



CONFECTIONERY GRADE SESAME SEED

PRODUCT CODE	: 10614 (NIC Code)
PRODUCTION CAPACITY	: 300 MT (Per Annum)
ESTIMATED ANNUAL TURNOVER	: Rs. 3,60,00,000/-
PROJECT COST	: Rs. 79,40,000/- Fixed Capital – Rs. 38,92,000/- Working Capital – Rs. 40,48,000/-
MONTH AND YEAR OF PREPARATION	: February, 2021
PREPARED BY	: Shri Ambrose Royson <i>Assistant Director (Grade II)</i>

1. INTRODUCTION

Sesame seeds are an excellent resource of copper, manganese, magnesium, calcium, phosphorus, iron, zinc, as well as selenium. It is harvested twice a year and is available around the year. India produces a wide range of sesame varieties with different grades each peculiar to the region. The major portion of sesame seed produced 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. India accounts for over one-fourth of land area under sesame cultivation in the world. Among oilseeds, sesame occupies 2nd position after groundnut as far as exports of oilseeds are concerned. More than 40% of the sesame seeds produced in India is exported every year. India is the largest exporter of sesame seeds in the world, contributing nearly 25% to international trade.

2. MARKET POTENTIAL

The dehulled 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 domestic as well as export markets particularly for use in the confectionery industry.

3. BASIS AND PRESUMPTIONS

- i. It is presumed that the unit will run single shift of 8 hours 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. To achieve full production 1 to 2 months trial production required.
- iv. The salaries and wages, cost of raw material, utilities, rent of the shed etc. are based on prevailing rates in and around local region at the time of preparation and are subject to necessary changes from time to time based on local conditions.
- v. The project preparation cost and non-refundable deposits may be considered under the head of pre-operative expenses.

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:

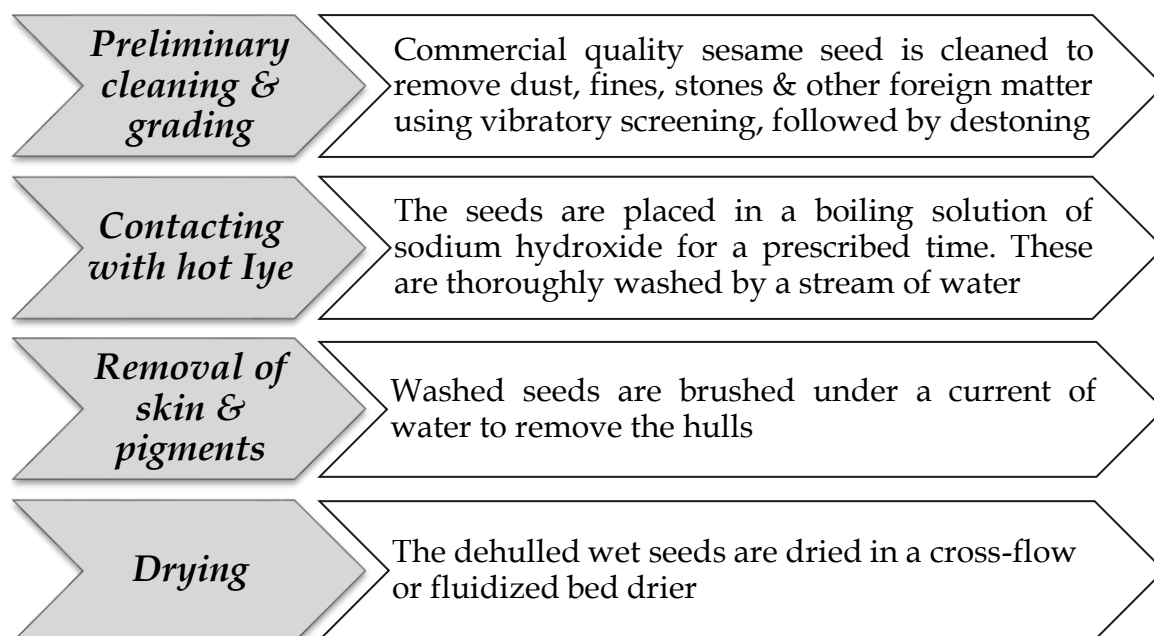
S. No.	Activity	Period (in Months)
1.	Scheme Preparation and Approval	0-1 st Month
2.	Sanction of loan	1 st -2 nd Month
3.	Clearance from State Pollution Control Board	2 nd -3 rd Month
4.	Placement of order for machinery and delivery	3 rd -4 th Month
5.	Installation of machines& Power connection	4 th -5 th Month
6.	Trial Run	6 th - 7 th Month
7.	Commercial Production	8 th Month onwards

