

CHILLI PICKLES



1.0 INTRODUCTION

Pickles are very popular across the country and they are regularly consumed by almost all households. Restaurants, dhabas, caterers etc. are bulk consumers. There are many varieties of pickles with certain regional specialities as well. They are generally spicy but some are sweet also. They are table enrichers. Nagaland is not an exception to this national phenomenon with chilly pickles consumed in substantial quantity by people from all walks of life. Dimapur district produces more than 1000 tonnes of green chillies every year.

2.0 PRODUCT

2.1 Applications

Pickles are important part of the Indian cuisine and are eaten along with main course as well as many food preparations and snacks. They are used as taste enrichers. Chilly pickles are popular across the board and are consumed round the year. It can be made anywhere in the country including the North-East region.

2.2 Availability of know-how and compliances

CFTRI, Mysore, has successfully developed the technology. Compliance with FPO is mandatory.

3.0 MARKET POTENTIAL

There is a large market for chilly pickles not only in Nagaland but also in nearby North Eastern states. Chillies are grown in large quantity especially in Kohima district. Chilly pickles could be of different varieties and at times some other ingredients can also be added. The key element would be to know the regional likings and preferences in terms of taste and making some changes periodically to provide novelty to the consumers. It is a mass consumption item and with proper quality, sales network and publicity, it is possible even for a new entrant to capture the market.

4.0 MANUFACTURING PROCESS

The process is standardised and very well established. Green chillies are washed in water and then dried under the sunlight. After cutting the top and bottom portion, they are cured in brine solution for 2½ to 3 days. After that, oil, turmeric powder and other suitable ingredients (depending upon local palate) are added and mixed thoroughly and then pickle is packed in bottles and plastic pouches. CFTRI, Mysore, has developed process know-how for pickles.

5.0 CAPITAL INPUTS

5.1 Land and Building

A readymade shed or room of around 45-50 sq.mtrs. should be bought to minimise capital cost and save time. The total cost could be Rs. 1.25 lac. Main processing area would require around 25 sq.mtrs. whereas balance space could be utilised for storage and packing.

5.2 Plant and Machinery

Most of the operations are manual. Equipments like pickle storage tanks, stainless steel utensils, food grade plastic jars, bottle capping machine, mixer grinders and weighing scales shall be required. The total cost could be Rs.60, 000/-. Production capacity shall be dictated by the market. It can be easily increased even at a short notice. Hence, a moderate capacity of 20 tonnes per year, with 8-10 hours' work every day, with 300 working days is suggested. All the machines shall be available from local traders.

5.3 Miscellaneous Assets

Some other assets like cutters, furniture & fixtures, storage racks, packing tables etc. shall be required for which a provision of Rs. 25,000/- is adequate.

5.4 Utilities

Power requirement will not be much and normal domestic connection is sufficient. Water requirement will be around 600 ltrs. everyday.

5.5 Raw and Packing Materials

The all-important raw material will be fresh green chillies. They are cultivated in large quantities in many parts of the North-East including Nagaland. The actual requirement during the year will not be more than 20 tonnes and procurement will not be a problem. Other materials like edible oil, salt, lemon, turmeric powder etc. shall be available from local market. Plastic or glass bottles and plastic bags would form inner packing and second hand corrugated boxes would be outer packing.

6.0 MANPOWER REQUIREMENTS

Particulars	Nos.	Monthly Salary (Rs.)	Total Monthly Salary (Rs.)
Skilled Worker	1	2,250	2,250
Helpers	2	1,250	2,500
Salesman	1	2,500	2,500
		Total	7,250

7.0 TENTATIVE IMPLEMENTATION SCHEDULE

Activity	Period (in months)
Application and sanction of loan	1.5
Site selection and commencement of civil work	0.5
Completion of civil work and placement of orders for machinery	1.5
Erection, installation and trial runs	0.5

8.0 DETAILS OF THE PROPOSED PROJECT

8.1 Land and Building

A readymade constructed area of about 50 sq.mtrs. is sufficient as discussed earlier.

8.2 Machinery

Total cost of machinery to produce 20 tonnes of chilly pickles per year would be Rs. 60,000/- as explained earlier.

8.3 Miscellaneous Assets

A provision of Rs. 25, 000/- is adequate for the required assets as mentioned before.

8.4 Preliminary & Pre-operative Expenses

Expenses like registration & establishment charges, administrative overheads, travelling, interest during implementation etc. shall be incurred before production for which a provision of Rs. 40,000/- is made.

8.5 Working Capital Requirements

There will not be many stocks of either raw materials or finished goods. The bank may sanction adhoc facilities of Rs. 50,000/-, and Rs. 25,000/- could be the margin amount.

