PROJECT PROFILE

ON

MANGO AND TOMATO PUREES

Month & Year
Aug 2010

PREPARED BY

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Supported by

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MANGO AND TOMATO PUREES

1. *Introduction*

Mango and tomato pulp and purees, are used by processing industries and beverage manufacturers in different food products. Because of the diversity in application, these products have gained industrial application.

2. *Market*

The products are sold directly to industrial consumers by the processors. The pulp and purees have a good export potential. In the retail commercial market, the products find placement in select super markets and departmental stores.

3. *Packaging*

Mango and tomato purees are packed in cans and barrels of varying capacities according to the specification of the buyer.

4. *Production capacity*

- The plant will be in operation for three shifts a day.
- The production capacity is estimated at 500 kilograms per hour or 10 metric tons per day or 250 metric tons per month or 3000 tons per annum
- The yield of Mango and Tomato Purees will be 5.0 tons per day and that per annum would be 1500 metric tones at 50% yield.
- The time period required for achieving full capacity utilisation is one year.

5. *Sales revenue*

- With an ex-factory selling price at Rs. 62.00 per kilogram inclusive of taxes, The net sales revenue will be Rs. 930.00 lakhs on full capacity utilisation.

6. *Production process outline.*

Ripe fruits are taken. Green and unripe ones are avoided, as it would discolour the final product and increase the acidity. The fruits are first washed. Mere rinsing of fruits is not enough because mold filaments and other micro-organisms found in their cracks and wrinkle folds and stem cavities are not easily dislodged. For thorough cleaning, they should be washed in running water.

After washing, the tomatoes are trimmed and cut into small pieces before boiling. The tomato pieces are boiled in their own juice in steam jacketed kettles for 3 to 5 minutes to facilitate pulping. For mangoes, the skin is peeled and the seed removed. The fruit is cut into longitudinal slices and fed directly into the pulper.

The juice is extracted by passing the cooked tomatoes or the mango slices through the pulper. The juice normally contains 5% to 8% solids.

The extracted juice and pulp is taken to the vacuum concentrator where it is concentrated under jacketed steam and vacuum to nearly 50% of its original volume. On concentration, they are cooled, preserved by addition of preservatives such as bi-sulphites, canned and sterilized in retorts.

7. Quality specifications

- The manufacturer has to obtain an FPO license (Fruit Products Order license) in order to manufacture the product.
- It shall test negative for coliforms, salmonella and streptococci bacteria.

8. Pollution control measures

Not necessary as there are no pollutants or effluents.

9. Energy conservation measures

Common measures will do.

10. Land and construction cost for the proposed unit

Processing area is 4000 square feet in a leased premises

Sl	Description	Sq. feet
1	Processing and packing area	1500
2	Raw material store	500
3	Packing material store	200
4	Finished goods store	500
5	Laboratory	200
6	Boiler area	200
7	Machinery spares area	200
8	Administrative area	200
9	Toilet space	200
10	Miscellaneous space	300

11	**Total**	**4000**

Lease rent – Rs. 6.00 per square foot

Total rent per month – Rs. 24000

Lease advance – Rs. 100000

11. Costing of machinery and equipment

Sl	Description	Rs. lakhs
1	Boiler and accessories	5.500
2	Fruit washing machine	1.550
3	Stainless steel working equipment	0.840
4	Super pulper	1.800
5	Stainless steel working tables (5 nos)	0.950
6	Stainless steel collection vessels	0.630
7	Vacuum pan with stirrer	3.850
8	Stainless steel storage tanks	0.930
9	Canning equipment	2.500
10	Retort equipment	1.500
11	Weighing scales and miscellaneous equipment	1.000
12	**Total**	**21.050**
13	Laboratory equipment	0.600
14	**Grand total machinery and equipment**	**21.650**

12. *Project cost*

Sl	Description	Rs. lakhs
1	Land	On lease
2	Civil works	On lease
3	Plant machinery	21.050
4	Laboratory equipment	0.600
5	Transport vehicle (1 LCV)	7.500
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.500
9	Cost of electrification	1.000
10	Erection and commissioning	2.000
11	Cost of machinery spares	0.500
12	Cost of office equipment	1.000
13	Deposits if any	0.800
14	Company formation expenses	0.100
15	Gestation period expenses	1.000
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	5.000
18	Contingencies	0.500
19	Working capital margin money	28.812
20	**Total**	**70.462**

