





## **National Symposium**

on

"Future Technologies : Indian Cotton in the next decade" at

Acharya Nagarjuna University, Guntur - 522 510 (A. P.)

December 17-19, 2015

Jointly Organised by

ANGRAU, Regional Agricultural Research Station, Lam, Guntur and Cotton Research and Development Association (CRDA), CCSHAU, Hisar

in Collaboration with

Indian Council of Agricultural Research (ICAR), New Delhi Acharya Nagarjuna University, Guntur and Andhra Pradesh Cotton Association, Guntur

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Please visit for further details : www.crdaindia.com

The Executive Council of Cotton Research and Development Association and the Local Organizing Committee of the Symposium of ANGRAU, Regional Agricultural Research Station, Lam, Guntur will welcome the researchers, teachers, students, agricultural professionals, traders and other entrepreneurs to the National Symposium on "Future Technologies: Indian Cotton in the next decade" at Acharya Nagarjuna University, Guntur during December 17-19, 2015.

#### Scope, Aims and Objectives of the Symposium

Cotton is one of the most ancient and very important commercial crop of global importance with a significant role in Indian agriculture, industrial development, employment generation and improving the national economy. It is cultivated for domestic consumption and also exported worldwide in about 111 countries worldwide and hence called "King of fibres" or "White gold". Millions of people depend on cotton cultivation, trade, transportation, ginning and processing for their livelihood. India is the only country in the world growing all the four cultivated species of cotton alongwith their hybrid combinations in the vast diverted agro-climatic situations. Cotton is basically cultivated for its fibre which is used as textile raw material. It is cultivated from Punjab in the north to Kanyakumari in the south and Assam in the east to Kutch (Gujarat) in the west.

India, the second largest producer, consumer as well as exporters of cotton next to China with 34 per cent of world area and 21 per cent of world production and continue to maintain the largest area under cotton. Within a span of thirteen years, the cotton production in the country has gone more than double with the increase of the productivity. The productivity of cotton has not made headway because of more than 70 per cent area is under rainfed cultivation and appearance of new diseases and insect-pests in transgenic cotton. However, new emerging threats in terms of biotic and abiotic factors are to be understood properly and effective strategies need to be evolved for their proper redressal. The problems and prospects of Bt cottons in the country need to be put in a proper perspective. Therefore, there is an urgent need to properly understand the IPR issues in the best interest of farmers and scientists.

In order to maintain pace with the increased demand for the commodity, both in national and international market, it is imperative to give impetus for development of new cotton varieties and hybrids with appropriate cultivation technologies. Introduction of large number of private sector *Bt* cotton hybrids have brought a welcome change in recent times as far as production gains are concerned. However, to meet the ever increasing demand both in the domestic and international markets, an effective strategy needs to be developed.

With continued advances in plant breeding, plant genome and biotechnology research, improved seeds have to be evolved for reaping the untapped yield potential. Good quality seed acts as a catalyst for realizing the potential of all other agriculture inputs. Continuous efforts are requires to make use of new technologies for efficient crop improvement and management.

#### Objectives

The National Symposium is planned to provide a common plateform to agricultural scientists both from public and private sectors, extension functionaries and policy makers to share their experiences and expertise to discuss various issues related to cotton research and production technologies so as to track a pathway for 21st century. We hope that the symposium will be beneficial to all those associated with cotton research, development, cultivation, pesticide, seed and textile industry and other related manufactures of agro based industries. This will also act as an excellent forum for researchers to interact with experts, take stock of the present status and generate new ideas and plannew strategies for cotton production technologies in relation to changing climate or environment.

#### The Scientific Programme

The Symposium will cover inter-disciplinary lead/invited papers/corporate lectures/contributory lectures and parallel oral and poster presentations covering the theme of the event. The lead papers and key note addresses will be sought, with a focus on achieving a truly international dialogue with regard to cotton research and development, will be delivered by leading luminaries in their respective fields of the country. All papers and posters will be peer reviewed and selected with a desire to advance national understanding of production research, ginning, economics and textile research issues. The selected papers will be published in the proceedings after peer review.

It is also estimated that cotton requirement by 2025 AD will be around 525 lakh bales and with this background we need to debate on the experiences and challenges of *Bt* cotton cultivation in the country to prepare a road map for the future. Keeping in view the present day threats in cotton cultivation and sustainability and to tap new opportunities, this symposium is being organised with the following theme areas.

