

ROASTED & FLAVOURED PEANUTS & OTHER NUTS

1. INTRODUCTION:

Peanuts and other nuts are widely used across India as well as in various countries for using in various food preparations and also consumed directly with simple processing as they contain huge amount of nutrition. Nuts are processed and roasted and sometimes flavoring process can be done for other uses.

2. PRODUCT & ITS APPLICATION:

Roasted and flavored nuts are heavily used in single varieties. Cashew, peanuts and almonds are also used in mixes as are pecans, brazil nuts, filberts or hazelnuts and macadamia nuts. Many nutritionists believe nuts are healthy. Nuts have no cholesterol, they contain mono-unsaturated and/or polyunsaturated fats, are rich in fibre, and contain vitamin E. Eating nuts, therefore, may help prevent heart disease. Other benefits of nut consumption include boost of immune system, reduce high blood pressure, fight osteoporosis, and keep nerves and muscles healthy and also beneficial to the nervous system and skin.

3. DESIRED QUALIFICATIONS FOR PROMOTER:

Successful running this project does not require any specific qualification.

4. INDUSTRY LOOKOUT AND TRENDS

The wide application of peanuts in the food industry is considered as a major driver for peanuts market. Peanuts are widely used for the extraction of oils and peanut flour. The processing of peanuts and its high consumption as snacks also has a positive impact on its market growth. The high nutrient value of peanuts makes its consumption more popular

amongst the health conscious consumers. Shift in consumption pattern and adoption of healthy lifestyle has supported the positive growth of peanuts market. However, peanut is also listed as one of the major allergens due to which its consumption is restricted only amongst the consumers who do not have peanut allergy.

On the basis of peanuts form, raw form is found to hold a major share and is calculated to increase at high rate globally based on the oil and flour extracted from the raw form of peanuts. However, the convenience usage of the powder form is supporting the increased demand of the product from consumer's side. The application of peanut in extraction of peanut oil is found to hold a major share on a global level. Amongst the distribution channels for the sale of peanuts, hypermarket and supermarket's share is projected to increase at a high rate.

Peanut is a potential crop used for the manufacturing of peanut oil, spreads and is often used directly for culinary propose and direct consumption. Peanuts are a rich source of poly unsaturated fatty-acids and hence have a wide application in food industries for the health benefits it imparts. The by-products after peanut processing are also considered to be of industrial use. Peanuts are rich in energy and are a good source of nutrients, minerals, antioxidants and vitamins that are essential for maintaining a healthy body. They are also known to be a rich source of dietary proteins and hence are popularly used amongst the consumers.

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY:

Flavored and roasted nuts are heavily used in daily routine and across various industries like peanut butter, nut based chocolates, sweets, and as intermediate to many other food products. There is a growing demand of pure/unadulterated roasted and flavored nuts from the customers who are increasingly informed these days. With various food standards such as FSSAI, FSMS, ISI and ISO standards implementation, there can be huge market growth for manufacturer.

6. RAW MATERIAL REQUIREMENTS:

Various nuts in raw form are basic raw material for this manufacturing setup. For roasting and flavoring, oil, salt, *masala*, pepper and other flavors are needed. Food grade packaging of paper and HDPE with inner liner is required. Cardboard boxes for packing of seasoning in bunch are required.

7. MANUFACTURING PROCESS:

Raw nuts are first cleaned before feeding into main process. Cleaned nuts are then roasted, cooled and blanched. Then after, inspection of quality of roasting is done and nuts are sorted which go into feed tank, the feed here can be controlled by operator. They are after roasted with oil and coating has been done. After these, process flow is cooling, glazing, salting, seasoning for flavors. Flavored and roasted nuts are then packed in food grade packaging.

8. MANPOWER REQUIREMENT:

The enterprise requires 14 employees as detailed below:

