



SOYA BASED FOOD PRODUCTS

PRODUCT CODE : 10750 (NIC Code)

QUALITY STANDARDS : As per FSSAI

PRODUCTION CAPACITY :

<u>Item</u>	<u>Qty. (Kg.)</u>	<u>Value (Rs.)</u>
Flavoured Soya Milk	60,000	15,00,000
Tofu (Soya Paneer)	6,000	7,50,000
Soya Curd	12,000	2,40,000

MONTH AND YEAR OF PREPARATION : February, 2021

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1. INTRODUCTION

Soyabean is the cheapest and best health food. Soya milk and related food products are becoming popular throughout the world due to their good nutritional values and medicinal qualities. Soya Milk is high in protein, low in fat and carbohydrate and contains no cholesterol. It is an excellent food for babies, children, elderly people and pregnant and lactating women since it contains vegetable protein which is very nutritious and easy to digest. Besides possessing high nutritional values, Soya milk is best for people suffering from diabetes and lactose-intolerance. It can be said that Soyabean is a valuable gift of Mother Nature to human beings.

2. MARKET POTENTIAL

With the increasing health consciousness among the general people, the use of Soyabean is getting acceptance in the form of textured vegetable protein (popularly known as soya bodi or Soya nuggets), soya fortified wheat flour, Soya milk, Tofu and Soya curd etc. Being mainly the country of vegetarians, India has indeed a very great potential for Soya Products. Experts predict that the Soya food Industry will grow 20% annually over the next few years. Soya milk sales alone rose by 50% in 2001 and is expected to grow by at least another 500% by the year 2021.

3. BASIS AND PRESUMPTIONS

- I. It is presumed that the unit will run single shift per day and 300 days in a year.
- II. The rate of interest has been taken 12% on an average both for fixed Investment and Working Capital.
- III. It is presumed that 1 Kg. of Soyabean may yield 7.5 litres of Soya Milk. 1 litre Soya Milk can be converted into two litres of Flavoured Soya Milk or 1 Kg. of Soya Curd or 200 Gms. Of Soya Paneer (Tofu).
- IV. The rates of machinery and equipments and raw materials are those prevailing at the time of preparation of Project Profile. They are likely to vary from place to place and supplier to supplier and necessary changes are to be made as and when required.

4. IMPLEMENTATION SCHEDULE

The approximate time required for various activities is given below. However, it may vary from place to place depending upon the local circumstances and enthusiasm of the entrepreneur:

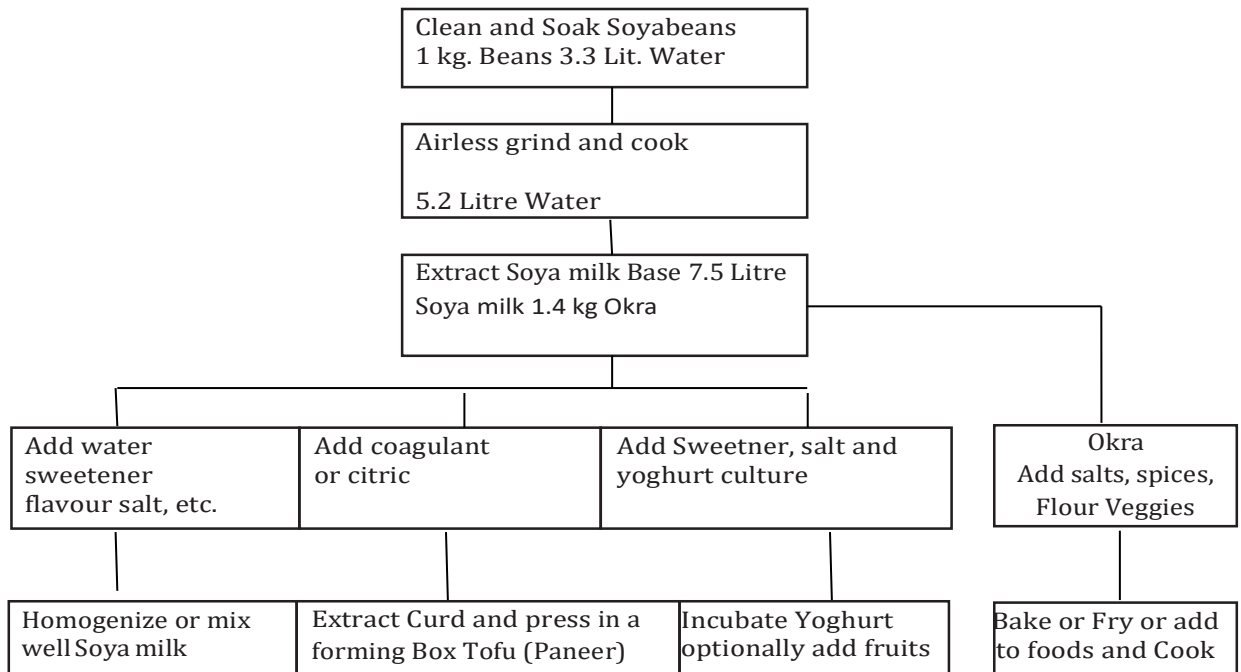
Sl.No	Activity	Period
1.	Selection of site, and preparation of Project Report	1 month
2.	Sanction of loan	2-5 months
3.	Selection of Machinery	1 month
4.	Commissioning and trial run etc.	4-5 months

