



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LTD.**

**राष्ट्रीय सहकारी शक्कर कारखाना संघ लिमिटेड**

Ansal Plaza, Block-C, 2nd Floor, August Kranti Marg, New Delhi - 110049 (India)



MD/2022/ 771-1735

June 01, 2022

**Shri. Prashant Nandargikar-ji**

**Sub. : MoU between NFCFSF & IASPL-reg.**

**Ref. : E-mail/Letter-05-02-2021 & 26-10-2021/Prashant Nandargikar/Inventor  
PSAP/IASPL/Pune**

Dear Sir,

The purpose of this MOU is to state the intentions of the parties in undertaking a collaborative research and development project on the PSAP technology in the interest of the Indian sugar industry and sugarcane farmers. The Parties have common scientific and research interests and will cooperate in performing the activities stated in the MOU.

This MOU is not intended by the Parties to be legally binding. Any obligations will be negotiated between the Parties. Nothing in this MOU is intended to create a legal partnership. NFCFSF being an apex body of all cooperative sugar factories in India & its decisions, comments, suggestions, recommendations, etc. are independent & not binding at all any apprehensive.

We, NFCFSF & IASPL in a loyal bid to magnify the domain of the joint-cooperation in the field of sugarcane agriculture based on the certain principles of reciprocity and have agreed after mutual understanding during endorsement of the MOU.

Best wishes,

Yours faithfully,

Encl.: MoU, Total Articles 09, Pages 05.

*P P Naiknavare*  
(PRAKASH NAIKNAVARE) *ajc.*  
MANAGING DIRECTOR

To,

Founder Director & Inventor PSAP  
Isha Agro Sciences Private Limited  
Sr. No.17/2 C, Ashwmedh Bunglow  
Ambedkar Chowk, Near Mangalam Super Market  
Shahanu Patel School Road  
Warje, Pune - 411 058  
MAHARASHTRA

RBD/KB



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LTD.**

**राष्ट्रीय सहकारी शक्कर कारखाना संघ लिमिटेड**

Ansal Plaza, Block-C, 2nd Floor, August Kranti Marg, New Delhi - 110049 (India)



## **MEMORANDUM OF UNDERSTANDING**

Between



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LIMITED**

Ansal Plaza, Block C, 2nd Floor, August Kranti Marg

**NEW DELHI - 110049**

And



**ISHA AGRO SCIENCES PRIVATE LIMITED**

Sr. No.17/2 C, Ashwamed Bungalow, Ambedkar Chowk

Shahanu Patel School Road, Warje

**PUNE, MAHARASHTRA - 411 058**

In

## **SUGARCANE AGRICULTURE**

Recognizing the importance of Agricultural Development especially Sugarcane crop in India, both National Federation of Cooperative Sugar Factories Limited (NFCSF) and Isha Agro Sciences Pvt. Ltd. (IASPL) in a loyal bid to magnify the domain of their Joint-Cooperation in the field of Sugarcane Agriculture based on the principles of reciprocity and respect have agreed after mutual understanding to the following collaborative venture in the interest of Indian sugar industry and sugarcane farmers.

### **Article (1): Purpose of this Memorandum of Understanding (MOU)**

We propose to develop a common framework for cooperation on various components of sugarcane agriculture focusing on improving cane yield and quality of crop under diverse agro-climatic conditions through use of Potassium Salt of Active Phosphorus (PSAP) Technology in an identified member sugar factories of the NFCSF. The PSAP is non-toxic molecule, plant friendly, human friendly formulation and certified for organic farming (NPOP/IM/7219749). The PSAP is a unique molecule that has multiple beneficial effects on sugarcane crop plants viz., faster growth and resistance to biotic and abiotic stress, better post-harvest quality and enhanced productivity under diverse stressful environments.



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LTD.**

**राष्ट्रीय सहकारी शक्कर कारखाना संघ लिमिटेड**

Ansal Plaza, Block-C, 2nd Floor, August Kranti Marg, New Delhi - 110049 (India)



The prime consideration of using PSAP technology in sugarcane crop is that its application alters the key metabolic pathways and regulating photosynthesis, early growth and tillering, sucrose accumulation and intrinsic defense mechanism with enhance cane yield ranging from 25-30 tons per hectare with corresponding increase in sucrose content.

The PSAP technology has created a world record in increasing sugarcane productivity (400 tons / ha) in Maharashtra (India) and farmers are gradually incorporating it in their cane husbandry practices. PSAP technology is an eco-friendly way of sustaining crop productivity, suitable for all types of agro-climatic conditions. The above claims have been endorsed herewith by the ICAR-Indian Institute of Sugarcane Research (IISR), Lucknow; National Sugar Institute (NSI), Kanpur; U. P. Council of Sugarcane Research, Shahjahanpur, Uttar Pradesh; Chandra Shekhar Azad University of Agriculture & Technology, Kanpur, Uttar Pradesh and MPKV, Rahuri - Central Sugarcane Research Station, Padegaon, District. Satara, Maharashtra, etc.

It is therefore in the interest and welfare of the sugar industry and sugarcane farmers to use the PSAP technology in Sugarcane Agriculture will help to boost the cane yield, sugar quality and farmers income.

#### **Article (2): scope of cooperation**

Application of PSAP technology will augment sugarcane productivity, sugar quality and minimize cost of production (CoP) especially small & marginal farmers in the area of operation of the member cooperative sugar mills of National Federation.