Due to overlapping of some activities, normally 6-8 months are required to implement the project.

5. TECHNICAL ASPECTS

5.1. Process of Manufacturing

Sesame seeds have a thin shell or husk which needs to be removed and this process is known as dehulling. The weight of hull is about 17% of total weight of sesame seed. Dehulling of sesame seeds is the precondition of enlarging application of sesame in food field. Hulled sesame seeds are softer and tastier than unhulled seeds. The dehulling process consists of the following steps:



5.2. Quality Control and Standards

Provisions of the Food Safety & Standards Act and rules & regulations which as notified by the Government have to be complied with

5.3. Production Capacity

This scheme envisages manufacturing of 300 MT of confectionery grade sesame seed per annum.

5.4. 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.

5.5. Energy Conservation

Suitable measures should be used for the appropriate use of electricity.

5.6. Motive Power Requirement

18 KW

5.7. Machinery Utilisation

The capacity utilization is considered to be 80% of the total installed capacity.

6. FINANCIAL ASPECT

6.1. Fixed Capital

6.1.1. Land & Building:

Land (100 Sq. meters):	Rs. 2,00,000
Construction of work shed, office, stores etc. 150 Sq. meters	Rs. 12,00,000
Total	Rs.14,00,000

6.1.2. Machinery and Equipments

Description	Rate (Rs.)	Nos.	Total Price (Rs.)
Sesame seed pre - cleaning unit	5,00,000	1	5,00,000
De-stoner	3,00,000	1	3,00,000
Wire mesh basket	2,50,000	1	2,50,000
Mixing tanks	6,00,000	1	6,00,000
Vibratory screen	1,75,000	1	1,75,000
Pulper and mechanical drier	2,50,000	1	2,50,000
Misc. Tools		L.S	1,00,000
		Total	21,75,000

Electrification and installation @ 10%

Rs. 2,17,000

Office equipments and furnitures	Rs. 50,000
Pre-operative expenses	Rs. 50,000
Total Fixed Capital Requirement	Rs. 38,92,000/-

6.2. Working Capital (per annum)

6.2.1. Personnel

Description	Nos.	Salary/month(Rs.)	Total (Rs.)
Manager	1	25,000	3,00,000
Accountant/Cashier	1	20,000	2,40,000
Salesman	1	20,000	2,40,000
Skilled Workers	2	15,000	3,60,000
Semi-skilled Workers	4	12,500	6,00,000
Un-skilled Workers/Helpers	6	12,000	8,64,000
Peon cum Watchman	1	11,500	1,38,000
Total			27,42,000

6.2.2. Raw Material

Description	Quantity	Rate(Rs./unit)	Total (Rs.)
Raw Sesame Seed	3,60,000 kg	75	2,70,00,000
Soda Alkali	14,000 kg	35	4,90,000
Hydrochloric Acid	4,000 kg	13	52,000
PP woven sack	12,000 Nos.	8	96,000
Total			2,76,38,000

6.2.3. Utilities

Electricity: Rs. 3,60,000

Water: Rs. 36,000

Total: Rs. 3,96,000

6.2.4. Other Contingent Expenses - Rs. 3,00,000

6.2.5. Total Recurring Expenditure per annum - Rs. 3,10,76,000

6.2.6. Working Capital requirement:

Working Capital		Amount (Rs.)
Raw Material	2 Weeks	11,05,520
In Process	1 Week	5,66,680
Finished Goods	2 Weeks	11,33,360
Receivables	2 Weeks	12,43,040
Total		40,48,599
Say		Rs. 40,48,000/-

