



Current Scenario of Rajarambapu Patil Co-Op-Sugar Factory Ltd Rajaramnagar

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Abstract:

This research paper explores the operational dynamics and socio-economic impacts of the Rajaram Bapu Patil Co-operative Sugar Factory Ltd, located in Rajaramnagar, Maharashtra, during the fiscal year 2020-2021. Focused on the comprehensive analysis of sugarcane crushing, sugar production, and various bi-products including electricity, ethanol, and organic fertilizers, the study leverages both primary data from field visits and secondary data from governmental and institutional reports. Findings indicate that the factory not only plays a crucial role in the local agricultural sector by providing essential resources such as high-quality sugarcane seeds and organic fertilizers but also contributes to regional energy supplies through its co-generation capabilities. The paper underscores the factory's significant economic contributions and its strategic focus on sustainability, which is evident from its diversified bi-product production that enhances both economic viability and environmental sustainability. The outcomes of this research highlight the importance of cooperative sugar factories in bolstering rural economies and fostering agricultural development in Western Maharashtra.

Keywords: Rajaram Bapu Patil Sugar Factory, cooperative sugar industry, Maharashtra, sugarcane crushing, sugar production, co-generation, bi-products, ethanol production, organic fertilizers, agricultural development.

Introduction:

Co-operative sugar industry is one of the most important industry which pays an important rate in the economy of Maharashtra especially western Maharashtra. Hence it has always a prime importance to study the overall development of sugar industry. Here a study of current scenario of Rajaram Bapu Patil Co-operative sugar industry Limited Rajaram Nagar. Has been done to study the overall process and progress of sugar industry in the year 2020-2021.

In this paper all the dynamics of the sugar industry has been studied. Co-generation and production of other bi-products also been analysed.

Study Area:

The particular study is totally belongs to the Rajaram Bapu Patil Sahakari Sugar Factory of sangli district (Maharashtra). This is a one of the major cooperative sugar factories in Walwa tehsil. Located on 17° 04' 11" N latitude and There are 99 villages from walwa tehsil and 9 villages from adjoining palus tehsil supplied sugarcane as a raw material to the factory 74° 17' 25" E longitude. Rajaram Bapu Patil Cooperative Sugar Factory is located in sakhrle village which is a geographically it is a centre of walwa Tehsil. To the west of walwa tehsil is shirala tehsil Palus tehsil to the East, Mira tehsil to the southeast, Kadegaon tehsil to the north east, apart from that, the Walwa tehsil adjacent to

Kolhapur district to the south and Satara district to the north.

Agriculturally, Walwa tahsil is well developed tahsil in the Sangli district there are 57500 ha area is under cultivation and sugarcane is major crop in the tahsil. Due to the blessings of Krishna and Warna rivers, sugarcane is the mostly cultivated crop in the tahsil, eventually; it is notable that, tahsil is the part of sugarcane belt of Western Maharashtra.

There are 04 sugar factories in the Walwa Tahsil which having, 2683021 M.Ton total crushing capacity has crushed Among them Rajaram Bapu Patil Cooperative Sugar Factory 9,47,098,302 M.Tons of sugarcane in the year, which is higher than any other factory in the tahsil.

Objective:

To study the current scenario of Rajaram Bapu Patil Co-Operative sugar factory through various aspects of sugar production as well as production of other bi-product.

Database And Methodology:

The entire paper is based on the secondary data which is collected from various sources like annual reports of the sugar factory, report of Maharashtra state and co-operative sugar factories federation sugar commissioner at Maharashtra state, etc

Some of the primary data collected by field visit to the particular factories and the magazines provided by the same.

Discussion:

Current scenario of Rajaram Bapu Patil Co-operative sugar factory has been studied with its various dynamics and try to understand the overall organic and inorganic growth of the industry.

Sugarcane area crushing and sugar production

Sugarcane Area(Hector)	Day of sugarcane harvesting season	Crushing M Tone	Sugar production (Quintal)	Average Sugar content (%)
9153.50	141	947098302	1129900	12.76

In the year 2020-21, Rajaram Bapu Patil Co-operative Sugar Factory had recorded sugarcane area of 9153.50 hectares. It took an average of 141 days to sift all the sugarcane from this area to the factory. There is 947098302 M .Tone. sugarcane supplied from this one with crushing all the above said number of sugar cane Rajaram Bapu Patil

Sugar factory has produced 1129900 quintals with the content of 12.76 % in the 2020-2021. Hence It is clear that, the sugarcane crushing capacity of Rajaram bapu Patil Co-operative Sugar Factory is well established with enormous sugar production and the average production of sugar and other bi-products is increasing day by day.

