

SUGAR BUSINESS PERFORMANCE

Triveni operates seven sugar units spread across the State of UP. All units are located in well irrigated and fertile areas suitable for cane cultivation. While Khatauli (District Muzaffarnagar), Deoband (District Saharanpur), Sabitgarh (District Bulandshahr) are located in western UP, Chandanpur (District Amroha), Rani Nangal (District Moradabad) and Milak Narayanpur (district Rampur) are located in Central UP. One unit, namely Ramkola (district Kushinagar), is located in Eastern UP.

The Company currently manufactures refined sugar, which constitutes approx. 40% of the total sugar production, and realises a premium over normal crystal sugar realisation. The refined sugar is supplied to high grade end-users, thereby

creating a niche customer profile for Triveni. The Company also produces different grades of pharmaceutical sugar that can be customised as per the user requirements. Over the past few years, it has developed a large customer base for pharma sugar too. The Company also supplies high quality crystal sugar from some of its non-refinery units to large institutions, which fetches it a premium.

The Company's seven sugar units are FSSAI certified and strictly adhere to best-in-class manufacturing processes and quality benchmarks. The Company supplies sugar to major multinational soft drink companies, leading confectionery manufacturers, breweries, pharmaceutical companies, dairies, top ice cream producers, etc.

The Sugar business has performed well in FY 22, owing to continuous improvement in operational efficiencies and consequent reduction in cost of production, backed by improvement in sugar prices. In the Sugar Season 2021-22, three sugar units were still in operational, with total sugarcane crushed at 8.2 million tonnes with gross recovery of ~ 11.67%, as on May 13, 2022. The Company is expected to achieve sugarcane crush of ~8.4 million tonnes and sugar production of nearly 0.9 million tonnes.

Over the years, Triveni's focussed sugarcane development programme, with almost 100% high-yielding and high-sugared variety sugarcane, has helped the farmers achieve higher returns as a result of enhanced farm productivity. At the same time, this has helped augment the Company's profitability through higher volume of sugarcane crush and improved recoveries of sugar. Keeping in mind the high dependence on single cane variety Co-0238, the Company has undertaken a structured programme to gradually replace this variety by other high-sugared and high-yielding cane varieties.



The Company strives to increase the realisation price of sugar in every possible way. The production of ~40% refined sugar, coupled with bold grain sugar and the high-grade pharmaceutical quality sugar produced, helped it secure higher realisations.

The Company strives to increase the realisation price of sugar in every possible way. The production of ~40% refined sugar, coupled with bold grain sugar and the high-grade pharmaceutical quality sugar produced, helped it secure higher realisations. This year, the Company has produced the highest ever quantity of pharma sugar, which fetches a good premium over refined sugar, from its Sabitgarh facility. Buoyed by the strong demand, the Company is planning to double the production of pharma sugar in the coming Sugar Season 2022-23, and is planning to spend capex on improving the processes to produce better quality sugar. Thus, going forward, higher production of bold grain, better quality - lower ICUMSA colour value - sugar production, and higher pharmaceutical grade sugar production should assist in achieving superior realisations for the Company.

Consequent to reduced export potential for the North-based sugar mills, on account of cessation of export subsidy, it is imperative to manage the working capital effectively. In view of the Company's long-term rating at ICRA AA (stable outlook), it has easy access to funds at competitive rates. The Company was, therefore, able to contain its finance costs in FY 22. Further, the Company is steadily increasing diversion of sugar for production of Ethanol.

Across U.P., there has been a decrease in sugarcane yields and sugar recovery, largely attributable to climatic factors/ unseasonal high rains, flooding in certain areas, and high ambient temperatures & heat wave starting from the end of March 2022, which impacted the recoveries. In some regions, the crop has been infested with red rot (in some units), top and root borers. This resulted in lower sugarcane yields and availability, particularly in eastern UP where the Company's Ramkola unit is located. Flash floods in the area of Milak Narayanpur unit in district Rampur adversely impacted yield and recoveries. Despite such challenges, the Company managed to perform well in SS 2021-22, with its reduction in crush and recovery lower than the average for the State.

