

# **SOYA MILK**

## **1. INTRODUCTION**

Soybean is very rich in protein and soluble fiber. Soymilk produced from beans is rich in protein equal to cow milk. It has many health advantages. The Isoflavones in soymilk help in fighting heart disease, cancer, menopause, and arthritis. It is a low fat high protein product now recommended by Doctors. It is formulated with different flavors to suppress beany odor. The normal flavors used are vanilla, chocolate, cardamom and sometimes ginger. This depends on local taste. In some places mango and pineapple are also popular. It is packed in 200 ml glass bottle.

## **2. PRODUCTS AND ITS APPLICATION**

Soymilk and tofu are not so popular in India. However, due to health benefits of these products gradually awareness is created and medical fraternity is recommended to consume for certain disease to the patients. Flavored Soymilk with sugar is marketed as beverage in some parts of the country. The market needs to be developed in the local area by creating awareness and setting distribution channel. Soymilk is also used to make tofu which in turn used as replacement of dairy paneer.

## **3. DESIRED QUALIFICATION FOR PROMOTER**

Marketing and creating awareness in local area are key elements for success in this business. Therefore, promoter with marketing background and contacts with local food distributors, hospitals, parlors & institutions is important to sell this product.

#### **4. INDUSTRY OUTLOOK/ TREND**

The size of Indian food processing industry is estimated to be at around rupees 12 lakh crores. It contributes 9% of country GDP and growing at about 10% per annum. With encouragement to setup food processing parks and incentives from Government, Food processing sector is growing rapidly. The newer products in the market are being introduced with advanced technology, packaging and enhanced shelf-life.

#### **5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY**

Market for soymilk is growing in urban areas. Awareness needs to be created at a specific location by organizing seminars and talk in different forms. Potential market for soymilk is mainly in urban areas where people health conscious and try new products. At present, there are units in main cities like Delhi, Mumbai, Calcutta, Bangalore, Ahmedabad, Jaipur, etc. However, the growth rate is good and there is scope for new entrant. The product is packed in glass bottle which in turn sterilized to increase the shelf life. For small volumes, glass bottles will be economical and appropriate compared to tetra pack and other packaging materials.

Tofu is now well accepted in Indian market to replace dairy milk paneer. It is widely used by hotels and restaurants in place of paneer. For salad and starter roasted tofu is served due to health benefit to replace traditional paneer. In household kitchen tofu is used for making vegetables.

#### **6. RAW MATERIAL REQUIREMENTS**

The main raw material required is soybean. It is an agricultural product widely grown in India. Soymilk production activity will require very small quantity of soybean. India is a leading producer of soybean. However, one needs specific variety of soybean suitable for milk production. Such varieties are available in the market.

In addition to soybean, synthetic or natural flavors, sugar and sometime food color are required in the formulation. For packaging, glass bottles and crown cork are used to preserve the milk for six months. All raw materials and packing products are available in local market.

## 7. MANUFACTURING PROCESS

Soybeans are first cleaned to remove dirt, stone and foreign material. It is then soaked in water for about 4 hours. After this water is removed and soaked beans are fed to grinding machine where hot water is added during grinding. This process is done at about 80 degree centigrade and in absence of air so that formation of beany odor is prevented in the final product. Soymilk is collected from outlet and filtered to remove solid material calledokra.

One kg of soybean produces 6.5 litersof milkcontaining about 3% protein and 2% fat. It is then formulated with flavor, sugar and other additives. Glass bottles of 200 ml are filled with the formulated milk; crown cork is fitted and sterilized at 118 degree centigrade for 15 minutes. This process gives the self-life of 6 months.

Tofu is made from soymilk by adding potash salt and watering out to get solid end product. It is vacuum pack to extend shelf life.

## 8. MANPOWER REQUIREMENT

For the production of Soymilk and Tofu following category of manpower will be required for day to day production. Annual wages are also worked out.

### Manpower Requirement

Sr. No	Particulars	No. of Employees	Salary Per Month
1	Plant Operator	1	10,000
2	Skilled Worker	2	6,000
3	Unskilled Workers	2	4,000
4	Total	5	20000

## 9. IMPLEMENTATION SCHEDULE

The project can be commissioned within four months of tying up of finance. All equipment are available in India. There are no complicated machinery and requirement of space is also small. Therefore, implementation time required is very short.

## 10. COST OF PROJECT

The cost of project as per market rate of factory building, machinery, miscellaneous items, working capital margin and preliminary and pre-operative expenses works out as under:

### Cost of Project

Sr. No.	Particulars	₹ in Lacs
1	Land	12.00
2	Building	12.00
3	Plant & Machinery	4.65
4	Furniture, Electrical Installations	0.75
5	Other Assets including Preliminary / Pre-operative expenses	0.25
6	Margin for Working Capital	1.72
	<b>Total</b>	<b>31.37</b>

## 11. MEANS OF FINANCE

Based on the present norms of the bank, means of finance is worked out as under.

