

SHERBOTS

1. INTRODUCTION:

Sherbet/sherbots or Syrups are extensively used in a country like India where many regions experience long summer. People, here, need refreshing and thirst quenching beverages. Use of flavored thick sugar syrups is very common in every other household. Syrups are largely made with synthetic process. Use of various fruits and mixes makes sherbet/sherbots nutritious for consumption.

2. PRODUCT & ITS APPLICATION:

Sherbet/sherbots made from various mixes of fruits and sugar have good amount of nutrition and refreshing qualities to satisfy thirst. With easy to make application, housewives find it suitable for serving to guests on occasions and festivals. The use of fruits by industry for the preparation of such products will not only reduce wastage of fruits during handling but also add nutrition and palatability to the drink.

3. DESIRED QUALIFICATIONS FOR PROMOTER:

Successful running this project does not require any specific qualification.

4. INDUSTRY LOOKOUT AND TRENDS

Global syrup market is witnessing a significant demand generated by the food and beverage industry. Consumers' increasing preference for different and personalized flavours in food has driven the syrup manufacturers to produce a wide range of flavoured syrups. Flavoured syrups contain artificial or natural flavourings mixed along with sugar and water. Increasing demand of flavoured syrups especially among the consumers contributes to the growth of

global syrup market. Flavoured syrup market witnesses a high market demand owing to dairy and frozen product applications wherein flavoured syrup serves as a taste enhancer and a sweetener. Thus, the global flavoured syrup market is expected to grow during the forecast period owing to consumers' growing preference for artificial or natural taste enhancer in convenience foods.

Growing demand for flavoured syrups by the food and beverage industry is expected to boost the global flavoured syrup market. Flavoured syrup's primary activities in food and beverage industry include the production of soft drink concentrates, beverage syrups in different flavours, an additive for frozen desserts topping for yogurt, flavoured powder for use in food and soft drinks. Flavoured syrup serves as an artificial sweetener along with a taste enhancer agent. Apart from sweet flavoured syrup, the savouryflavoured syrup is expanding its applications beyond beverages. Savouryflavoured syrups are used in salad dressing, meat recipes, preparation of confectionery and bakery items. However, the demand for chocolate flavoured syrup plays a major role in the growth of the global flavoured syrup market owing to the consumers' taste preferences for chocolate flavour in their foods. Besides, the food and beverage industry being one of the drivers for flavoured syrup market, consumers' preferences for different flavoured syrup in convenience foods are also expected to boost up the global flavoured syrup market growth. Pharmaceutical industry too contributes to the growing demand for flavoured syrup market owing to its requirement of flavoured syrup in medicines to make it flavoursome and appetizing.

However, the major restraint faced by global flavoured syrup market is the presence of high sugar content used as an artificial sweetener is a major cause for health hazards such as high blood sugar, diabetes, and stomach upsets. Domestically produced corn syrup proves to be a major restraint for the flavoured syrup market to grow.

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:

With the changing pace of human activity and changing life style, the demand for easy-to-prepare drink is also increasing. Besides consumption in the households, it is served in hotels, restaurants, clubs, airlines, railways etc. There has been an appreciable increase in

the export of processed foods which includes squashes and syrups. With the fast growth of the urban areas and the living standards of the Indian people growing higher, there is a good potential to develop this industry in the small scale sector. With implementation various food standards such as FSSAI, FSMS, ISI and ISO standards, there can be huge market growth for manufacturer.

6. RAW MATERIAL REQUIREMENTS:

Assorted fruits, sugar, chemicals like citric acid, food color, essence, and preservatives are raw materials required for manufacturing syrups. For packing, PP bottles, caps and cardboard boxes are required.

7. MANUFACTURING PROCESS:

The process of making synthetic juice is quite simple. First, sugar syrup is made with the jacketed mixing tank from the sugar granules, then this sugar syrup is mixed up with water, synthetic juice flavors, colors, preservatives etc. in the other mixing tank for some time and once juice gets ready, it is stored in the storage tank and there after it is packed in the suitable packing with the help of packing machine. For better and perfect quality preparation, there should be an RO plant installed at facility such that manufacturer need not be dependent on quality of water supplied by local suppliers.