In SS 2021-22, five sugar units largely operated on the B-heavy molasses process for the entire season whereas Khatauli sugar unit operated only with effect from Jan 01, 2022 onwards on B-heavy diversion process. Ramkola sugar unit operated on C-heavy process during the entire season and Milak Narayanpur sugar unit also undertook diversion of syrup towards the fag end of SS 2021-22 for the production of ethanol from its newly commissioned distillery.

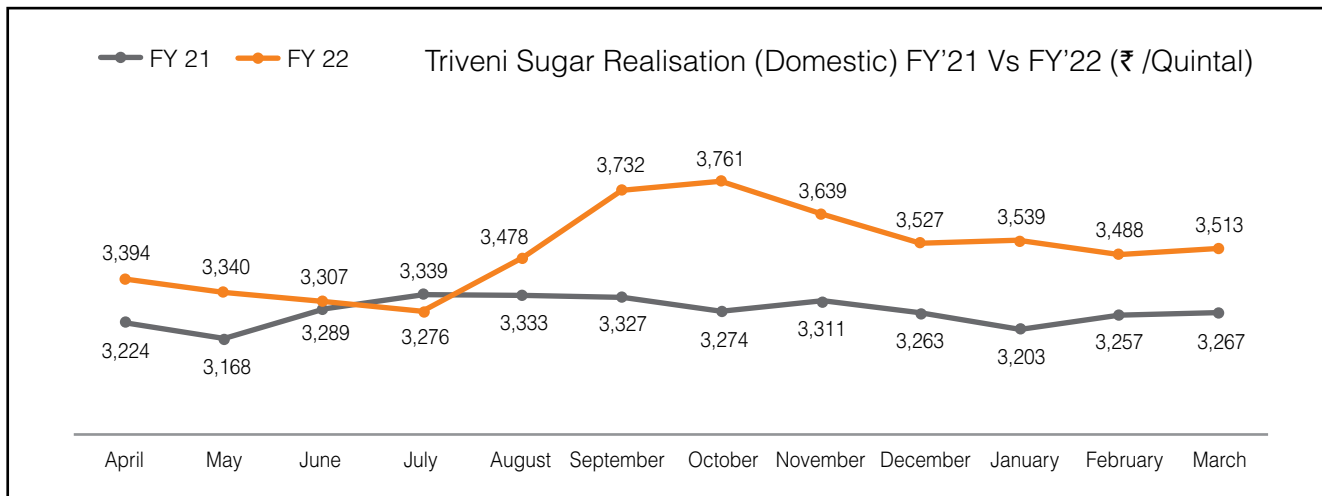
Consequently, the amount of sugar diversion for ethanol production was expected to increase this season to approx. 93,000 tonnes as compared to approx. 75,000 tonnes in the previous season. Recovery was estimated at 10.55% (Gross Recovery of 11.70% after adjustment on account of B-heavy molasses and syrup diversion) for SS 2021-22.

(Million Tonnes)

Sugar Units	Net Sugar Recovery (%)		Sugarcane Crushed		Sugar Production	
	SS 2021-22	SS 2020-21	SS 2021-22	SS 2020-21	SS 2021-22	SS 2020-21
Khatauli	10.51	11.28	2.25	2.37	0.24	0.27
Deoband	10.33	10.47	1.66	1.60	0.17	0.17
Ramkola	11.44	11.17	0.67	0.64	0.08	0.07
Sabitgarh	10.79	11.50	1.08	1.13	0.12	0.13
Chandanpur	10.62	10.84	0.95	0.99	0.10	0.11
Rani Nangal	10.86	10.97	1.02	1.04	0.11	0.11
Milak Narayanpur	9.58	10.43	0.77	0.77	0.07	0.08
Group	10.55	10.98	8.41	8.54	0.89	0.94

Gross recoveries (after adjustment on account of B-heavy molasses and syrup diversion): 11.70% as against 11.86% in the previous period.

The average domestic sugar price realisation for the Company was ₹ 35,020/tonne during the year as against ₹ 32,703/tonne in the previous year. Exports realisation price (including subsidy) stood at ₹ 31,780/tonne in FY 22 as against ₹ 32,600/tonne in FY 21.