Due to overlapping of some activities, normally 4 to 5 months are required to implement the Project.

5. TECHNICAL ASPECTS

5.1. Process of Manufacture

The initial stage involves the cleaning, sorting of the Soyabean followed by dehulling and soaking at room temperature in 0.5-1% Sodium Bi-carbonate Solution in 1:5 ratio (Soya : Solution). After soaking, the weight of original soyabean becomes double, the dplit (dehulled beans) are ground in hot water in 1:7 ratio and filtered to get milk. The residue is known as Okra. The milk is then cooled to 70°C and 0.1 molar Calcium Sulphate/Magnesium Chloride or 2% Citric Acid solution is added with slow stirring. These chemicals precipitate/coagulate the proteins of Soya Milk. The muslin cloth containing Soya Protein is pressed in Paneer making boxes for 50 to 45 mts. and then cut into pieces of approx. desired size and put in cold water for another 50 minutes. Vacuum packed Tofu should always be kept in the fridge and, after unpacking, immersed in water. The various products which can be manufactured are mentioned in the Chart below:



5.2. Quality Control and Standards

Product should conform to the FSSAI standards.

Production Capacity (per annum)

Flavoured Soya Milk	:	60,000 Kg.
Soya Paneer	:	6,000 Kg.
Soya Curd	:	12,000 Kg.
Motive Power	:	20 H.P

5.3. Pollution Control

Though no industrial effluent is released in the manufacturing process. Even then a NOC from State Pollution Control Board is to be obtained before commercial production.

6. FINANCIAL ASPECTS

6.1. Fixed Capital

6.1.1. Land & Building

Built up area including mfg. places, finished store and office etc	100 sq.mtr. (rented) @Rs.50 per sq.mtr.	Rs.5000 per moth
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6.1.2. Machinery and Equipment

Description	Rate (Rs.)	Nos.	Amount (in Rs.)
Soya Machine for soya milk and paneer (Tofu) consisting of grinder cooker, Manual Boiler Filter Press, Tofu Box & Tofu Press	2,00,000	1 No.	2,00,000
Deodorizer	65,000	1 No.	65,000
Vacuum Packaging Machine	1,25,000	1 No.	1,25,000
freezer	20,000	2 Nos.	40,000
Pouching Sealing Machine	15,000	1 No.	15,000
Tables with AL Top	5,166.66	3 Nos.	15,500
Plastic Trays/Tubes and other Misc. Items		LS	15,000

Total Rs. 4,75,500

Packaging 2% + GST 18%	Rs. 95,100
Electrification and installation @ 10%	Rs. 47,550
Office Furniture and Equipments	Rs. 1,00,000
Pre-operative Expenses	Rs. 25,000
Total Fixed Cost	Rs.7,43,150
Say	7.43 lakhs

