

POHA



1.0 INTRODUCTION

Poha is made from paddy and is a very popular product throughout the country and is consumed in sizeable quantity throughout the year. It is primarily a snack item which is very easy to make even at a short notice. People of all age groups enjoy preparations made from it and they are easy to digest. It can be fried with spices and chilly to make hot and tasty dish or it can also be mixed with milk and sugar to make sweet preparation.

2.0 PRODUCTS

Poha is made from paddy and hence it is easy to digest. Spicy or sweet preparations are made from it in the category of fast food. Rice is soaked in water and then roasted to make poha and thus the product has longer shelf life. This product can be produced in any part of the country as paddy is grown in almost all states. This note considers Maharashtra as the preferred location.

2.1 Compliance with PFA Act is necessary.

3.0 MARKET POTENTIAL

Poha has an important place in Indian diet and is used extensively in rural and semi-urban areas. Its popularity in the urban areas is gradually coming down due to changing tastes and food habits but many households still use it regularly. Thus, market for this product is spread across the country. Apart from households, its preparations are sold in restaurants, roadside dhabas or vendors, hostels, canteens etc. round the year. Thus, there is a large market for this product and with adequate efforts it can be captured.

4.0 MANUFACTURING PROCESS

It is conventional and very well standardised. Paddy is cleaned and graded to remove impurities and then it is soaked in hot water for about 45 minutes. After drying, it is roasted to make flakes. These flakes are passed through sieves to remove unwanted materials and to obtain flakes of fairly even size. Finally, they are packed. During the process, yield of even sized flakes is about 80%, whereas process loss and wastages account for 10%. Balance 10% is bran which also has a potential market.

5.0 CAPITAL INPUTS

5.1 Land and Building

An open plot of land of around 250 sq.mtrs. with constructed area of 125 sq.mtrs. can take care of factory area, storage requirements and a packing room. Cost of land, depending upon the location, may vary but it is tentatively estimated to be Rs. 60,000/- whereas cost of building is assumed to be Rs.1.00 lac.

5.2 Plant and Machinery

Selection of machinery depends upon the proposed production capacity. It is suggested to install processing capacity of 450 tonnes per year on the basis of 300 working days and working of 2 shifts per day. For this production capacity, following machines are recommended:

(Rs. in lacs)

Item	Qty.	Price
Poha Mill with accessories and electric motor	2	0.80
Electrically-operated Roaster	1	0.75
Coal-fired Furnace	1	0.15
Paddy Soaking Tanks	4	0.20
Sievers	4	0.10
Sealing Machine	1	0.10
Weighing Scales etc.	-	0.10
	Total	2.20

5.3 Miscellaneous Assets

A provision of Rs.45,000/- would take care of other requirements like furniture and fixtures, storage bins and racks etc.

5.4 Utilities

Power requirement shall be 25 HP and hard coke of around 1 ton will be needed every month for furnace. Daily water consumption could be 750 ltrs.

5.5 Raw Material

The all-important material is paddy of the desired quality. It is grown in ample quantity in the state but it is advisable to have some firm supply arrangements before-hand to ensure timely supply during lean period. Gunny bags will be required for packing of finished goods and coke for the furnace.

6.0 MANPOWER REQUIREMENTS

Particulars	Nos.	Monthly Salary (Rs.)	Total Monthly Salary (Rs.)
Skilled Worker	4	2,000	8,000
Unskilled Workers	2	1,750	3,500
Helpers	2	1,250	2,500
		Total	14,000

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 Land and Building

Particulars	Area (Sq.Mtr)	Rate (Rs.)	Total (Rs.)
Land	250	240/-	60,000
Building	125	800/-	1,00,000
		Total	1,60,000

8.2 Plant and Machinery

The total cost as explained earlier shall be Rs. 2.20 lacs.

8.3 Miscellaneous Assets

Expenditure under this head is likely to be Rs. 45,000/- as elaborated before.

8.4 Preliminary & Pre-operative Expenses

There will be certain pre-production expenses on administrative matters and interest during implementation and trial run expenses etc. A provision of Rs. 40,000/- is adequate.

8.5 Working Capital Requirement

In the first year at 60% capacity utilisation,, the working capital needs shall be as under:

(Rs. in lacs)

Particulars	Period	Margin	Total	Bank	Promoters
Stock of RMs	1 Month	30%	1.15	0.80	0.35
Stock of Finished Goods	½ Month	25%	0.80	0.60	0.20
Receivables	1 Month	25%	1.85	1.40	0.45
Working Expenses	1 Month	100%	0.25	--	0.25
		Total	4.05	2.80	1.25

8.6 Cost of the Project and Means of Financing

(Rs. in lacs)

Item	Amount
Land and Building	1.60
Plant and Machinery	2.20
Miscellaneous Assets	0.45
P&P Expenses	0.40
Contingencies @ 10% on Building and Plant & Machinery	0.32
Working Capital Margin	1.25
Total	6.22
Means of Finance	
Promoters' Contribution	2.22
Loan from Bank/FI	4.00
Total	6.22
Debt Equity Ratio	1.80 : 1
Promoters' Contribution	32%

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 and Build-up

With the installation of the recommended machines, the rated production capacity shall be 450 tonnes per year. The plant is expected to run at 60% and 75% respectively during first 2 years.

