

First Circular

# INTERNATIONAL CONFERENCE ON SUGARCANE RESEARCH

## **Sugarcane for Sugar and Beyond (CaneCon 2020)**



### Period

**7-10 November 2020**

### Venue

**Tamil Nadu Agricultural University (TNAU)  
Coimbatore- 641 003  
Tamil Nadu, India**

### Organized by

**ICAR-Sugarcane Breeding Institute, Coimbatore  
Tamil Nadu Agricultural University, Coimbatore  
Society for Sugarcane Research and Development, Coimbatore**



## Invitation

The ICAR-Sugarcane Breeding Institute (ICAR-SBI), Coimbatore established in 1912 to breed sugarcane varieties for Indian sub-continent is nearing completion of 108 years of research in sugarcane by Oct 2020. The ICAR-SBI has been largely responsible for meeting sugarcane varietal requirements in the country in the past 10 decades and made India self-sufficient in sugar production. Co 205 was the first inter-specific hybrid variety (*Saccharum officinarum* x *S. spontaneum*) released from this institute in 1918. This and other improved inter-specific and tri-specific hybrid varieties evolved by ICAR-SBI spread in larger areas in subtropical India and replaced low yielding traditional sugarcane clones which were in cultivation in North India prior to 1947. Knowing its importance, scientific services and contribution the then Viceroy of British India Lord Irwin in 1930 praised this Institute as “*Mecca of sugarcane research*”. Her Excellence the Queen Victoria Knighted Dr. T. S. Venkatraman, the “Legend of sugarcane research” with ‘Sir’ title. Hybridization with wild species has given faster and desired genetic improvement in sugarcane hence inter-specific hybridization / *nobilization in sugarcane has been heralded as the top five achievements in the annals of plant breeding*. In its 107 years of journey from 1912 to 2020, scientists of this institute has developed 3,151 improved sugarcane clones popularly known as ‘Coimbatore canes or Co canes’, of which, 174 attained “varietal status” and reached the farmers as commercial varieties. ‘Co varieties’ evolved at ICAR-SBI had spread to 28 countries in the World, thus serving the farming community across the globe. Shri C. Subramaniam, Former Union Minister of Agriculture, in 1987 complemented that “*agricultural sciences owe a great deal to the Sugarcane Breeding Institute which set the pattern for other agricultural research to undertake result-oriented work*”. In 2019-20 sugarcane season, ICAR-SBI’s varieties including the wonder cane varieties Co 86032 and Co 0238 occupied 3.75 million ha, accounting 77.0% of the total cane area in India. Due to large scale cultivation of Co 0238 (2.59 million ha or 79.2% area in sub-tropical states) sugar recovery % in subtropical states rose to double digit (>11%). Cultivation of superior varieties, improvement in seedcane quality and sugarcane production technologies, along with the efforts by State and Central Governments and sugar industries made India a net surplus sugar producer continuously in the last 8-9 years and the country has become a regular supplier of sugar to the international market. Sugar production during 2018-19 sugar season (Oct-Sep) was 33.13 million metric tonnes as against 32.2 million metric tonnes during 2017-18 sugar season which is a record high production in the history of India and exceeded the production of Brazil (29.04 million metric tonnes). Now India ranks No. 1 in sugar production. Nonetheless, climate change, increasing intensity of biotic and abiotic stresses, shrinking natural resources, labour shortage, low adoption of mechanization, increasing cost of production, diversification of sugar industries for production of ethanol, cogeneration and value added products are the major emerging issues to be addressed at the global level to sustain sugarcane agriculture as more profitable. In this context, **“International Conference on Sugarcane Research: Sugarcane for Sugar and Beyond (CaneCon2020)”** is being organized during **7-10 November 2020 at TNAU, Coimbatore, India**. This conference will serve as a common platform to the sugarcane researchers, cane development officials, sugar industry personnel across the globe to deliberate on the past performance and formulate a path towards excellence in sugarcane research and development to meet the present and future challenges.

## About the organizers

“CaneCon2020” is jointly organized by the ICAR-Sugarcane Breeding Institute, Tamil Nadu Agricultural University (TNAU) and the Society for Sugarcane Research and Development (SSRD).