| Sr. No. | Designation of Employees | SALARY PER PERSON | Monthly Salary ₹ | Number of employees required | | | | |
|---------|---------------------------------|-------------------|------------------|------------------------------|--------|--------|--------|--------|
| | | | | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 |
| | Variable Labour: Workers | | | | | | | |
| 1 | Operator | ₹ 10,000.00 | ₹ 10,000.00 | 2 | 2 | 2 | 3 | 3 |
| 2 | Un Skilled Workers | ₹ 8,000.00 | ₹ 24,000.00 | 5 | 5 | 5 | 9 | 9 |
| | | | | | | | | |
| | <i>sub-total</i> | | ₹ 34,000.00 | 7 | 7 | 7 | 12 | 12 |
| | Fixed Staff: | | | | | | | |
| 1 | Accountant | ₹ 12,000.00 | ₹ 12,000.00 | 1 | 1 | 1 | 1 | 1 |
| 2 | Store Keeper | ₹ 8,000.00 | ₹ 8,000.00 | 2 | 2 | 2 | 4 | 4 |
| 3 | Sales Staff | ₹ 12,000.00 | ₹ 24,000.00 | 4 | 4 | 4 | 6 | 6 |
| | <i>sub-total</i> | | ₹ 44,000.00 | 7 | 7 | 7 | 11 | 11 |
| | Total | | ₹ 78,000.00 | 14 | 14 | 14 | 23 | 23 |

9. IMPLEMENTATION SCHEDULE:

The project can be implemented in 10months' time as detailed below:

| Sr. No. | Activity | Time Required (in months) |
|---------|---|------------------------------|
| 1 | Acquisition of premises | 2.00 |
| 2 | Construction (if applicable) | 3.00 |
| 3 | Procurement & installation of Plant & Machinery | 2.00 |
| 4 | Arrangement of Finance | 1.00 |
| 5 | Recruitment of required manpower | 2.00 |
| | Total time required (<i>some activities shall run concurrently</i>) | 10.00 |

10. COST OF PROJECT:

The project shall cost ₹ 325.25lacs as detailed below:

| Sr. No. | Particulars | ₹ in Lacs |
|---------|---|---------------|
| 1 | Land | 7.00 |
| 2 | Building | 5.50 |
| 3 | Plant & Machinery | 10.45 |
| 4 | Furniture, other Misc. Equipments | 0.50 |
| 5 | Other Assets including Preliminary / Pre-operative expenses | 1.05 |
| 6 | Margin for Working Capital | 300.75 |
| | Total | 325.25 |

11. MEANS OF FINANCE:

Bank term loans are assumed @ 75% of project cost. The proposed funding pattern is as under:

| Sr. No. | Particulars | ₹ in Lacs |
|---------|-------------------------|---------------|
| 1 | Promoter's contribution | 81.31 |
| 2 | Bank Finance | 243.93 |
| | Total | 325.25 |

12. WORKING CAPITAL CALCULATION:

The project requires working capital of ₹300.75lacs as detailed below:

| Sr. No. | Particulars | Gross Amt | Margin % | Margin Amt | Bank Finance |
|---------|--------------|-----------|----------|------------|--------------|
| 1 | Inventories | 150.38 | 0.25 | 37.59 | 112.78 |
| 2 | Receivables | 75.19 | 0.25 | 18.80 | 56.39 |
| 3 | Overheads | 75.19 | 100% | 75.19 | 0.00 |
| 4 | Creditors | - | | 0.00 | 0.00 |
| | Total | 300.75 | | 131.58 | 169.17 |

13. LIST OF MACHINERY REQUIRED:

A detail of important machinery is given below:

| Sr. No. | Particulars | UOM | Qty | Rate (₹ in Lacs) | Value (₹ in Lacs) |
|-----------|---|-----|-----|------------------|-------------------|
| | Plant & Machinery / equipments | | | | |
| a) | Main Machinery | | | | |
| 1 | Cutting Machine | Nos | 1 | ₹ 1.35 | ₹ 1.35 |
| 2 | Roasting/Flavouring Machine | Nos | 1 | ₹ 1.05 | ₹ 1.05 |
| 3 | Dryer | Nos | 1 | ₹ 1.40 | ₹ 1.40 |
| 4 | Conveyor Belt | Nos | 1 | ₹ 1.50 | ₹ 1.50 |
| 5 | Separator and Peeling Machine | Nos | 1 | ₹ 1.65 | ₹ 1.65 |
| 6 | Packing, Filling and Sealing Machine | Nos | 1 | ₹ 2.00 | ₹ 2.00 |
| 7 | Weighing Scale | Nos | 2 | ₹ 0.20 | ₹ 0.20 |
| 8 | Material Handling Equipment | LS | | ₹ 0.80 | ₹ 0.80 |
| 9 | Misc. Tools | LS | | ₹ 0.50 | ₹ 0.50 |
| | <i>sub-total Plant & Machinery</i> | | | | ₹ 10.45 |
| | Furniture / Electrical installations | | | | |
| 1 | Office furniture and Electrification | LS | 1 | ₹ 0.50 | ₹ 0.50 |
| | <i>sub total</i> | | | | ₹ 0.50 |
| | Other Assets | | | | |
| 1 | preliminary and preoperative | LS | | 1.05 | ₹ 1.05 |
| | <i>sub-total Other Assets</i> | | | | ₹ 1.05 |
| | Total | | | | ₹ 12.00 |