### Means of Finance

Sr. No.	Particulars	₹ in Lacs
1	Promoter's contribution	9.41
2	Bank Finance	21.96
	<b>Total</b>	<b>31.37</b>

## 12. WORKING CAPITAL CALCULATION

Working capital required for storage of raw materials and finished goods, monthly overheads, goods in process, receivables and trade credit is worked out based on the present norms of the bank as under.

### Working Capital Calculations

Sr. No.	Particulars	Gross Amt.	Margin %	Margin Amt.	Bank Finance
1	Inventories	0.35	30%	0.11	0.25
2	Receivables	3.54	30%	1.06	2.48
3	Overheads	0.55	100%	0.55	-
4	Creditors	-	0%	-	-
	<b>Total</b>	4.44		1.72	2.73

## 13. LIST OF MACHINERY AND THEIR MANUFACTURERS

It is proposed to have installed capacity 1, 20,000 liters of Soymilk per year based on 8 hours working per day and 300 days in a year. The capacity utilization is considered at 80% which will result in the production of 96,000 liters of Soymilk per year. This capacity is based on the standard equipment available for soymilk production.

For the above capacity machinery like Soymilk Production Kettle, Deodorizer, Filter Unit, Soaking pan, Milk Storage Tank, Milk Formulation Tank, Liquid Filling Machine, Crown Cork Fixing Machine, Bottle Sterilization Unit, Vacuum Packing Machine, Tofu Making Machine, Water Storage Tank, LPG Gas Unit, SS Pipe fittings and Laboratory Apparatus will be required in the soymilk production facility.

- SSP Pvt Limited  
13, Milestone,  
Mathura Road,  
Next to Crown Interiorz Mall,  
Ashoka Enclave 3,  
Sector 35,  
Faridabad,  
Haryana
- Haryana agro industry  
SCO 6-7,  
Sai Market,  
Opp. PNB Bank,  
Radour Road,  
camp,  
Yamunanagar - 135001,  
Haryana

#### 14. PROFITABILITY CALCULATIONS

The profitability is worked out as under after taking into account all variable and fixed expenses as under.

##### Profitability Calculations

Sr. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
1	Sales	29.771	34.024	38.277	38.277	38.277
2	Raw Materials & Other direct inputs	15.876	18.144	20.412	20.412	20.412
3	Gross Margin	13.888	15.872	17.856	17.856	17.856
4	Overheads except interest	4.62	5.28	5.94	5.94	5.94
5	Interest	1.848	2.112	2.376	2.376	2.376
6	Depreciation	0.707	0.808	0.909	0.909	0.909
7	<b>Net Profit before tax</b>	6.713	7.672	8.631	8.631	8.631

The proposed unit will have the production capacity of 1,80,000 liters and for tofu it is 13,500 kg per year. The unit cost of power is taken at Rs. 8. The depreciation on building is taken at the rate of 5% whereas for plant and machinery it is at 10%.

The sales price of soymilk bottle is taken at the rate of Rs. 15 per bottle of 200ml each whereas for tofu it is taken at the rate of Rs. 115 per kg.

## 15. BREAKEVEN ANALYSIS

The Break-Even point as percentage of targeted sales works out as under.

### Cash Break-Even (as % of Targeted sales)

Sr. No.	Particulars	UOM	Value
1	Sales Realization	₹. In Lacs	42.53
2	Variable costs	₹. In Lacs	22.68
3	Fixed costs incl. interest	₹. In Lacs	9.24
4	$BEP = FC/SR-VC \times 100 =$	% of sales	46.59%

## 16. STATUTORY/ GOVERNMENT APPROVALS

There is statutory requirement of FSSAI license for setting up of food processing industry. Moreover, MSME& GST registration, IEC Code for Export of end products and local authority clearance may be required for Shops and Establishment, for Fire and Safety requirement and registration for ESI, PF and Labour laws may be required if applicable. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

## 17.BACKWARD AND FORWARD INTEGRATION

As forward integration to soy milk manufacturing, promotor may think of going for the production of soy milk products such as ice-cream, sweets, chocolate etc.

## **18. TRAINING CENTERS/COURSES**

For food processing industry training and short term courses are available at Indian Institute of Food Processing Technology, Thanjavur, Tamil Nadu and Central Food Technological Institute, Mysore, Karnataka. For soymilk and tofu production, promoter may like to have training at Soybean Research Institute, Indore, Madhya Pradesh.

Udyamimitraportal ( link : [www.udyamimitra.in](http://www.udyamimitra.in) ) can also be accessed for handholding services viz. application filling / project report preparation, EDP, financial Training, Skill Development, mentoring etc.

Entrepreneurship development programs help to run businesses successfully and are available from Institutes like Entrepreneurship Development Institute of India (EDII) and its affiliates all over India.

### **Disclaimer:**

Only few machine manufacturers are mentioned in the profile, although many machine manufacturers are available in the market. The addresses given for machinery manufacturers have been taken from reliable sources, to the best of knowledge and contacts. However, no responsibility is admitted, in case any inadvertent error or incorrectness is noticed therein. Further the same have been given by way of information only and do not carry any recommendation.