

# FRUIT BARS

QUALITY AND STANDARDS : As per FPO specifications  
PRODUCTION CAPACITY : 30 tpa

## 1.0 PRODUCT AND ITS APPLICATIONS

- Fruit bar is a unique product with characteristics like concentrated product,
- The unit can achieve its full capacity utilization during the 3rd year of operation.
- The wages for skilled workers are taken as per prevailing rates in this type of industry.
- Interest rate for total capital investment is calculated @ 12% per annum.
- The entrepreneur is expected to raise 20-25% of the capital as margin money.
- The unit would construct its own building as per F.P.O. specifications.
- Costs of machinery and equipment are based on average prices of machinery manufacturers.



## 4.0 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

## 5.0 TECHNICAL ASPECTS

### 5.1 Availability of Raw Material

Fruits like pineapple, banana, passion fruits, ginger are available at reasonable price in NE region. It would, however, be desirable to store sulphited pasteurised pulp during the season in HDPE or wooden barrels for making fruit bars both during season and off-season. Only firm and ripe fruits should be used. Fruit pulp can either be made by the unit itself or obtained from other manufacturers.

### 5.2 Process of Manufacture

The process starts with extraction of pulp from the fruits and pasteurising the same. The pulp is mixed with calculated quantity of sugar to raise the brix initially to 25°C and mixed thoroughly to dissolve all the sugar. The blend is dehydrated in thin layers in tray dryers (drying time between 16-20 hours). The leathery product is cut in suitable size. Three such pieces are

wrapped in cellophane, BOPP (sealable) printed film. These are further packed in duplex board boxes and then in CFB boxes for selling and distribution. The manufacturers have to take a licence under FPO.

**5.3 Quality Control and Standards:** As per FPO requirements

## 6.0 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.

## 7.0 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 utilising the fuel for the steam production. There should be no leakage of steam in the pipe lines and adequate insulation should be provided.

## 8.0 PRODUCTION CAPACITY

Quantity	:	21 tpa
Value	:	Rs. 29.40 lakh
Installed capacity	:	100 kg/day
Optimum capacity utilization	:	70%
Working days	:	300/annum
Manpower	:	20

### Utilities

Motive Power	:	20 kW
Water	:	10 kL/day
Coal	:	150 kg/day

## 9.0 FINANCIAL ASPECTS

### 9.1 Fixed Capital

9.1.1 Land & Building		Amount (Rs. lakh)
Land 500 sq.m	:	1.00
Built up Area 100 sq. m.	:	3.00
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Total cost of Land and Building	:	4.00

### 9.1.2 Machinery and Equipment

Description	Amount (Rs. lakh)
Pulper, SS steam jacketted kettles, fruit mill, tray drier, boiler, balances, preparation tables, fruit washing tank, sauce pan, refractometer, handset sealing machine, strapping machine, HDPE barrels, etc.	: 5.00
Erection & electrification @ 10% cost of machinery & equipment	: 0.50
Office furniture & fixtures	: 0.50
Total :	----- 6.00

### 9.1.3 Pre-operative Expenses

Consultancy fee, project report, deposits With electricity department etc.	: 0.75
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### 9.1.4 Total Fixed Capital : 10.75

(9.1.1+9.1.2+9.1.3)

## 9.2 Recurring expenses per annum

### 9.2.1 Personnel

Designation	No.	Salary Per month	Amount (Rs.lakh)
Factory Manager	1	9,000	1.08
Supervisor	1	6,000	0.72
Office Assistant	2	5,000	1.20
Technicians	2	4,000	0.96
Skilled workers	4	2,500	1.20
Unskilled workers	10	2,000	2.40
			7.56
Perquisites @ 15%			1.14
Total :	----- 20		----- 7.70

### 9.2.2 Raw Material including packaging materials

Particulars	Qty.(MT) (Rs. lakh)	Rate	Amount
Raw material	LS		7.00
Packaging material			2.20
Total:			----- 9.20

<b>9.2.3 Utilities</b>	<b>Amount (Rs. lakh)</b>
Power 20 kW	1.10
Water 10 kL/day	0.01
Coal 150 kg/day	1.79
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Total:	2.90
<b>9.2.4 Other Contingent Expenses</b>	<b>Amount (Rs. lakh)</b>
Repairs and maintenance@10%	0.60
Consumables & spares	0.30
Transport & Travel	0.40
Publicity	1.00
Postage & stationery	0.20
Telephone	0.10
Insurance	0.10
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Total:	2.70
<b>9.2.5 Total Recurring Expenditure</b>	<b>Amount (Rs. lakh)</b>
(9.2.1+9.2.2+9.2.3+9.2.4)	22.50