The average domestic sugar price realisation for the Company was ₹ 35,020/tonne during the year as against ₹ 32,703/tonne in the previous year.

The Triveni Sugar business also comprises three grid-connected large capacity co-generation plants and three smaller co-generation capacities (incidental co-generation facilities) at its five sugar units, namely Khatauli, Deoband, Chandanpur, Milak Narayanpur and Sabitgarh. Triveni's co-generation plants at Khatauli and Deoband utilise highly efficient 87 ata / 515°C steam cycle to maximise efficient usage of bagasse. After meeting the sugar factory's captive requirement as well as the co-generation plant's auxiliary power requirement, surplus power from these plants is exported to the grid. The Company has power purchase agreements with Uttar Pradesh Power Corporation Ltd. (UPPCL) for all its co-generation facilities.

Unit-wise capacities of the co-generation plants are as follows:

S. No.	Name of Unit	Capacity (MW)
1	Deoband	22.0
2	Khatauli - Phase 1 & Phase 2*	46.0
3	Sabitgarh	13.5
4	Chandanpur	10.0
5	Milak Narayanpur	13.0
Total		104.5

*Note: Khatauli - Phase 1 & Phase 2 are 23 MW each

Co-generation operations (including incidental co-generation) involved export of 1,959 lakh units to the grid during the year, as against 2,239 lakh units in the previous year. Co-generation operations (including incidental co-generation) achieved external sales of ₹ 62.38 crore during FY 22 as against ₹ 68.35 crore in FY 21, a decline of 9% due to lower operating days.

GROWTH THROUGH SUGARCANE DEVELOPMENT PROGRAMME

Triveni's sugarcane development programme is pivotal to its sustainable growth strategy, and the Company continuously engages with the farmers to increase sugarcane productivity through its comprehensive cane 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 working relentlessly on varietal development, yield improvement and crop protection. Its structured varietal development programme has been instrumental in faster multiplication and commercial exploitation of high sugar varieties, e.g. Co-0238 & Co-98014, providing the Company an edge over the peers.

Particulars	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Area under sugarcane (Hectare)	167068	156671	166675	183423	194159	191840	195537	198376
Sugarcane crushed (Lakh Quintals)	512.72	452.07	640.03	836.70	797.58	874.25	853.97	840.91
Sugar produced (Lakh Quintals)	49.1	48.8	70.8	95.2	94.0	100.9	93.8	88.7
Net Recovery (%)	9.57	10.80	11.06	11.38	11.79	11.54	10.98	10.55
Gross Recovery (%)	9.57	10.80	11.06	11.38	11.79	11.97	11.86	11.70

Gross recoveries (after adjustment on account of B-heavy molasses and syrup diversion): 11.70% as against 11.86% in the previous period.

The programme has helped in boosting productivity and enhancing the income of about 3 lakh plus farmers who are associated with the Company's sugar units. Triveni's focus during the year remained on the following key activities:

- Propagation of high sucrose varieties
- Increasing productivity through adoption of new technologies and better farm management practices
- Soil health sustenance and improvement through a comprehensive programme of soil testing and nutrient recommendations
- Better irrigation techniques and water conservation methods
- Crop protection programme to protect the crop from pests and diseases



The Company has been working relentlessly on varietal development, yield improvement and crop protection. Its structured varietal development programme has been instrumental in faster multiplication and commercial exploitation of high sugar varieties, e.g. Co-0238 & Co-98014, providing the Company an edge over the peers.



These sustained efforts have led to increase in recovery over the years, along with significant enhancement in sugarcane productivity, translating into increased sugarcane crushing. With the growing incidence of red rot reported in Co 0238 throughout Eastern UP and some parts of Central UP, the Company has initiated sugarcane varietal substitution plan at all its sugar units. Besides focussing on propagation of tested varieties, e.g. Co 118, Co 98014, CoLk 94184 (along with CoJ 88, an improved variety), new varieties such as Co 15023 are also being explored. Techniques for faster propagation of the varieties are also being implemented.

