

**PROJECT PROFILE**

**ON**

**MANGO PROCESSING**

**&**

**CANNING UNIT**

**(2 MTPH)**

## **1. Introduction:**

Mango Pulp is the concentrated mango juice obtained on processing of various varieties of mangoes. The processed mango pulp has enhanced shelf life and has significant export potential. The mango pulp can further be used to produce downstream products like mango jelly. The canned mango pulp has about 2 years of shelf life without using a cold storage. Canned Mango pulp is consumed as a fruit juice and in the processing of mango jelly.

## **2. Market:**

Accounting to 10% of the global production of Fruits India ranks first in the world. Food processing sector of India plays a vital role in improving the value addition opportunities and creating surplus food for agro-food products. Presently, a mere 2.2 per cent of fruits and vegetables are processed. The National policy of India aims to increase the percentage of food being processed in the country to 10 per cent by 2010 and 25 per cent by 2025. Food processing adds value, enhances shelf life of the perishable agro-food products and encourages crop diversification.

## **3. Manufacturing Process:**

The technology for the manufacture of various canned and bottled fruits and vegetable products is well established. The harvested mangoes are put in ripening chambers or sheds and are periodically checked for further processing. The mangoes are selected, graded, washed and cleaned. The pre-treatment process consists of peeling, deseeding, trimming, sizing and blanching. The ingredients of mango pulp are mangoes, sugar, pectin, potassium meta bisulphite and flavoring agents. The material is then sent to coarse pulper and then to fine pulper. The pulp is pasteurized and filled into tins or glass containers, which are subjected to exhausting, vacuumising, retorting and cooling.

#### 4. Technology:

The technology required for the canning unit are washer, fruit crusher, pulper, pasteurizer, packing machine, cap sealing machine, boiler, generator, laboratory equipment and other accessories etc.

#### 5. Investment:

The investment cost for setting up a canning unit with a capacity of 2 MTPH will be around **Rs. 1.61 Crores** and the break up of the cost is tabulated below.

The land requirement will be around 2 Acres. The Preliminary & Preoperative Expenses includes interest during construction works out to Rs 0.05 Crores. Plant & Machinery including testing equipment works out to Rs. 0.95 Crores and the cost of Misc. Fixed Assets works out to Rs. 0.03 Crores. Buildings and civil works are estimated to Rs. 0.30 Crores. A technology transfer fee is also considered in the project cost. Margin money for working capital is estimated to be Rs. 0.18 Crores.

**Table 1: Project Cost**

S.No.	Description	Cost (Rs in Crores)
1	Land (9680 Sq.Yds)	0.08
2	Buildings (including AC Sheds)	0.30
3	Plant & Machinery (including test equipment)	0.95
4	Misc. Fixed Assets	0.03
5	Preliminary & Preoperative Expenses	0.05
6	Technology Transfer Fees	0.02
7	Margin money for working capital	0.18
<b>Total Project Cost</b>		<b>1.61</b>

## Means of Finance

The project is proposed to finance with a debt equity ratio of 2.0:1 and the means of finance is as follows:

**Table 2:** Means of Finance

S.No.	Sources of Funds	Cost (Rs in Crores)
1	Share Capital - Equity	0.54
2	Term Loan from Bank	1.07
	<b>Total</b>	<b>1.61</b>

## 6. Profitability Assumptions:

The capacity of mango pulp processing and canning unit is considered at 2 MTs per hour.

Particulars	Paddy Requirement
Plant Capacity (TPH)	2
Number of Working Hours	16
Number of Days	120
Annual requirement (in MT) At Installed capacity	3840

**Yield:** The yield of pulp from mango is about 55%

The canning unit can work at 40% of installed capacity for the initial year and increases by 10% YoY and will get stagnate in fifth year of operation.

## 7. Key Financial indicators:

The returns are adequate enough to repay the term loan in 6 years. The key financial indicators are tabulated below.

(Rs. in Crores)

S No	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	Sales	3.84	4.80	5.76	6.72	7.68	7.68
2	Total Expenditure	3.17	3.94	4.70	5.47	6.23	6.23
3	PBIDT	0.67	0.86	1.06	1.25	1.45	1.45
4	PBT	0.47	0.67	0.88	1.08	1.29	1.31
5	PAT	0.35	0.55	0.75	0.96	1.17	1.20
6	Cash Accruals	0.46	0.66	0.86	1.07	1.27	1.31
7	BEP @ Installed capacity	18.74%	19.25%	19.78%	20.37%	20.99%	20.12%
8	BEP @ Operating capacity	46.85%	38.50%	32.97%	29.10%	26.23%	25.15%
9	Debt Equity Ratio	1.80	1.40	1.00	0.60	0.20	0.0
10	DSCR (Gross)	2.53	2.44	3.27	4.28	5.51	12.03
11	Average DSCR	4.17					
12	DSCR (Net)	4.37	3.13	4.09	5.05	6.00	12.20
13	Average DSCR	5.31					
14	IRR (%)	51%					

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