



**Dr. Bakshi Ram**  
**Director**

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19-1/2018 /Tech/49- R&D (TN)

September 20, 2018

**GENERAL CIRCULAR - I**

Dear Sir/Ma'am,

The 49<sup>th</sup> Sugarcane Research and Development Workshop of Tamil Nadu & Puducherry (Formerly Meeting of Sugarcane R&D workers) would be held during **November 1-2, 2018 (Tentative)** at **Aalayamani Mahal, Perundurai Road, Thindal, Erode – 638 012** to discuss the following topics.

- i. Review of action taken on the recommendations of the previous meeting
- ii. Strategies for improving sugarcane productivity
- iii. Review of Sugarcane mechanization initiatives including mechanical harvesting
- iv. Current varietal position and Performance of new sugarcane varieties
- v. All India Co-ordinated Research Project on Sugarcane, Co-ordinated agronomic experiments and SBI-SISMA trials
- vi. Sugarcane seed nursery programme

From this year, in order to honour the memory of *Padma Bhushan* Dr. N. Mahalingam, Founder, Sakthi Group of Companies, Sakthi Sugars Ltd., has instituted a lecture series known as "**Dr. N. Mahalingam Memorial Lecture**". The lecture would be delivered every year, during the R&D Workshop.

*Dr. M. Manickam*, Chairman & Managing Director, Sakthi Sugars Ltd., will be delivering the First Dr. N. Mahalingam Memorial lecture (2018) during the Workshop, this year.

'Sakthi Sugars Ltd., would be hosting the Workshop. You are cordially invited to attend this meeting along with your colleagues and participate in the deliberations. You may please prepare the manuscripts of the papers covering these topics as per the guidelines enclosed and send the same to the undersigned by **October 5, 2018**. The guidelines can also be downloaded from <http://sugarcane.res.in> or <http://caneinfo.icar.gov.in>

As we are planning to bring out the papers presented at the meeting in printed form (*Compendium of Research Articles & Status Papers; ISSN: 0973-8185*), your papers may be prepared and sent to the undersigned **in time**. The papers (prepared using MS Word 2003) can be sent by email to [sbiextension@yahoo.com](mailto:sbiextension@yahoo.com). Presentations, created in Microsoft PowerPoint 2003/2007 format (.ppt/.pptx), should fit within the allotted time in the Technical sessions.

With best regards,

Yours sincerely,

Sd/-  
(BAKSHI RAM)

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## GUIDELINES FOR PREPARING PAPERS

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### **Topic i : Review of action taken on the recommendations of the previous meeting**

Sugar factories/Department of Sugar/Department of Agriculture and research institutions in the region are requested to furnish the details of action taken on the recommendations made in the previous meeting as per the details given hereunder:

S. No	Recommendation/Action point	Action taken
1.	The sugar factories and the Departments of Agriculture in Tamil Nadu and Puducherry should take initiatives for increasing the area under drip fertigation by at least 10 % and sustain it.	
2.	Sugar mills should go for adoption of soil -test based fertigation schedule	
3.	Adoption of the decision support system software for fertigation scheduling should be encouraged by the factories	
4.	Demonstration trials on drip fertigation at factory or farmers' fields should be conducted	
5.	Wide row cane planting at 4 feet or 5 feet spacing should be adopted in all the sugar mill areas as a primary requirement for cane mechanization.	
6.	The adoption of single bud planting in cane cultivation and mechanization of all intercultural operations could be followed by the sugar mills to get higher cane yield with less cost of cultivation.	
7.	The sugar mills should arrange to provide the agricultural machinery for performing all cane cultivation operations through contract operation and the cost of operation should be fixed by the mills at a reasonable level, which could be recovered from the crop loans.	
8.	Co 86032 remains to be the dominant variety and whenever degeneration of the variety is observed, micro propagated seedlings should be used by the factories to sustain yield values.	
9.	A few new varieties have been reported to be introduced during the past three years. Any new variety must be propagated only after accessing its juice quality by BMT at a specific factory area.	
10	The Co-operative sugar mills have to visit those nearby located private mills conducting SISMA trials	
11	The nomenclature of the sugarcane clones evaluated from SRS should have a common form of 'CoC' and 'C' to have uniform nomenclature.	

### **Topic ii: Strategies for improving sugarcane productivity**

Details of area of operation – location of area from which cane is drawn - Extent of planting season in your factory zone and the crushing season of your factory. Package of practices adopted.

Major varieties grown in the factory area for different seasons and their respective yield levels

Average cane yield levels obtained from different varieties in your area from plant and ratoon crops.