The Company is continuously working on yield improvement. Wide row-to-row spacing (specifically, trench technique and paired row technique), besides application of balanced dosage of fertilisers based on soil analysis reports, are being propagated aggressively. Since crop protection (protecting the standing crop from diseases and pests) is integral to the yield improvement programme, the Company is working aggressively on this aspect. It has specially incentivised availability of fungicides and pesticides for seed and soil treatment for the sugarcane farmers at all its units.

The Company also consistently works on dissemination of knowledge on cropping methods for the overall growth of its farmers. They are being educated and motivated to adopt new scientific and innovative techniques through a well-formulated and structured extension programme, involving various digital and conventional tools.

SUGARCANE VARIETAL SUBSTITUTION PLAN

Varieties play a pivotal role in improving sugarcane productivity. Since sugarcane is a perennial crop being grown over a long period of time (say 8-10 years or more), it is subject to different biotic and abiotic stresses, along with breakdown of pest and disease resistance. This necessitates introduction of newer varieties with superior qualities (e.g. higher sucrose %, yield, and disease and pest resistance) for replacement of the existing old varieties. Co 0238, the most widely cultivated variety across our units (as well as the State) has started becoming susceptible to red rot under certain climatic conditions at some of our units. There is, thus, need to gradually replace it with newer promising varieties. The focus is on having a back-up of new varieties (up to 40-50%) to mitigate the risk of disease susceptibility of Co 0238.

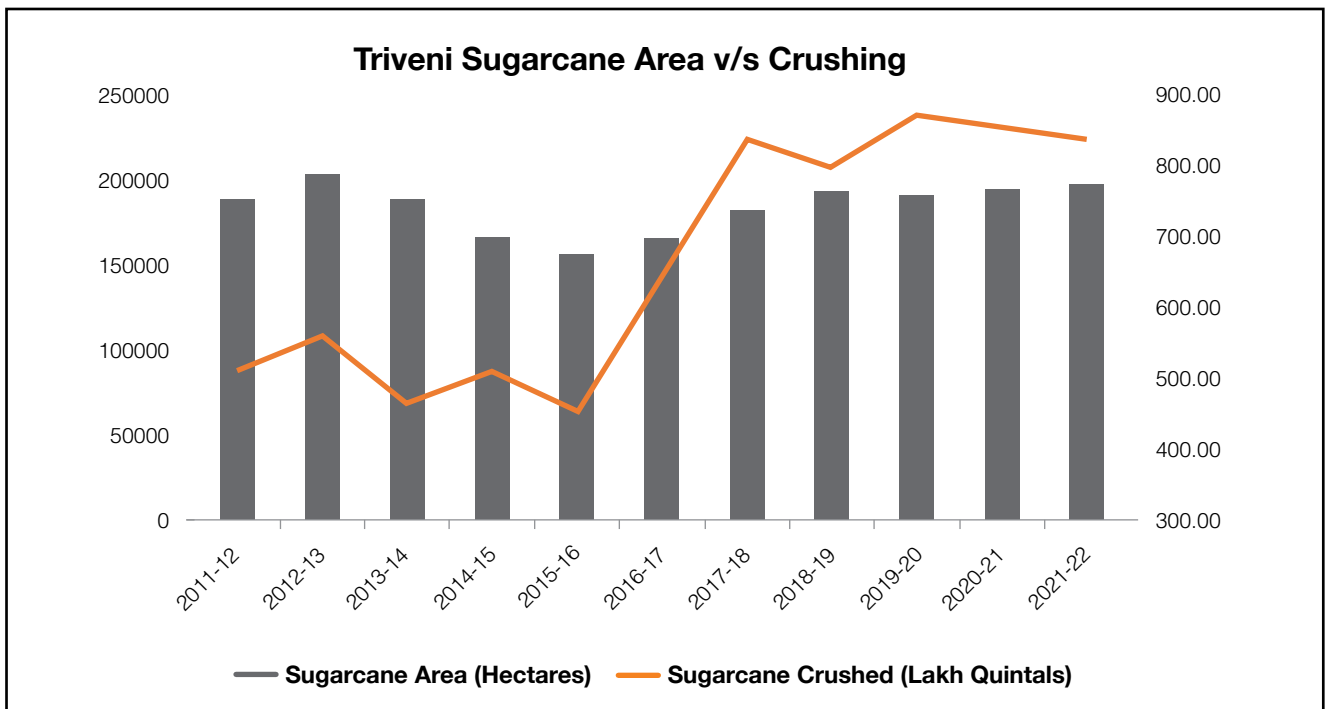
We have identified some new varieties e.g. Co 118 & Co 15023, amongst some other existing varieties e.g. Co 98014 etc., for propagation at our units; a number of varieties have been identified to mitigate different unit-specific climatic and topographical challenges.