8. MANPOWER REQUIREMENT:

The enterprise requires 15 employees as detailed below:

Sr. No.	Designation of Employees	Salary Per Person	Monthly Salary ₹	Number of employees required				
				Year-1	Year-2	Year-3	Year-4	Year-5
	Variable Labour: Workers							
1	Operator	₹ 10,000.00	₹ 10,000.00	2	2	2	3	3
2	Un Skilled Workers	₹ 8,000.00	₹ 24,000.00	6	6	6	10	10
	<i>sub-total</i>		₹ 34,000.00	8	8	8	13	13
	Fixed Staff:							
1	Accountant	₹ 12,000.00	₹ 12,000.00	1	1	1	1	1
2	Store Keeper	₹ 8,000.00	₹ 8,000.00	2	2	2	4	4
3	Sales Staff	₹ 12,000.00	₹ 24,000.00	4	4	4	6	6
	<i>sub-total</i>		₹ 44,000.00	7	7	7	11	11
	Total		₹ 78,000.00	15	15	15	24	24

9. IMPLEMENTATION SCHEDULE:

The project can be implemented in 6 to 8 months' time as detailed below:

Sr. No.	Activity	Time Required (in months)
1	Acquisition of premises	2.00
2	Construction (if applicable)	2.00
3	Procurement & installation of Plant & Machinery	1.50
4	Arrangement of Finance	1.50
5	Recruitment of required manpower	1.00
	Total time required <i>(some activities shall run concurrently)</i>	6.00 – 8.00

10. COST OF PROJECT:

The project shall cost ₹ 110.31lacs as detailed below:

Sr. No.	Particulars	₹ in Lacs
1	Land	5.60
2	Building	4.50
3	Plant & Machinery	5.10
4	Furniture, other Misc. Equipments	0.85
5	Other Assets including Preliminary / Pre-operative expenses	0.51
6	Margin for Working Capital	93.75
	Total	110.31

11. MEANS OF FINANCE:

Bank term loans are assumed @ 75% of project cost. The proposed funding pattern is as under:

Sr. No.	Particulars	₹ in Lacs
1	Promoter's contribution	27.58
2	Bank Finance	82.73
	Total	110.31

12. WORKING CAPITAL CALCULATION:

The project requires working capital of ₹93.75lacs as detailed below:

Sr. No.	Particulars	Gross Amt	Margin %	Margin Amt	Bank Finance
1	Inventories	46.88	0.25	11.72	35.16
2	Receivables	23.44	0.25	5.86	17.58
3	Overheads	23.44	100%	23.44	0.00
4	Creditors	-		0.00	0.00
	Total	93.75		41.02	52.73

13. LIST OF MACHINERY REQUIRED:

A detail of important machinery is given below:

Sr. No.	Particulars	UOM	Qty	Rate (₹ in Lacs)	Value (₹ in Lacs)
	Plant & Machinery / equipments				
a)	Main Machinery				
1	Sugar Syrup Preparation Tank	Nos	1	₹ 0.53	₹ 0.53
2	Filter Press for Sugar Filtration	Nos	1	₹ 0.68	₹ 0.68
3	Blending Tank for Beverage Preparation	Nos	1	₹ 0.47	₹ 0.47
4	Storage Tank for Sugar Syrup	Nos	1	₹ 0.35	₹ 0.35
5	RO - Mineral Water Plant	Nos	1	₹ 0.75	₹ 0.75
6	Rinsing, Filling Sealing Capping Machine	Nos	1	₹ 0.63	₹ 0.63
7	Boiler for Sugar Syrup Tank	Nos	1	₹ 0.35	₹ 0.35
8	Wrapping and Labelling Machine	Nos	1	₹ 0.32	₹ 0.32
9	Material Handling Equipment	LS		₹ 0.72	₹ 0.72
10	Misc. Tools	LS		₹ 0.30	₹ 0.30
	<i>sub-total Plant & Machinery</i>				₹ 5.10
	Furniture / Electrical installations				
1	Office furniture and Electrification	LS	1	₹ 0.85	₹ 0.85
	<i>sub total</i>				₹ 0.85
	Other Assets				
1	preliminary and preoperative	LS		0.51	₹ 0.51
	<i>sub-total Other Assets</i>				₹ 0.51
	Total				₹ 6.46

