

Sugar Cane Beverage

Sugar cane juice is a very popular drink in India and other Asian countries. At present it is being produced by vendors using hand operated or motorized crushers and served within a short time. The Juice cannot be stored even for a couple of hrs due to initiation of fermentation process. The juice is produced and served under very unhygienic conditions and hygiene conscious public does not opt for sugar cane juice. Hygienically produced and bottled

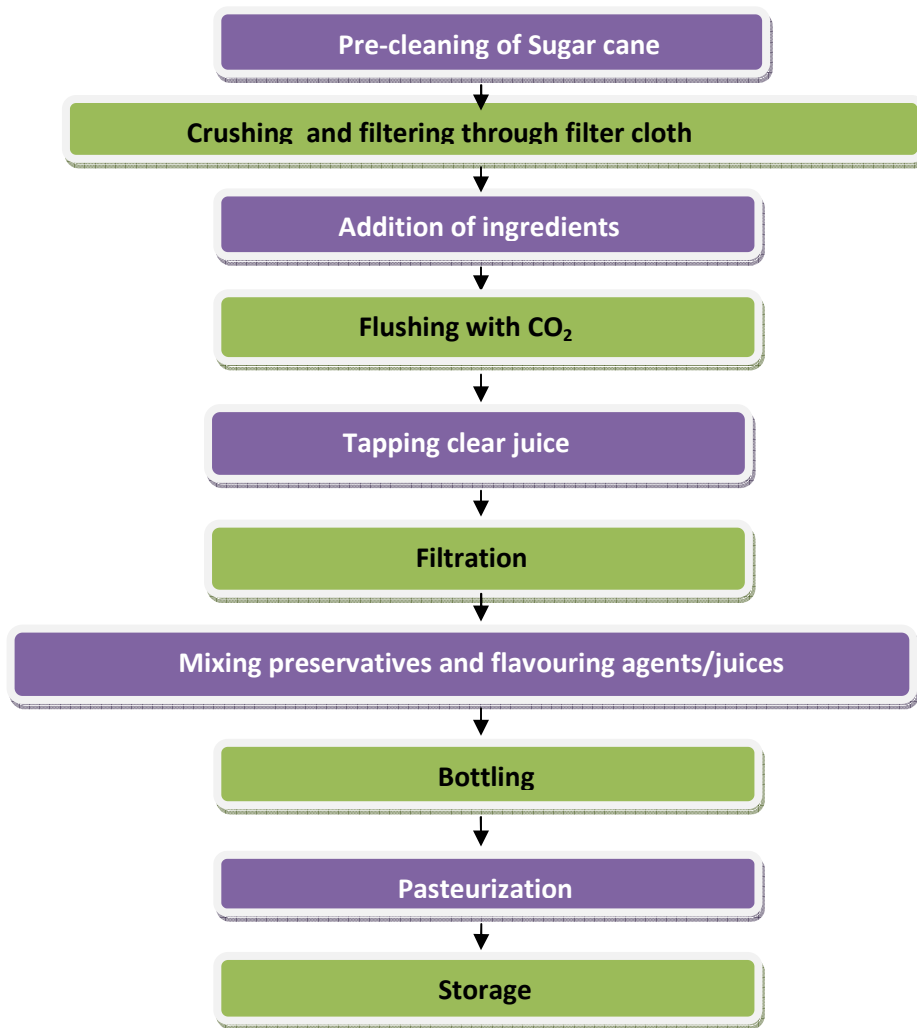


sugar cane juice could find use as other soft drinks and has good potential market as the juice is nutritious containing minerals like iron, magnesium, phosphorous and calcium and organic acids like malic acid, succinic acid and acetic acid. In Ayurvedic system of medicine, sugar cane juice is recommended for use by jaundice patients.

In the process of manufacture first step is to clean sugar cane by soaking in water for an hour, scrubbing with nylon-coir brushes for cleaning the sugar cane and then dipping in 1 per cent potassium metabisulphite (KMS) solution for 5 minutes. The cleaned canes are then crushed in pre-cleaned crushers, filtered through filter cloth and collected in SS containers (rinsed with 1 per cent K.M.S.) Preservatives are added to the juice which is finally filtered through filter press. The juice is diluted to 15 Brix by using deionised water. The juice is then blended with fruit juices and is filled in 200 ml bottles, crowned and then pasteurized at 70°C for 10 minutes. The bottles are now cooled and stored for supply.

Investment of Rs. 16.00 lakhs is required for a capacity of 6000 bottles per day. Technology is available from CFTRI, Mysore or Agro Processing Division, Tamil Nadu Agriculture University, Coimbatore.

PROCESS FLOW CHART



Techno-Economics

Duration of work	225 days
capacity	6000 bottles /day (200 ml)
Land: 600 sq. m. with development charges	1.50 lakh
Building: Office 20 sq m.	0.40 lakh
Processing Area 80 sq. m	3.20 lakh
Storage space 40 sq m.	1.60 lakh
Auxillary constructions like plateform, tube well, tanks etc	1.00 lakh
Total	6.20 lakh

Equipments required

Main Equipments	Auxiliary equipments	Other assets
<ul style="list-style-type: none"> • Sugar Cane crusher • S. S. Tanks (2) • Bottle washing unit • Bottle filling unit • Plate & frame filter • Crown corking machine • Conveyor & Inspertion belt • Pasteurising tanks • Walk in cooler/ chamber at 10°C • Carbonator 	<ul style="list-style-type: none"> • Water treatment plant • Weighing scale • Balance • Pumps etc. 	<ul style="list-style-type: none"> • Van-transport, • 60,000 bottles • Gas cylinder, • Crates

Raw Materials Required

Sugar Cane, Preservatives, Flavouring agents, Carbon dioxide

Utilities

Power 55K VA, Water- 7000 litres/day

Cost of Production

Equipments cost	15.00 lakh
Fixed cost	Rs 22.70 lakh
Working capital	7.00 lakh
Project cost	Rs. 29.70 (say 30.00)
Cost of production	30 lakhs
Sales (6000x225 days Rs. 3.00/bottle)	40 lakhs
profit	40-30=10 lakhs
Return on investment	$100 \times 10 / 30.0 = 33\%$



Sugar cane juice is a nourishing 'Swadeshi Drink'. It should be promoted throughout the country, shelf life of bottle is three months. The investment could be scaled down by reducing the production capacity

Source of Technology: Technology is available from C.F.T.R.I., Mysore



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Note: The author may have used various references in the preparation of this article. For further details please contact him/her.

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