



Unit-wise Performance:

Units	%		(Million Tonnes)			
	Sugar Recovery		Sugarcane Crushed		Sugar Production	
	SS	SS	SS	SS	SS	SS
	2021-22	2022-23	2021-22	2022-23	2021-22	2022-23
Khatauli	10.51	9.96	2.25	2.49	0.24	0.25
Deoband	10.33	10.17	1.66	1.85	0.17	0.19
Ramkola	11.44	10.64	0.67	0.78	0.08	0.08
Sabitgarh	10.79	10.53	1.08	1.23	0.12	0.13
Chandanpur	10.62	10.28	0.95	1.04	0.10	0.11
Rani Nangal	10.86	10.54	1.02	1.11	0.11	0.12
Milak Narayanpur	9.58	9.82	0.77	0.83	0.07	0.08
Group	10.55	10.23	8.41	9.33	0.89	0.95

Note: Net recovery of 10.23% with 92% of sugarcane crush with B-heavy diversion in SS 2022-23 vs. 84% in the previous season.

GROWTH THROUGH SUGARCANE DEVELOPMENT PROGRAMME

Triveni's sugarcane development programme is pivotal to its sustainable growth strategy, and the Company continuously engages with farmers to increase sugarcane productivity through its comprehensive sugarcane development programme. Its dedicated team of sugarcane development staff works closely with the farmers, disseminating knowledge on new technologies and innovations in the field of agriculture in general and sugarcane in particular.

The Company has been relentlessly working on a six-pronged strategy aimed at the development of improved planting, cultivation, crop protection and harvesting techniques. The strategy also seeks to improve the quality of crop and land productivity, resulting in enhanced income in the hands of farmers. The pillars of this strategy are:

1. Significant focus on **yield improvement** through various agronomic interventions (e.g. wide spacing, trench planting, etc.). **Emphasis on before-wheat planting**, providing higher time in the field to the spring planted sugarcane, thus leading to higher yield.
2. **Active farmer engagement:** Development of a very large number of model demonstration (demo) plots, with yields 40-50% higher than normally being obtained by farmers in their sugarcane fields, to showcase to the farmers advanced practices. The plots are also helping educate the farmers to achieve yield enhancement for replication in their own plots for income enhancements.
3. **Soil Health Improvement:** Judicious application of balanced dosage of fertilisers and nutrients as per soil analysis reports and recommendations.

4. **Crop Protection** from various pests & diseases, using a structured and scientific surveillance programme.
5. **Improvement in farm implements and mechanisation**, to make farm activities less labour intensive and drive economic improvements.
6. **Structured Varietal Development Programme**, for identification, faster multiplication, and commercial use of desired high sugar and disease resistant varieties for the mutual benefit of the Company and the farmers.

Various digitalisation measures have been undertaken in the above initiatives to promote real-time information sharing and interventions, faster dissemination of best practices across units and among the farmer community.

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Key updates of the sugarcane development programme are as follows:

No. of member farmers: 3.29 lakh, up 3% over the previous season

Sugarcane area increased by ~3%, from ~198,000 hectares (Ha) in SS 2021-22 to ~204,000 Ha in SS 2022-23

Varietal replacement is being focussed on at all the units, as the leading sugarcane variety, Co 0238, has become susceptible to a fungal disease called red rot, which damages the crop yield and affects the quality of juice. Varieties being currently propagated are Co 118, Co 98014 & Co 15023 (new variety). Co P9301 is being propagated specifically at Ramkola in the low-lying areas. Co J88 is a high-sugar variety, and is being specifically propagated at Chandanpur. Total area under Co 0238 sugarcane variety is expected to drop to 74% as against 88% last year.

Special yield improvement interventions, e.g. wide spacing, were undertaken in 26,300 Ha this year, which is 36% higher than last year.

A large number of **demonstration plots** (~400- 500 plots across each unit), spread across our sugar units' command area, have been developed to show to the farmers the benefits of the recommended practices and interventions in the field. Farmer meetings are organised at these plots to create awareness on the benefits of the new/scientific cropping techniques over conventional practices adopted by the farmers of the area.

Crop protection – A structured disease & pest surveillance programme is in place at all the units, which helps us in timely detection of pest/disease attack, forecasting, and taking corrective control measures.