9.2 Sales Revenue at 100%

(Rs. in lacs)

Product	Qty. (Tonnes)	Selling Price/ Ton	Sales Value
Poha	360	10,000	36.00
Rice Bran	45	2,000	0.90
		Total	36.90

9.3 Raw Materials Required at 100%

(Rs. in lacs)

Product	Qty. (Tonnes)	Rate per Ton	Value
Paddy	450	5,000	22.50
Hard Coke	12	1,000	0.12
Packing Materials	--	--	0.60
		Total	23.22

9.4 Utilities

The annual cost under this head at 100% activity level is likely to be Rs. 50,000/-.

9.5 Selling Expenses

There will be certain expenses like transportation, commission etc. for which a provision of 12.5% of sales is made every year.

9.6 Interest

It is assumed that term loan of Rs. 4.00 lacs would carry interest @ 12% per annum and shall be repaid in 4 years including a moratorium period of 1 year. Interest on working capital is computed @ 14% per annum.

9.7 Depreciation

It is calculated on WDV basis and rates considered are 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	--- 450 Tonnes ---	
	Capacity Utilisation	60%	75%
	Sales Realisation	22.15	27.70
B	Cost of Production		
	Raw Materials	13.93	17.41
	Utilities	0.30	0.38
	Salaries	1.68	1.90
	Stores & Spares	0.21	0.27
	Repairs & Maintenance	0.24	0.33
	Selling Expenses @ 12.5%	2.76	3.46
	Administrative Expenses	0.24	0.30
	Total	19.36	24.05
C	Profit before Interest & Depreciation	2.79	3.65
	Interest on Term Loan	0.48	0.36
	Interest on Working Capital	40.00	0.50
	Depreciation	0.63	0.51
	Net Profit	1.28	2.28
	Income-tax @ 20%	--	0.45
	Profit after Tax	1.28	1.83
	Cash Accruals	1.91	2.34
	Repayment of Term Loan	--	1.30

11.0 BREAK-EVEN ANALYSIS

(Rs. in lacs)

No	Particulars	Amount	
[A]	Sales		22.15
[B]	Variable Costs		
	Raw Materials	13.93	
	Utilities (70%)	0.21	
	Salaries (75%)	1.26	
	Stores & Spares	0.21	
	Selling Expenses (80%)	2.21	
	Admn Expenses (50%)	0.12	
	Interest on WC	0.40	18.34
[C]	Contribution [A] - [B]		3.81
[D]	Fixed Costs		2.13
[E]	Break-Even Point (D ÷ C)		56%

12.0 [A] LEVERAGES

Financial Leverage

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

$$= 2.16 \div 1.28$$

$$= 1.69$$

Operating Leverage

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

$$= 3.81 \div 1.28$$

$$= 2.98$$

Degree of Total Leverage

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

$$= 1.69 \div 2.98$$

$$= 0.57$$

[B] Debt Service Coverage Ratio (DSCR)

(Rs. in lacs)

Particulars	1st Yr	2nd Yr	3rd Yr	4th Yr	5th Yr
Cash Accruals	1.91	2.34	2.42	2.54	2.75
Interest on TL	0.48	0.36	0.27	0.13	0.07
Total [A]	2.39	2.70	2.69	2.67	2.82
Interest on TL	0.48	0.36	0.27	0.13	0.07
Repayment of TL	--	1.00	1.00	1.00	1.00
Total [B]	0.48	1.36	1.27	1.13	1.07
DSCR [A] ÷ [B]	4.98	1.99	2.12	2.36	2.64
Average DSCR	----- 2.82 -----				

[C] Internal Rate of Return (IRR)

Cost of the project is Rs. 6.22 lacs.

(Rs. in lacs)

Year	Cash Accruals	16%	18%	20%	24%
1	1.91	1.65	1.62	1.59	1.54
2	2.34	1.74	1.68	1.62	1.52
3	2.42	1.55	1.47	1.40	1.27
4	2.54	1.40	1.31	1.22	1.07
5	2.75	1.31	1.20	1.11	0.94
	11.96	7.65	7.28	6.94	6.34

The IRR is around 24%.

Some of the machinery suppliers are

1. Techno Equipments, 31, Parekh Street, Girgaum, Mumbai-400004
2. Sujata Enterprises, Laxmi Rd., Pune 411 030
3. Laxicon Engg, Sita Bardi, Nagpur 440 012