**ICAR-SBI:** This Institute is currently engaged in evolving sugarcane varieties for India through conventional and molecular breeding approaches. Also the institute is engaged in developing eco-friendly and farmers' friendly production-cum-protection technologies to scale up the productivity of sugarcane in India. The institute is holding the largest sugarcane germplasm collections / gene bank in the world. The Institute is maintaining National Hybridization Garden for sugarcane which is a unique facility in India, utilized by 24 sugarcane research stations/institutes in India. State of the art micropropagation facility with production capacity of 1.0 lakh tissue culture plantlets/year is available at this institute. The Institute has a DBT accredited laboratory for viral indexing and genetic fidelity testing for sugarcane micropropagated seedlings. AST developed at ICAR-SBI in 1972 to inactivate sett borne pathogens of sugarcane has been a success story and adopted worldwide to generate pathogen free sugarcane crop. Soil Moisture Indicator and Sett treatment device are another notable contribution by the Institute. Novel crystal toxin holotype gene *cry8Sa1* was isolated which is the first holotype Bt *cry* gene isolated in India against a coleopteran pest.

**TNAU:** This is one of the leading Agricultural Universities in the country with an international reputation. Agricultural College, Coimbatore was one among the first four agricultural colleges started as early as in 1906. The college was later elevated to the status of University in 1971. TNAU has established sugarcane research stations at Cuddalore, Sirugamani and Melalathur. About 35 cane varieties were released from the University including the high yielding and high sugar variety CoC 671 which made a remarkable sugar recovery gain in the tropical states of India.

**SSRD:** The Society for Sugarcane Research and Development was established in 2011 with an objective of promoting and fostering sugarcane research and developmental activities in India. Since inception, SSRD has been functioning in close association with ICAR-SBI and organized three international and six national symposia and two regional workshops. The '*Journal of Sugarcane Research*' is the official publication of the society and it is hosted online in the ICAR's e-publication portal.

**The organizing committee has the privilege of inviting sugarcane researchers, cane development officials and sugar industry personnel for the International conference and requesting to contribute research paper (Extended Summary) for the conference.**

**Note : If COVID 19 Pandemic continues, the conference will be conducted through online mode and we are prepared to listen the pre-recorded video presentation or live presentation through webinar.**



# INTERNATIONAL CONFERENCE ON SUGARCANE RESEARCH

## Sugarcane for Sugar and Beyond (CaneCon2020)

### Themes and sub-themes

#### 1. Global Issues in sugarcane sector

- Research priorities for meeting global sugar requirement, export, product diversification
- International sugar trade-issues & way forward
- Climate change/COVID 19 & its impact in sugarcane sector; climate resilient technologies, carbon sequestration, climate change vs. emerging pests and diseases, drought management

#### 2. Sugarcane improvement-From Conventional to molecular breeding

- Maintenance and conservation of sugarcane genetic resources, pre-breeding for enriching gene pool, genetic stock, inter-specific and wide hybridization
- Sugarcane improvement for yield, quality, earliness, resistance to biotic and abiotic stresses, breeding sugarcane for non-conventional purposes, energy cane
- Sugarcane biotechnology- genomics, transcriptomics, proteomics, metabolomics, phenomics, transgenics and biosafety, gene discovery and utilization, genome editing, bioinformatics, policy issues in sugarcane transgenics /molecular tools.
- Improvement in seed health, seed production and supply-chain management
- Success stories on seed quality improvement & sugarcane varieties

#### 3. Advances in production technologies for maximising sugarcane and sugar yield

- Sugarcane agronomy, improving soil fertility and soil health, water & nutrition management
- Advancement in technologies for increasing input-use efficiency, precision farming, resource optimization, modelling, decision support systems
- Organic sugarcane cultivation, biofertilizers, biopesticides, plant growth promoting microbes, extracts
- Improving physiological efficiency for increasing cane and sugar productivity
- Success stories of farmers who adopted improved production technologies

#### 4. Advances in management of sugarcane pest and diseases

- Advancement / standardization of techniques / management of sugarcane pests / diseases through chemicals, newer molecules for pest and disease management, novel delivery systems for crop protection chemicals, non-chemical approaches for management of pests and diseases.
- Advancement / standardization of protocol for mass multiplication of biocontrol agents, pheromones, EPN.
- Molecular diagnosis of diseases, on site diagnostic tools, host-pathogen interactomics, molecular variation in insects and pathogens, pathogen virulence, emerging diseases and pests, epidemiology, climate change on pests and disease dynamics.
- Success stories in plant protection, extension pathology /entomology.