Co-generation

Production Capacity	28 M Watt	%
Total Electricity Generation (K W H)	86493000	
Power Consumption for the factory (K H W)	31648500	36.59
Export Unit	54844976	63.41
Income received Rs.	373473699	

In view of the instability in the price of sugar, in order to survive in the sugar factory competition and to give fair price to the sugarcane producers areas and to overcome the shortage of electricity, Sahavi generation project has been set up by the Rajaram Bapu patil cooperative sugar factory. The total production capacity of the project

is 28 m watt which the total electricity generator of the factory is 86493000 K W H.

Among them there is 36.59 per cent of electricity consumed by the factory. While 63.41 per cent of electricity is exported to mahadescom . it has been observed accordingly that generated money for co-generation .it is about Rs.373473699 and it is a big share economic benefit of the factory.

Sugar Production and Sale

Opening Balance Stock	1066182 (Quintal)	%
Sugar Production	1209700(Quintal)	
Sale of Sugar	1304747(Quintal)	57.33
Reprocess	11324(Quintal)	0.50
Finally The Remaining stock	959811(Quintal)	42.17

The above table depicts that various aspect of sugar production visa sugar production and sale Opening balance stock ,sugar production ,sale of sugar , Reprocess , Finally the remaining stock . The factory has 1066182 Quintal of sugar as a opening balance in year 2020-21 which 1209700 Quintal

sugar has been produced in the same year. Among the total quantity of sugar 57.33 per cent sugar has been sold by the factory. And 0.50 per cent sugar has been reprocessed. Eventually 42.17 per cent of total sugar production in remaining as a stock by the end of the year 2020-21.

BI-Production

1		Liquor Production	Litters	Average %
	I	Foreign Liquor	5031391.68	50.28
	ii	Country Liquor	4976043.00	49.72
2		Biogas	472009 (cubic.m)	
3		Ethanol	5437753.0	

The above table clears the current scenario of the production of Bi-production by the Rajaram Bapu Patil co-op sugar factory LTD Rajaram nagar sakrale .According to the table there is three main bi-product. Produce by the factory i.e Liquor, Biogas and Ethanol. The total liquor production of the factory is almost one lack litters. Among the 50.28per cent production as a foreign liquor which 49.72per cent liquor is a country liquor.

Biogas:

Biogas is a production of processed spent wash which is produce in distilleries in the Rajaram

Fertilizers:**Rajaram Samridha and Rajaram Gandul**

Name of Fertilizers	Production M.Ton	Average %	Sales M.Ton	Average %
RajaramSamridha	1483	77.88	1659.100	73.34
RajaramGandul	421.60	22.10	602.80	26.65

Rajaram Samridh and Rajaram Gandul are the organic fertilizers manufactured by the factory and provided to the farmers in affordable rate. There are the organic fertilizers which reduces the deficiency of organic matter in the soil.in the year 2020-21 the production of rajaram sameidh fertilizer

Bio Compost Manure:**Distribution of Bio Compost Manure:-**

Supply to Farmers	14765.460 M. Ton	82.90
For Rajaram Samriddhi Fertilizer Project	3045.240 M.Ton	17.09

Factory produce high quality bio compost manure by processing the waste from the factory like press mud and ash within only 40 days. This manure supply to the farmers in just Rs.650 per cant. In the year of study factory produce almost

Organic Fertilizer

Name of Fertilizer	Production (Litter)	Sale (Litter)	Average %
RajaramNitroplus	21884	21647	98.91
RajaramPhosphoplus	22224	22050	99.21
RajaramCompostplus	29618	28993	99.88
RajaramAcetobacter	602	532	88.37
RajaramKropgaard	8834	8412	95.22
Rajaram Potash	7480	7285	97.39
RajaramTrichoplus	18088	17696	97.83

Bapu Patil factory the total biogas production in 472009 cubic.m and this biogas used by factory in the own gas boilers.