#### Theme Areas

Crop Improvement: Plant breeding, Genetics, Plant biotechnology, Seed science and technology, Molecular biology,
Genetic engineering, Nano technology

- Breeding and genetics
- Biotechnology and molecular biology
- Advances in genetic engineering methods
- Bioinformatics
- Quality improvement
- Global and Indian advances in GM cotton
- Role of conventional breeding in strengthening GM cotton

- Purity of GM seeds
- Molecular breeding approaches
- Status and scope of Asiatic cotton production
- Biodiversity, germplasm enhancement and gene pyramiding
- Genetic enhancement through conventional and genetic engineering approaches
- Emerging problems subsequent to the introduction of Bt cotton: Measures to combat them
- Plant ideotype breeding

#### Crop Production: Agronomy, Soil science, Weed science, Plant physiology, Biochemistry

- Resource conservation technology
- Integrated nutrient management
- Integrated weed management
- Micro irrigation
- Organic farming
- Low cost input technologies and crop husbandry
- Precision farming
- Crop adaptation, modeling and simulation under changed climate
- Agronomy of transgenic cotton
- Conservation agriculture in Bt cotton
- High density planting system
- Remunerative of farming and cropping system
- Crop physiology

#### Crop Protection: Plant Pathology, Entomology, Nematology, Microbiology

- Disease forecasting and modeling
- Habitat management and ecological engineering
- Biointesive IPM for Bt cotton
- Bt cotton and secondary pest problems
- Bt cotton impact on natural enemies and pollinators
- Bt cotton and arthropod biodiversity
- Biopesticides
- Exploitation of bioactive and new molecules
- Emerging insect pests and diseases and their management
- IPM/IRM/IDM strategies: Recent developments
- Mapping and management of insect-pests and diseases of national importance

#### Fibre Technologies and Textile industry

- Fibre quality evaluation and preservation
- Standards of produce and products
- Packing and safe storage
- Ginning and processing

#### Miscellaneous: Extension education, Economics, Animal nutrition, Clothing and Textile, Agricultural engineering

- Application of geomatics (remote sensing and GIS tools)
- Cotton byproducts and their utilization
- Socio economic perspectives
- Sensitization and awareness creation
- Impact assessment
- Economics of production and marketing
- Marketing intelligence and opportunities
- Policy support
- Intellectual property rights issues and WTO
- Agricultural engineering including new tools
- Transfer of technology impact and economics
- Clothing and Textile
- Cattle feed technology
- Perspective of agro based industries
- Role of extension agencies
- Post harvest technology

#### **Call for Abstracts**

Abstracts of your area of expertise (unpublished work) related to theme areas are invited for oral and poster presentations. Abstracts typed in double space not exceeding 300 words may be sent to CRDA e-mail: crda1987india@gmail.com. Only one paper as a first author will be accepted. Authors will be intimated about the acceptance of their papers for oral or poster presentations. Printing of the Abstracts will be done only of the registered delegates on or before 15.11.2015 positively.

#### Young Scientist Merit Academic Award

The Young Scientist Merit Academic Award contest for oral presentation shall be organized to encourage the scientific temper among the students/young scientists. The contestant shall submit an abstract of 300 words alongwith full length paper and brief bio-data to e-mail: crda1987india@gmail.com before 31.10.2015 positively. Please mention the word "For Award" on the top of the abstract.

## The contestant have to give the following certificate To whom it may concern

It is to certify that the paper entitled, " ................................."presented for the The Young Scientist Merit Academic Award is pertaining to the major work done by the candidate .......................(Name). during ...................................(year). Maximum four years old work is allowed.

It is further certified that the work has not been published or presented for any other award till date and the contestant is below the age of 35 years. There is no age bar for the co-authors. All the authors should be the member of the Cotton Research and Development Association.

Signature of the Contestant

Signature of the Head of the Department

#### **Guidelines for Preparing Posters**

A poster should be informative, attractive and self explanatory. The significance of the research findings and its implications need to be highlighted. Provide the viewers one or two important conclusions. Please underline the name of the presentor and his/her e-mail.

#### **Best Poster Award**

The best poster presentation will be selected by a panel of judges in each theme area and will be awarded with a plaque and a certificate from the organizers.

#### Life Time Achievement Award

The panal of judges will select the outstanding Scientist/Officer both from public and private sectors from India. A citation and memento will be given by the Organizers.

#### **Public Private Partnership Award**

The award is open for all agro based Industries/Companies. The contestants shall submit a comprehensive report of the company/industry to Dr. M. S. Chauhan, Secretary CRDA on or before 31-10-2015.

#### Registration

Only the registered delegates will be allowed to participate. The duly filled in registration form and registration fee (Non-refundable / Non-transferable) through Demand Draft or at par cheque in favour of "Cotton Research and Development Association" drawn on any nationalised bank payable at Hisar may be sent to Secretary, CRDA. Please write the name and address on the reverse side of the demand draft.