All the machines and equipments are available from local manufacturers. The entrepreneur needs to ensure proper selection of product mix and proper type of machines and tooling to have modern and flexible designs. It may be worthwhile to look at reconditioned imported machines, dies and tooling. Some of the machinery and dies and tooling suppliers are listed here below:

1. Fry-Tech Food Equipments Private Limited

S. No. 4, Raviraj Industrial Estate,
Bhikhubhai Mukhi Ka Kuwa Bharwadvash,
Ramol, Ahmedabad - 380024,
Gujarat, India

2. Hindustan Vibrotech Pvt. Ltd.

Office No. 2, Ground Floor,
Vrindavan Building, Vile Parle East,
Mumbai – 400057,
Maharashtra, India

3. Electronics cooling systems Pvt. Ltd.

S-27, SIDCO Industrial Estate
Kakkalur Industrial Estate
Tiruvallur – 602003,
Tamil Nadu, India

4. Springboard Enterprises India Ltd.

1st, 2nd & 3rd Floor,
Plot No. 7, 8 & 9,
Garg Shopping Mall,
Service Centre, Rohini Sector 2
New Delhi – 110085,
Delhi, India

5. Flour Tech Engineers Private Limited

Plot No. 182, Sector 24,
Faridabad - 121005,
Haryana, India

6. P Square Technologies

3, Swami Mahal,
Gurunanak Nagar,
Off. Shankarsheth Road Bhavani Peth,
Pune - 411002,
Maharashtra, India

7. Ricon Engineers

10 To 13, Bhagwati Estate,
Near Amraiwadi Torrent Power,
Behind Uttam Dairy,
Rakhial, Ahmedabad - 380023,
Gujarat, India

8. Kamdhenu Agro Machinery

Plot No. 6, Near Power House,
Wathoda Road Wathoda,
Nagpur - 440035,
Maharashtra, India

14. PROFITABILITY CALCULATIONS:

Sr. No.	Particulars	UOM	Year-1	Year-2	Year-3	Year-4	Year-5
1	Capacity Utilization	%	60%	70%	80%	90%	100%
2	Sales	₹. In Lacs	324.00	378.00	432.00	486.00	540.00
3	Raw Materials & Other direct inputs	₹. In Lacs	231.85	270.49	309.13	347.77	386.41
4	Gross Margin	₹. In Lacs	92.15	107.51	122.87	138.23	153.59
5	Overheads except interest	₹. In Lacs	17.38	18.47	20.64	21.30	21.73
6	Interest @ 10 %	₹. In Lacs	8.27	8.27	5.52	4.14	3.31
7	Depreciation @ 30 %	₹. In Lacs	3.57	2.55	1.79	1.28	1.15
8	Net Profit before tax	₹. In Lacs	62.93	78.22	94.93	111.52	127.40

The basis of profitability calculation:

This unit will have capacity of Sales Turnover at 450 – 500 kilo liters of syrups. The growth of selling capacity will be increased 10% per year. (This is assumed by various analysis and study; it can be increased according to the selling strategy.)

Energy Costs are considered at Rs 7 per Kwh and fuel cost is considered at Rs. 65 per litre. The depreciation of plant is taken at 10-12 % and Interest costs are taken at 14 -15 % depending on type of industry.

15. BREAKEVEN ANALYSIS:

The project shall reach cash break-even at 16.30% of projected capacity as detailed below:

Sr. No.	Particulars	UOM	Value
1	Sales at full capacity	₹. In Lacs	540.00
2	Variable costs	₹. In Lacs	386.41
3	Fixed costs incl. interest	₹. In Lacs	25.04
4	$BEP = FC/(SR-VC) \times 100 =$	% of capacity	16.30%

16. STATUTORY / GOVERNMENT APPROVALS

The Ministry of Food Processing Industries has been operating several plan schemes for the development of processed food sector in the country during the 10th Plan. One of the schemes relates to the Technology Up-gradation/ Establishment/ Modernization of food processing industries.

