

PEANUT BUTTER

1. INTRODUCTION

Peanut butter is made from raw peanuts by roasting and crushing to paste. It is very nutritional product as it contains about 48% protein and minerals. It is used widely as bread spread. In India it is gradually becoming popular in urban areas. Super market shelf now can be seen with peanut butter jar. There are mainly two types of peanut butter based on smoothness of the end product. Creamy products are very fine and crunchy products are coarse in nature. Moreover other types are made by adding small quantity of chocolate or fruit jelly. The shelf life of the butter is about twelve months from the date of manufacturing. It is not required to store peanut butter in refrigerator or cold temperature. It can be stored at ambient temperature. However once seal is opened it has to be under lower temperature.

2. PRODUCTS AND ITS APPLICATION

Peanut butter is formulated using good quality peanut paste, sugar, salt; stabilizer etc. to prevent oil separation in the container stabilizer is added at the end of the process. The taste of peanut butter varies from place to place. Therefore addition of sugar and salt is done depending on the local demand. For consumer pack it is usually packed in 200, 500 and 1000 grams PET jar. USA is the largest consumer of Peanut Butter.

For institutional sales, it is packed in larger containers of five and ten Kg. pales. For industrial applications such as in confectionary, Chocolate, bakery products, ice-cream etc. it is packed in 200 Kg drums.

3. DESIRED QUALIFICATION FOR PROMOTER

The promoter may have experience in selling consumer food products or having knowledge of sourcing good quality peanuts. Academic qualification in science or food technology may be advantageous to produce quality peanut butter.

4. INDUSTRY OUTLOOK/ TREND

The size of Indian food processing industry is estimated to be at around rupees 12 lakh crores. It contributes 9% of country GDP and growing at about 10% per annum. With encouragement to setup food processing parks and incentives from Government, Food processing sector is growing rapidly. The newer products in the market are being introduced with advanced technology, packaging and enhanced shelf-life.

5. MARKET POTENTIAL AND MARKETING ISSUES, IF ANY

There are about ten plants producing peanut butter in India and mainly concentrated in the state of Gujarat. Most of the existing units are exporting peanut butter to Middle East, south East Asia, Japan, USA, Canada and some of the African countries. The Existing units are working reasonably well and some of them are expansion mode. However they face problem of getting quality peanut as available raw material in India is highly infected with aflatoxin and it is a matter of concern for export.

While export market is still growing and Indian share is increasing in international market, back home market for peanut butter is limited but growing at slower pace. With increase in awareness and health benefits, future looks bright for local sell. In India institutional sale is rapidly increasing with newer products in the market. Foreign companies are also putting up their facilities in food processing sector and some of them need peanut butter.

6. RAW MATERIAL REQUIREMENTS

The main raw material required is good quality peanut having aflatoxin content less than 5 ppb. The main producing states for raw peanut are Gujarat, Andhra Pradesh, Uttar Pradesh, Bihar and Rajasthan. It is usually bought in deshell form to prevent dusting. As shelf life of peanut is short it is purchased as and when required or stored at about 8 degree centigrade.

Other raw materials like sugar, salt and stabilizer are locally available without any difficulty. Packaging material such as PET jar, plastic pale, corrugated box, sealing tape etc. are required to pack jars. It is mandatory to write ingredients used in formulation of peanut butter.

7. MANUFACTURING PROCESS

HPS peanuts are first fed to the hopper of conveyer equipped with magnet. It is then taken in to roaster where peanuts are heated at about 90 degree and cooled in a cooler with high flow of air. Roasted peanuts are blanched to remove red skin. After blanching, peanuts are fed to picking table to remove damaged peanuts manually and then pass through electronic shorting machine. This ensures aflatoxin control.

Split nuts are taken to peanut butter mill where it is crushed to required fineness and additives such as sugar, salt and stabilizer are added in required quantity. For removal of encapsulated air, it is taken to aeration tank. For texture and smoothness it is then pass through votator at very low temperature. After these peanut butter is packed in required containers using packing line.

8. MANPOWER REQUIREMENT

For the production of Peanut Butter following category of manpower will be required for day to day production. Annual wages are also worked out.

Manpower Requirement

Sr.No.	Designation of Employees	Monthly Salary ₹	Number of employees required	Annual cost ₹. in lacs
1	Unskilled Labour	6,000	4	2.88
1	Production Manager	35,000	1	4.20
2	Supervisor	20,000	3	7.20
3	Lab Chemist	20,000	1	2.40
4	Foreman	12,000	2	2.88
5	Skilled Labour	8,000	6	5.76
6	Accountant	10,000	1	1.20
7	Office Assistant	8,000	1	0.96
8	Watchman	5,000	2	1.20
	Total		21	28.68

9. IMPLEMENTATION SCHEDULE

The project can be commissioned within six months of tying up of finance. There is no complicated machinery and requirement of space is also small. Therefore, implementation time required is very short.

