

PEANUT PROCESSING



1.0 INTRODUCTION

Peanut is a mass consumption item and is used for extraction of oil, for making butter, chikkies and chocolates, as an ingredient in making several food and snack preparations, for munching and so on. India is one of the largest producers along with the USA; China and Argentina. Gujarat, Andhra Pradesh, Tamilnadu and Maharashtra are the main cultivating states. Peanuts from the Saurashtra region of Gujarat are famous all over the world on account of their big size, nutty flavour and crunchy taste. This note basically deals with processing for munching purpose for which there is a vast demand all over the state. The market is primarily controlled by the small and unorganised sector. The preferred locations are Gujarat, Maharashtra, TN, AP etc.

2.0 PRODUCT

Groundnut is an agriculture produce with 2 crops, with the winter crop contributing more than the summer crop. Groundnuts in shell (pods) are de-stoned and then de-shelled to obtain peanuts. After grading them as per different sizes (known as counts) they are sold in the market. The product discussed here is roasted and salted peanuts for direct consumption.

2.1 Compliance under the PFA Act is compulsory.

3.0 MARKET POTENTIAL

3.1 Demand and Supply

Large quantity of roasted and salted peanuts are sold throughout Gujarat round the year. The market is completely scattered and controlled by tiny or cottage units with few local established brands. In most of the cases, processing as well as handling is unhygienic and volumes are very small. Pricing is very crucial as the average price is around Rs.60/- per kg.

3.2 Marketing Strategy

There are some locally famous brands at centres like Ahmedabad, Rajkot, Surendranagar etc. Hence, while selecting location, care has to be taken to ensure smooth supply of raw peanuts and lack of competition from regional established brands. Taluka place in Saurashtra may satisfy these aspects. There is competition from unorganised sector units and reasonable price, attractive packing, lucrative commission to retailers and consistent supply are the critical factors. Fast turnover is very important.

4.0 MANUFACTURING PROCESS

Saurashtra region of Gujarat produces around 10-12 lac tonnes of groundnuts (in shell) every year. Considering average recovery of peanuts at about 70%, more than 8 lac tonnes of peanuts are available every year. Peanuts of medium size would be bought from market yards and then roasted in electrically operated roaster. The roasting time will be around 90 minutes. These roasted peanuts will be cooled and then salt will be mixed with it before packing them. The process loss is about 2-3%.

5.0 CAPITAL INPUTS

5.1 Land and Building

Pricing is very critical as explained earlier. Hence, it is advisable to buy a readymade shed of around 80 sq.mtrs. Production area would require about 30 sq.mtrs. and balance area can be utilised for storage and packing. The cost of shed is expected to be Rs.2.00 lacs.

5.2 Machinery

For a new entrant, initial roasting capacity has to be moderate. Daily roasting capacity of 300 kgs. considering 8-10 hours working may be planned. With 300 working days, the annual capacity would be 90 tonnes. This would need following machines:

Item	Qty.	Price (Rs.)
Electrically-operated roaster of 75 kgs. Cap.	1	75,000
Weighing scales, bag sealing machines, etc.	--	25,000
	Total	1,00,000

5.3 Miscellaneous Assets

Some other assets like furniture and fixtures, packing tables, SS utensils etc. shall be required for which a provision of Rs. 35,000/- is made.

5.4 Utilities

Power requirement shall be 10 HP whereas water of around 500 ltrs. shall be required for potable and sanitation.

5.5 Raw Materials

The most important raw material shall be good quality peanuts. Availability would not be a problem as monthly requirement even at 100% utilisation would be just 75 tonnes. But care has to be taken to select peanuts with uniform size and minimum moisture. Requirement may not warrant direct procurement from the groundnut processor (due to low quantity) and hence the trader has to be selected carefully as high moisture content reduces shelf life of the peanut and may result in high level of aflatoxin which is harmful to human beings in the long run. Standard packing of 100 gms and 200 gms. may be introduced for which printed polythene bags shall be required.

6.0 MANPOWER REQUIREMENTS

Particulars	Nos.	Monthly Salary (Rs.)	Total Monthly Salary (Rs.)
Skilled Worker	1	2,500	2,500
Helpers	3	1,250	3,750
Salesman	1	2,500	2,500
		Total	8,750

7.0 TENTATIVE IMPLEMENTATION SCHEDULE

Activity	Period (in months)
Application and sanction of loan	2
Site selection and commencement of civil work	1
Completion of civil work and placement of orders for machinery	4
Erection, installation and trial runs	1

8.0 DETAILS OF THE PROPOSED PROJECT

8.1 Building

A readymade shed of around 80 sq.mtrs. would cost Rs.2.00 lacs as stated earlier.

8.2 Machinery

For installed production capacity of 90 tonnes per year, investment in machinery will be Rs.1.00 lac as explained earlier.

8.3 Miscellaneous Assets

A provision of Rs. 35,000/- is sufficient under this head as described earlier.

8.4 Preliminary & Pre-operative Expenses

Pre-production expenses like registration, establishment and administrative charges, interest during implementation, trial runs etc. may cost Rs. 40,000/-.

