

# **PROJECT PROFILE ON CONFECTIONARY GRADE SESAME SEED**

**PRODUCT CODE** : NA

**PRODUCTION CAPACITY** : 420 MT  
Confectionary Grade Sesame  
Seeds,  
Value 3, 31, 80,000

**MONTH & YEAR OF  
PREPARATION** : JANUARY-2010

**PREPARED BY** : Micro Small &  
Medium Enterprises-  
Development Institute, 10-  
Industrial Estate,  
Pologround, INDORE.  
(M.P.)

**1. PRODUCT & ITS APPLICATIONS:**

The major portion of sesame seed produced in the country is used for extraction of oil. Sesame seed is also used in a variety of sweets, confectionery and bakery products. For utilization in the above food products, sesame has to be de hulled to remove the outer fibrous husk cover. This is usually done by soaking the seeds overnight in water, followed by drying and rubbing against a rough surface. The separated hulls are removed by winnowing. The method is laborious, time consuming and suitable for processing small quantities only. An improved wet de hulling process is now available which accomplishes easy removal of the husk. The de hulled seed can be expeller pressed for obtaining good quality oil. The cake is further solvent extracted to recover the residual oil and the protein rich cake is used for protein fortification of various food preparations.

**2. MARKET POTENTIAL:**

The de-hulled sesame has uniform white colour and is ready for use in cookery and confectionery. It is rich in protein (22%) and oil (60%). It has a large demand in cosmetic as well as export markets particularly for use in the confectionery industry.

**3. BASIS AND PRESUMPTION:**

- a) The unit would work for 300 days per annum on single shift basis.
- b) The unit can achieve its full capacity utilization during the 3<sup>rd</sup> year of operation
- c) The wages of skilled workers is taken as per prevailing rates in this type of industry.
- d) Interest rate of total capital investment is calculated @ 14% per annum.
- e) The entrepreneur is expected to raise 20-25% of the capital as margin money.
- f) The unit proposes to construct own building.
- g) Costs of machinery and equipment are based on average prices enquired from machinery manufacturers.

**4. 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. TECHNICAL ASPECTS:**

### 1. Raw Material:

The important sesame growing states are Gujarat, Maharashtra, Madhya Pradesh, Orissa, Rajasthan, West Bengal, Karnataka, Tamilnadu, Andhra Pradesh and Uttar Pradesh. As such sesame seed are easily available all over the country.

### 2. **MANUFACTURING PROCESS:**

- a) **Preliminary cleaning and grading:** Commercial quality sesame seed is cleaned to remove dust, fines, stones and other foreign matter using vibratory screening equipment, followed by de stoning.
  - b) **Contacting with hot lye:** The seeds are placed in a boiling solution of sodium hydroxide for a prescribed time. These are thoroughly washed by a stream of water.
  - c) **Removal of skin and pigments:** Washed seeds are brushed under a current of water to remove the hulls.
  - d) **Drying:** The dhulled-wet seeds are dried in a cross-flow or fluidized bed drier.
3. Quality Control and Standards: PFA Specifications.

### 6. **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. **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 utilizing the fuel for the steam production. There should be no leakage of steam in the pipelines and adequate insulation should be provided.

### 8. **PRODUCTION CAPACITY:**

#### **Typical Dimensions Of Cylindrical Vertical Tank With Open Top**

Quantity	420 MT/Annum
Value	: Rs.3, 31, 80,000/-
Installed Capacity	200 kg/hr.

Working days	:	300 days
Optimum capacity utilization	:	70%
Manpower	:	19
Motive Power	:	18 kW
Water	:	8 kL/day

## 9. **FINANCIAL ASPECTS:**

### 9.1 **Fixed Capital Land and Building**

<b><u>PARTICULARS</u></b>	<b><u>AMOUNT (Rs. Lakhs)</u></b>
Land 60 Sq. Meter	1,50,000/-
Built up area 150 Sq. Meter	11,00,000/-
Total Cost of Land & building	12,50,000/-

### 9.2 **MACHINERY & EQUIPMENTS**

<b><u>Description</u></b>	<b><u>Amount in lakhs</u></b>
1. Sesame seed pre-cleaning unit,	
2. De-stoner,	
3. wire mesh basket,	22,00,000/-
4. mixing tanks	
5. vibratory screen	
6. pulper & mechanical drier	
7. Erection & Electrification of machinery & equipment @ 10% cost.	2,20,000/-
8. Office furniture & fixtures	30,000/-
<b>TOTAL</b>	<b>24,50,000/-</b>