6.2. Working Capital (per month)

6.2.1. Personnel

Description	Nos.	Salary/month Rs.	Total Rs.
Manager	1 No.	15,000	15,000
Skilled workers	2 Nos.	7,500	15,000
Sales Supervisor	1 No.	13,000	13,000
Peon	1 No.	6,000	6,000
Total			Rs. 49,000

Perquisites @15% Rs. 7,350

Total **Rs.56,350**

6.2.2. Raw Material including Packaging

Description	Quantity	Rate (Rs./Unit)	Amount (in Rs.)
Soyabean	800 Kg.	Rs.40	32,000
Chemicals and Other Misc. Expenses	LS		16,000
Packaging Material For Milk & Paneer	LS		6,000
Total			Rs. 54,000

6.2.3. Utilities

Power : Rs. 3,000

Fuel/LPG : Rs. 8,000

Water : Rs. 2,500

Total : **Rs. 13,500**

6.2.4. Other Contingent Expenses

Description	Amount (in RS.)	
Rent	5,000	
Postage and Stationery	750	
Consumable Store	1,000	
Repairs and Maintenance	3,000	
Advertisement and publicity	1,500	
Sales Expenses	3,000	
Telephone	1,000	
Miscellaneous Expenses	2,000	
Total		Rs. 17,250

6.2.5. Total Recurring Expenses (per month)

Description	Amount (in Rs.)
Raw materials	54,000
Personnel	56,350
Utilities	13,500
Other expenses	17,250
Total	Rs. 1,41,100
Say	1.41 lakhs

6.2.6. Working Capital (for 3 months) : Rs.4.23 lakhs

6.3. Total Capital Investment

Fixed Capital : Rs. 7.43

Working Capital (for 3 months) : Rs. 4.23

Total : Rs. 11.66 lakhs

7. FINANCIAL ANALYSIS

7.1. Cost of Production (per annum)

Sl.No.	Description	Amount (Lakhs)
1.	Total recurring cost	16.92
2.	Depreciation on Machinery @ 10%	0.48
3.	Depreciation on Furniture @ 20%	0.20
4.	Interest on total investment @ 12%	1.40
	Total	Rs. 19.00

7.2. Turnover (per annum)

Sl.No	Item	Qty. (Kg.)	Rate (Rs./Kg.)	Amount (Lakhs.)
1.	Flavoured Soya milk	60,000	25	15.00
2.	Tofu (Paneer)	6,000	125	7.50
3.	Soya Curd	12,000	20	2.40
Total				Rs. 24.90

7.3. Net Profit (per annum)

$$\begin{aligned} &= \text{Turnover} - \text{Cost of Production} \\ &= \text{Rs.24.90} - \text{Rs.19.00} = \text{Rs. 5.90 lakhs} \end{aligned}$$

7.4. Net Profit Ratio

$$\begin{aligned} &= \frac{\text{Net Profit per Annum}}{\text{Turnover per Annum}} \\ &= \frac{5.90 \times 100}{24.90} \\ &= 23.69\% \end{aligned}$$

7.5. Rate of Return

$$\begin{aligned} &= \frac{\text{Net Profit per Annum} \times 100}{\text{Total Capital Investment}} \\ &= \frac{5.90 \times 100}{11.66} \\ &= 50.60\% \end{aligned}$$

7.6. Break-even Point

Fixed Cost per Annum

Sl.No.	Description	Amount (Lakhs)
1	Depreciation on Machinery @10 %	0.48
2	Depreciation on Furniture @20%	0.20
3	Rent	0.60
4	40% of other expenses	0.83
5	40% of salary and wages	2.70
6	Interest on total Investment @ 12% per annum	1.40
Total		Rs. 6.21

$$\begin{aligned} \text{B.E.P} &= \frac{6.21 \times 100}{6.21 + 5.80} \\ &= 51.71 \% \end{aligned}$$

Addresses of Machinery Suppliers

1. M/s. Haryana Agro Industries
9 Jonan, Yamuna Nagar
Haryana
2. M/s. Kabir Foundry Works
9, Industrial Area,
Ludhiana
Punjab
3. M/s. Krishna Industries
9 NT.5, Faridabad
Haryana

Raw Material Suppliers Locally Available