

PROJECT PROFILE

ON

**SOYA TOFU
(WOMEN ONLY)**

Month & Year
Aug 2010

**PREPARED BY
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Supported by

SOYA TOFU (WOMEN ONLY)

1. Introduction

Soya Tofu is commonly called as soya paneer. It is prepared from soya beans after extracting and precipitating the protein. Being a rich source of protein, it is commonly consumed in many households. Moreover, restaurants preparing western and Chinese dishes use this product in large quantities.

2. Market

The product finds placement in all “A” class outlets, self service, departmental stores and supermarkets. In addition hotels and restaurants use the product. The product has to be stored refrigerated.

3. Packaging

Soya tofu is packed in polyethylene pouches in capacities of 100 grams and 250 grams.

4. Production capacity

- The plant operates to one shift of eight hours duration.
- The time period required for achieving full capacity utilization is six months.
- The total quantity of soya bean processed per day would be 40 kilograms yielding 60 kilograms of the final product.
- The total quantity of soya bean processed per annum would be 12 metric tonnes yielding 18 metric tonnes of the final product.

5. Sales revenue

- At Rupees 140.00 per kilogram, the total sales revenue per annum would be Rupees 25.20 lakhs.

6. Production process outline.

The soybean seeds are first cleaned to remove chaff and stones. The seeds are dehulled and cracked manually in the stone grinder. The hulls are separated and the seeds subject to cooking. Around 5 kilograms of the seed are

placed in the steam jacketed cooker and 25 litres of water added. They are then double cooked with the aid of steam for about half an hour. The slurry is filtered to separate the milk from the seeds. The milk is then transferred to a vessel and a concentrated solution of citric acid is added drop by drop till coagulation of protein takes place and the precipitation is complete. The mixture consisting of the precipitated protein and the supernatant filtrate is filtered through a muslin cloth. The cloth is placed in the filter press and pressed to remove excess water. The cake is cut to desired weight in the form of slabs and packed in polypropylene pouches and stored in the deep freezer.

7. Quality specifications

- The product should be free from the beany soybean odour.
- It should be processed hygienically and should be free from rancidity and fermented odour.
- The product should be free from coliforms, salmonella and streptococci bacteria.

8. Pollution control measures

The residue after extraction of soya milk is called “Okkara”. Being highly susceptible to degradation in the presence of moisture, the residue should either be incinerated or put into pits and covered with mud.

9. Energy conservation measures

Common measures will do.

10. Land and construction cost for the proposed unit

The proposed unit is to be taken up on lease. The total leased area is 1000 square feet vide details given below:

SI	Description	Sq. feet
1	Processing area – pre preparation	500
2	Raw material store	100
3	Finished goods store	100
4	Office	100
5	Toilets	100
6	Miscellaneous space	100

7	Total	1000
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Lease rent – Rs. 8.00 per square foot

Total rent per month – Rs. 8000

Lease advance – Rs. 50000

11. Costing of machinery and equipment

SI	Description	Rs. lakhs
1	Manual grinding stone for dehulling soybeans	0.050
2	Baby boiler and accessories	1.800
3	Jacketed cooking vessel with accessories	0.500
4	Filter press manual	0.100
5	Deep freezer	0.320
6	Weighing scales electronic – 2 nos	0.160
7	Sealing machine	0.075
8	Stainless steel working tools	0.100
9	Stainless steel vessels	0.400
10	Total	3.505
11	Laboratory equipment	0.200
12	Grand total machinery and equipment	3.705

12. Project cost

SI	Description	Rs. lakhs
1	Land	On lease
2	Civil works	On lease
3	Plant machinery	3.505
4	Laboratory equipment	0.200
5	Transport vehicle (Tata Ace)	3.760
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.100
9	Cost of electrification	0.350
10	Erection and commissioning	0.350
11	Cost of machinery spares	0.100
12	Cost of office equipment	1.000
13	Deposits if any	0.200
14	Company formation expenses	0.100
15	Gestation period expenses	0.250
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	5.000
18	Contingencies	0.250
19	Working capital margin money	0.665

20	Total	15.930
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13. Working capital requirements per month

a. Salaries and wages

SI	Description	No of persons	Total salary / month (Rs. lakhs)
1	Production Manager (female)	1	0.150
2	Production supervisor cum chemist (female)	1	0.100
3	Unskilled workers	1	0.030
4	Total	3	0.280

b. Raw material requirement per month

SI	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Soy bean	1000	32.00	0.320
2	Total raw material	1000		0.320

c. Packaging material requirement per month

SI	Description	Qty	Rate / unit (Rs)	Value (Rs. lakhs)
1	Polypropylene pouches	2000	0.50	0.010
2	Thermocole boxes and straps	100	50.00	0.050
3	Total			0.060

Total raw + packaging material = Rs. 0.340 lakhs

d. Utilities per month

SI	Description	Rs. lakhs
1	Power 2000 kwh @ Rs. 5.50 per unit	0.110
2	Water	0.050
3	Boiler fuel	0.000
4	Total utilities	0.160

e. Contingent expenses per month

SI	Description	Rs. lakhs
1	Rent for processing shed	0.080
2	Postage and stationery	0.010
3	Telephones, fax etc.	0.050
4	Consumable stores	0.020
5	Repairs and maintenance	0.050
6	Local transports, loading and unloading	0.100
7	Advertisement and publicity @15% of sales	0.337
8	Insurance	0.010
9	Sales expenses @ 2% of sales	0.045
10	Miscellaneous expenses @ 2% of sales	0.045
11	Trade incentives @ 2% of sales	0.045
12	Taxes @ 4%	0.090
13	Total contingent expenses	0.882

f. Total working capital requirement per month

SI	Description	Rs. lakhs
1	Salaries and wages	0.280
2	Raw material and packaging material	0.340
3	Utilities	0.160
4	Contingent expenses	0.882
5	Total	1.662

14. Means of finance

SI	Description	Rs. lakhs
1	Total Project Cost	15.930
2	Equity	5.257
3	Debt	10.673
4	Working capital margin money	0.665

15. Financial analysis

SI	Description	Rs. lakhs
1	Total recurring cost per year	19.944
2	Depreciation on land and building	0.000
3	Depreciation on machinery and vehicle	0.750
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.020
6	Depreciation on office equipment	0.100
7	Interest on long term loan @ 13.5%	1.441
8	Interest on short term borrowings@ 13.5%	0.135
9	Total cost of production	22.390

16. Turnover per year

SI	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
1	Soya Tofu	18,000 kgs	140	25.20

17. Viability analysis

SI	Description	Value
1	Net profit before income tax (Rs. lakhs)	2.810
2	Net profit ratio	11.1%
3	Internal rate of return	22.8%
4	Break even percentage	44%
5	Debt service coverage ratio	1.928

List of machinery suppliers for soy tofu

Machinery has to be fabricated locally as the capacities are very small.