Ethanol:

The total ethanol production of the factory is 5437753.0wich is used as a fuel alternate. Now a days cost of fuel is increasing continuously and it creates stress on the limited resource of natural oil. Ethanol can be a best alternative to cost cutting of natural oil.

was 1483 M Tonnes and Rajaram Gandul was 421.60 M Tonnes. While sale of there fertilizers was 1659.and 602.8 M. Tonnes respectively here the table shows sale is more that then production of there particular fertilizer it is including the stock of previous year.

17,810 M.Ton compost manure among then almost 83 per cent compost supply to the farmers and remaining manure is used for Rajaram Samriddhi fertilizer project.

Various of organic fertilizers are produced by the factory and all these fertilizers supply to the sugarcane growers. These fertilizer help to increasing sugarcane production and soil fertilizer. The Rajaram Acetobacter is the organic fertilizer produced by the factory which reduces the use of other nitrogenous fertilizer. Rajaram Nitroplus, Rajaram Phosphoplus, Rajaram Compostplus,

Seeds:

Varieties of sugarcane	The Number of wands (Two eye tips)	Average %
KO – 86032	556250	54.63
KO.M – 0265	404100	39.68
M.S – 10001	23350	2.29
V.S.I – 8005	34500	3.38

Seeds are important to increase the production of sugarcane and the Rajaram Bapu Patil sugar factory take care about that by providing the variety of quality seeds to the farmers. These seeds also prevent the sugarcane from some diseases. Various types of sugarcane such as are growing by KO86032 the factory in M.0265, M.S

Molasses:

Molasses Production	M.Ton	Average %
C Molasses Production	34228.500	59.97
B Heavy Molasses Production	4398.420	7.70
Juice Syrup Production	18444.000	32.31
Extract per ton of Molasses	3.84%	

RajaramBapuPatil Cooperative Sugar Factory produces large quantities of molasses. There are 3.84 per cent extract of molasses per ton produced by the factory. According to the above (table No) the production of c molasses is almost 60 per cent while B Heavy molasses production is almost 8 per cent

The B and C molasses are used to as one of in ingredient in many bi-products. Apart from that the factory produces juice and syrup in 32 per cent.

Conclusion:

The conclusion of the research paper on the current scenario of Rajaram Bapu Patil Co-operative Sugar Factory Ltd, Rajaramnagar, for the year 2020-2021 provides a comprehensive overview of the factory's operations and its significant impact on the local economy and environment. The paper illustrates that the factory has a robust sugarcane crushing capacity, producing a substantial amount of sugar, alongside various bi-products such as electricity, organic fertilizers, ethanol, and more.

High Sugar Production: The factory processed a massive amount of sugarcane resulting in the production of 1,129,900 quintals of sugar with an average sugar content of 12.76%.

Rajaram Acetobacter, Rajaram Kropgaard, Rajaram Potash and Rajaram Trichoplus these are the organic fertilizer produced by the factory in various quantity (See Table No.) and most importantly sale of all these fertilizer is more than 90 per cent.

It makes these fertilizer produced by the factory are very popular among farmers and works phenomenously.

10001, V.S.8005 etc. Their plots and make a two eye tips seeds from it. The above table depicts that the total sale of the seeds produced by the factory. According to the table it is clear that the two types of seeds which is Ko - 86032 and Ko.M - 0265 are most demandable Seeds in the area.

Co-generation Success: The factory has a co-generation capacity of 28 MW, producing significant electricity which not only meets its needs but also allows for substantial export, generating considerable revenue.

Bi-product Diversification: The production of bi-products like ethanol, biogas, and organic fertilizers not only enhances the economic viability of the factory but also contributes to environmental sustainability. Ethanol production, for instance, is highlighted as a cost-effective alternative to natural oils.

Organic Fertilizers and Seeds: The factory produces and distributes various types of organic fertilizers and high-quality sugarcane seeds, which have proved to be popular among local farmers, aiding in improved agricultural productivity.

Molasses Production: The paper also touches on the significant production of molasses, which is utilized both within and beyond the factory for various purposes.

Overall, the Rajaram Bapu Patil Co-operative Sugar Factory Ltd demonstrates strong performance in sugar and bi-product production, with a well-established infrastructure that supports both the local agricultural community and the

broader regional economy. The factory's commitment to sustainability through its bi-products and contributions to the local power supply further cements its role as a pivotal entity in Western Maharashtra's sugar industry.

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