#### 5. Mechanization of sugarcane production system - planting to harvest

- Design, development of location specific implements for sugarcane planting to harvest.
  - Challenges and opportunities in popularizing sugarcane mechanization
  - Success stories in sugarcane mechanization
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## 6. Sugar Industry: Challenges and opportunities

- Challenges, opportunities to produce sugar for domestic and global requirements -Country Report, Sugar & co-products trade, policy issues, forecast etc.
- Technological advancement in cane to sugar process, energy saving technologies
- Diversification- alternate feed stock for production of ethanol, high value chemicals/therapeutics, cogeneration etc.
- Management of effluent, waste water, solid wastes, environmental issues in distilleries
- Innovative technologies, success stories of sugarcane production, enhancing sugar recovery, quality of outputs, mill management.

## 7. Sugarcane extension, cane development and statistics

- Farmer's innovations-sharing experience of innovative farmers, indigenous technical know-how in sugarcane agriculture, digitization /automation in cane supply chain, ICT tools for sugar industry and sugarcane growers, value addition
- Entrepreneurship in sugarcane sector, capacity building for sugarcane growers, women friendly farm tools and implements, increasing income of women, retaining rural youth in sugarcane sector
- Impact analyses of sugarcane varieties, technologies, advancement in statistical tools, estimation of sugarcane area and production
- Doubling farmers' income in sugarcane agriculture-Success Stories.

### Call for Extended Summary

Researchers, Cane Development Officials and sugar industry personnel are requested to submit the Extended summary (up to 3 pages or 3000 words) under the theme areas to the **Organizing Secretary, CaneCon2020** through E-mail ID [canecon2020@gmail.com](mailto:canecon2020@gmail.com) on or **before 30 September, 2020**. Accepted papers will be communicated to the corresponding authors after review. The decision to assign the paper for oral or poster presentation will be vested with the organizers. Best oral presentation and posters will be recognized and awarded.

### Date & Venue

The conference will be conducted from **7.11.2020 to 10.11.2020** at **Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India**. On 10.11.2020 visit to ICAR-SBI, TNAU and local sight-seeing will be arranged.

### Registration Fee

<b>Early Bird Registration (till 15 Sept. 2020)</b>	<b>Spot Registration (on 7 Nov 2020)</b>	<b>Accompanying Persons</b>
Indian delegates : ₹. 4,000	Indian delegates : ₹. 5,000	Indian delegates : ₹. 2,000/-
Foreign delegates : \$ 150	Foreign delegates : \$ 150	Foreign delegates : \$ 125
Students : ₹. 2,000	Students : ₹. 2000	

Registration fee covers the local transport, welcome dinner, lunch, refreshments and conference kit. Accompanying persons are not entitled for symposium kit.



**Accommodation:** Rooms are available at concessional rates for the delegates and their accompanying guests in hotels identified by the organizers. The hotel list will be posted in our website (<http://sugarcane.icar.gov.in>). The delegates may directly book room(s) in any of the hotel or contact the organizers for booking or alternative accommodations in Govt. guest houses. For invited foreign delegates and Special invitees the organizers will bear the accommodation charges.

**Exhibition:** Scientific companies, service providers, industries and exhibitors may utilize the opportunity to exhibit their products and services at the conference venue for wide publicity among the stakeholders. The exhibitors are requested to approach the organizers at the earliest to book their stall preferably before **30 September, 2020**. As only limited numbers of stalls are available, allotment will be made on first-come-first-served basis.

