



ICAR-SUGARCANE BREEDING INSTITUTE  
COIMBATORE 641 007



**Dr. G. Hemaprabha**  
Director (A)

19-1/2021 /Tech/52- R&D (TN)

22 November 2021

**GENERAL CIRCULAR - I**

Dear Sir/Ma'am,

The 52<sup>nd</sup> Sugarcane Research & Development Workshop of Tamil Nadu & Puducherry will be held during the second fortnight of January 2022 (Tentative) to discuss the following topics. The venue and exact dates will be informed in due course of time.

- i. Review of action taken on the recommendations of the previous workshop
- ii. Mechanization of sugarcane production
- iii. Status of Wild boar management initiatives in the region
- iv. Current varietal position and Performance of new sugarcane varieties
- v. All India Co-ordinated Research Project on Sugarcane, Co-ordinated agronomic experiments/Adaptive Research Trial and SBI-SISMA/SBI-TNCSF Varietal trials
- vi. Sugarcane seed nursery programme

**Madurantakam Co-op. Sugar Mills Ltd., Padalam** would be hosting the Workshop. You may please prepare the manuscripts of the papers covering these topics as per the guidelines enclosed and send to the undersigned by **December 11, 2021**. The guidelines can also be downloaded from <http://sugarcane.icar.gov.in> or <http://caneinfo.icar.gov.in>

As we are planning to bring out the papers presented at the workshop 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).

With best regards,

Yours sincerely,

DIRECTOR (A)

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## **GUIDELINES FOR PREPARING PAPERS**

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

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 workshop as per the details given hereunder:

| <b>S. No</b> | <b>Recommendation/Action point</b>  | <b>Action taken</b> |
|--------------|---|---------------------|
| 1.           | Sugar factories should interact with farmers who could get higher productivity even beyond 15 ratoons and document their cultivation practices. The compilation may be sent to ICAR-SBI /TNAU for further assessment. The soil samples from such fields may also be collected and sent to ICAR-SBI, Coimbatore for further analysis and recommendation. |                     |
| 2.           | On priority basis, at least five practices viz., gap filling, pocket manuring, wide row, drip irrigation and suitable variety must be adopted by the sugar factories to achieve maximum yields in ratoons.  |                     |
| 3.           | Soil test based NPK application along with foliar application of Fe and Zn should be adopted by the factories to maintain the crop, free of deficiency symptoms up-to 150 days.   |                     |
| 4.           | Suitable package of practices improves the agronomic performance of Co 11015 should be suggested by the research institutions based on the field results, which would be included in the forthcoming R&D workshop compendium.   |                     |
| 5.           | The detailed sugar recovery information of Co 0212 was informative. It is suggested to adopt a staggered planting pattern with Co 0212 in those sugar mills with long crushing durations.   |                     |
| 6.           | The seed production of CoG 6 and CoC 13339 shall be taken up by the needy factories in their areas.   |                     |
| 7.           | In the SBI-SISMA/TNCSF collaborative programme, the clones viz., Co 14027, Co 12009, Co 17001 and Co 18009 were identified as better performing clones for cane yield and/or quality and a final decision on recommendation should be taken on the basis of mean performance of two Plant and one Ratoon crop data.                                     |                     |
| 8.           | Three tier seed multiplication must be followed at 1:10 ratio at each tier, by the factories.   |                     |
| 9.           | The canes produced under seed nursery should be used for multiplication of variety only and crushing of cane at this stage must be avoided by the factories.  |                     |

### ***Topic ii: Mechanization of sugarcane production***

Usage of implements in sugarcane cultivation – sugarcane planter – intercultivator – earthing up ridger – stubble shaver - offbarrer- combined ratoon manager - weeder – rotovator trash shredder etc. – 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 complete 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 mechanical harvesting in sugarcane – constraints in adoption of sugarcane mechanical harvesting; success stories of farmers who had adopted mechanization / mechanical harvesting- impact of mechanized harvesting on juice quality /sugar recovery.

**Topic iii: Status of Wild boar management initiatives in the region**

Total area under the factory – area affected by wild boar – percentage of total area. Nature and extent of specific habitats (forest land) in the cane area with reference to wild boar occurrence - General distribution of the problems in different divisions of factory area and occurrence of hot spots - General symptoms of damage and distinguishing features of attack by wild boar - Seasonal pattern of damage in the light of the long and contiguous planting activity. Localized outbreaks in possible hot spots - Occurrence of other pests like white grubs and its influence on the activity of wild boars - Other crops cultivated along with sugarcane in the area during sugarcane season - Occurrence of other cereal crops, particularly paddy, and their influence on the occurrence of vertebrate pests-General crop losses observed, monitoring and damage assessment programme currently adopted – Bio-acoustic devices usage and effectiveness - Indigenous management strategies adopted against wild boars (Please list out) - Success stories of farmers in managing wild boars in factory area - Role of local forest department personnel in addressing the problem of wild boars. Efforts taken by the factory in dissemination of improved management practices for wild boars – constraints in adoption by farmers.

**Factories may provide specific details in the following format (approximate estimates, to the extent available):**

| <b>I. Status of wild boar occurrence in the factory area</b> |   |  |  |   |
|--|---|--|--|---|
| <b>Status (Regular/ Occasional)</b>                          | <b>Extent of occurrence (% area in the factory)</b> | <b>Field level incidence (% attack in plots)</b> | <b>Extent of loss (Yield/ quality)</b> | <b>Major outbreak in the last five years (Year/all years)</b> |
|  |   |  |  |   |

| <b>II. Status of management practices (conventional/indigenous/innovative)</b> |                          |                           |                          |                                  |                          |                                |
|--|--------------------------|---------------------------|--------------------------|----------------------------------|--------------------------|--------------------------------|
| <b>Cultural control</b>  |                          | <b>Mechanical control</b> |                          | <b>Chemical control (if any)</b> |                          | <b>Constraints in adoption</b> |
| <b>Yes/No</b>  | <b>Practices adopted</b> | <b>Yes/No</b>             | <b>Practices adopted</b> | <b>Yes/No</b>                    | <b>Practices adopted</b> |                                |
|  |                          |                           |                          |                                  |                          |                                |

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

*Varietal position*

Sugar factory personnel to provide the following details:

**2018-19**

| 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) |
|------|---------|--------------|------------|---------------------|---|--------------------------|
|      |         |              |            |                     |   |                          |
|      |         |              |            |                     |   |                          |

**2019-20**

| 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) |
|------|---------|--------------|------------|---------------------|---|--------------------------|
|      |         |              |            |                     |   |                          |
|      |         |              |            |                     |   |                          |

**2020-21**

| 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/Adaptive Research Trial and SBI-SISMA/SBI-TNCSF Varietal trials**

The results of AICRP (S) trials, CAE/ART trials and SBI-SISMA/SBI-TNCSF 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<br>Variety 1.<br>Variety 2.<br>Variety 3.    |                  |           |            |
| Area under secondary nursery<br>Variety 1.<br>Variety 2.<br>Variety 3.  |                  |           |            |
| Area under commercial nursery<br>Variety 1.<br>Variety 2.<br>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.

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**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 workshop. Please restrict your paper to the main themes of the workshop only.

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