6.3.Total Capital Investment

Fixed Capital	Rs. 38,92,000
Working Capital	Rs. 40,48,000
Total	Rs. 79,40,000/-

7. FINANCIAL ANALYSIS

7.1. Cost of Production (per annum)

S.No.	Description	Amount (Rs.)
1	Total Recurring Cost per year	3,10,76,000
2	Total Depreciation (Machinery & Equipment @ 15%, Building, furniture & office equipments @ 20%)	5,76,250
3	Interest on Total Capital Investment @ 12%	9,52,800
Total		3,26,05,050

7.2.Turnover (per annum)

S. No.	Item	Qty. (kg)	Rate (Rs./kg)	Value (Rs.)
1	Confectionery Grade Sesame Seed	3,00,000	120	3,60,00,000
Total				3,60,00,000

7.3.Net Profit (per annum)

$$\begin{aligned} &= \text{Turnover} - \text{Cost of Production} \\ &= \text{Rs. } 3,60,00,000 - 3,26,05,050 = \text{Rs. } 33,94,950/- \end{aligned}$$

7.4.Net Profit Ratio

$$\begin{aligned} &= \frac{\text{Net profit per year}}{\text{Turnover per year}} \times 100 \\ &= \frac{33,94,950}{3,60,00,000} \times 100 \\ &= 9.4 \% \end{aligned}$$

7.5. Rate of Return

$$\begin{aligned} &= \frac{\text{Net profit per year}}{\text{Total Capital Investment}} \times 100 \\ &= \frac{33,94,950}{79,40,000} \times 100 \\ &= 42.8 \% \end{aligned}$$

7.6. Break-even Point

S.No.	Description	Amount (Rs.)
1	Fixed Cost	42,71,050
2	Variable Cost	2,83,34,000
3	Contribution (Turnover - Variable Cost)	76,66,000

B.E.P

$$\begin{aligned} &= \frac{\text{Fixed Cost}}{\text{Contribution}} \times 100 \\ &= \frac{42,71,050}{76,66,000} \times 100 \\ &= 55.7 \% \end{aligned}$$

Addresses of Machinery Suppliers

1. ***M/s. Agro Asian Industries***
Plot No. 135, Saha
Ambala - 133104, Haryana
2. ***M/s. The Radhey Export***
A2-412, Palladium Complex
Odhav, Ahmedabad - 380051, Gujarat
3. ***M/s. Delite Industries***
7-8, Sainath Industrial Estate, GIDC
Odhav, Ahmedabad - 382415, Gujarat
4. ***M/s. Goldin (India) Engg. Co.***
No. 10/11, B. I. D. C. Gorwa Estate, Last Lane
Gorwa, Vadodara - 390016, Gujarat
5. ***M/s. Packaging Solution***
12/46, Sunrise Industrial Area, Loni Road, Site- 2, Mohan Nagar
Loni Industrial Area, Ghaziabad - 201007, Uttar Pradesh
6. ***M/s. Duex Industrial Systems***
H-311, 312, Sharad Industrial Estate
Bhandup West, Mumbai - 400078, Maharashtra
7. ***M/s. Jyothi Industries***
31, Pampa Mahakavi Road
Bangalore - 560 004, Karnataka
8. ***M/s. SIDVIN***
78, 5th Main, Saraswathipuram
Mysore - 570 009, Karnataka

Raw Material Suppliers

1. ***M/s. Fresh and Crush***
No. 4/146, Palandi Amman Street, Rajive Gandhi Salai, OMR,
EgatturNavalur, Chennai-603103
2. ***M/s. Green Focus Solutions***
#32,BEML, 7thStage,RR Nagar, Near Krishna Garden
Kenger, Bangalore-560060
3. ***M/s. Kare Chemicals***
Ganapathy Temple Road, Changampuzha Park, Edappaly,
Kochi, Ernakulam-682024