8.6 Cost of the Project & Means of Financing

(Rs. in lacs)

Item	Amount
Building	1.25
Machinery	0.60
Miscellaneous Assets	0.25
P&P Expenses	0.40
Contingencies	0.20
Working Capital Margin	0.25
Total	2.95
Means of Finance	
Promoters' Contribution	0.85
Term Loan from Bank/FI	2.10
Total	2.95
Debt Equity Ratio	2.47 : 1
Promoters' Contribution	29%

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 capacity of 20 tonnes, actual utilisation is expected to be 60% in the first year and 75% thereafter.

9.2 Sales Revenue at 100%

Considering selling price of Rs.75,000/- per ton, sales income at 100% will be Rs. 15.00 lacs.

9.3 Raw and Packing Material at 100%

(Rs. in lacs)

Product	Qty. (Tonnes)	Price/Ton (Rs.)	Value
Green Chillies	20	17,500	3.50
Edible Oil	2	60,000	1.20
Salt, Turmeric Powder, Lemon etc.	--	--	0.60
Packing Materials like glass/plastic bottles, polythene bags, labels, corrugated boxes etc.	--	--	2.00
		Total	7.30

9.4 Utilities

Yearly cost at 100% activity level would be Rs.20,000/-.

9.5 Selling Expenses

A provision of 17.5% of sales value is made towards transportation, commission to retailers and publicity in local media.

9.6 Interest

Interest on term loan is taken at 12% assuming repayment in 3 years including a moratorium period of 6 months whereas on bank assistance towards working capital, it is computed @ 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	--- 20 Tonnes ---	
	Capacity Utilisation	60%	75%
	Sales Realisation	9.00	11.25
B	Cost of Production		
	Raw and Packing Materials	4.38	5.48
	Utilities	0.12	0.15
	Salaries	0.87	1.00
	Repairs & Maintenance	0.12	0.20
	Selling Expenses @ 17.5%	1.58	1.97
	Administrative Expenses	0.24	0.36
	Total	7.31	9.16
C	Profit Before Interest & Depreciation	1.69	2.09
	Interest on Term Loan	0.20	0.15
	Interest on Working Capital	0.07	0.09
	Depreciation	0.30	0.25
	Profit Before Tax	1.12	1.60
	Income-tax @ 20%	0.02	0.32
	Profit After Tax	1.10	1.28
	Cash Accruals	1.40	1.53
	Repayment of Term Loan	0.40	0.75

11.0 BREAK-EVEN ANALYSIS

(Rs. in lacs)

No	Particulars	Rs. in lacs	
[A]	Sales		9.00
[B]	Variable Costs		
	Raw and Packing Materials	4.38	
	Utilities (70%)	0.08	
	Salaries (70%)	0.61	
	Selling Expenses (70%)	1.10	
	Admn. Expenses (50%)	0.12	
	Interest on WC	0.07	6.36
[C]	Contribution [A] - [B]		2.64
[D]	Fixed Cost		1.52
[E]	Break-Even Point [D] ÷ [C]		58%

12.0 [A] LEVERAGES

Financial Leverage

$$\begin{aligned} &= \text{EBIT/EBT} \\ &= 1.39 \div 1.12 \\ &= 1.24 \end{aligned}$$

Operating Leverage

$$\begin{aligned} &= \text{Contribution/EBT} \\ &= 2.64 \div 1.12 \\ &= 2.36 \end{aligned}$$

Degree of Total Leverage

$$\begin{aligned} &= \text{FL/OL} \\ &= 1.24 \div 2.36 \\ &= 0.53 \end{aligned}$$

[B] Debt Service Coverage Ratio (DSCR)

(Rs. in lacs)

Particulars	1st Yr	2nd Yr	3rd Yr
Cash Accruals	1.40	1.53	1.61
Interest on Term Loan	0.20	0.15	0.07
Total [A]	1.60	1.68	1.68
Interest on Term Loan	0.20	0.15	0.07
Repayment of Term Loan	0.45	0.90	0.75
Total [B]	0.65	1.05	0.82
DSCR [A] ÷ [B]	2.67	1.87	2.05
Average DSCR	----- 2.20 -----		

[C] Internal Rate of Return (IRR)

Cost of the project is Rs. 2.95 lacs.

(Rs. in lacs)

Year	Cash Accruals	18%	20%	24%
1	1.40	0.72	0.67	0.59
2	1.53	1.30	1.27	1.23
3	1.61	1.16	1.12	1.05
	4.54	3.18	3.06	2.87

The IRR is around 22%.