

PROJECT REPORT

Of

MANGO PULP

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Mango Pulp Unit**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



Lucknow Office: Sidhivinayak Building ,
27/1/B, Gokhley Marg, Lucknow-226001

Delhi Office : Multi Disciplinary Training
Centre, Gandhi Darshan Rajghat,
New Delhi 110002

Email : info@udyami.org.in
Contact : +91 7526000333, 444, 555

MANGO PULP

Introduction

The pulp of a citrus fruit are the stringy content of the fruit's endocarp. The pulp contains the juice of the fruit. The pulp is usually removed from fruit juice by filtering it out.

The colour of the pulp can change, depending on the species and the ripening stage. Usually, it has the colour of the fruit's peel.

The juiciness of the pulp depends on the species, variety, season, and even the tree on which it grew.

Mango Pulp is prepared from selected varieties of Fresh Mango Fruit. Fully matured Mangoes are harvested, quickly transported to the fruit processing plant, inspected and washed. Selected high quality fruits go to the controlled ripening chambers; Fully Ripened Mango fruits are then washed, blanched, pulped, deseeded, centrifuged, homogenized, concentrated when required, thermally processed and aseptically filled maintaining sterility. The preparation process includes cutting, destoning, refining and packing. In case of aseptic product the pulp is sterilized and packed in aseptic bags. The refined pulp is also packed in cans, hermetically sealed and retorted. Frozen pulp is pasteurized and deep-frozen in plate freezers. The process ensures that the natural flavour and aroma of the fruit is retained in the final product.

Varieties of Mango

Main varieties of Mango Pulp are Alphonso Mango Pulp, Totapari Mango Pulp, Kesar Mango Pulp.

Uses of Mango Pulp

- Mango pulp is widely used in preparing juices, drinks & nectars.
- It is used as a base in various jams & marmalades.
- It is used to make Aam ras which goes very well with puris.
- Use to make delicious milkshakes which can be prepared in a jiffy.

Health benefits of Mango Pulp

- Mango has high iron content, so pregnant women & people suffering from anaemia are advised to consume it regularly.
- It combats acidity & improve digestion.
- Mango is rich source of Vitamin A & Vitamin E which helps hormonal system function efficiently.
- Selenium is also present in mangoes which provide protection against heart disease.

Mango Pulp Market Analysis

According to the report “Global Mango Puree outlook (2017-2026)” The Global Mango Puree Market is accounted for \$995 million in 2017 and expected to grow at a CAGR of 8.7% to reach \$2110 million by 2026.

Some of the key factors such as mango puree widely used in making drinks, juices, jams and nectars, increasing consumption of mangoes across the globe are driving the market growth. However, due to lack of production, strict import policies especially in U.S are hindering the market growth.

By nature, organic mango puree is processed from sound ripe mango rosa variety mangos, which are peeled, de-seeded, and run through a screen to retain the characteristic flavour and colour of the whole fruit. In some cases, the puree is pasteurized to increase shelf life. Fruit puree retains all the juice and a large proportion of the fibrous matter of the raw fruit.

Description of Automatic Mango Pulp Machine

Pulping Processing Machine

- Fruit washing Machine
- Sorting/Inspection Conveyor
- Working Table
- Screw Feeder
- Fruit Crusher
- Pulp collection tank

- Transfer Pump
- Steam Jacketed kettle
- Twin pulper
- Filling Tank
- Steam Boiler

Manufacturing Process

1. Firstly, procure the raw material and take it into the fruit washing machine for the washing of fruits.
2. Then sort the mango as per the quality parameters.
3. After that put the sorted mango into the screw feeder.
4. Then on the fruit crusher for the crushing of fruits.
5. After crushing of mango, collect the crushed material into the pulp collection tank.
6. Through the transfer pump transfer the pulp into the steam jacketed kettle.
7. After steaming of the pulp put it into the twin pulper.
8. Then collect it into the filling tank & transfer to the steam boiler.
9. Packaging of goods.

Machinery & Equipment's required:

Name	Cost
Fruit washing machine	4,86,000
Sorting conveyer	1,80,000
Working table	1,12,500
Screw feeder	2,70,0000
Fruit crusher	36,000
Pulp collection tank	36,000
Transfer Pump	81,000
Steam Jacketed kettle	90,000
Twin Pulper	2,25,000

Filling Tank	75,000
Steam boiler	6,30,000
Total	22,21,500

❖ Cost of the machine is exclusive of GST & other than transportation cost.

Land & Building required:

Land required 2500 square feet

Approximate rent for the same is 50,000 per month.