10. COST OF PROJECT

The cost of project as per market rate of factory building, machinery, miscellaneous items, working capital margin and preliminary and pre-operative expenses works out as under:

Cost of Project

Sr. No.	Particulars	₹ in Lacs
1	Land	35.00
2	Building	53.50
3	Plant & Machinery	180.00
4	Furniture, Electrical Installations	5.00
5	Other Assets including Preliminary / Pre-operative expenses	10.00
6	Margin for Working Capital	45.45
	Total	328.95

11. MEANS OF FINANCE

Based on the present norms of the bank, means of finance is worked out as under.

Means of Finance

Sr. No.	Particulars	₹ in Lacs
1	Promoter's contribution	131.04
2	Bank Finance	197.92
	Total	328.95

12. WORKING CAPITAL CALCULATION

Working capital required for storage of raw materials and finished goods, monthly overheads, goods in process, receivables and trade credit is worked out based on the present norms of the bank as under.

Working Capital Calculations

Sr. No.	Particulars	Gross Amt.	Margin %	Margin Amt.	Bank Finance
1	Inventories	58.31	25%	14.58	43.73
2	Receivables	137.63	20%	27.53	110.10
3	Overheads	3.35	100%	3.35	-
4	Creditors	-	0%	-	-
	Total	199.29		45.45	153.83

13. LIST OF MACHINERY REQUIRED AND THEIR MANUFACTURERS

The machinery required for the production of Peanut Butter are as below:

Peanut Roaster, Peanut Cooler, Split Nut Blancher, Cyclone Separator, Picking Table, Ingredient Mixer, Peanut Butter Mill, Aeration Tank, Scrap Surface Heat exchanger, Votator, Packing Line, Bucket Conveyors and Laboratory Instruments

- **ROBUST INDUSTRIALS**
Nagar Naka,
Bandhiya Road,
Jam Kandorna (Dist. Rajkot)360405
Gujarat.
- **ABC Agro & Food Machine (India) Private Limited**
2-284,
Dr. Ambedkar Road,
Velandipalayam Near Avila Convent School,
Coimbatore - 641025,
Tamil Nadu.
- **Shrijee Nut Company**
15, Sardar Patel Udyog Nagar,
Kalavad Road, Boriya,
Jam Kandorna—360405
(Dist. Rajkot) Gujarat,

14. PROFITABILITY CALCULATIONS

The profitability is worked out as under after taking into account all variable and fixed expenses as under.

Profitability Calculations

Sr. No.	Particulars	Year 1	Year 2	Year 3	Year 4	Year 5
1	Sales	1156.05	1321.2	1486.35	1486.35	1486.35
2	Raw Materials & Other direct inputs	1017.156	1162.464	1307.772	1307.772	1307.772
3	Gross Margin	138.894	158.736	178.578	178.578	178.578
4	Overheads except interest	28.126	32.144	36.162	36.162	36.162
5	Interest	29.239	33.416	37.593	37.593	37.593
6	Depreciation	15.001	17.144	19.287	19.287	19.287
7	Net Profit before tax	66.535	76.04	85.545	85.545	85.545

The proposed unit will have the production capacity of 1500 MT of peanut butter per year. The unit cost of power is taken at Rs. 8. The depreciation on building is taken at the rate of 5% whereas for plant and machinery it is at 10%.

The sales price of peanut butter on an average is taken at the rate of Rs. 110 per kg for proposed formulations. The selling price of red skin is taken at the rate of Rs. 10 per kg.

15. BREAKEVEN ANALYSIS

The Break-Even point as percentage of targeted sales works out as under.

Cash Break-Even (as % of Targeted sales)

Sr. No.	Particulars	UOM	Value
1	Sales Realization	₹. In Lacs	1651.50
2	Variable costs	₹. In Lacs	1453.08
3	Fixed costs incl. interest	₹. In Lacs	81.95
4	$BEP = FC/SR-VC \times 100 =$	% of sales	41.30%

16. STATUTORY/ GOVERNMENT APPROVALS

There is statutory requirement of FSSAI license for setting up of food processing industry. Moreover, MSME & GST registration, IEC Code for Export of end products and local authority clearance may be required for Shops and Establishment, for Fire and Safety requirement and registration for ESI, PF and Labour laws may be required if applicable. Entrepreneur may contact State Pollution Control Board where ever it is applicable.

17. BACKWARD AND FORWARD INTEGRATION

As backward integration, promoter may in future think of producing HPS peanuts from shell nuts. This can reduce the price of raw material. As forward integration peanut butter

products, such as chocolate, honey, jelly filled etc. can be formulated for better market access. Moreover peanut paste can also be produced using same set of equipment.

18. TRAINING CENTERS/COURSES

For food processing industry training and short term courses are available at Indian Institute of Food Processing Technology, Thanjavur, Tamil Nadu and Central Food Technological Institute, Mysore, Karnataka and Ground Nut Research Centre, Junagarh, Gujarat. Udyamimitra portal (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 development programs help to run businesses successfully and are 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.