The Indian food processing industry is regulated by several laws which govern the aspects of sanitation, licensing and other necessary permits that are required to start up and run a food business. The legislation that dealt with food safety in India was the Prevention of Food Adulteration Act, 1954 (hereinafter referred to as "**PFA**"). The PFA had been in place for over five decades and there was a need for change due to varied reasons which include the

changing requirements of our food industry. The act brought into force in place of the PFA is the Food Safety and Standards Act, 2006 (hereinafter referred to as "**FSSA**") that overrides all other food related laws.

FSSA initiates harmonization of India's food regulations as per international standards. It establishes a new national regulatory body, the Food Safety and Standards Authority of India (hereinafter referred to as "**FSSAI**"), to develop science based standards for food and to regulate and monitor the manufacture, processing, storage, distribution, sale and import of food so as to ensure the availability of safe and wholesome food for human consumption. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

All food imports will therefore be subject to the provisions of the FSSA and rules and regulations which as notified by the Government on 5th of August 2011 will be applicable.

Key Regulations of FSSA

- A. Packaging and Labeling
- B. Signage and Customer Notices
- C. Licensing Registration and Health and Sanitary Permits

17. BACKWARD AND FORWARD INTEGRATIONS

The objective of the scheme is to provide effective and seamless backward and forward integration for processed food industry by plugging the gaps in supply chain in terms of availability of raw material and linkages with the market. Under the scheme, financial assistance is provided for setting up of primary processing centres/ collection centres at farm gate and modern retail outlets at the front end along with connectivity through insulated/ refrigerated transport.

The Scheme is applicable to perishable horticulture and non-horticulture produce such as, fruits, vegetables, dairy products, meat, poultry, fish, Ready to Cook Food Products, Honey, Coconut, Spices, Mushroom, Retails Shops for Perishable Food Products etc. The Scheme would enable linking of farmers to processors and the market for ensuring remunerative prices for agri produce.

The scheme is implemented by agencies/ organizations such as Govt. / PSUs/ Joint Ventures/ NGOs/ Cooperatives/ SHGs / FPOs / Private Sector / individuals etc.

Backward Linkage:

- Integrated Pack-house(s) (with mechanized sorting & grading line/ packing line/ waxing line/ staging cold rooms/cold storage, etc.)
- Pre Cooling Unit(s)/ Chillers
- Reefer boats
- Machinery & equipment for minimal processing and/or value addition such as cutting, dicing, slicing, pickling, drying, pulping, canning, waxing, etc.
- Machinery & equipment for packing/ packaging.

Forward Linkage:

- Retail chain of outlets including facilities such as frozen storage/ deep freezers/ refrigerated display cabinets/cold room/ chillers/ packing/ packaging, etc.
- Distribution center associated with the retail chain of outlets with facilities like cold room/ cold storage/ ripening chamber.

18. TRAINING CENTERS AND COURSES

There are few specialized Institutes provide degree certification in Food Technology, few most famous and authenticate Institutions are as follows:

1. Indian Institute of Food Science & Technology,
Plot No.1, Near Maa-Baap ki Dargah,Opp to Nath Seeds,
Paithan Road Aurangabad
Aurangabad - 431005
Maharashtra, India

2. MIT College of Food Technology, Pune
Gate.No.140, Raj Baugh Educational Complex,
Pune Solapur Highway,
Loni Kalbhor, Pune – 412201
Maharashtra, India

3. CSIR - Central Food Technological Research Institute (CFTRI)
Cheluvamba Mansion, Opp. Railway Museum,
Devaraja Mohalla, CFTRI Campus, Kajjihundi, Mysuru
Karnataka – 570020

Udyamimitraportal (link : www.udyamimitra.in) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship program helps to run business successfully is also available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

Disclaimer:

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.