Labour Requirement:

5 Manpower are required for the Mango Pulp unit.

Includes:

2 skilled Labour

3 Unskilled Labour

Raw Material Requirement

Mango is required as the only raw material for the Mango Pulp unit.

Average raw material (cost per KG): Rs. 50-60

Mango Pulp license & registration

For Company:

- Obtain the GST registration.
- Additionally, obtain the Udyog Aadhar registration Number.
- FSSAI License Required.
- Fire/ Pollution Registration as required.
- Choice of a Brand Name of the product and secure the name with Trademark if required.

Implementation Schedule

S.N.	Activity	Time Required (in Months)
1	Acquisition Of premises	1
2	Construction (if Applicable)	1- 2 Months
3	Procurement & installation of Plant & Machinery	1
4	Arrangement of Finance	1
5	Requirement of required Manpower	1
	Total time Required (some activities shall run concurrently)	2-3 Months

Conclusion:

After completion of manufacturing process, product is ready to sell in the market. Mango Pulps are used for daily routine activities. This machine can be installed & one can earn a good Margin of profit by doing this business.

PROJECT AT GLANCE

NAME OF FIRM :
CONSTITUTION : Company
NAME OF PROPRIETOR :
NATURE OF ACTIVITY : Manufacturing of Mango Pulp
PRODUCTS : Product Capacity
Mango Pulp 300 KG per hour
FINANCIAL ASSISTANCE REQUIRED : Term Loan 26.54 Lacs
Working Capital Loan 22.00 Lacs
PRIMARY SECURITY : Hypothecation of Plant & Machinery
1st Charge on Current Assets incl stock and book debts

COST OF PROJECT

PARTICULARS	TOTAL COST
Civil Work	-
Plant & Machinery	26.22
Office Furniture	5.00
Working Capital required	25.88
Total	57.10

MEANS OF FINANCE

PARTICULARS	TOTAL COST
Own Contribution	7.00
Term Loan	28.10
Working capital From Bank	22.00
Total	57.10

FINANCIAL ASSISTANCE REQUIRED

Term Loan of Rs 26.54 Lacs and Working Capital limit of Rs. 22 Lacs

<u>COST OF PROJECT</u>	PARTICULARS	AMOUNT	AMOUNT	AMOUNT
	Land		15%	85%
	Building Civil Work			
	Plant & Machinery	26.22	3.93	22.29
	Furniture & Fixtures and Other Assets	5.00	0.75	4.25
	Working capital	25.88	3.88	22.00
	Total	57.10	8.57	48.54

<u>MEANS OF FINANCE</u>	PARTICULARS	AMOUNT
	Own Contribution	8.57
	Bank Loan	26.54
	Working capital Limit	22.00
	Total	57.10

COMPUTATION OF PRODUCTION OF MANGO PULP

Items to be Manufactured		
Mango Pulp		
Machine capacity per Hour	300	KG
Wastage	5%	
output Per hour	285	KG
Machine capacity per annum	547200	KG
Raw Material Requirement		
Mango Required Per Annum	576000	KG

Production of Mango Pulp		
Production	Capacity	KG
1st year	50%	273,600
2nd year	53%	290,016
3rd year	55%	300,960
4th year	58%	317,376
5th year	60%	328,320

Raw Material	Capacity Utilisation	Rate per KG	Amount (Rs. in lacs)
1st year	50%	55.00	158.40
2nd year	53%	56.00	170.96
3rd year	55%	57.00	180.58
4th year	58%	58.00	193.77
5th year	60%	59.00	203.90

COMPUTATION OF SALE

Particulars	1st year	2nd year	3rd year	4th year	5th year
Op Stock	-	11,400	12,084	12,540	13,224
Production	273,600	290,016	300,960	317,376	328,320
Less : Closing Stock	11,400	12,084	12,540	13,224	13,680
Net Sale	262,200	289,332	300,504	316,692	327,864
sale price per KG	90.00	91.00	92.00	93.00	94.00
sales (in Lacs)	235.98	263.29	276.46	294.52	308.19

BREAK UP OF LABOUR CHARGES

Particulars	Wages Per Month	No of Employees	Total Salary
Skilled Labour	15000	2	30000
Unskilled Labour	12000	3	36000
Total Salary Per Month			66000
Total Annual Labour Charges	(in Lacs)		7.92

<u>BREAK UP OF STAFF SALARY</u>			
Particulars	Wages	No of	Total
	Per Month	Employees	Salary
supervisor	20000	1	20000
Accountant	18000	1	18000
Helper	8000	2	16000
Total Salary Per Month			54000
Total Annual Labour Charges	(in Lacs)		6.48

Utility Charges at 100% capacity (per month)		
Particulars	value	Description
Power connection required (3 phase)	30	KWH
consumption per day	240	units
Consumption per month	4800	units
Rate per Unit	7	Rs.
power Bill per month	33600	Rs.

