

Sustainable Sugarcane Initiative - A Profitable Enterprise for Sugarcane Farmers

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Sugarcane is an important crop of India and it is a livelihood for 35 million farmers. Tamil Nadu ranks first in sugarcane productivity. Water is one of the major constraints affecting the productivity and profitability of sugarcane. Approximately 2,500 kg of water is needed to produce 1 kg of sugarcane. But, the water table is depleting every year. The problem is going to further deteriorate due to variability of rainfall influenced by climate change. So, unless sugarcane farmers are provided with options of high yields with much less water, it is very difficult to meet its growing demand for sugar. In this context, Sustainable Sugarcane Initiative (SSI) is a combination of cane planting innovations and water saving practices, has great potential for meeting the growing demands of sugar sector looking for increased revenues and profitability.

How the new development works and how it is changing real lives

Sustainable Sugarcane Initiative (SSI) was launched in May 2009 by the World Wide Fund for Nature (WWF) and the International Crop Research Institute for the Semi-Arid Tropics (ICRISAT) in India. SSI aims at providing practical options to improve productivity of land, water and labour. In the conventional method, 2-3 budded setts are used for planting, while, single budded chips, are used for raising nursery in SSI resulting in higher germination percentage. Normally, 30,000 two budded setts (60,000 buds) are planted in one acre as against 5,000 single buds raised in prostrays in SSI. It costs about Rs. 15,000/- (Rupees Fifteen Thousand per acre excluding transport) for normal planting as against Rs. 7,000/- (Rupees seven thousand only including transport) in SSI, thus, reducing the sett cost up to 75 per cent. Wide spacing of 5X2 feet is maintained in SSI, reduces the seed usage, supports easy air and sunlight penetration.

Hurdles and challenges that were overcome

SSI principles require technical knowledge and skill which farmers did not know earlier. These technological knowhow on SSI and Sugarcane Nursery Technology (SNT) was imparted to farmers by Tamil Nadu Agricultural University supported by National Agricultural Development Project through Krishi Vigyan Kendras. During 2011 – 12, about 4000 farmers and sugarcane officials were trained in these aspects to develop confidence of implementing the technology. Periodical visits were made to the nursery sites and farm advisory services were given by KVK scientists Drip irrigation company people.



An initial investment of Rs. 1, 00,000/- is required for establishing shade net and the required tools and chemicals which is a huge lump sum a small farmers can't afford to. So, Government of Tamil Nadu, as a measure of motivation, gave Rs. 1, 00,000/- as subsidy to progressive farmers who got training in SSI with a condition to raise chip bud seedlings and distribute to the farmers besides fulfilling their own requirement. In Madurai District, ten farmers got the subsidy; established shade net and started raising chip bud seedlings turned as successful entrepreneurs.

Comments and experiences of 'Developers' and users

Tamil Nadu, being the number one state in sugarcane productivity, has a great potential in SSI. Tamil Nadu farmers are very much innovative, eager to take up any new technologies with great enthusiasm and support. Wider spacing in SSI is ideal for introducing Mechanical harvester, an effort already in practice in some Mills areas in Tamil Nadu. The farmers viz., S.Karuppaiah, Muruganatham, who are successful in raising sugarcane nursery, are very much impressed with this technology, since it has become a livelihood enterprise for them reaping a net income of Rs. 30,000/- per month by producing one lakh seedlings per month. The shade net is effectively utilized for producing vegetable seedlings viz., brinjal, bhendi, chilli and tomato during lean seasons. The farm women are very much interested to be involved in this enterprise since there is no drudgery.

Limitations/constraints/future challenges

There are challenges in up scaling SSI - knowledge transfer, working with sugarcane research institutions and sugar industry. Besides operational challenges, there are some research issues need to be addressed — eg., improving the quality bud-chips, storing of buds without loss of quality, reduction of costs in nursery so that farmers can pay less for each seedlings.

Responses from relevant/significant bodies

Sustainable Sugarcane Initiative can help the farmers to produce at least 20 per cent more sugarcane and that too with 30 per cent of reduced water consumption and 20 per cent less chemical inputs, provided the initial investment for shade net nursery establishment and drip irrigation may be decentralized at subsidized cost to the small and marginal farmers (below five acres of holding).

What next in terms of development? What lessons have been learnt? / Can be transferred elsewhere?

The SSI will most likely become the standard planting method for entire sugarcane fields in India. This will take some time, but in the next decade or so, every small and medium farmer, not only in India, but also in many other countries, will be practicing SSI. But this requires support from public and private sectors. One of the effective ways of up scaling SSI is through Public-Private partnership mode.

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