2, HD-2, HE-4 and Hlm-1

The net weight of each sample is 200 g and the cost is Rs. 750/-

PERFORMANCE EVALUATION OF MODIFIED DOUBLE ROLLER (DR) GIN AND HIPRO LAB MODEL GIN

The ginning performance of modified DR gin was evaluated at a commercial ginning factory for four months during this season (400 hours of total operation). This machine is designed and developed to gin large quantity of seed cotton samples quickly to test their fibre and seed quality. Its performance was found to be satisfactory and is ready for commercial transfer. This has the capacity to gin 65 to 70 kg seed cotton /hour

The High Production Laboratory Model DR gin developed earlier was subjected to large scale trials. The machine can process 50 — 55 kg of seed cotton in one hour. The technology has been transferred for commercial production and marketing to M/s. Precision Tooling Engineers, Nagpur. A tri-party (CIRCOT-VNIT-PTE) MoU has been signed and a royalty of 1 lakh was earned by the Institute.

STUDIES ON NEURAL NETWORK

A Kohonen Neural Network (KNN) was developed to classify 23 cottons into three groups based on a range of fibre property values that include 2.5% Span Length, Uniformity Ratio, bundle strength, Short Fibre Index, and Elongation. This type of classification would be helpful in deciding the appropriate end use for a given cotton apart from delineating the quality requirement for breeding programmes. The prediction ability of KNN was found to be 100%, when the network was trained with 23 data sets and validated with four cottons. Further work is in progress to classify cottons for rotor spinning as an end use and also to amplify the scope of this model.

PHYSICO-CHEMICAL STUDIES ON COIR FIBRES

In a project on creating a database for the physico-chemical and structural characteristics of coir fibres, examination of tensile characteristics of four popular varieties viz. WCT, COD, GB and AO revealed that thick fibres possess lower tenacity, higher extensibility and higher work of rupture compared to thin fibres. The maturity of the fibres does not seem to have any effect on the tensile parameters. Chemical analysis of the fibres reveal that on an average, coir fibres contain 59.3 % holocellulose, 27.9 % lignin, 6.6 % moisture content and 1.5 % ash. The tenacity ranges from 8.8 to 16.5 g/tex and extensibility from 24% to 39%

STUDIES ON THE PREPARATION OF ZINC OXIDE (ZnO) NANOPARTICLES

Zinc Oxide (ZnO) nanoparticles apart from their use in paper coatings, cosmetics, paints, rubber and plastic has attracted attention particularly in the nanoform as a material suitable for manufacture of light-emitting devices. At CIRCOT, fabrication of ZnO nanomaterials both under solid as well as liquid state method has been completed. Different concentrations of sodium lauryl sulfate and starch were used to modify the surface of nanoparticles to improve the stability of their suspension against flocculation. The characterization of ZnO nanorods was carried out by using TEM and XRD, UV — Visible spectroscopy, Fourier transform Infrared Spectroscopy and TGA. As typical quantum dot ZnO nanoparticles have more novel quality, ZnO needed for paper coating was minimal in addition to increasing the smoothness, brightness and UV absorbance property.

TRAINING

During the year, 40 trainees in four batches have been trained in fibre quality evaluation at the headquarters. Twenty-five sponsored ginners, fitters, supervisory staff of ginning industry in six batches have been imparted training on various aspects pertaining to gin operation, maintenance of gins, importance of producing contaminant free quality cottons. Hands-on training at the ginning industry through visits was also arranged.

EXHIBITION / PUBLICITY

CIRCOT participated in several exhibitions displaying the technologies developed and available for commercialisation. Large number of entrepreneurs and farmers evinced keen interest in the technologies. The opportunity provided was utilized to initiate and finalise a few consultancy projects.

1. International Cotton Genome Initiative (ICGM) 2004 exhibition at Hotel Taj Krishna from October 10 — 13, 2004 at Hyderabad.