We agree to jointly work in sugarcane agricultural field on the following objectives:

- (a) The PSAP trials will be conducted / allowed for initially one year at member sugar mills of the NFCSF.
- (b) To assess the response of PSAP technology in different agro-climatic zones of India i.e. Tropical and Sub-tropical region with respect to cane productivity, quality, CoP & efficacy in diversified sugarcane agriculture.
- (c) To evaluate performance of PSAP technology at different cooperative sugar mills which are situated in North, South, Central and Peninsular regions, etc.
- (d) The project is exploratory and there is no commercial interest of the NFCSF.
- (e) During conducting the scientific experiments / trials on PSAP at member sugar mills of NFCSF, all the expenses of the research trials shall be borne by Isha Agro (P) Ltd.



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LTD.**

**राष्ट्रीय सहकारी शक्कर कारखाना संघ लिमिटेड**

Ansal Plaza, Block-C, 2nd Floor, August Kranti Marg, New Delhi - 110049 (India)



### **Article (3): Field Implementation of Technology**

- a) The NFCSF being an Apex Body of all the co-operative sugar factories in India will be a nodal agency for preparing and submitting the Detailed Project Report (DPR) to Government of India in Rashtriya Krishi Vikas Yojana – Remunerative Approaches for Agriculture and Allied Sectors Rejuvenation (RKVY-RAFTAAR) is a unique scheme of Government of India, Ministry of Agriculture and Farmers' Welfare (MoA &FW) / other initiative and or any scheme in State Govt. for project implementation and evolution, etc.
- b) Isha Agro will provide a detailed technical program (DTP) to selected cooperative sugar mills for application of PSAP technology in Sugarcane Agriculture with consultation of sugar mills under the guidance of Sugarcane Expert of National Federation. The project initially will be implemented at designated cooperative sugar mills under close supervision and monitoring by the NFCSF, New Delhi & ISHA Agro (P) Ltd., Pune.
- c) Isha Agro will provide PSAP product (@ 25 % discount on MRP of PSAP for mill purchases i.e. MRP of PSAP will be Rs.1800/- per kg and 25% discount will be Rs.450/-. After discount purchase price for the mill will be Rs.1350/- per kg which includes 5% GST) to all the selected cooperative sugar mills for this project as recommended @ 15 kg PSAP / ha which will be applied in 3 foliar sprays. The spraying schedule will be monitored by Isha Agro (P) Ltd. and NFCSF with the help of Cane Department of the mills.
- d) All agronomical practices, schedule of observations and quality analysis, etc. will be done by the mills with maintaining scientific record & data of the PSAP project.
- e) Field monitoring will be conducted periodically by the team of experts from National Federation and Isha Agro to evaluate the performance of the project.

### **Article (4): Funds for Implanting Technology on large scale for benefit of sugar industry**

1. For funding of the project NFCSF will prepare a DPR and approach the Government of India/ NABARD/ State Govt. / Sugar mills / Technology provider institutes, etc.
2. May be approached by International organizations for collaborative Research and Development work on PSAP technology and to obtain funds for the benefit of the Indian Sugar Industry.



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LTD.**

**राष्ट्रीय सहकारी शक्कर कारखाना संघ लिमिटेड**

Ansal Plaza, Block-C, 2nd Floor, August Kranti Marg, New Delhi - 110049 (India)



#### **Article (5): Intellectual Property Rights Issues**

The NFCFS and Isha Agro (P) Ltd. will ensure appropriate protection of Intellectual Property Rights (IPR) generated from cooperation pursuant to this MoU, consistent with the agreements to which both parties are committed. Any research / results obtained through joint activities under this MoU or, publication document and /or paper arising out of joint work conducted by the participants pursuant to this MoU will be jointly owned forever.

#### **Article (6): Quality of Product / Potassium Salt of Active Phosphorus (PSAP)/ or Technology / ISI Standard/or Recommendation for use**

The quality and product recommendation / Potassium Salt of Active Phosphorus (PSAP)/ or Technology is sole responsibility of Isha Agro (P) Ltd.

#### **Article (7): Duration of the Project**

This MoU comes into effect from the date of its signing by the Two Parties viz., National Federation of Cooperative Sugar Factories Limited (NFCFS) & Isha Agro Sciences Pvt. Ltd. (IASPL) & shall be valid for one year & extendable after consent of the Board of Directors', NFCFS.

#### **Article (8): Submission of Final Report**

- a) In view of the MoU, the comprehensive report of the PSAP Technology project will be prepared by the Sugarcane Expert /Chief Cane Adviser of national federation on the basis of one year trial performance viz., actual scientific data / field observations / results obtained from the designated co-operative sugar mills including observations / reports of Isha Agro (P) Ltd., if any.
- b) One year technical performance report of the PSAP technology will be submitted to the Authority of NFCFS, New Delhi.
- c) After assessing the scientific performance of first year trials of the PSAP product on sugarcane in terms of increasing cane and sugar yield by comparing with control plots/ cost benefit ratio, the National federation will decide whether / not to allow it to continue the PSAP trials for next year.



**NATIONAL FEDERATION OF COOPERATIVE SUGAR FACTORIES LTD.**

**राष्ट्रीय सहकारी शक्कर कारखाना संघ लिमिटेड**

**Ansals Plaza, Block-C, 2nd Floor, August Kranti Marg, New Delhi - 110049 (India)**



**Article (9): Dignity or Status of the Organization/ Confidential, etc.**

The NFCSF being an Apex Body of all the Co-operative Sugar Factories in India, it is obligatory to Isha Agro (P) Ltd. that to maintain its dignity during working jointly with NFCSF viz., don't disclose reports / results /technical information /observations /officials meeting discussions/ audiovisual /photos/any other related information with industry / comments, etc.

[Total Articles sugarcane agriculture of MoU is 1-9 numbers, 1369 words and pages 1 to 5 only]

The MoU is signed on dated DAY,   /  /  /2022.

For ISHA AGRO SCIENCES PVT. LTD.

For NATIONAL FEDERATION OF COOPERATIVE  
SUGAR FACTORIES LTD.

Place: New Delhi