Registration Fees :	Till 15th November, 2015	Afterwards/On the spot
Teachers/ Scientists/Extension scientists	₹ 3000	₹ 4000
Students/SRF's/RA's (Produce the proof)	₹ 2000	₹ 2500
Officers/Scientists from Industry/Private institutions/MNCs	₹ 6000	₹ 7000

The registration fee does not include accommodation charges

#### Important Dates for Remembrance

Submission of Abstracts = September 30, 2015 Notification of Acceptance = October 15, 2015 Remittance of Registration Fee = November 15, 2015

#### Souvenir

A Souvenir in commemoration of the symposium will be published and distributed

#### The details of the tariff for advertisements are :

Back cover (Outer cover)	Coloured	₹ 50,000/-
Front cover (Inner)	Coloured	₹ 40,000/-
Back page (Inner)	Coloured	₹ 40,000/-
Full page (Inner)	Coloured	₹ 30,000/-
Full page (Inner)	Black & White	₹ 15,000/~
Half page (Inner)	Black & White	₹ 10,000/-

#### Venue

Amaravathi is the new capital region of bifurcated state of Andhra Pradesh comprising of Vijayawada and Guntur twin cities. Guntur District is home to the second oldest evidence of human habitation in India, in the form of Palaeolithic (Old Stone Age) implements. Gautama Buddha preached at Dharanikota/Dhanyakatakam near Guntur and conducted the first Kalachakra ceremony by himself, which takes its antiquity to 500 BC. Guntur, one of the largest urban centres of Andhra Pradesh geographically lies on 80.280E and 16.280N with an average elevation of 39 m in the northeastern part of the Andhra Pradesh State of the Krishna River delta. Guntur lies on the Kolkata-Chennal highway (NH-5) and is well connected by road, rail and air to all major cities of India. The city is reputed to be a renowned education center. In addition, Guntur boasts as one of the largest centers of chilly, cotton and tobacco trade in world.

The venue, Acharya Nagarjuna University is located at 18 kms from the south of Vijayawada and 15 kms from north of Guntur and is roughly 280 kms from Hyderabad and 400 kms from Chennai. Both the cities assumed the importance of business, culture and education. Famous places of religious, archaeological and tourist interest are located in both the cities.

#### Language

The official language of the symposium will be English

#### Accommodation

Accommodation for participants will be arranged in guest houses/hotels on prior request. The hotels tariff for medium range ₹ 2000 to ₹ 3000 and ₹ 3500 to ₹ 5000 in Luxury hotels for double room per day.

#### Participants interested in staying in hotel should send their two days tariff in advance for booking.

#### Weather

The weather during December will be pleasant with a day temperatures of 29- 30°C and night temperatures of 17-18°C.

#### **Post Symposium Tours**

Post Symposium tours may be organized for the registered delegates, their families and accompanying persons in and around Guntur, Vijaywada and Amaravathi on payment basis

Kanakadurga Temple – Vijayawada: The temple was constructed for Goddess Durga by Arjuna. The temple is located on the Indrakeeladri hill, on the banks of Krishna River. Goddess Kanaka Durga had described as Swayambhu (self-manifested) in Triteeyakalpa. This is the place where Arjuna obtained the Pashupatastra after his great penance for Lord Shiva.

Bhavani Island – Vijayawada: It is situated in the midest of the Krishna River, at Vijayawada. It is located at the upstream of Prakasam Barrage and is considered as one of the largest river island with an area of 133 acres

St.Mary's Church – Gunadala: One of the most popular churches and pilgrim places for Christians in Andhra Pradesh. It has the rare distinction of having an iron cross set up on the hill top.

Panakala Lakshmi Narasimha Swamy temple-Mangalagiri: This place is one of the 8 important Mahakshetrams (sacred places) of Lord Vishnu in India. The Lord that has established himself on the hill is in the form of Narasimha (man-lion) which Lord Vishnu assumed to kill Hiranyakasipu, a rakshasa father of Prahlada, a great devotee.

Amaralingeswara Swamy Temple – Amaravathi: The temple is one of the famous Pancharamas Lord Shiva is worshipped in the name of Amara lingeswara/ Amareswara. The sivalinga was installed by Indra, Brihaspathi and Sukracharya at the end of Dwaparayugam. The temple was later developed by Sathavahanas.

Nagarjuna Sagar Dam: It is the world's largest masonry dam. It was built on the Krishna River at Nagarjuna Sagar. The construction duration of the dam was between the years of 1955 and 1967. The dam is 490 feet (150 m) tall and 0.99 miles (1.6 km) long with 26 gates.