### **Dates to be Remembered**

<b>Last date for submission of Extended Summaries</b>	<b>: 30<sup>th</sup> September 2020</b>
<b>Last date for Early Bird Registration</b>	<b>: 15<sup>th</sup> September 2020</b>
<b>Conference dates</b>	<b>: 7<sup>th</sup> - 10<sup>th</sup> November 2020</b>

### **Contact**

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### **Further Information Contact**

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## ADVISORY COMMITTEE

**Chief Patron** : Dr. T. Mohapatra, Secretary DARE & Director General, ICAR, New Delhi

**Patron** : Dr. N. Kumar, Vice Chancellor, TNAU, Coimbatore  
Dr. T.R. Sharma, DDG (Crop Science), ICAR, New Delhi

**Chairman, Organizing Committee** :  
Dr. Bakshi Ram, Director, ICAR-SBI & President, SSRD, Coimbatore

**Convener** : Dr. R.K. Singh, ADG (Commercial Crops), ICAR, New Delhi

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Dr. M. Manickam, Executive Chairman, Sakthi Sugars Ltd  
Shri V. Ravichandran, MD, EID Parry (India) Ltd  
Mrs. Rajshree Pathy, Chairman and MD, Rajshree Sugars, Coimbatore  
Shri Atul Chaturvedi, Executive Chairman, Shree Renuka Sugars Ltd  
Shri Ramakoteswara Rao, Vice Chairman & MD, NSL Sugars  
Shri Ajit S. Shriram, Joint MD, DCM Shriram Ltd.  
Shri Gaurav Goel, MD, Dhampur Sugar Mills Limited  
Shri Gautam Dalmia, MD, Dalmia Sugars Ltd.  
Shri Rajkumar Adlakha, MD, Uttam Sugar Mills Ltd  
Shri Goutam R. Morarka, Executive Chairman, Dwarikesh Sugar Industries Ltd.  
Shri Rana Inder Pratap Singh, MD, Rana Sugars Ltd  
Shri Samir Somaiya, Chairman & MD, Godavari Biorefineries Ltd  
Shri Ranjit Puri, Chairman, Saraswati Sugar Mills Ltd  
Shri Alok B. Shriram, Sr. MD & CEO, DCM Shriram Industries Ltd  
Shri N. Ramanathan, MD, Ponni Sugars Ltd  
Shri E. Manivel, President, SNJ Sugars and Products Ltd  
Shri Prafulla V. Shirgaokar, Chairman, The Ugar Sugar Works Ltd  
Shri Roshan Lal Tamak, ED&CEO, DCM Shriram Ltd  
Shri Sunil K. Sachdeva, CEO, Saraswati Sugar Mills Ltd.  
Shri G. Venkateswara Rao, COO, KCP Sugars & Industries Ltd  
Shri K. Nagendran, Special Director, Thiru Arooran Sugars Ltd  
Shri M. Krishnan, Consultant (Sugar), Australia

## REGISTRATION FORM

### INTERNATIONAL CONFERENCE ON SUGARCANE RESEARCH

#### Sugarcane for Sugar and Beyond (CaneCon2020)

7-10 November 2020

Title: Prof./Dr./Mr./Mrs./Ms

Name : .....

Designation : .....

Organization : .....

: .....

#### Contact details

Address : .....

.....

.....

Phone : Mobile : Fax :

E-mail :

**Passport Details** Nationality:

Passport No. Date of issue: Valid till:

**Whether submitting an extended summary .....or only participation.....:**

If submitting an extended summary, title of the paper: .....

.....

Theme : .....

**Mode of payment of registration fee:** Delegates may credit the registration fee through online in the **CaneCon2020** A/c No. **39367035325** (Current Account) at the State Bank of India, Veerakeralam Branch (Branch code: 10618), IFSC Code: SBIN0010618 and SWIFT CODE: SBININBB294. Demand drafts are also accepted. The demand drafts should be drawn in favour of "CaneCon2020", payable at SBI, Veerakeralam Branch, Coimbatore and should be sent to the Organizing Secretary, at the address mentioned below:

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Delegates are requested to return the filled in registration form along with payment details to the Organizing Secretary before the respective due dates.

Registration form can be downloaded from the website: <http://sugarcane.icar.gov.in>