Integrated crop protection programme, which involves following and practising preventive/curative control measures through a combination of chemical, biological and mechanical means/techniques, is practised at all our sugar units. It has yielded good results in keeping the pest and disease incidence levels in control to a large extent over the years.

Biological measures involve usage of bio agents (e.g. Trichoderma to control red rot). **Mechanical control measures** on the other hand include rouging & destruction of diseased clumps, destruction of egg mass and moths, and collection and destruction of the pest-affected shoots.

Soil health improvement: Press mud is being provided on subsidised rates to the farmers to replenish the organic carbon content in soil. Another major focus is on application of micro element mixtures & Potash (macro element), which were earlier available in abundance but now have started declining. These too are provided on a subsidised rate.

Soil samples are collected every year from the Development Zones of the factory and sent for analysis to reputed soil laboratories. Based on the soil analysis reports, recommendations are worked out for each of the Development Circles (comprising a cluster of villages)





located in the command area. The recommendations are displayed through wall paintings in the villages. Pamphlets, posters etc. are also used for disseminating information amongst the farmers. Awareness on benefits of application of balanced dosage is created through village meetings, educational sessions, as well as expert visits & goshties (large gathering of the farmers) to impart knowledge.

Focus on ratoon management: Farmers are being persuaded to treat the ratoon crop similar to the plant crop to maximise yields and reap maximum benefits. The farmers are educated to take up timely inter-culture operations and irrigation, apply balanced dosage of nutrients, and take timely preventive & curative pest/disease control measures to enable a good yield.

We have tied up with Regional Sugarcane Research Station, Karnal (Research Station of Sugarcane Breeding Institute, Coimbatore) for zonal varietal trials at our sugar units.

As part of the All India Coordinated Trial programme, an Inter-varietal Analysis Trial was laid out at the Company's Gagsona farm (in Khatauli), 10 pipeline varieties were planted during FY 23, along with the existing cultivated varieties, for a comparative analysis of yield & quality parameters. These arrangements will provide the Company early access to new varieties, especially in case any of the trial varieties get selected in the region.

Discussion with senior scientists from above institutes, to assist in propagation of best crop management practices, is an added advantage.

Farm Mechanisation is being encouraged on entrepreneurship model. Farm implements, e.g. small tractors, ratoon management devices, trench openers, power sprayers etc., are being made available on lower/competitive market rates. These initiatives lead to availability of tractors & farm implements on significant discounts to the farmers over and above the normally offered retail prices.

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Digitisation: Sugarcane area data is captured through hand held terminals; each circle supervisor is equipped with these machines. They feed data, e.g. progress of planting indents & planting, on a daily basis during the planting season, which is exported to our servers. Other important parameters, e.g. area of the sugarcane plots, type of the crop, sugarcane variety, condition of the plots (lowland/upland), irrigation source etc., are captured during the sugarcane area survey. Supply calendars are prepared on the basis of sugarcane area/type of the crop & sugarcane variety.

OUTLOOK FOR SUGAR INDUSTRY AND TRIVENI SUGAR BUSINESS

With an increased acreage and excellent rains in April and May 2023, there are increasing chances of an El Niño impact, as warned by various meteorological agencies. There are also palpable changes in weather patterns, with unseasonal cool weather across North India in April 2023 as compared to unseasonal hot weather in March last year. All these have an impact on sugarcane growth, recoveries, new forms of pests and disease that can potentially impact the sugarcane crop. While it is difficult to predict these and hence the sugar production of the country, we believe that overall, the industry has sufficient flexibility to meet domestic consumption demands, and meet ethanol blending requirements by diverting sugar for the production of ethanol. The Government decides on sugar exports based on the surplus sugar available in the country, after meeting domestic priorities and having regards to the demand and price prevalent in the international markets.

For Triveni, as majority of the sugarcane areas associated with our factories are located in regions with rivers & well-connected canal systems and supplemented by tube wells/borewells based irrigation methods, the sugar operations are far less likely to get impacted due to scanty monsoon rains as compared to other sugarcane cultivating regions.

The Company continues to have robust and well-structured sugarcane development programmes across its seven sugar units, and is anticipating a higher crush and improvement in recovery in the upcoming sugar season. The focus is on substitution of 0238 variety by other promising, well proven and high yielding/high sucrose varieties in sugarcane command areas of the sugar units. Coupled with various yield enhancement measures, like spaced row planting, trench planting and autumn planting, sugarcane availability would be assured to meet higher sugarcane requirements at the sugar units.