International Symposium on Cotton Exhibition from November 23 — 25, 2004 at University of Agricultural Sciences, Dharwad.

International Cotton Advisory Committee (ICAC) Exhibition held at Hotel Hilton Towers from November 29 to December 3, 2004 at Mumbai.

Exhibition organised during the National Seminar on Biomass Management for Energy purposes — Issues and Strategies on December 11 and 12, 2004 at Sardar Patel Renewable Energy Research Institute (SPRERI), Vidyanagar, Anand, Gujrat.

Kisan Mela 2004 on December 20, 2004 at National Research Centre for Citrus (NRCC), Nagpur.

Exhibition organised in connection with the Vice - Chancellor's meet held at Haffkines Institute Parel hosted by Veterinary Science College from February 4-5, 2005 at Mumbai.

7th Agriculture Science Congress, Agro Industry Exhibition, College of Agriculture, Pune from February 16-20, 2005.

TECHNOLOGIES AVAILABLE AT CIRCOT FOR TRANSFER

Products

Kisan Gin, CLOY Gin and Lilliput Gin
Ginning Percentage Balance
Kapas Extractor
Inclined type Pre-Cleaner
Halo Length Disc
Boll Hardness tester
Variable Speed Gin
Cotton Stalk Compacting Machine

Processes

Pulp and Paper, Particle Board and Corrugated Boxes from Cotton Plant Stalk
Biogas from Textile Mill Waste
Mushroom Crop on Agro-Wastes
Dyeing of Cotton Fabrics with Natural Dyes
Compost from Ginnery Waste
Absorbent Cotton from Non-Spinnable Cotton

PROMOTIONS

SL No.	Name	Post	Effective Date of Promotion
Scientific			
1.	Dr. T.S. Manojkumar	Scientist (Sr. Scale)	27-08-2002
2.	Dr. S.B. Jadhav	Sr. Scientist	20-03-2003
3.	Dr. N. Shanmugam	Scientist (Sr. Scale)	24-12-2003
4.	Dr. Y. Subrahmanyam	Sr. Scientist	11-03-2004
Technical			
1.	Shri Ram Parkash	Technical Officer T — 9	01-07-2001
2.	Dr. H.U.Gangar	Technical Officer T — 8	01-07-1997
3.	Shri M.C. Bhalod	Technical Officer T (7— 8)	01-01-2003
4.	Smt. N.D. Nachane	Technical Officer T (7— 8)	01-01-2004
5.	Smt. S.V. Sukhi	Technical Officer T (7— 8)	01-01-2004
6.	Shri R.M. Modi	Technical Officer T — 6	01-01-2000
7.	Shri Mahabirsingh	Technical - Category T-1	22-02-2004
Administrative			
1.	Smt. V.V. Janaskar	Assistant	22-07-2004
2.	Shri P.V. Jadhav	Upper Division Clerk	22-07-2004

TRANSFERS

Supporting

1. Shri Sanwamal Saini, SS. Gr. IV from Quality Evaluation Unit, Sirsa to Headquarters w.e.f. 19-10- 2004 (F.N.).
2. Shri S.V. Kokane, **SS.Gr.I** from CIRCOT, Mumbai to Ginning Training Centre, Nagpur w.e.f. 01-01-2005 (A.N.)
3. Shri A.D. Sonawane, **SS.Gr.I** from CIRCOT, Mumbai to CIFE, Mumbai w.e.f. 23-02-2005.
4. Shri Mahabir Singh, SS. **Gr.II** from Quality Evaluation Unit, Sirsa to Headquarters w.e.f. 22-02-2005 (EN.)

RETIREMENT / TERMINATION

Technical

1. Shri A.B. Sawant, Sr. Gestener Operator retired from service w.e.f. 31-10-2004.
2. Shri R.A. Suddawar, Driver retired from service w.e.f. 31-10-2004.
3. Shri S. Chandrasekar, Technical Officer retired from service w.e.f. 30-11-2004.
4. Dr. H.U. Gangar, Technical Officer retired from service w.e.f. 30-11-2004.
5. Shri John Robert, Technician T-2 retired from service w.e.f. 31-01-2005.