Sugarcane varietal substitution, which involves continuous evaluation and selection, is an integral part of our sugarcane development plan. We have signed an agreement with the Sugarcane Breeding Institute, Coimbatore, for varietal evaluation and selection trials.



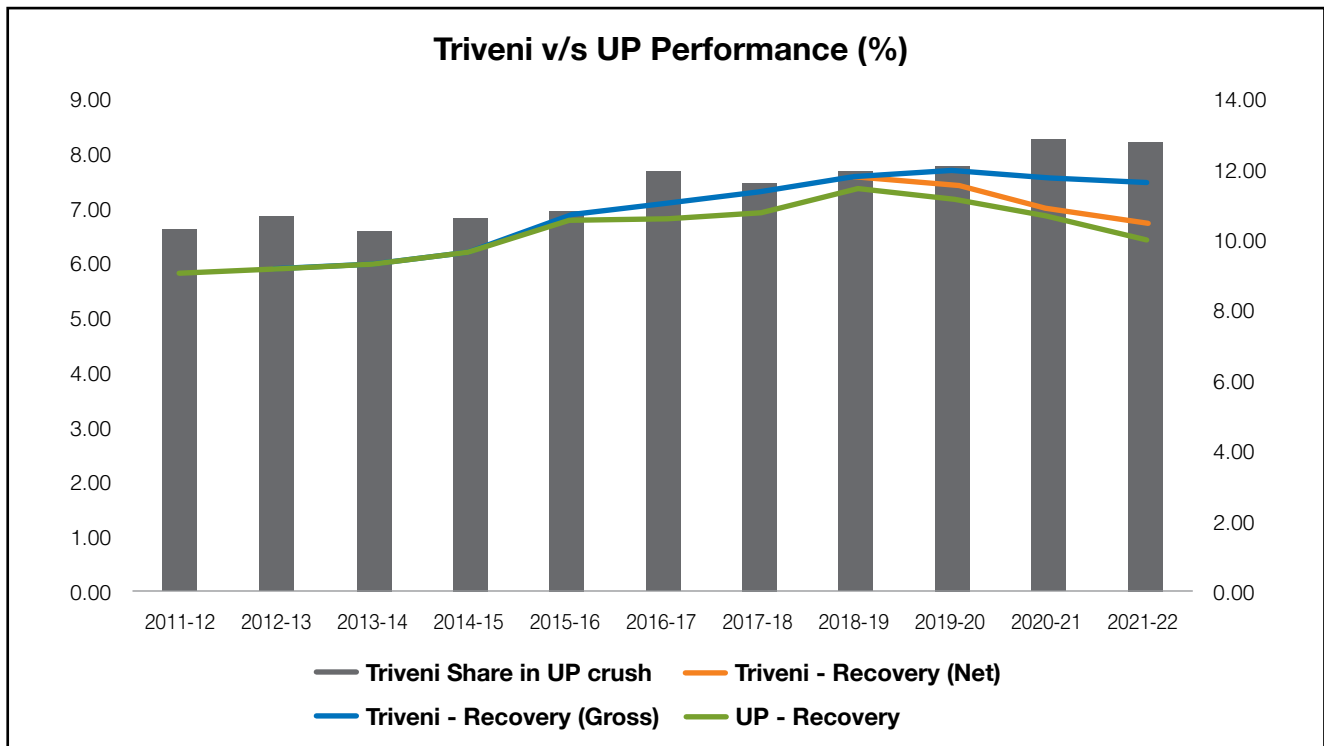
Sugarcane varietal substitution, which involves continuous evaluation and selection, is an integral part of our sugarcane development plan.