All the machines and equipments are available from local manufacturers. The entrepreneur needs to ensure proper selection of product mix and proper type of machines and tooling to have modern and flexible designs. It may be worthwhile to look at reconditioned imported machines, dies and tooling. Some of the machinery and dies and tooling suppliers are listed here below:

1. Fry-Tech Food Equipments Private Limited

S. No. 4, Raviraj Industrial Estate,
Bhikhubhai Mukhi Ka Kuwa Bharwadvash,
Ramol, Ahmedabad - 380024,
Gujarat, India

2. Hindustan Vibrotech Pvt. Ltd.

Office No. 2, Ground Floor,
Vrindavan Building, Vile Parle East,
Mumbai – 400057,
Maharashtra, India

3. Electrons cooling systems Pvt. Ltd.

S-27, SIDCO Industrial Estate
Kakkalur Industrial Estate
Tiruvallur – 602003,
Tamil Nadu, India

4. Springboard Enterprises India Ltd.

1st, 2nd & 3rd Floor,
Plot No. 7, 8 & 9,
Garg Shopping Mall,
Service Centre, Rohini Sector 2
New Delhi – 110085,
Delhi, India

5. Flour Tech Engineers Private Limited

Plot No. 182, Sector 24,
Faridabad - 121005,
Haryana, India

6. P Square Technologies

3, Swami Mahal,
Gurunanak Nagar,
Off. Shankarsheth Road Bhavani Peth,
Pune - 411002,
Maharashtra, India

7. Ricon Engineers

10 To 13, Bhagwati Estate,
Near Amraiwadi Torrent Power,
Behind Uttam Dairy,
Rakhial, Ahmedabad - 380023,
Gujarat, India

8. Kamdhenu Agro Machinery

Plot No. 6, Near Power House,
Wathoda Road Wathoda,
Nagpur - 440035,
Maharashtra, India

14. PROFITABILITY CALCULATIONS:

| Sr. No. | Particulars | UOM | Year-1 | Year-2 | Year-3 | Year-4 | Year-5 |
|---------|-------------------------------------|------------|--------------|--------------|--------------|--------------|---------------|
| 1 | Capacity Utilization | % | 60% | 70% | 80% | 90% | 100% |
| 2 | Sales | ₹. In Lacs | 810.00 | 945.00 | 1080.00 | 1215.00 | 1350.00 |
| 3 | Raw Materials & Other direct inputs | ₹. In Lacs | 728.70 | 850.15 | 971.60 | 1093.05 | 1214.50 |
| 4 | Gross Margin | ₹. In Lacs | 81.30 | 94.85 | 108.40 | 121.95 | 135.50 |
| 5 | Overheads except interest | ₹. In Lacs | 17.06 | 18.12 | 20.25 | 20.89 | 21.32 |
| 6 | Interest @ 10 % | ₹. In Lacs | 24.39 | 24.39 | 16.26 | 12.20 | 9.76 |
| 7 | Depreciation @ 30 % | ₹. In Lacs | 7.32 | 5.23 | 3.66 | 2.61 | 2.35 |
| 8 | Net Profit before tax | ₹. In Lacs | 32.54 | 47.11 | 68.23 | 86.25 | 102.07 |

The basis of profitability calculation:

This unit will have Processing Capacity: 12500 Kg per month and Sales turnover 135 MT per Annum. The growth of selling capacity will be increased 10% per year. (This is assumed by various analysis and study; it can be increased according to the selling strategy.)

Energy Costs are considered at Rs 7 per Kwh and fuel cost is considered at Rs. 65 per litre. The depreciation of plant is taken at 10-12 % and Interest costs are taken at 14 -15 % depending on type of industry.