### 9.3 **TOTAL FIXED COST**

**37,00,000/-**

#### 9.3.1 **PERSONNEL(per month)**

<b>DESIGNATION</b>	<b>NO.</b>	<b>SALARY PER MONTH</b>	<b>AMOUNT IN LAKHS</b>
Factory Manager	1	15,000/-	15,000/-
Supervisory staff	2	9000/-	18,000/-
Office Assistant	2	8000/-	16,000/-
Marketing supervisor	2	8000/-	16,000/-
Unskilled workers (7 months)	8	4000/-	32,000/-
Skilled Workers (12 months)	4	5000/-	20,000/-
Perquisites @ 15@		11700/-	17,550/-
		<b>TOTAL</b>	<b>1,34,550/-</b>

#### 9.3.A. **RAW MATERIAL(per month)**

S.No	Items.	Quantity	Rate/t (Rs.)	Total
1	Raw sesame	40 MT	52,000/-	20,80,000/-
2.	Soda alkali	1.5 MT	18,000/-	27,000/-
3.	Hydrochloric Acid	400kg	21,000/-	84,00/-
4.	Jute Bags	700Nos.	15 each	10,500/-
5.	Misc.			10,000/-
			<b>TOTAL</b>	<b>21,35,900/-</b>

### **9.3.B. UTILITIES (per month)**

Power		14,500/-
Water		1000/-
	<b>TOTAL</b>	<b>15,500/-</b>

### **9.3.C. OTHERS CONTINGENT EXPENSES**

Repair & Maintenance		10,000/-
Stationary		5,000/-
Traveling /Transport Expenses		5,000/-
Insurance		5,000/-
Advertisement/ Publicity		5,000/-
	<b>TOTAL</b>	<b>30,000/-</b>

### **9.3.D. WORKING CAPITAL Amount (Rs.Lakh)**

Recurring expenses for one month	23,15,950/-
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### **9.4 TOTAL CAPITAL INVESTMENT AMOUNT (Rs.Lakh)**

Fixed capital	37,00,000/-
Working Capital (3 months)	69,47,850/-
<b>TOTAL:</b>	<b>1,06,47,850/-</b>

## **10. FINANCIAL ANALYSIS**

### **10.1 Cost of Production (per annum)Amount (Rs.lakh)**

Recurring expenses	2,77,91,400
Depreciation on building @ 5%	55,000/-
Depreciation on Machinery @10%	2,20,000/-
Depreciation on furniture @20%	6,000/-
Interest on Capital Investment @ 14%	14,90,699/-
<b>TOTAL</b>	<b>2,95,63,099</b>

2,95,63,000/-

Say:

**10.2 SALES PROCEEDS (Turnover) per year.**

ITEM	Qty.	Rate/t (Rs.)	Amount Lakhs	Rs.	In
Confectionary grade sesame seeds	420	79000/-		3,31,80,000/-	

**10.3 NET PROFIT (per annum)**

$$\begin{aligned} &= \text{Sales} - \text{Cost of Production} \\ &= 3,31,80,000 - 2,95,63,000 \\ &= 36,17,000/- \end{aligned}$$

**10.4 NET PROFIT RATIO:**

$$\begin{aligned} &= \frac{\text{Net profit} \times 100}{\text{Sales}} \\ &= \frac{36,17,000 \times 100}{3,31,80,000} \\ &= 10.90\% \end{aligned}$$

**10.5 RATE OF RETURN ON INVESTMENT**

$$\begin{aligned} &= \frac{\text{Net profit} \times 100}{\text{Capital Investment}} \\ &= \frac{36,17,000 \times 100}{1,06,47,850} \\ &= 33.97\% \end{aligned}$$

**10.6 ANNUAL FIXED COST AMOUNT (Rs.)**

All depreciation	2,81,000
Interest	14,90,699
40% of salary, wages, utility, contingency	7,56,000
Insurance	60,000
<b>TOTAL</b>	<b><u>25,87,699</u></b>

### 10.7 BREAK EVEN POINT:

$$= \frac{\text{Annual Fixed cost} \times 100}{\text{Annual Fixed cost} + \text{profit}}$$

$$\text{BEP} = \frac{25,87,699 \times 100}{62,04,699} = 41.70\%$$

**ADDRESSES OF PLANT & MACHINERY SUPPLIERS:**

1. M/s. Jyothi Industries, 31,pampa Mahakavi Road, Bangalore-560 004
2. M/s. Raylons Metal Works, Kondivita Lane, Andheri, Mumbai.
3. M/s. Shanti Engineering Works. Figure of 8 Road, Coonoor-643 101
4. M/s. SIDVIN, 78, 5<sup>th</sup> Main, Saraswathipuram Mysore-570 009

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