### 9.3 Working Capital

Recurring Expenditure for 3 months 5.62

### 9.4 Total Capital Investment

**Amount (Rs. lakh)**

Fixed capital (Refer 9.1.4) 10.75

Working capital (Refer 9.3) 5.62

Total: 16.37

## 10.0 FINANCIAL ANALYSIS

### 10.1 Cost of Production (per annum)

**Amount (Rs. lakh)**

Recurring expenses (Refer 9.2.5) 22.50

Depreciation on building @5% 0.15

Depreciation on machinery @10% 0.50

Depreciation on furniture @20% 0.10

Interest on Capital Investment @12% 1.95

Total: 25.20

## 10.2 Sale Proceeds (Turnover) per year

Item	Qty. (MT)	Rate/kg	Amount (Rs.lakh)
Fruit bars	21	Rs. 140	29.40

## 10.3 Net Profit per year

= Sales - Cost of production

= 29.40 - 25.20

= Rs. 4.20 lakh

## 10.4 Net Profit Ratio

=  $\frac{\text{Net profit} \times 100}{\text{Sales}}$

=  $\frac{4.2 \times 100}{29.40}$

= 14.3%

## 10.5 Rate of Return on Investment

=  $\frac{\text{Net profit} \times 100}{\text{Capital Investment}}$

=  $\frac{4.2 \times 100}{16.37}$

= 25.65 %

## 10.6 Annual Fixed Cost

Amount (Rs. Lakh)

All depreciation	0.75
Interest	1.95
40% of salary, wages, utility, contingency	4.24
Insurance	0.10
Total:	<u>7.04</u>

## 10.7 Break even Point

=  $\frac{\text{Annual Fixed Cost} \times 100}{\text{Annual Fixed Cost} + \text{Profit}}$

=  $\frac{7.04 \times 100}{7.04 + 4.20}$

= 62%

## 11.0 ADDRESSES OF MACHINERY AND EQUIPMENT SUPPLIERS

Batliboi Engineers (Bangalore) Pvt. Ltd.  
99/2&3, N.R.Road  
Bangalore – 560 002

B.Sen Barry & Co.  
65/11, New Rohtak Road  
New Delhi – 110 005

Gardners Corporation  
158 Golf Links,  
New Delhi – 110 003

Narene Tulaman Manufacturers Pvt. Ltd.  
Balanagar  
Hyderabad – 500 037

Raylon Metal Works  
Kondivitta Lane  
Post Box 17426  
J.B.Nagar, Andheri (E)  
Mumbai – 400 059

Bajaj Maschinen Pvt. Ltd.  
7/20-7/27 Jai Laxmi Industrial Estate, Site IV  
Sahibabad Industrial Area - 201010  
Dist.Ghaziabad, UP

SSP (Pvt) Ltd.  
13<sup>th</sup> Milestone, Mathura Road  
Faridabad – 121003, Haryana

Narangs Corporation  
P-25/90 Connaught Place  
New Delhi – 110001

Nirmal Services  
2254/23 Rajguru Road, Chuna Mandi  
Paharganj  
New Delhi – 110055

Ganson Ltd.  
645 Anna Salai  
Chennai – 600006

Grovers Pvt. Ltd.  
223, Kaliandas Udyog Bhavan  
Prabhadevi  
Mumbai – 400 025

Macneill and Magor Ltd.  
4, Mangoe Lane  
Kolkata – 700 001

D.P.Pulverisers,  
Nagindas Master Road,  
Behind Museum, Fort  
Mumbai – 400 001

Sri Venkateswara Industries,  
Yadavgi Industrial Estate,  
Mysore – 570 002

Mather & Platt (India) Ltd.,  
805-806, Ansal Bhawan  
16, Kasturba Gandhi Marg,  
New Delhi – 110 001

Somani International Corporation,  
1510, Market Chamber V,  
Nariman Point  
Mumbai- 400 021

K.S.J. Foods & Services (P) Ltd.,  
7/87, Vishnu Prasad Mahant Road  
Vile Parle  
Mumbai – 400057

Cowel Can Ltd.,  
Industrial Area  
Barotiwala, Solan, H.P.

Diwecha Glass Industries,  
249, Bal Rajeshwar Road,  
LBS Marg, Mulund (W),  
Mumbai – 400 080

Larson & Toubro Ltd.  
Ballard Estate, Douggel Road  
Mumbai – 400 001

Techno Equipments,  
31, Parekh Street, Girgaon  
Mumbai – 400 004

International Food Machinery Corporation,  
Krishna, Opposite Deep Bhawan,  
Pandit Nehru Marg,  
Jamnagar-361 008 (Gujarat)

Master Mechanical Works Pvt. Ltd.  
75, Link Road, Ist Floor  
Adjacent to Moolchand Hospital,  
Lajpat Nagar-III,  
New Delhi – 110 024

Gladwyn & Co.  
Poonawala Building  
251, Dr. Dadabhai Nauroji Road,  
Mumbai – 400 001

## **12.0 OTHER SPECIAL FEATURES**

A careful selection of product mix is necessary based on the local market demand and availability of raw materials. The facilities can also be utilised to manufacture fruit toffees, fruit chunks for fuller utilisation of capacity.