Moving ahead, the Company believes that the sugar industry should explore potential applications of Artificial Intelligence (AI), digitisation, coupled with IoT and drones in sugarcane production management, yield estimation, crop and soil health monitoring, as well as predictive crop-analysis. It should, at the same time, focus on continually improving its existing smart and digital supply chain.



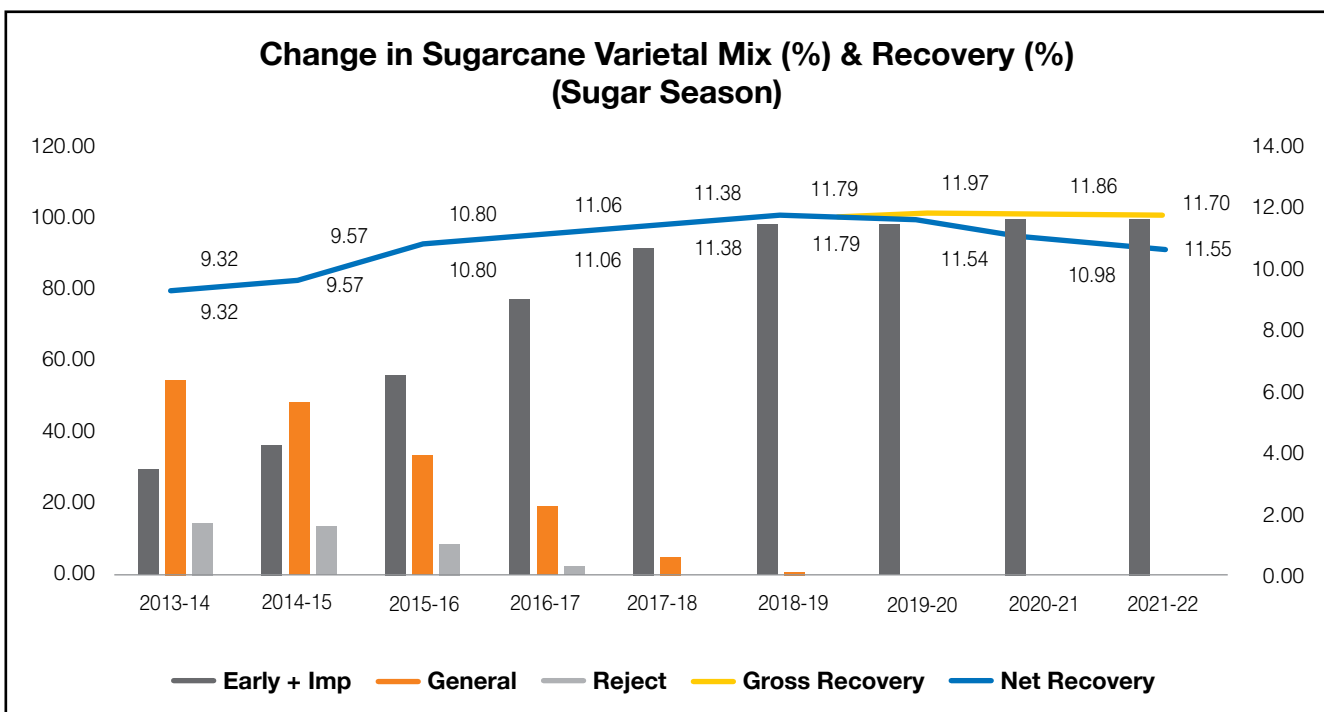
The area under sugarcane for the Company was marginally higher during SS 2021-22 as compared to SS 2020-21. However, the crushing is marginally lower on account of climatic factors, flooding in certain areas, and pests and disease infestations.





Note: Gross recoveries (after adjustment on account of B-heavy molasses and syrup diversion) 11.70% as against 11.86% in the previous period.

The Company has consistently performed better in terms of recovery as compared to the average UP state recovery.



Note: Gross recoveries (after adjustment on account of B-heavy molasses and syrup diversion): 11.70% as against 11.86% in the previous period. From SS 2013-14 to SS 2018-19, the Gross recovery and Net recovery are the same as the Company was not diverting any sugar for ethanol production.

The Company achieved around 100% area under early and improved variety of sugarcane in SS 2021-22.