

NOODLES

PRODUCT CODE	: N.A.
QUALITY AND STANDARDS	: As per IS 1485:1976, PFA Act and GMP
PRODUCTION CAPACITY	: Qty.: 150 MT per annum Value: Rs. 39,37,500
MONTH AND YEAR OF PREPARATION	: May, 2003
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INTRODUCTION

Fresh noodles are an extruded product made of tapioca flour and maida. They are long thread-like of 0.22 to 0.4 mm. thickness. This is a eatable food item under instant food products and very popular now-a-days as break fast food. It is one of the most conventional foods available in the market.

MARKET POTENTIAL

Noodles and chowmein, a ready-to-eat food item is very popular in developed countries and now it has created good market potential in our country also and is becoming a popular item. The factors governing its demand are:

1. Increasing population of the country.
2. Rapid industrialization in the country.
3. Increase in the purchasing capacity of the people.
4. Durability of the product.
5. Change in people's eating habits

especially the younger generation.

6. It is ready-to-eat product.

7. Convenience of preparation.

Keeping in view the above factors, the demand of this product is likely to increase manifold in the coming years.

BASIS AND PRESUMPTIONS

1. Number of hours : 8 hrs.
per day
2. Number of : 300 days
Working Days
in a year
3. Time period for : 5 years
achieving full
capacity
utilization
4. Labour Wages : As per Wages
Act of the State
Government
5. Interest on capital : 14% per
investment annum
6. Margin Money : 25% of the
Working
Capital

7. Pay back period : 7 years
of the Project

IMPLEMENTATION SCHEDULE

- | | |
|---|-------------------------------|
| 1. Building construction | 3 Months |
| 2. Preparation of Project report and SSI Registration | 1 Month |
| 3. Financial assistance | 3 Months |
| 4. Arrangement of power | 1 Month |
| 5. Acquisition of Machinery | 1 Month |
| 6. Installation of Machinery | 15 Days |
| 7. Appointment of Staff and Labour | 1 Month |
| 8. Trial production and shooting problems | 2 Weeks |
| 9. Commercial production | 1 Week after trial production |
| 10. Total time to start commercial production | 3 to 6 Months |

TECHNICAL ASPECTS

Process of Manufacture

Noodles is the term being used to designate products made from blend of flours, the major component of which is tapioca flour and maida. A noodle is manufactured in different sizes, hollow as well as solid, for different cooking methods. Some are made for cooking and others are for frying. The noodles proposed in this Profile are for frying.

Typical Blending for 16 Kg. of Product

Maida	: 8 Kgs.
Starch	: 7 Kgs.
Sodium bicarbonate	: 850 gms.

Salt	: 150 gms.
Edible colour	: Q.S.

Process in Detail

Dry Mixing

The average moisture content of dry mixes is 10-11%. The three ingredients maida, starch and soda bicarbonate are blended in a vertical mixer alongwith edible colour.

Dough Formation

Satisfactory dough can be made from the above blend only by using boiled water, when a part of the starch is gelatinized. The ingredients are mixed in dough mixer for about 12 to 15 minutes.

Extrusion

The kneaded dough is then transferred to noodles making machine where extruded material of desired shape and length is obtained by using an appropriate type of die and suitably adjusting the distance between the dye surface and cutting blade. The moisture content of the product at this stage is about 33%.

Pre-drying

The cut noodles goods from the cutting machine fall on wooden trays. The product undergoes surface drying and becomes sufficiently hard enough to be handled without sticking or being crushed. The moisture content of the pre-dried product is about 29.5%.

Drying

The pre-dried product is finally semi-dried. The moisture content of the

product will be 17%. Drying is done by exposure to indirect sunrays or placing in shade. The noodles dried as above do not have a satisfactory cooking quality and undergo a heavy loss on cooking. This can be reduced considerably by giving heat treatment to the product. This is optioned as this gives a brown colour to the product which may not be appealing to some of the customers.

Recent development in the manufacture of noodles is that the product is exposed to steam. The steamed product has three advantages: (1) longer shelf-life (2) harder grain, and (3) better eating quality than unsteamed product. Steaming is done by exposing the product in thin layer to steam for about 15 minutes. The steamed and subsequently dried product has a moisture content of about 10%. The steaming is done before the product is semi-dried.

Quality Control and Standards

The product must meet PFA specifications. However, BIS specification for Noodles is IS: 1485:1976.

Production Capacity

	<i>Qty. per annum</i>	<i>Value per annum (In Rs.)</i>
Fresh Noodles	150 MT	39,37,500
Motive Power		30 HP

Pollution Control

It is not required as the product is not causing any air, water and sound pollution. However, entrepreneurs should obtain NOC from concerned State Pollution Control Board.

Energy Conservation

Proper insulation is to be made to reduce the heat loss during drying and steaming processes.