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Director, Centre Institute for Cotton Research (CICR) Nagpur

Director, Central Institute for Research on Cotton Technology, (CIRCOT), Mumbai

Chairman cum Managing Director, Cotton Corporation of India, Mumbai

Director, National Centre for Integrated Pest Management, (NCIPM) New Delhi

Director, Cotton Development, Nagpur

Dr. M. S. Chauhan, Secretary, CRDA - Convener

#### **National Organizing Committee**

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Dr. D. P. Biradar, Vice Chancellor, UAS Dharwad and President CRDA - Vice-Chairman

Vice Chancellor, Acharya Nagarjuna University, Guntur

Dr. S. S. Siwach, Vice President, CRDA Dr. Ramasami, Vice President, CRDA

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Dr. Somveer Nimbal, Joint Sectretary, CRDA

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Dr. V., Chenga Reddy, Principal Scientist (Cotton) ANGRAU, RARS, Guntur-Organizing Secretary

Dr. G. Rosaiah, Head, Department of Botany and Microbiology, Acharya Nagarjuna University, Guntur

Shri K. Nageswara Rao, President, Andhara Pradesh Cotton Association, Guntur

Shri P. Krishna Kumar, Honorary Secretary Andhra Pradesh Cotton Association, Guntur

Shri. K. Rama Rao, Treasurer, Andhra Pradesh Cotton Association, Guntur

#### Dr. M. S. Chauhan

Secretary, CRDA

Former Sr Plant Pathologist, Cotton, CCS Haryana Agricultural University, Hisar-125 004 E-mail: crda1987india@gmail.com, Mob: 094164-99350; 086840-99350

# **National Symposium**

"Future Technologies: Indian Cotton in the next decade"

Acharya Nagarjuna University, Guntur - 522 510 (A. P.)

December 17-19, 2015

	Trave	l Plan	
Name of the Participal	nt :	Sex	
Designation			
Address			-
Mobile No	E-m	ail	
	Arrival at Vijay	awada Air Port	
Flight No. & Name	Date	Arrival Time	
	Arrival at Vijayawa	da Railway Station	
Train No. & Name	Date	Arrival Time	
	Arrival at Vijaya	wada Bus Stand	
	Date	Arrival Time	
The delegates are rec	quested to send their trave	ol plan latest by 30-11-2015.	
Assemble	Contact	Persons	

#### Accomodation Transportation N.V.V.S. Durga Prasad Y. Satish Senior Scientist (Entomology) Scientist (Breeding) ANGRAU, Regl. Agril. Res. Station Lam, Guntur ANGRAU, Regl. Agril. Res. Station Lam, Guntur E-mail: nenanidp@yahoo.com E-mail: tej.satish@.gmai.com Mob.: 098491-76527 Mob.: 098496-24664 Enquiries Dr. V. Chenga Reddy Dr. G. Rosaiah Organising Secretary Principal Scientist (Cotton) ANGRAU, Regl. Agril. Res. Station Lam, Guntur Head, Department of Botany & Microbiology Acharya Nagarjuna University, Guntur E-mail: gorepatti\_r@yahoo.co.in E-mail: pscottonangrau@gmail.com Mob.: 099896-25207, 094400-18309 Mob.: 094902-18205, 086-32254405 **Publications** Dr. M. S. Chauhan Dr. Somveer Nimbal Secretary, CRDA Joint Secretary, CRDA E-mall: snimbal@gmail.com Mob.: 099929-11570 E-mail: crda1987india@gmail.com Mob.: 094164-99350, 086840-99350

## National Symposium on

"Future Technologies : Indian Cotton in the next decade"

Acharya Nagarjuna University, Guntur - 522 510 (A. P.)

December 17-19, 2015

### **Registration Form**

Name of the participa	nt :				_Sex
Designation					
Address (With Pincode)					
Mobile No			E-mail		
Type of presentation	Invited	Oral 🗌	Poster	Award	
Title of presentation					
Theme area					
Registration fee Rs			711		
Name of the Bank	Demand Draft / Cheque No.				
Drawn at	Date				
Bank drafts / at par chequ Association" payable at H		any nationalize	d bank in favou	r of "Cotton Resea	rch and Developmer
Date					Signatures

The Interested participates can get a photocopy of the registration form or down load from the website (www.crdaindia.com) and complete form may be sent latest by 31.10.2015 positively to :

#### Dr. M. S. Chauhan

Secretary

Cotton Research and Development Association (CRDA)

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