

# SOYA SAUCE

PRODUCTION CAPACITY : 150000 bottles of 200 mL cap./annum

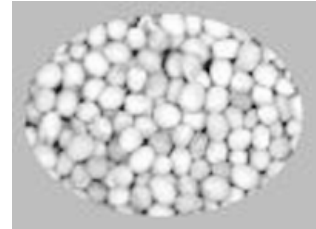


## 1.0 PRODUCT AND ITS APPLICATIONS

Soya sauce acts as a taste and flavour enhancer in many western and Chinese dishes and meat products.

## 2.0 MARKET POTENTIAL

Hotels, restaurants, industrial canteens serving western, north Indian and Chinese dishes are large consumers of the product. Even the urban households consume the product for various dishes. Hence there is a steady demand for the product specially in the cities and semi-urban areas. The manufacturing units of soya sauce are mostly in the small scale sector. Considering various factors, it is envisaged that the proposed unit would find a good market.



## 3.0 BASIS AND PRESUMPTIONS

- The unit proposes to work at least 300 days per annum on single shift basis.
- The unit can achieve its full capacity utilization during the 3rd year of operation.
- The wages for skilled workers is taken as per prevailing rates in this type of industry.
- Interest rate for total capital investment is calculated @ 12% per annum.
- The entrepreneur is expected to raise 20-25% of the capital as margin money.
- The unit proposes to construct own building.
- Costs of machinery and equipment are based on average prices enquired from machinery manufacturers.

## 4.0 IMPLEMENTATION SCHEDULE

Project implementation will take a period of 8 months. Break-up of the activities and relative time for each activity is shown below:

❖ Scheme preparation and approval	:	01 month
❖ SSI provisional registration	:	1-2 months
❖ Sanction of financial supports etc.	:	2-5 months
❖ Installation of machinery and power connection	:	6-8 months
❖ Trial run and production	:	01 month

## 5.0 TECHNICAL ASPECTS

### 5.1 Location

The unit may be located in any part of the country

## 5.2 Availability of Raw material

Main raw material required for the unit is defatted soya flour, food grade hydrochloric acid, vinegar, sodium bicarbonate. The soya flour is available from soya oil extraction mills. Other raw materials and packaging items are available locally.

## 5.3 Process of Manufacture

The technology can be sourced from machinery manufacturers. It is also available from Central Food Technological Research Institute, Mysore. Soya sauce can be prepared by two methods. One is the ancient Chinese method of proteolytic enzyme digestion and the other is by acid hydrolysis of protein bearing cereal grains. The proposed unit will follow the acid hydrolysis method. In this process, defatted soya flower is hydrolysed with 5 times its weight of food-grade 0.1N hydrochloric acid. The product is filtered through stainless steel sieves. The filtrate is neutralised with food grade sodium bicarbonate. Vinegar is added @ 5% by volume in the final sauce. The product is bottled in 200 mL capacity bottles.

**5.4 Quality Control and Standards:** As per FPO and PFA standards

## 6.0 POLLUTION CONTROL

There is no major pollution problem associated with this industry except for disposal of waste which should be managed appropriately. The entrepreneurs are advised to take "No Objection Certificate" from the State Pollution Control Board.

## 7.0 ENERGY CONSERVATION

The fuel for the steam generation in the boiler is coal or LDO depending upon the type of boiler. Proper care should be taken while utilising the fuel for the steam production. There should be no leakage of steam in the pipe lines and adequate insulation should be provided.

## 8.0 PRODUCTION CAPACITY

Quantity	:	30,000 L/annum or 150000 bottles of 200mL capacity
Value	:	Rs. 30 lakh
Installed capacity	:	42 kL sauce
Working days	:	300/annum
Optimum capacity utilization	:	70%
Manpower	:	15

### Utilities

Motive Power	:	15 kWH
Water	:	2 kL/day



## 9.0 FINANCIAL ASPECTS

### 9.1 Fixed Capital

#### 9.1.1 Land & Building Amount (Rs. lakh)

Land 300 sq.m.	:	0.70
Built up Area 100 sq.m.	:	3.00
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Total cost of Land and Building	:	3.70

#### 9.1.2 Machinery and Equipment

Description		Amount (Rs. lakh)
Stainless steel tanks with vertical stirring system, stainless steel filter sieves, stainless steel collection and neutralisation tanks, laboratory equipment, weighing scales, glass bottles with caps, cartons, boxes.	:	4.50
Erection & electrification @10% cost of machinery & equipment	:	0.45
Office furniture & fixtures	:	0.55
Total :		-----
		5.50

#### 9.1.3 Pre-operative Expenses

Consultancy fee, project report, deposits with electricity department etc.	:	0.80
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#### 9.1.4 Total Fixed Capital : 10.00 (9.1.1+9.1.2+9.1.3)