FINANCIAL ASPECTS

A. Fixed capital

i) Land and Building	Amount (In Rs.)
Land 1000 Sq. Mts. @ Rs. 100	1,00,000
Cost of construction of shed 225 sq mtr. @ Rs. 3000 Sq. Mtr.	6,75,000
Total	7,75,000

ii) Machinery and Equipment

Sl. No.	Description	Amount (In Rs.)
1.	Vertical type powder mixer 500 kgs. cap with motor complete	22,000
2.	Dough mixer blade type 75 kgs. cap	44,000
3.	Noodles making power operated machine with different size die-heads	2,20,000
4.	Wooden trays 1000 pcs. size 2'x3'	16,500
5.	Plastic Buckets 4 each of 20 liters cap.	1,000
6.	Aluminium/Galvanised iron water tape pipe line fittings	34,500
7.	Water boiler-fuel heated 75 litres cap.	11,000
8.	Installation of machinery and equipment	3,000
9.	Office furniture etc.	22,000
	Total	3,74,000

iii) Pre-operative Expenses	Amount (In Rs.)
Legal expenses, start-up expenses, establishment cost, consultancy fee, estimate fee, interest and trial runs, etc.	35,000

Total Fixed Capital	Amount (In Rs.)
1. Land and Building	7,75,000
2. Machinery and Equipment	3,74,000
3. Pre-operative Expenses	35,000
Total	11,84,000

B. Working Capital (per month)

i) Personnel

Sl. No.	Designation	No.	Salary (In Rs.)	Total (In Rs.)
i)	Manager	1	5000	5,000
ii)	Supervisor	1	2500	2,500
iii)	Chemist	1	2500	2,500
iv)	Clerk	2	2500	5,000
v)	Peon/Watchman	1	1500	1,500
vi)	Skilled Workers	2	2000	4,000
vii)	Unskilled Workers	4	1500	6,000
	Total			26,500
	<i>Perks @ 15% of Salaries</i>			3,975
	Total			30,475

ii) Raw Materials including Packaging Requirements

Sl. No.	Particulars	Indigenous/ Imported	Qty.	Rate	Total (In Rs.)
i)	Maida	Indigenous	13 MT	8000	1,04,000
ii)	Starch	-do-	"2 MT	9000	18,000
iii)	Chemicals, salt, etc.	-do-	L.S.	-	6,000
iv)	Packaging Material	-do-	L.S.	-	30,000
	Total				1,58,000

iii) Utilities	Amount (In Rs.)
i) Power	5,000
ii) Fuel	1,500
iii) Water	500
Total	7,000

iv) Other Contingent Expenses	Amount (In Rs.)
i) Postage and Stationery	1,000
ii) Telephone	1,000
iii) Consumable Stores	1,000
iv) Repairs and Maintenance	1,500
v) Transport Charges	7,000
vi) Insurance	1,500
vii) Sales Expenses	3,000
viii) Miscellaneous Expenditure including advertisement, legal fee and entertainment charges	7,000
Total	23,000

v) Total Recurring Expenditure (per month) 2,18,475

vi) Total Working Capital (for three months) 6,55,425

C. Total Capital Investment

	Amount (In Rs.)
i) Fixed Capital	11,84,000
ii) Working Capital (For three months)	6,55,425
Total	18,39,425

MACHINERY UTILISATION

The bottleneck operation in the manufacturing process is extrusion. The unit will utilize 75% of the installed capacity.

FINANCIAL ANALYSIS

1. Cost of Production (per year)	Amount (In Rs.)
1. Total recurring cost per year	26,21,700
2. Depreciation on building @ 5%	33,750
3. Depreciation on M/C @ 10%	35,200
4. Depreciation on office equipment @ 20%	4,400
5. Interest on total capital investment @ 14%	2,57,520
Total	29,52,570

2. Turn Over (per year)

Item	Qty.	Rate (In Rs.)	Amount (In Rs.)
Fresh Noodles in 200 gms. Packets	7.50 lakh pkts	5.25	39,37,500

3. Net Profit (per year)

$$\begin{aligned}
 &= \text{Sales} - \text{Cost of production} \\
 &= 39,37,500 - 29,52,570 \\
 &= 9,84,930
 \end{aligned}$$

4. Net Profit Ratio

$$\begin{aligned}
 &= \frac{\text{Net profit per year}}{\text{Turn Over per year}} \times 100 \\
 &= \frac{9,84,930}{39,37,500} \times 100 \\
 &= 25.01\%
 \end{aligned}$$

5. Rate of Return

$$\begin{aligned}
 &= \frac{\text{Net profit per year}}{\text{Total investment}} \times 100 \\
 &= \frac{9,84,930}{18,39,425} \times 100 \\
 &= 53.5\%
 \end{aligned}$$

6. Break-even Point

Fixed Cost	Amount (In Rs.)
(a) Depreciation on Building @ 5%	33,750
(b) Depreciation on Machinery	35,200
(c) Depreciation on Office Equipments	4,400
(d) Interest on Total Investment	2,57,520
(e) Insurance	18,000

Fixed Cost	Amount (In Rs.)
(f) 40% of salary and wages	1,46,280
(g) 40% of other contingent expenses	1,10,400
Total	6,05,550

B.E.P.

$$\begin{aligned}
 &= \frac{\text{FC} \times 100}{\text{FC} + \text{P}} \\
 &= \frac{6,05,550 \times 100}{6,05,550 + 9,84,930} \\
 &= 38.07\%
 \end{aligned}$$

Addresses of Machinery and Equipment Suppliers

1. M/s. Mona Machinery Mfg. Co.
Chandralok, 111 SD Road,
Secunderabad.
2. M/s. Khan Engg. Works
5-5-274 Namally,
Near Gandhi Bhavan,
Patel Nagar,
Hyderabad.
3. M/s. Shanti Turning Works
4-1-590/12, Troop Bazar,
Hyderabad-500001.
4. M/s. Mahalaxmi Engg. Works
Craftman, Gylid, Mallepally,
Hyderabad.
5. M/s. Debdoot India
67-B, Biddan St.,
Kolkata - 700006.

Raw Material Suppliers

Local Market.