Shrimp Papad

PRODUCT CODE	:	N.A.
QUALITY AND STANDARDS	:	As per the P.F.A. Act, 1954 (mandatory) and B.I.S. Specification (optional)
PRODUCTION CAPACITY	:	Quantity: 150 MT per annum Value: Rs. 69 Lakhs
MONTH AND YEAR OF PREPARATION	:	March, 2003
PREPARED BY	:	Small Industries Service Institute Kurla Andheri Road, Saki Naka, Mumbai - 400 072. Tel. No. 28576090/8092/7166 Fax No. 28578092 E-mail - smallind@vsnl.com

Introduction

Papad is a popular and tasty food item in Indian diet since times immemorial. Papad is essentially a wafer-like product, traditionally circular in shape, made from dough of powdered pulses, spices and salt etc. Percentage of pulses and spices differs in different varieties of papad which are made to suit the taste of the people and the demand in the market. Though traditionally it has been confined to the household papad makers, it has, in recent years, developed into cottage and small scale sector. With the development of this industry on commercial scale, it is beset with multifarious problems such as quality of ingredients used, method of preparation, processing, packaging and storage characteristics.

The Central Food Research Institute, Mysore has done some work on these problems and has standardized a process to improve the quality of papads which has enhanced the storage life of the product. Shrimp papad is very tasty especially with beverages like beer.

Market Potential

The demand of papad is increasing day-by-day due to urbanization and improvement in the standards of living of the masses especially in the towns/ cities. There is a good potential for good quality of products at competitive prices in the Indian market. The experiments have shown that advertisement, publicity, etc. have influenced the pattern of consumption of papad. *'Lijjat Papad'* is the example.

Its demand has also increased manifold in foreign countries especially where the Indian immigrants have settled down. As per A.P.E.D.A. the average annual export contribution of processed products is about 10.10%.

In view of the above, it is envisaged that there is a good scope for the development of papad making industry especially in the backward areas to generate more employment opportunities and to meet the demand of the urbanized market besides exports.

BASIS AND PRESUMPTIONS

1. This project is based on single shift basis and 300 working days in a year.
2. The costs of machinery and equipments/materials indicated refer to the particular make and the prices are approximate to those ruling at the time of the preparation of the scheme.
3. Non-refundable deposits, project preparation cost, trial production, fees, etc. have been considered under Pre-operative expenses.
4. The cost of installation and electrification is taken @ 10% of the cost of machinery and, equipment.
5. Depreciation has been taken on building @ 5%, plant and machinery @ 10% and office furniture and fixture @ 20%.
6. Interest on total capital investment has been calculated @ 15% per annum.
7. Minimum 40% of the total investment is required as margin money.
8. Pay-back period of the project will be 7 years with yearly instalments.
9. Break-even point has been calculated on the full capacity utilization.

IMPLEMENTATION SCHEDULE

Activity		*Duration (Months)*
a)	Selection of Site, its Development and Building Construction	3-6
b)	Form of Ownership, Feasibility Report and Registration with DIC	1-2
c)	Arrangement of finance (term loan and working capital)	1-3
d)	Procurement of machinery and equipment	1-2
e)	Recruitment of manpower	1
f)	Arrangement of raw materials	1
g)	Plant erection and electrification	1-2
h)	Selection of marketing channels	1-2
i)	Power and Water Connection, pollution control etc.	1-2

Normally, one year is required to implement the project. In order to implement the project in the shortest possible period simultaneous exercises are carried out.

TECHNICAL ASPECTS

Process of Manufacture

Papad may be manufactured with one type of dal or with the combination of dals. Good quality papad can be made using 100 parts of black gram flour of 85 mesh, 45 parts of water, 8 parts of common salt and 1–10 parts of sodium bicarbonate.

As per recipe, weighed quantity of flour is poured into a mixer. A dispersion of

common salt and bicarbonate in requisite quantity of water is added and the whole contents are kneaded at minimum speed to set homogenous lump of the dough. After 30 minutes of resting, it is divided into balls of about 2 cm. dia. weighing 5-6 gms. These are rolled into thin circular discs of about 1 mm thickness using papad press or rolling pin. Corn starch may be used as dusting material to prevent sticking during rolling. The papads are usually dried in drier or sun-dried. The dried papads generally contain 14-15% of moisture and then packed in polythene bags.

Quality Control and Standards

The PFA Act, 1954 is mandatory and BIS specification is optional for Papad.

Bureau of Indian Standards has laid down specification for papad in IS:2639:1984.

Production Capacity

Quantity: 150 MT.
Value: Rs. 69 lakhs per annum.

Motive Power 20 KW

Pollution Control

No major pollution affluent as water only is used for washing purpose. However, a battery of torch of preliminary treatment is advised to install and no objection certificate may be obtained from the concerned State Pollution Control Board.

Energy Conservation

Only power is used, hence correct HP motors should be used with machines. As far as possible, solar energy and natural light should be used in an optimum manner.