Supporting Staff

Shri R.S. Rane, Supporting Staff **Gr.III** retired from service w.e.f. 28-02-2005.

TRAINING PROGRAMME ATTENDED BY STAFF

<i>Training Programme</i>	<i>Period and Place</i>	<i>Participant(s)</i>
Training on X-ray Diffractometer	October 4 to 8, 2004 Bangalore	Shri M.V. Vivekanandan
Workshop on Estimation & Evaluation of total Uncertainty in Measurement as per NABL	October 6 to 8, 2004 Mumbai	Dr. S.K. Chattopadhyay Shri R.K. Jadhav
Principles and Application of Quantitative Microscopy and Texture of Metallic Materials (AMITEX 2004)	October 11 to 15, 2004 Kanpur	Dr. N. Vigneshwaran
General Requirements for Competence of Testing and Calibration Laboratories and Internal Audit as per ISO/IEC 17025	October 28 and 29, 2004 Mumbai	Smt. Bindu Venugopal Shri R.R. Mahangade Kum. C.D. D' Souza Shri A.P. Modak
Training on Scanning Electron Microscope (SEM) Operations and Applications under Referral Laboratory Project	November 3 to 9, 2004 Pune	Shri G.B. Hadge
Course on Basic X-ray Diffractometry	November 8 to 12, 2004 The Netherlands	Shri S. Sekar Shri M.V. Vivekanandan
General Requirements for Competence of Testing and Calibration Laboratories and Internal Audit as per ISO/IEC 17025	December 6 to 9, 2004 Mumbai	Shri R.S. Prabhudesai Shri V.D. Kalsekar
General Requirements for the Competence of Testing and Calibration Laboratories and Internal Audit as per ISO/IEC 17025	February 8 to 11, 2005 Mumbai	Shri S.M. Gogate Kum. C.D. D' Souza
Advances in Computer Colour Matching System	February 17 and 18, 2005 Mumbai	Dr.(Smt.) Sujatha Saxena
Hindi Gahan Training	February 22 to 25, 2005 Hyderabad	Ms. S. Harrison Smt. G.G. Lohe Palorkar
Workshop on Design and Development of Jute Diversified Products	March 28 — April 1, 2005 Mumbai	Smt. Bindu Venugopal Shri A.K. Chaphekar

PUBLICATIONS

1. CIRCOT leaflet No.46 — Particle Board from Cotton Plant Stalk — A Timber Substitute (*Telugu*)
2. CIRCOT leaflet No.47 — Particle Board from Cotton Plant Stalk — A Timber Substitute (*Kannada*)
3. CIRCOT leaflet No.48 — Particle Board from Cotton Plant Stalk — A Timber Substitute (*Gujarati*)
4. CIRCOT leaflet No.49 — High Productive Laboratory Model Double Roller Gin
5. CIRCOT News, April 2004 to September 2004.
6. CIRCOT Ginning Bulletin, April 2004 to September 2004.
7. Everything about Cotton Plant Stalks : An Annually Renewable Biomass for Industrial Use in English, Hindi, Marathi, Gujarati, Telugu and Kannada
8. Technical Presentations released during the Awareness Programme on CIRCOT Technologies, Processes and Products held at Salem, Tamil Nadu on July 6, 2004.
9. Technical Presentations released during the Awareness Programme on CIRCOT Technologies, Processes and Products held at CICR Regional Unit, Sirsa on November 4, 2004.
10. Technical Presentations released during the Awareness Programme on Ginning Modernisation and Human Resource Development held at The South India Hosiery Manufacturer's Association Hall, Tirupur on December 30, 2004.
11. Technical Presentations released during the Awareness Programme on Ginning Modernisation and Human Resource Development under TMC — MM II held at Vidarbha Industries Hall, Nagpur on January 29, 2005.