PROJECTED PROFITABILITY STATEMENT					
	-	-	-		
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
Capacity Utilisation %	50%	53%	55%	58%	60%
<u>SALES</u>					
Gross Sale					
Mango Pulp	235.98	263.29	276.46	294.52	308.19
Total	235.98	263.29	276.46	294.52	308.19
<u>COST OF SALES</u>					
Raw Mateiral Consumed	158.40	170.96	180.58	193.77	203.90
Elecricity Expenses	4.03	4.64	5.33	6.13	7.05
Repair & Maintenance	7.08	7.90	8.29	8.84	9.25
Labour & Wages	7.92	8.71	9.58	10.54	11.60
Depriciation	4.43	3.79	3.25	2.78	2.38
Consumables	6.61	7.37	7.74	8.25	8.63
Packaging Charges	6.37	7.11	7.46	7.95	8.32
Other direct expense	2.36	2.63	2.76	2.95	3.08
Cost of Production	197.20	213.11	225.00	241.20	254.21
Add: Opening Stock /WIP	-	8.22	8.88	9.38	10.05
Less: Closing Stock /WIP	8.22	8.88	9.38	10.05	10.59
Cost of Sales	188.99	212.45	224.51	240.52	253.67
GROSS PROFIT	46.99	50.84	51.96	54.00	54.52
Staff charges	6.48	7.13	7.84	8.62	9.49
Interest on Term Loan	2.84	2.49	1.77	1.05	0.33
Interest on working Capital	2.64	2.64	2.64	2.64	2.64
Selling & Adm Expenses Exp.	10.38	12.37	12.44	12.96	11.71
rent	6.00	6.90	7.94	9.13	10.49
TOTAL	28.35	31.54	32.63	34.40	34.67

NET PROFIT	18.65	19.31	19.33	19.60	19.86
Taxation	4.85	5.02	5.02	5.09	5.16
PROFIT (After Tax)	13.80	14.29	14.30	14.50	14.69

PROJECTED BALANCE SHEET

PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Liabilities</u>					
Capital					
opening balance		16.36	24.15	31.45	38.75
<i>Add:- Own Capital</i>	8.57				
Add:- Retained Profit	13.80	14.29	14.30	14.50	14.69
Less:- Drawings	6.00	6.50	7.00	7.20	9.00
Closing Blance	16.36	24.15	31.45	38.75	44.45
Term Loan	23.54	17.54	11.54	5.54	0.00
Working Capital Limit	22.00	22.00	22.00	22.00	22.00
Sundry Creditors	2.64	3.56	3.01	3.23	10.87
Provisions & Other Liab	1.00	1.20	1.30	1.56	1.95
TOTAL :	65.54	68.45	69.30	71.08	79.27
<u>Assets</u>					
Fixed Assets (Gross)	31.22	31.22	31.22	31.22	31.22
Gross Dep.	4.43	8.23	11.47	14.25	16.63
Net Fixed Assets	26.79	22.99	19.75	16.97	14.59
Current Assets					
Sundry Debtors	24.58	31.81	35.71	35.71	42.38
Stock in Hand	11.52	11.73	12.38	16.51	20.79
Cash and Bank	2.66	1.91	1.46	1.89	1.52
TOTAL :	65.54	68.45	69.30	71.08	79.27

PROJECTED CASH FLOW STATEMENT					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>SOURCES OF FUND</u>					
Own Margin	8.57				
Net Profit	18.65	19.31	19.33	19.60	19.86
Depreciation & Exp. W/off	4.43	3.79	3.25	2.78	2.38
Increase in Cash Credit	22.00	-	-	-	-
Increase In Term Loan	26.54	-	-	-	-
Increase in Creditors	2.64	0.92	0.55	0.22	7.65
Increase in Provisions & Oth lib	1.00	0.20	0.10	0.26	0.39
TOTAL :	83.82	24.22	22.12	22.85	30.27
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	31.22				
Increase in Stock	11.52	0.21	0.66	4.12	4.28
Increase in Debtors	24.58	7.23	3.90	0.00	6.67
Repayment of Term Loan	3.00	6.00	6.00	6.00	5.54
Drawings	6.00	6.50	7.00	7.20	9.00
Taxation	4.85	5.02	5.02	5.09	5.16
TOTAL :	81.17	24.97	22.58	22.42	30.65
Opening Cash & Bank Balance	-	2.66	1.91	1.46	1.89
Add : Surplus	2.66	0.74	0.46	0.43	0.37
Closing Cash & Bank Balance	2.66	1.91	1.46	1.89	1.52

