

FOREWORD



Global sugar production has been on the rise for the past couple of seasons. The production in the country and the state of Maharashtra also echoes the same trend. In the forthcoming season 2011-12, 7.4% rise in sugar output to around 25.50 million tonnes is expected in India, to which, Maharashtra will contribute 9.35 million tonnes. It is also predicted that sugar production in Brazil may drop by 1.10 million tonnes as adverse weather conditions have hurt the cane crop. India will thus have more availability of sugar than the domestic requirement creating opportunities for export.

The country would need 35 million tonnes of sugar by 2025 for domestic consumption. Considering the future requirement of sugar with limitations on availability of additional land and irrigation facilities, it is of paramount importance to invest in efforts for enhancing the productivity in terms of higher yields and a qualitative change in sucrose content. The efforts in cane cultivation will have to be directed for precision intensive farming to support the increasing need for sugar for the growing population alone keeping aside the export. This is a big challenge before the scientific community and sugar mills. The present scenario of cane cultivation, cane yield and cane quality needs to undergo a tremendous transformation to meet the challenges ahead. The future of sugar industry lies in scientific cane cultivation. By any stretch of imagination, a paradigm shift brought about by

innovative technologies in sugar engineering and sugar processing may bring about reduction in processing cost to a certain extent, but it may not match the profitability from better cane yield with higher sugar content. There is an enormous scope and immediate requirement for improving the cane cultivation. The strategy to bring about a meaningful and sustainable development to foster cane development activities commencing from selection of a suitable variety upto the stage of harvesting will have to be monitored. This issue needs to be addressed at this stage so that the country may never have to depend upon imports for domestic consumption. Moreover, the growers are also becoming conscious to a situation where they are in a position to change to alternate crops which require similar soil, water availability and climatic conditions but are more remunerative than sugarcane. Now, it is for the sugar mills to pay whole hearted attention to sugarcane cultivation by providing the required inputs and know-how to ensure that the growers do not get diverted from cane cultivation and mills have assurance of adequate raw material.

The profitability of sugarcane agriculture can be sustained and improved only by the development of new sugarcane varieties. Besides, sugarcane is also emerging as multi-product crop for ethanol, cogeneration, paper and other chemicals. These requirements should also be met with breeding of new varieties. The genetic material assembled at Amboli and state-of-the-art infrastructure with trained manpower in the breeding discipline paves the way for future utilization of these invaluable genetic resources for sugarcane improvement. I am sure that VSI will be able to achieve the goal of developing high sugar, high yielding, drought and pest tolerant as also high fibre sugarcane varieties for the sugar industry in the years to come. This centre has all the potential of becoming a national sugarcane breeding facility.

Continuous cultivation of sugarcane has resulted in depletion of macro and micronutrients. Since sugarcane is a cash crop and generally cultivated in deep and fertile soil with assured irrigation source,



farmers were searching for alternative rotation crop which should utilize the natural resources available with them and give better or at least equal monetary returns. In efforts for diversification of crop to contribute to food security, a large-scale production of tissue cultured banana plantlets has been undertaken by the Institute as an alternative intensive cultivated cash crop to sugarcane. Tissue culture in potato has also been introduced for production of disease-free tubers to address the issue of availability of potato seeds and to introduce it as an inter-crop in sugarcane.

Indian Sugar Industry is gradually transforming into sugar complexes by producing along with sugar, refined sugar, power, alcohol, bio-manures and chemicals. Around 150 mills have installed cogeneration plants having capacity to produce 2500 MW of power. About 2.65 billion litres of alcohol is produced from 10-12 million tonnes of molasses. It is heartening to observe that the new plants are

integrated complexes harnessing the potential of the high energy sugarcane crop. The Union Government has substantially contributed to this endeavour by providing financial support through Sugar Development Fund. The green energy potential is around 6000 MW. Thus, this sector has a huge potential.

I appreciate the efforts put in by the staff of the Institute in the service of the sugar industry. I am confident that the Institute shall continue to excel its performance in every sphere. I would like to place on record my sincere thanks to my colleagues on the Board of Trustees and members of the Governing Council for their wholehearted support and keen interest in activities of the Institute.

Sharadchandra Pawar
President