PAPERS PRESENTED AT SEMINAR/CONFERENCES

Author	Title	Seminar/Conference
Chattopadhyay, S.K. Bhaskar, P. Ahmed, M. Gupta, N.P. Pokharna, A.K.	<i>Angora Fibre in Blends with Cotton and Polyester</i>	National Seminar on Angora Rabbit Wool and Cashmere Production and Utilisation , Manali, September 25 — 26, 2004.
Ahmed, M.	<i>Innovations in Weft Knitting Technology</i>	Conference on Innovations in Textiles , Nagpur, October 3, 2004
Sreenivasan, S.	<i>Objective Evaluation of Cotton</i>	Meeting held at National Commodity Derivatives Exchange , Mumbai, October 16, 2004.
Vigneshwaran, N. Ashtaputre, N.M. Varadarajan, P.V. Nachane, R.P. Paralikar, K.M. Balasubramanya, R.H.	<i>Biomimetic Synthesis of Silver Nanoparticles with Aspergillus niger</i>	International Conference on Nano Materials, Synthesis, Characterisation and Application , Kolkatta, November 4 — 6, 2004
Jadhav, S.B. Kurahde, M. Vizia, N.C. Paralikar, K.M.	<i>Productivity of Double Roller Gin in Relation to Different Ratios for Cotton Feeding and Ginning Time</i>	International Symposium on Strategies for Sustainable Cotton Production – A Global Vision , Dharwad, November 16-18, 2004.

Author	Title	Seminar/Conference
Gayal, S.G. Hadge, G.B.	<i>Scanning Electron Microscopic studies on the Release of Potato Starch Granules using Cellulase from <i>Penicillium funiculosm</i></i>	45th Annual Conference: MICROTECH – 2004 of the Association of Microbiologists , Karnal, November 23-25, 2004.
Gayal, S.G. Nagarkar, R.D.	<i>Preparation of Eco-friendly absorbent Cotton for Medical Applications</i>	45th Annual Conference: MICROTECH – 2004 of the Association of Microbiologists , Karnal, November 23-25, 2004.
Sreenivasan, S.	<i>On the Competitiveness of Indian Cottons on Quality Front</i>	International Symposium on Strategies for Sustainable Cotton Production : A Global Vision , Dharwad, November 23 to 25, 2004.
Sreenivasan, S.	<i>Utilisaion of Cotton Plant Stalks for Value added Products</i>	63rd Plenary Session of International Cotton Advisory Committee , Mumbai on November 29, 2004
Sreenivasan, S.	<i>Quality Scenario of Cotton Production in different States</i>	One day meeting on Production Plan of Cotton as per Industry's Need , Mumbai, January 8. 2005
Sreenivasan, S.	<i>Quantitative Analysis of Toxic Inorganic Elements and Gram Negative Bacteria in soil, Cotton Plant Materials, Lint and Processing Dust</i>	The Biennial Workshop of AICRP on PHT, Junagadh Agricultural University , Junagadh, December 20 to 22, 2004 .
Ravindran, G.D.	<i>Frequentist Approach vis-a-vis Alternate Paradigms in Statistical Inference – a Look at Broad Areas of Agreement and Differences</i>	58th Annual Conference of the Indian Society of Agricultural Statistics , Kerala, January 20 — 22, 2005 .
Sreenivasan, S.	<i>Use of High Volume Instrument (HVI) for Assessment of Fibre Traits of Ginned Lint and CIRCOT Calibration Cottons</i>	Awareness Meeting on Ginning Modernisation and Human Resource Development , Nagpur on January 29, 2005.
Sreenivasan, S.	<i>Current Scenario and Future Requirements of Quality Cotton in India</i>	National Seminar on Genetic Improvement of Fibre Quality Traits in Cotton , Nagpur, February 15, 2005

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