Average Cane Yield t /ha (2015-16, 2016-17 & 2017-18)				
Year	Plant crop	Ratoon crop		
		First ratoon	Second ratoon	Third ratoon

Irrigation potential, extent of adoption of irrigation scheduling, micro irrigation and fertigation - cropping pattern followed in the area - Rainfall pattern (For 2016, 2017 and 2018 seasons).

Fertilizer application – recommended dosage, adoption of soil-test based application – soil health cards - method and time of application of NPK – extent of adoption in your area – constraints in adoption – Extension efforts taken to spread these technologies.

Micro nutrient deficiencies observed – corrective measures undertaken.

Percentage of incidence of different pests and diseases in your area – extent of adoption – integrated pests and diseases management practices – constraints in adoption – extension efforts taken to spread these practices.

Planting methods – Use of single bud seedlings – Transplanting – Extent of area under intercropping, trash mulching - weed management, Adoption of three-tier nursery programme - Extent of mechanization from land preparation to harvest – age of harvest

List out and **rank** the major constraints in maximizing cane yield levels in your area such as salinity, alkalinity, drought, water logging, pests and diseases, farmer reluctance etc. Your strategies for overcoming these constraints and improving cane productivity.

Mention the budget allotment for cane development work in your factory (Provide scheme-wise particulars)

What is your target for cane yields in next three years (2018-19, 2019-20 & 2020-21)– Action plan you propose to take to spread the scientific cane cultivation practices in your area to achieve this target.

**Topic iii: Review of Sugarcane mechanization initiatives including mechanical harvesting**

Usage of implements in sugarcane cultivation – sugarcane planter – intercultivator – earthing up ridger – stubble shaver - offbarrer- combined ratoon manager - weeder – rotovator trash shredder – Extent of mechanization in farmers’ fields (area & %) across different soil types – saving in labour, time and cost - merits and demerits in mechanization – scope for mechanization in farmers’ fields – cost effectiveness in mechanized and non-mechanized cane farms - perception of farmers towards mechanization – steps initiated to popularize mechanization in sugarcane – constraints in adoption of sugarcane mechanization.

Mechanized harvesting – machines used, cost of machines, hiring charges of harvester, cost of maintenance harvester, spacing adopted, capacity of the machines, area covered (area and % of total cane area), extraneous materials in machine harvested cane, pros and cons of mechanized harvesting – steps initiated to popularize mechanization in sugarcane – constraints in adoption of sugarcane mechanization; impact of mechanized harvesting on juice quality /sugar recovery.

**Topic iv: Current varietal position and Performance of new sugarcane varieties**

*Varietal position*

Sugar factory personnel to provide the following details:

**2015-16**

S.No	Variety	Area covered	Percentage	Highest yield t/ ha	Yield at the time of introduction (t/ha) (Mention year)	Yield, at present (t/ha)

**2016-17**

S.No	Variety	Area covered	Percentage	Highest yield t/ ha	Yield at the time of introduction (t/ha) (Mention year)	Yield, at present (t/ha)

**2017-18**

S.No	Variety	Area covered	Percentage	Highest yield t/ ha	Yield at the time of introduction (t/ha) (Mention year)	Yield, at present (t/ha)

***Performance of new sugarcane varieties***

Scientists from ICAR-Sugarcane Breeding Institute, Coimbatore & Sugarcane Research Stations of Tamil Nadu Agricultural University would be presenting the characteristics of new sugarcane varieties and their performance in different regions. Participants may present their observations on the performance of these varieties especially with reference to cane yield (average

and highest yield recorded) quality (including SMT and BMT results), performance in different soil types and months of planting, optimum age at harvest and incidence of pest and diseases, tolerance to abiotic constraints like drought, water-logging etc. may also be indicated.

**Topic v: All India Co-ordinated Research Project on Sugarcane, Co-ordinated agronomic experiments and SBI-SISMA trials**

The results of AICRP (S) trials, CAE trials and SBI-SISMA trials conducted during the previous crop season would be presented by the Research Institutions and Sugar mills.

**Topic vi: Sugarcane seed nursery programme**

Details of three-tier seed nursery programme adopted by the factory to sustain the yield of sugarcane varieties to be provided.

Particulars	Area in hectares		
	Sector I	Sector II	Sector III
Area under primary nursery Variety 1. Variety 2. Variety 3.			
Area under secondary nursery Variety 1. Variety 2. Variety 3.			
Area under commercial nursery Variety 1. Variety 2. Variety 3.			

Breeder seed production programme of ICAR-Sugarcane Breeding Institute and Tamil Nadu Agricultural University would be discussed. Sugar factories may indicate their breeder seed requirements for the ensuing season.

**Please note:**

Kindly provide the data in tabular form, wherever required. You may include additional information if you feel that this would help in enhancing the purpose of the meeting. Please restrict your paper to the main themes of the meeting only.