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
<u>Finished Goods</u>					
	8.22	8.88	9.38	10.05	10.59
<u>Raw Material</u>					
	3.30	2.85	3.01	6.46	10.20
Closing Stock	11.52	11.73	12.38	16.51	20.79

COMPUTATION OF WORKING CAPITAL REQUIREMENT					
TRADITIONAL METHOD					
Particulars	Amount	Own Margin		Bank Finance	
Finished Goods & Raw Material	11.52				
Less : Creditors	2.64				
Paid stock	8.88	15%	1.33	85%	7.55
Sundry Debtors	24.58	15%	3.69	85%	20.89
	33.46		5.02		28.44
WORKING CAPITAL LIMIT DEMAND (from Bank) 22.00					

2nd Method		
PARTICULARS	1st year	2nd year
Total Current Assets	38.75	45.46
Other Current Liabilities	3.64	4.76
Working Capital Gap	35.11	40.69
Min Working Capital		
25% of WCG	8.78	10.17
Actual NWC	13.11	18.69
item III - IV	26.34	30.52
item III - V	22.00	22.00
MPBF (Lower of VI & VII)	22.00	22.00

3rd Method		
PARTICULARS	1st year	2nd year
Total Current Assets	38.75	45.46
Other Current Liabilities	3.64	4.76
Working Capital Gap	35.11	40.69
Min Working Capital		
25% of Current Assets	9.69	11.36
Actual NWC	13.11	18.69
item III - IV	25.43	29.33
item III - V	22.00	22.00
MPBF (Lower of VI & VII)	22.00	22.00

COMPUTATION OF DEPRECIATION

Description	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation	15.00%	10.00%	
Opening Balance	-	-	-
Addition	26.22	5.00	31.22
Total	26.22	5.00	31.22
Less : Depreciation	3.93	0.50	4.43
WDV at end of Year	22.29	4.50	26.79
Additions During The Year	-	-	-
Total	22.29	4.50	26.79
Less : Depreciation	3.34	0.45	3.79
WDV at end of Year	18.94	4.05	22.99
Additions During The Year	-	-	-
Total	18.94	4.05	22.99
Less : Depreciation	2.84	0.41	3.25
WDV at end of Year	16.10	3.65	19.75
Additions During The Year	-	-	-
Total	16.10	3.65	19.75
Less : Depreciation	2.42	0.36	2.78
WDV at end of Year	13.69	3.28	16.97
Additions During The Year	-	-	-
Total	13.69	3.28	16.97
Less : Depreciation	2.05	0.33	2.38
WDV at end of Year	11.63	2.95	14.59
Additions During The Year	-	-	-

Total	11.63	2.95	14.59
Less : Depreciation	1.75	0.30	2.04
WDV at end of Year	9.89	2.66	12.55
Less : Depreciation	1.48	0.27	1.75
WDV at end of Year	8.41	2.39	10.80
Less : Depreciation	1.26	0.24	1.50
WDV at end of Year	7.14	2.15	9.30

<u>CALCULATION OF D.S.C.R</u>					
PARTICULARS	1st year	2nd year	3rd year	4th year	5th year
CASH ACCRUALS	18.23	18.08	17.55	17.28	17.07
Interest on Term Loan	2.84	2.49	1.77	1.05	0.33
Total	21.08	20.57	19.32	18.33	17.41
<u>REPAYMENT</u>					
Instalment of Term Loan	2.49	6.00	6.00	6.00	5.54
Interest on Term Loan	2.84	2.49	1.77	1.05	0.33
Total	5.34	8.49	7.77	7.05	5.87
DEBT SERVICE COVERAGE RATIO	3.95	2.42	2.49	2.60	2.96
AVERAGE D.S.C.R.	2.88				