8.5 Working Capital Requirements

Capacity utilisation in the first year is assumed to be 60% for which following working capital shall be required:

(Rs. in lacs)

Particulars	Period	Margin	Total	Bank	Promoters
Stock of Raw and Packing Materials	½ Month	30%	0.75	0.53	0.22
Receivables	½ Month	25%	1.25	0.92	0.33
Working Expenses	1 Month	100%	0.20	--	0.20
		Total	2.20	1.45	0.75

8.6 Cost of the Project & Means of Financing

(Rs. in lacs)

Item	Amount
Land and Building	2.00
Machinery	1.00
Miscellaneous Assets	0.35
P&P Expenses	0.40
Contingencies @ 10% on Land and Building & Plant & Machinery	0.30
Working Capital Margin	0.75
Total	4.80
Means of Finance	
Promoters' Contribution	1.45
Term Loan from Bank/FI	3.35
Total	4.80
Debt Equity Ratio	2.31 : 1
Promoters' Contribution	30%

Financial assistance in the form of grant is available from the Ministry of Food Processing Industries, Govt. of India, towards expenditure on technical civil works and plant and machinery for eligible projects subject to certain terms and conditions.

9.0 PROFITABILITY CALCULATIONS

9.1 Production Capacity & Build-up

As against the rated annual capacity of 90 tonnes, actual utilisation is expected to be 60% in the 1st year and 75% thereafter.

9.2 Sales Revenue at 100%

Assuming selling price of Rs. 55,000/- per ton, the annual income would be Rs. 49.50 lacs.

9.3 Raw and Packing Materials Required at 100%

(Rs. in lacs)

Product	Qty. (Tonnes)	Price/Ton (Rs.)	Value
Medium-sized Peanuts	93	31,000	28.83
Salt	6	5,000	0.30
Packing Materials (@ Rs.1500/Ton of finished goods)	--	--	1.35
		Total	30.48

9.4 Utilities

Yealry cost of utilities at 100% will be Rs. 45,000/-.

9.5 Selling Expenses

A provision of 22.5% of sales revenue every year is made which would take care of margins of stockists and retailers, transportation csots and some publicity at retail counters.

9.6 Interest

Interest on term loan of Rs. 3.35 lacs is computed @ 12% per annum assuming repayment in 3 years including a moratorium period of 1 year. Interest on working capital from bank is calculated @ 14% per annum.

9.7 Depreciation

It is calculated on WDV basis @ 10% on building and 20% on machinery and miscellaneous assets.

10.0 PROJECTED PROFITABILITY

(Rs. in lacs)

No.	Particulars	1st Year	2nd Year
A	Installed Capacity	--- 90 Tonnes ---	
	Capacity Utilisation	60%	75%
	Sales Realisation	29.70	37.12
B	Cost of Production		
	Raw and Packing Materials	18.30	22.86
	Utilities	0.27	0.34
	Salaries	1.05	1.25
	Repairs & Maintenance	0.18	0.24
	Selling Expenses @ 22.5%	6.68	8.35
	Administrative Expenses	0.30	0.39
	Total	26.78	33.43
C	Profit before Interest & Depreciation	2.92	3.69
	Interest on Term Loan	0.32	0.18
	Interest on Working Capital	0.21	0.24
	Depreciation	0.47	0.40
	Profit before Tax	1.92	2.87
	Income-tax @ 20%	0.38	0.57
	Profit after Tax	1.54	2.30
	Cash Accruals	2.01	2.70
	Repayment of Term Loan	0.60	1.20

11.0 BREAK-EVEN ANALYSIS

(Rs. in lacs)

No	Particulars	Amount	
[A]	Sales		29.70
[B]	Variable Costs		
	Raw and Packing Materials	18.30	
	Utilities (70%)	0.19	
	Salaries (70%)	0.73	
	Selling Expenses (70%)	4.68	
	Admn Expenses (50%)	0.15	
	Interest on WC	0.21	24.26
[C]	Contribution [A] - [B]		5.44
[D]	Fixed Cost		3.52
[E]	Break-Even Point [D] ÷ [C]		65%

12.0 [A] LEVERAGES

Financial Leverage

$$= \text{EBIT/EBT}$$

$$= 2.45 \div 1.92$$

$$= 1.28$$

Operating Leverage

$$= \text{Contribution/EBT}$$

$$= 5.44 \div 1.92$$

$$= 2.83$$

Degree of Total Leverage

$$= \text{FL/OL}$$

$$= 1.28 \div 2.83$$

$$= 0.45$$

[B] Debt Service Coverage Ratio (DSCR)

(Rs. in lacs)

Particulars	1st Yr	2nd Yr	3rd Yr
Cash Accruals	2.01	2.70	2.89
Interest on TL	0.32	0.18	0.07
Total [A]	2.33	2.88	2.96
Interest on TL	0.32	0.18	0.07
Repayment of TL	-	1.65	1.70
Total [B]	0.32	1.83	1.77
DSCR [A] ÷ [B]	7.28	1.57	1.67
Average DSCR	----- 3.50 -----		

[C] Internal Rate of Return (IRR)

Cost of the project is Rs. 4.80 lacs.

(Rs. in lacs)

Year	Cash Accruals	16%	18%	20%	24%	28%
1	2.01	1.11	1.04	0.97	0.85	0.75
2	2.70	2.33	2.29	2.25	2.18	2.11
3	2.89	2.15	2.08	2.01	1.88	1.76
	7.60	5.59	5.41	5.23	4.91	4.62

The IRR is around 26%.

Some of the machinery suppliers are

1. Sagar Industries, GIDC Estate, Naroda, Ahmedabad
2. Yash Industries, Aji Indl. Estate, Rajkot
3. Sahyog Steel Fabrication, 28, Bhojrajpara, Gondal, 360311. Tel No. 224075
4. Durai Industrial Works, 1143, Mettupalayam Rd., Coimbatore-641043.
Tel No. 2442380/2444429