

PROJECT PROFILE

ON

SQUASHES
(WOMEN SHG ONLY)

Month & Year
Aug 2010

**PREPARED BY
TANSTIA-FNF SERVICE CENTRE
B-22, INDUSTRIAL ESTATE
CHENNAI-600032**

Supported by

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STIFTUNG **FÜR DIE FREIHEIT**



SQUASHES (WOMEN SHG ONLY)

1. Introduction

Squashes are concentrated form of fruit beverages. They are normally consumed after reconstitution with water to the extent of 5 to 7 times. It is preferred because it is ready to use and needs no terminal processing except dilution with water to form a ready to serve beverage. It has also a good nutritive value and therefore liked by one and all. Among the squashes, orange, mango, lemon, grapes are the most commonly consumed.

2. Market

The major market outlets are the “ A” and “B” class stores. The product also finds placement in self service counters and departmental stores. Bakeries also sell squashes.

3. Packaging

Squashes are bottled in 1000 ml capacities.

4. Production capacity

- The plant will be in operation for one shift a day.
- The production capacity is estimated at 1000 litres per day.
- The yield of squashes will be 25000 litres per month and 3.0 lakh litres per annum.
- The time period required for achieving full capacity utilization is one year.

5. Sales revenue

- With an ex-factory selling price at Rs. 80.00 per bottle, the total sales realisation will be Rs. 240.00 lakhs on full capacity utilization. MRP per bottle is Rs. 100.00.

6. Production process outline.

Ripe fruits such as loose skinned oranges of Coorg or Nagpur varieties or black grapes are taken. The outer jacket of the oranges are peeled manually. The rag sticking to the segments is removed as it creates some bitterness in the

juice if allowed to remain. Black grapes are washed and passed through the extractor for juice. The juice is kept separately.

In the jacketed vessel, sugar citric acid and water are mixed together and heated. The solution is cooled and filtered through cloth. The clean syrup is mixed with the juice and stirred till a uniform solution of the end product is obtained. Small quantities of appropriate flavour and colour are added finally, stirred to get a perfect homogenous mix. After mixing all ingredients, the preservative potassium meta bi sulphite is to be added. The compound dissolved previously in small quantities of juice (to the extent of providing 350 parts per million of sulphur dioxide) is added and mixed thoroughly. The squash is then filled into washed bottles leaving about one inch of head space. The bottles are closed with crown or ordinary corks, capsuled and labeled. They are then stored in a cool dry place. The product keeps well for over a year without change in colour or taste.

7. Quality specifications

- A certificate of approval for production has to be obtained under the Fruit Products Order (FPO)
- The minimum total soluble solids shall be 40%.
- The minimum fruit pulp content shall be 25%.
- When raspberries and strawberries are used, the minimum quantities shall be 25%.
- Only sugar, dextrose, invert sugar, liquid glucose, either singly or in combination can be used as sweetening agents.
- Squashes shall not contain tartaric acid, agar or gelatin.
- The product should be free from mold and fungal growth.
- It should be free from any fermented odour, coliforms, salmonella and streptococci bacteria.
- It can contain permitted flavours, colours and preservatives.

8. Pollution control measures

Not necessary as there are no pollutants or effluents. However, the peel and seeds of fruits processed have to be disposed off carefully failing which it could pollute the surrounding areas on fermentation, yielding a foul odour.

9. Energy conservation measures

Common measures will do.

10. Land and construction cost for the proposed unit

The proposed unit is to be set up in a leased area. The total area required is 2000 square feet as described below:

SI	Description	Sq. feet
1	Processing area	600
2	Raw material store	200
3	Packing material store	200
4	Finished goods store	200
5	Laboratory space	100
6	Baby boiler area	200
7	Machinery spares area	100
8	Office room	100
9	Toilets	100
10	Miscellaneous space	200
11	Total	2000

Lease rent – Rs. 8.00 per square foot

Total rent per month – Rs. 16000

Lease advance – Rs. 80000

11. Costing of machinery and equipment

SI	Description	Rs. lakhs
1	Fruit washing tank	0.250
2	Juice extractor or pulper	0.750
3	Steam jacketed kettle	0.650
4	Stirrer	0.121
5	Bottle washing machine	0.560
6	Stainless steel working tables	0.567
7	Baby boiler and accessories	1.850
8	Total	4.748
9	Laboratory equipment	1.000
10	Grand total machinery and equipment	5.748