### 9.2 Recurring expenses per annum

#### 9.2.1 Personnel

Designation	No.	Salary Per month	Amount (Rs.lakh)
Factory Manager	1	8000	0.96
Admn./Supervisory Staff	3	5000	1.80
Skilled workers	3	2000	0.72
Unskilled workers	8	1500	1.44
			4.92
Perquisites @15%			0.78
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Total :	16		5.70

### 9.2.2 Raw Material including packaging materials

Particulars	Qty.(MT)	Rate	Amount (Rs. lakh)
Defatted soya flour	6.0	10	0.60
Hydrochloric acid	0.6	40	0.24
Vinegar	2.4	20	0.48
Sodium bicarbonate	15.0	15	2.28
Glass bottles with caps	1.5 lakh	6	9.00
Cartons, boxes	7500	12	0.90
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Total:			13.50

### 9.2.3 Utilities

	Amount (Rs. lakh)
Power	1.27
Water	0.01
Fuel	0.72
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Total:	2.00

### 9.2.4 Other Contingent Expenses

	Amount (Rs. lakh)
Repairs and maintenance @10%	0.85
Consumables & spares & others	0.46
Insurance	0.09
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Total:	1.40

### 9.2.5 Total Recurring Expenditure

(9.2.1+9.2.2+9.2.3+9.2.4)	Amount (Rs. lakh)
	22.60

### 9.3 Working Capital

Recurring Expenditure for 3 months	5.65
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### 9.4 Total Capital Investment

	Amount (Rs. lakh)
Fixed capital (Refer 9.1.4)	10.00
Working capital (Refer 9.3)	05.65
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Total:	15.65

## 10.0 FINANCIAL ANALYSIS

### 10.1 Cost of Production (per annum)

	Amount (Rs. lakh)
Recurring expenses (Refer 9.2.5)	22.60
Depreciation on building @5%	00.60
Depreciation on machinery @10%	00.50
Depreciation on furniture @20%	00.12
Interest on Capital Investment @12%	01.88
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Total:	25.70

## 10.2 Sale Proceeds (Turnover) per year

Item	Qty. (MT)	Rate	Amount (Rs.lakh)
Soya sauce packed in glass jars of 200 mL cap.	150000	20/jar	30.00

## 10.3 Net Profit per year

= Sales - Cost of production  
= 30.00 - 25.70  
= Rs. 4.30 lakh

## 10.4 Net Profit Ratio

=  $\frac{\text{Net profit} \times 100}{\text{Sales}}$   
=  $\frac{4.30 \times 100}{30.00}$   
= 14.3%

## 10.5 Rate of Return on Investment

=  $\frac{\text{Net profit} \times 100}{\text{Capital Investment}}$   
=  $\frac{4.30 \times 100}{15.65}$   
= 27.5%

## 10.6 Annual Fixed Cost

	Amount (Rs. Lakh)
All depreciation	1.22
Interest	1.88
40% of salary, wages, utility, contingency	3.64
Insurance	0.09
Total:	6.83

## 10.7 Break even Point

=  $\frac{\text{Annual Fixed Cost} \times 100}{\text{Annual Fixed Cost} + \text{Profit}}$   
=  $\frac{6.83 \times 100}{6.83 + 10.60}$   
=  $\frac{683}{11.13}$   
= 39.19%

## 11.0 ADDRESSES OF MACHINERY AND EQUIPMENT SUPPLIERS

Batliboi Engineers (Bangalore) Pvt. Ltd.  
99/2&3, N.R.Road  
Bangalore – 560 002

B.Sen Barry & Co.  
65/11, New Rohtak Road  
New Delhi – 110 005

Gardners Corporation  
158 Golf Links,  
New Delhi – 110 003

Narene Tulaman Manufacturers Pvt. Ltd.  
Balanagar, Hyderabad – 500 037

Raylon Metal Works  
Kondivitta Lane  
J.B.Nagar, Andheri, Mumbai – 400 059

Bajaj Maschinen Pvt. Ltd.  
7/20-7/27 Jai Laxmi Industrial Estate, Site IV  
Sahibabad Industrial Area - 201010  
Dist.Ghaziabad, UP

SSP (Pvt) Ltd.  
13<sup>th</sup> Milestone, Mathura Road  
Faridabad – 121003, Haryana

Narangs Corporation  
P-25/90 Connaught Place  
New Delhi – 110001

Nirmal Services  
2254/23 Rajguru Road, Chuna Mandi  
Paharganj, New Delhi – 110055

Ganson Ltd.  
645 Anna Salai  
Chennai – 600006

Grovers Pvt. Ltd.  
223, Kaliandas Udyog Bhavan  
Prabhadevi  
Mumbai – 400 025

Macneill and Magor Ltd.  
4, Mangoe Lane  
Kolkata – 700 001