15. BREAKEVEN ANALYSIS:

The project shall reach cash break-even at 22.94% of projected capacity as detailed below:

| Sr. No. | Particulars | UOM | Value |
|---------|---------------------------------|---------------|---------|
| 1 | Sales at full capacity | ₹. In Lacs | 1350.00 |
| 2 | Variable costs | ₹. In Lacs | 1214.50 |
| 3 | Fixed costs incl. interest | ₹. In Lacs | 31.08 |
| 4 | $BEP = FC/(SR-VC) \times 100 =$ | % of capacity | 22.94% |

16. STATUTORY / GOVERNMENT APPROVALS

The Ministry of Food Processing Industries has been operating several plan schemes for the development of processed food sector in the country during the 10th Plan. One of the schemes relates to the Technology Up-gradation/ Establishment/ Modernization of food processing industries.

The Indian food processing industry is regulated by several laws which govern the aspects of sanitation, licensing and other necessary permits that are required to start up and run a food business. The legislation that dealt with food safety in India was the Prevention of Food Adulteration Act, 1954 (hereinafter referred to as "**PFA**"). The PFA had been in place for over five decades and there was a need for change due to varied reasons which include the changing requirements of our food industry. The act brought into force in place of the PFA is the Food Safety and Standards Act, 2006 (hereinafter referred to as "**FSSA**") that overrides all other food related laws.

FSSA initiates harmonization of India's food regulations as per international standards. It establishes a new national regulatory body, the Food Safety and Standards Authority of India (hereinafter referred to as "**FSSAI**"), to develop science based standards for food and to regulate and monitor the manufacture, processing, storage, distribution, sale and import of food so as to ensure the availability of safe and wholesome food for human consumption. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

All food imports will therefore be subject to the provisions of the FSSA and rules and regulations which as notified by the Government on 5th of August 2011 will be applicable.

Key Regulations of FSSA

- A. Packaging and Labelling
- B. Signage and Customer Notices
- C. Licensing Registration and Health and Sanitary Permits

17. BACKWARD AND FORWARD INTEGRATIONS

The objective of the scheme is to provide effective and seamless backward and forward integration for processed food industry by plugging the gaps in supply chain in terms of availability of raw material and linkages with the market. Under the scheme, financial assistance is provided for setting up of primary processing centers/ collection centers at farm gate and modern retail outlets at the front end along with connectivity through insulated/ refrigerated transport.

The Scheme is applicable to perishable horticulture and non-horticulture produce such as, fruits, vegetables, dairy products, meat, poultry, fish, Ready to Cook Food Products, Honey, Coconut, Spices, Mushroom, Retail Shops for Perishable Food Products etc. The Scheme would enable linking of farmers to processors and the market for ensuring remunerative prices for agri produce.

The scheme is implemented by agencies/ organizations such as Govt. / PSUs/ Joint Ventures/ NGOs/ Cooperatives/ SHGs / FPOs / Private Sector / individuals etc.

Backward Linkage:

- Integrated Pack-house(s) (with mechanized sorting & grading line/ packing line/ waxing line/ staging cold rooms/cold storage, etc.)
- Pre Cooling Unit(s)/ Chillers
- Reefer boats
- Machinery & equipment for minimal processing and/or value addition such as cutting, dicing, slicing, pickling, drying, pulping, canning, waxing, etc.
- Machinery & equipment for packing/ packaging.

Forward Linkage:

- Retail chain of outlets including facilities such as frozen storage/ deep freezers/ refrigerated display cabinets/cold room/ chillers/ packing/ packaging, etc.
- Distribution center associated with the retail chain of outlets with facilities like cold room/ cold storage/ ripening chamber.

18. TRAINING CENTERS AND COURSES

There are few specialized Institutes provide degree certification in Food Technology, few most famous and authenticate Institutions are as follows:

1. Indian Institute of Food Science & Technology,
Plot No.1, Near Maa-Baap ki Dargah, Opp to Nath Seeds,
Paithan Road Aurangabad
Aurangabad - 431005
Maharashtra, India
2. MIT College of Food Technology, Pune
Gate.No.140, Raj Baugh Educational Complex,
Pune Solapur Highway,
Loni Kalbhor, Pune – 412201
Maharashtra, India
3. CSIR - Central Food Technological Research Institute (CFTRI)
Cheluvamba Mansion, Opp. Railway Museum,
Devaraja Mohalla, CFTRI Campus, Kajjihundi, Mysuru
Karnataka – 570020

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

Entrepreneurship program helps to run business successfully is also 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.