REPAYMENT SCHEDULE OF TERM LOAN

Interest 12.00%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	Closing Balance
1st	Opening Balance						
	1st month	-	26.54	26.54	-	-	26.54
	2nd month	26.54	-	26.54	0.27	-	26.54
	3rd month	26.54	-	26.54	0.27	-	26.54
	4th month	26.54	-	26.54	0.27	-	26.54
	5th month	26.54	-	26.54	0.27	-	26.54
	6th month	26.54	-	26.54	0.27	-	26.54
	7th month	26.54	-	26.54	0.27	0.50	26.04
	8th month	26.04	-	26.04	0.26	0.50	25.54
	9th month	25.54	-	25.54	0.26	0.50	25.04
	10th month	25.04	-	25.04	0.25	0.50	24.54
	11th month	24.54	-	24.54	0.25	0.50	24.04
	12th month	24.04	-	24.04	0.24	0.50	23.54
					2.84	3.00	
2nd	Opening Balance						
	1st month	23.54	-	23.54	0.24	0.50	23.04
	2nd month	23.04	-	23.04	0.23	0.50	22.54
	3rd month	22.54	-	22.54	0.23	0.50	22.04
	4th month	22.04	-	22.04	0.22	0.50	21.54
	5th month	21.54	-	21.54	0.22	0.50	21.04
	6th month	21.04	-	21.04	0.21	0.50	20.54
	7th month	20.54	-	20.54	0.21	0.50	20.04
	8th month	20.04	-	20.04	0.20	0.50	19.54
	9th month	19.54	-	19.54	0.20	0.50	19.04
	10th month	19.04	-	19.04	0.19	0.50	18.54
	11th month	18.54	-	18.54	0.19	0.50	18.04
	12th month	18.04	-	18.04	0.18	0.50	17.54

					2.49	6.00	
3rd	Opening Balance						
	1st month	17.54	-	17.54	0.18	0.50	17.04
	2nd month	17.04	-	17.04	0.17	0.50	16.54
	3rd month	16.54	-	16.54	0.17	0.50	16.04
	4th month	16.04	-	16.04	0.16	0.50	15.54
	5th month	15.54	-	15.54	0.16	0.50	15.04
	6th month	15.04	-	15.04	0.15	0.50	14.54
	7th month	14.54	-	14.54	0.15	0.50	14.04
	8th month	14.04	-	14.04	0.14	0.50	13.54
	9th month	13.54	-	13.54	0.14	0.50	13.04
	10th month	13.04	-	13.04	0.13	0.50	12.54
	11th month	12.54	-	12.54	0.13	0.50	12.04
	12th month	12.04	-	12.04	0.12	0.50	11.54
					1.77	6.00	
4th	Opening Balance						
	1st month	11.54	-	11.54	0.12	0.50	11.04
	2nd month	11.04	-	11.04	0.11	0.50	10.54
	3rd month	10.54	-	10.54	0.11	0.50	10.04
	4th month	10.04	-	10.04	0.10	0.50	9.54
	5th month	9.54	-	9.54	0.10	0.50	9.04
	6th month	9.04	-	9.04	0.09	0.50	8.54
	7th month	8.54	-	8.54	0.09	0.50	8.04
	8th month	8.04	-	8.04	0.08	0.50	7.54
	9th month	7.54	-	7.54	0.08	0.50	7.04
	10th month	7.04	-	7.04	0.07	0.50	6.54
	11th month	6.54	-	6.54	0.07	0.50	6.04
	12th month	6.04	-	6.04	0.06	0.50	5.54
					1.05	6.00	
5th	Opening Balance						
	1st month		-		0.06	0.50	5.04

	5.54		5.54			
2nd month	5.04	-	5.04	0.05	0.50	4.54
3rd month	4.54	-	4.54	0.05	0.50	4.04
4th month	4.04	-	4.04	0.04	0.50	3.54
5th month	3.54	-	3.54	0.04	0.50	3.04
6th month	3.04	-	3.04	0.03	0.50	2.54
7th month	2.54	-	2.54	0.03	0.50	2.04
8th month	2.04	-	2.04	0.02	0.50	1.54
9th month	1.54	-	1.54	0.02	0.50	1.04
10th month	1.04	-	1.04	0.01	0.50	0.54
11th month	0.54	-	0.54	0.01	0.50	0.04
12th month	0.04	-	0.04	0.00	0.04	0.00
				0.33	5.54	-
DOOR TO DOOR	60	MONTHS				
MORATORIUM PERIOD	6	MONTHS				
REPAYMENT PERIOD	54	MONTHS				

Supplier Details:

Packaging Solution**Address:**

SUNRISE INDUSTRIAL AREA, 12/46,
SITE-II, LONI ROAD, MOHAN NAGAR,
Distt-GHAZIABAD-201007, UTTAR
PRADESH, INDIA

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