12. Project cost

SI	Description	Rs. lakhs
1	Land	On lease
2	Civil works	On lease
3	Plant machinery	4.748
4	Laboratory equipment	1.000
5	Transport vehicle (Tata Ace)	3.760
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.250
9	Cost of electrification	0.350
10	Erection and commissioning	0.400
11	Cost of machinery spares	0.100
12	Cost of office equipment	1.000
13	Deposits if any	0.400
14	Company formation expenses	0.100
15	Gestation period expenses	0.500
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	10.000
18	Contingencies	0.250
19	Working capital margin money	7.282
20	Total	30.240

13. Working capital requirements per month

a. Salaries and wages

SI	Description	No of persons	Total salary / month (Rs. lakhs)
1	Production Supervisor	1	0.250
2	Chemists	2	0.300
3	Skilled workers	1	0.060
4	Unskilled workers	3	0.120
5	Packing workers	2	0.080
6	Administrative staff	1	0.150
7	Driver	1	0.070
8	Total	11	1.030

b. Raw material requirement per month

SI	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Fruits	25000	30.00	7.500
2	Sugar	3000	24.00	0.720
3	Citric acid	260	140.00	0.364
4	Pectin, flavours etc	125	200.00	0.250
5	Total raw material	28385		8.834

c. Packaging material requirement per month

SI	Description	Qty	Rate / unit (Rs)	Value (Rs. lakhs)
1	PET bottles of 1000 ml capacity	50500	8	4.040
2	Cartons and straps	2550 nos	40	1.020
3	Total			5.060

Total raw + packaging material = Rs.13.894 lakhs

d. Utilities per month

SI	Description	Rs. lakhs
1	Power 1000 kwh @ Rs. 5.50 per unit	0.055
2	Water	0.050
3	Boiler fuel	0.100
4	Total utilities	0.205

e. Contingent expenses per month

SI	Description	Rs. lakhs
1	Rent for processing shed	0.160
2	Postage and stationery	0.010
3	Telephones, fax etc.	0.050
4	Consumable stores	0.020
5	Repairs and maintenance	0.030
6	Local transports, loading and unloading	0.200
7	Advertisement and publicity @ 5% of sales	1.000
8	Insurance	0.005
9	Sales expenses @ 1% of sales	0.200
10	Miscellaneous expenses @ 1% of sales	0.200
11	Trade incentives @ 2% of sales	0.400
12	Taxes @ 4%	0.800
13	Total contingent expenses	3.075

f. Total working capital requirement per month

SI	Description	Rs. lakhs
1	Salaries and wages	1.030
2	Raw material and packaging material	13.894
3	Utilities	0.205
4	Contingent expenses	3.075
5	Total	18.204

14. Means of finance

SI	Description	Rs. lakhs
1	Total Project Cost	30.240
2	Equity	9.979
3	Debt	20.261
4	Working capital margin money	7.282

15. Financial analysis

SI	Description	Rs. lakhs
1	Total recurring cost per year	218.448
2	Depreciation on land and building	0.000
3	Depreciation on machinery and vehicle	0.836
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.020
6	Depreciation on office equipment	0.100
7	Interest on long term loan @ 13.5%	2.735
8	Interest on short term borrowings@ 13.5%	1.474
9	Total cost of production	223.613

16. Turnover per year

SI	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
1	Squashes	300,000 kgs	80.00	240

17. Viability analysis

SI	Description	Value
1	Net profit before income tax (Rs. lakhs)	16.387
2	Net profit ratio	6.8%
3	Internal rate of return	20.3%
4	Break even percentage	48%
5	Debt service coverage ratio	1.987

List of machinery suppliers for Squashes

1. Geeta Food Engineering, Plot No. C - 7 / 1, TTC Industrial Area, Pawana MIDC, Thane - Belapur Road, Behind Savita Chemicals, Navi Mumbai 400705. Maharashtra.; Tel: 022 - 56101973; Fax: 022 – 55906450
2. Agaram Industries, 126, Nelson Road, aminjkarai, Chennai, 600029, ; Tel: 044-23741413; Fax: 044-23741529
3. Royal Scientific Industries, T.S.74A, SIDCO Industrial Estate, Ekkatuthangal, Chennai. 600097., Tel: 044-22254749
4. Navinchandra and Co., 308, Thambu Chetty Street, Chennai. 600001; Tel: 044-25228675