13. *Working capital requirements per month*

a. *Salaries and wages*

Sl	Description	No of persons	Total salary / month (Rs. lakhs)
1	Production Manager	1	0.400
2	Production supervisor cum chemist	3	0.750
3	Skilled workers	6	0.360
4	Unskilled workers	24	0.960
5	Packing workers	6	0.240
6	Administrative staff	2	0.500
7	Driver	1	0.070
8	Sales Manager	1	0.400
9	Security staff	4	0.240

10	**Total**	**48**	**3.920**

b. Raw material requirement per month

Sl	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Tomatoes	165000	5.00	8.250
2	Mangoes	165000	10.00	16.500
3	Sugar, preservatives, acids etc	1280	60.00	0.768
2	**Total raw material**	**331280**		**25.518**

c. Packaging material requirement per month

Sl	Description	Qty	Rate / unit Rs)	Value (Rs. lakhs)
1	Lacquered cans	150000 nos	20.00	30.000
2	Cartons and straps	12500 nos	40	5.000
3	**Total**			**35.000**

Total raw + packaging materials – Rs 60.518

d. Utilities per month

Sl	Description	Rs. lakhs
1	Power 15000 kwh @ Rs. 5.50 per unit	0.825
2	Water	0.150
3	Boiler fuel	0.500
4	**Total utilities**	**1.475**

e. Contingent expenses per month

Sl	Description	Rs. lakhs
1	Rent for processing shed	0.240
2	Postage and stationery	0.010
3	Telephones, fax etc.	0.050
4	Consumable stores	0.020
5	Repairs and maintenance	0.259
6	Local transports, loading and unloading	0.250
7	Advertisement and publicity @ 1% of sales	0.750
8	Insurance	0.038
9	Sales expenses @ 1% of sales	0.750
10	Miscellaneous expenses @ 1% of sales	0.750
11	Taxes @ 4%	3.000
12	**Total contingent expenses**	**6.117**

f. Total working capital requirement per month

Sl	Description	Rs. lakhs
1	Salaries and wages	3.920
2	Raw material and packaging material	60.518
3	Utilities	1.475
4	Contingent expenses	6.117
5	**Total**	**72.030**

14. Means of finance

Sl	Description	Rs. lakhs
1	Total Project Cost	70.462
2	Equity	23.252
3	Debt	47.210
4	Working capital margin money	28.812

15. *Financial analysis*

Sl	Description	Rs. lakhs
1	Total recurring cost per year	864.360
2	Depreciation on land and building	0.000
3	Depreciation on machinery	3.130
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.100
6	Depreciation on office equipment	0.100
7	Interest on long term loan @ 13.5%	6.373
8	Interest on short term borrowings@ 12%	5.834
9	**Total cost of production**	**879.897**

16. *Turnover per year*

Sl	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
1	**Fruit Purees**	**1500 MT**	**62,000**	**930.00**

17. *Viability analysis*

Sl	Description	Value
1	Net profit before income tax (Rs. lakhs)	50.103
2	Net profit ratio	5.4%
3	Internal rate of return	28.4%
4	Break even percentage	56%
5	Debt service coverage ratio	1.858

List of machinery suppliers for Mango and Tomato Purees

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. Jwala Engineering Company, 12, Survey Industrial Estate, Sonawala Cross Road No. 1, Goregoan East, Mumbai. 400063.; Tel: 022 - 28740279; Fax: 022 - 28768768
3. Agaram Industries, 126, Nelson Road, aminjikarai, Chennai, 600029, ; Tel: 044-23741413; Fax: 044-23741529
4. Royal Scientific Industries, T.S.74A, SIDCO Industrial Estate, Ekkatuthangal, Chennai. 600097., Tel: 044-22254749
5. Navinchandra and Co., 308, Thambu Chetty Street, Chennai. 600001; Tel: 044-25228675

6. Heat and Control (S) Pvt. Ltd.,E-2, 3rd Avenue, Anna Nagar, East, Chennai. 600102., Tel: 044-26212943