FINANCIAL ASPECTS

A. Fixed Capital

i. Land and Building		Amount (In Rs.)
Land - 5,000 sq. mtrs. @ Rs. 50 per sq. mtr.		2,50,000
Building		
1. Production Hall 50 × 40 ft.	2000 sq.ft.	
2. Stores (3) 20 × 20 ft.	1200 sq.ft.	
3. Laboratory 20 × 10 ft.	200 sq.ft.	
4. Office 20 × 20 ft.	400 sq.ft.	
5. W/C and bath 10 × 10 ft.	100 sq.ft.	
6. W/man cabin 10 × 10 ft.	100 sq.ft.	
	4000 sq.ft.	
@ Rs 300 per sq. ft.	4000 × 300	12,00,000
	Total	14,50,000

ii. Machinery and Equipments

Sl. No.	Description	Qty.	Amount (In Rs.)
1.	Grinder Cap. 20 to 40 kgs./hr. Electric power 5 HP	1	50,000
2.	Mixer Cap. 25 kgs. Per charge Electric power 1.5 HP	1	25,000
3.	Papad press (pedal operated by pressure)	2	30,000
4.	Platform balance	1	25,000
5.	Sealing machine (impulse controls sealing length upto 30 cms.)	1	15,000
6.	Marble top tables	–	20,000
7.	Drier with trolly and trays heating Elements 9 KW	–	20,000
8.	Water storage tank, Cap. 5 KL.	1	25,000
9.	Aluminium trays (extra)	50	10,000
10.	Misc. equipments such as baskets, drums, racks, aluminium utensils, wooden tubs etc.	LS	20,000
11.	Laboratory Equipments	LS	50,000
12.	Pollution Control Equipment	LS	30,000

Sl. No.	Description	Qty.	Amount (In Rs.)
	Packaging, forwarding, taxes, insurance charges etc. @ 10%		*32,000*
	Erection and electrification @ 10%		*32,000*
	Office furnitures and fixtures		*50,000*
	Total		4,34,000
iii.	Preliminary and Pre-operative Expenses		50,000
	Total Fixed Capital (i+ii+iii)		19,34,000

B. Working Capital (per month)

i) Personnel

Sl. No.	Designation	No.	Amount (In Rs.)
	(a) Administrative Staff		
1.	Factory Manager	1	10,000
2.	Accountant	1	5,000
3.	Salesman	2	6,000
4.	Store-keeper	1	3,000
5.	Clerks	2	6,000
6.	Watchman and Peon	2	4,000
	(b) Technical Staff		
1.	Production Chemist	1	8,000
2.	Skilled Workers	3	9,000
3.	Semi-skilled Workers	4	8,000
4.	Lab Chemist	1	4,000
	Total	18	63,000
	Perquisites @ 10%		6,300
	Total		69,300

ii)	Raw Materials Including Packaging Requirements	Amount (In Rs.)
1.	Udad Dal floor 10.00 MT @ Rs 20,000 per ton	2,00,000
2.	Fish floor 2.5 MT @ Rs 40,000 per ton	1,00,000
3.	Spices, Salt etc.	2,500
4.	Packing material, poly bags etc. (LS)	10,000
	Total	3,12,500

iii)	Utilities	Amount (In Rs.)
1.	Electricity 2000 units @ Rs 4%	8,000
2.	Water	1,000
3.	Oil and Grease	1,000
	Total	10,000

iv)	Other Contingent Expenses	Amount (In Rs.)
1.	Repairs and maintenance	1,000
2.	Consumable stores	1,000
3.	Transport and travelling	5,000
4.	Publicity	5,000
5.	Postage and stationery	500
6.	Telephone	1,500
7.	Insurance	500
8.	Miscellaneous	500
	Total	15,000

v) Total Working Capital (for 1 month) (i + ii + iii + iv) Rs. 4,06,800

vi) Working Capital (for 3 months) Rs. 12,20,400

C. Total Capital Investment

		Amount (In Rs.)
i)	Fixed Capital	19,34,000
ii)	Working Capital (for 3 months)	12,20,400
	Total	31,54,400

FINANCIAL ANALYSIS

1. Cost of Production (per annum)		Amount (In Rs.)
i)	Recurring expenses	48.82
ii)	Depreciation on building @ 5%	0.60
iii)	Depreciation on machinery @ 10%	0.38
iv)	Depreciation on furniture @ 20%	0.10
v)	Interest on total capital investment @ 15%	4.73
	Total	54.63

2. Turnover (per annum)	(Rs. in lakhs)
Shrimp Papad 150 MT @ Rs. 46,000	69.00

3. Net Profit (per annum) *(Before Tax)*

= Sales – Cost of Production

= Rs. 69.00 – 54.63

= Rs. 14.37 lakhs

4. Net Profit Ratio

$$= \frac{\text{Net Profit} \times 100}{\text{Sales}}$$

$$= \frac{14.37 \times 100}{69.00}$$

= 20.83%

5. Rate of Return

$$= \frac{\text{Net Profit} \times 100}{\text{Capital Investment}}$$

$$= \frac{14.37 \times 100}{31.54}$$

= 45.56%

6. Break-even Point

$$= \frac{\text{Annual Fixed Cost} \times 100}{\text{Annual Fixed Cost + Profit}}$$

Annual Fixed Cost	Amount (Rs. in Lakhs)
All Depreciation	1.08
Interest	4.73
40% (wages, salary, utilities and contingencies) except Insurance	4.50
Insurance	0.06
Total	10.37

$$\text{B.E.P.} = \frac{10.37 \times 100}{10.37 + 14.37}$$

= 42%

Addresses of Machinery and Equipment Suppliers

1 M/s. T. Alimohammad and Co.
144/46 Sarang Street,
Near Phule Market,
Mumbai-400003.

2 M/s. A.M.I. Engineering
Station Road,
Opp. Veena Cinema,
Patna - 800 001.

3 M/s. Master Mechanical Works Pvt. Ltd.
75 Link Road, 1st Floor,
Lajpat Nagar-III,
New Delhi-110024.

Raw Material Suppliers

Local dealers.