

KARAMCHA PROCESSING

QUALITY AND STANDARDS : As per FPO specifications

PRODUCTION CAPACITY : 120 tpa



1.0 PRODUCT AND ITS APPLICATIONS

Karamcha or Karonda (*Carissa carandas*) is widely used as a substitute for cherry candy. It is utilized extensively by confectioners, bakeries, sweet-meat manufacturers, hotels & restaurants and also in the household for preparation of sweet dishes, cakes, poudings etc. The product is consumed all over India. In addition, a good amount of export is reportedly taking place specially to the gulf countries.

2.0 MARKET POTENTIAL

The manufacturers of Karamcha are small scale units and presently catering to the full domestic & export demands. A good prospect can be seen for a unit in this sector.



3.0 BASIS AND PRESUMPTIONS

- The unit proposes to work at least 300 days per annum on single shift basis.
- The unit can achieve its full capacity utilization during the 3rd year of operation.
- The wages for skilled workers is 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 proposes to construct own building as per F.P.O. specifications.
- Costs of machinery and equipment are based on average prices enquired from 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 Location

A unit for manufacturing Karamcha needs to be located close to fruit producing or distribution centres. Apart from this, the local demand for the finished product, availability of cheap labour, existing infrastructure facilities, etc. are to be taken into account for selecting the site.

5.2 Process of Manufacture

The process is simple. The fruits are washed thoroughly. Potassium metabisulphite (preservative) is sprayed on the karamcha fruits and which are stored for about a week to increase the shelf life to atleast for 6 to 7 months. The preservative-added fruits are washed prior to processing. After washing, the karamchas are subjected to digesting process in steam-jacketted pan. The fruits are deseeded, pierced for easy entry of sugar and boiled alongwith sugar and colour. Processed candies are then dried and stored in tins lined with polythene bags.

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	:	120 tpa
Value	:	Rs. 64.8 lakh
Installed capacity	:	500 kg/day
Working days	:	300/annum
Manpower	:	16
Utilities		
Motive Power	:	10 kW
Water	:	7 kL/day
Coal/LD oil	:	250 kg/60 L/day

9.0 FINANCIAL ASPECTS

9.1 Fixed Capital

9.1.1 Land & Building

		Amount (Rs. lakh)
Land 300 sq.m.	:	0.30
Built up Area 200 sq. m..	:	5.00

Total cost of Land and Building	:	5.30

9.1.2 Machinery and Equipment

Description	Amount (Rs. lakh)
Fruit cubing machine, SS jacketed kettles, sugar grinder, tray drier, improved preserve manufacturing unit, boiler, weighing scales, preparation tables, cutting knives, material handling equipment, washing tanks.	: 4.60
Erection & electrification @10% cost of machinery & equipment	: 0.46
Office furniture & fixtures	: 0.54
Total :	----- 5.60

9.1.3 Pre-operative Expenses

Consultancy fee, project report, deposits with electricity department etc.	: 0.60
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9.1.4 Total Fixed Capital (9.1.1+9.1.2+9.1.3) : 11.50

9.2 Recurring expenses per annum

9.2.1 Personnel

Designation	No.	Salary Per month	Amount (Rs.lakh)
Factory Manager	1	6000	0.72
Accountant, Supervisor ,			
Storekeeper Mechanic	3	4000	1.44
Skilled workers	2.	2000	0.48
Unskilled workers	10	1500	1.80
			4.44
Perquisites @15%			0.66
Total :	16		----- 5.10

9.2.2 Raw Material including packaging materials

Particulars	Qty.(MT)	Rate	Amount (Rs. lakh)
Karamcha fruits	100	10/kg	10.00
Sugar	80	17/kg	13.60
Citric acid, lime, salt,chemicals LS			2.70
Pet Jars cap. 1kg	1,20,000 no.	12 each	14.40

Total:			40.70

9.2.3 Utilities

	Amount (Rs. lakh)
Power	1.25
Water	0.02
Coal	1.33

Total:	2.60

9.2.4 Other Contingent Expenses

	Amount (Rs. lakh)
Repairs and maintenance@10%	0.56
Consumables & spares	0.17
Transport & Travel	0.18
Publicity	0.05
Postage & stationery	0.08
Telephone	0.10
Insurance	0.06

Total:	1.20

9.2.5 Total Recurring Expenditure

	Amount (Rs. lakh)
(9.2.1+9.2.2+9.2.3+9.2.4)	49.60

9.3 Working Capital

Recurring Expenditure for 3 months

9.4 Total Capital Investment

	Amount (Rs. lakh)
Fixed capital (Refer 9.1.4)	11.50
Working capital (Refer 9.3)	12.40

Total:	23.90

10.0 FINANCIAL ANALYSIS

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

Recurring expenses (Refer 9.2.5)	49.60
Depreciation on building @5%	01.00
Depreciation on machinery @10%	00.60
Depreciation on furniture @20%	00.13
Interest on Capital Investment @12%	02.87

Total:	54.20

10.2 Sale Proceeds (Turnover) per year

Item	Qty. (MT)	Rate per MT	Amount (Rs.lakh)
Preserve / candy Packed in 1kg PET jars	120	54000	64.80

10.3 Net Profit per year

= Sales - Cost of production
= 64.80 - 54.20
= Rs. 10.60

10.4 Net Profit Ratio

= $\frac{\text{Net profit} \times 100}{\text{Sales}}$
= $\frac{10.60 \times 100}{64.80}$
= 16.35%

10.5 Rate of Return on Investment

= $\frac{\text{Net profit} \times 100}{\text{Capital Investment}}$
= $\frac{10.60 \times 100}{23.90}$
= 44.35%

10.6 Annual Fixed Cost Amount (Rs. Lakh)

All depreciation	0.70
Interest	2.85
40% of salary, wages, utility, contingency	3.56
Insurance	0.06

Total:	7.17

10.7 Break even Point

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

$$= \frac{7.17 \times 100}{7.17 + 10.60}$$

$$= 40.35\%$$

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
J.B.Nagar, Andheri
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.
13th 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

12.0 OTHER SPECIAL FEATURES

A careful selection of sound fruits is necessary. The facilities can also be utilised to manufacture squashes, jams, jellies, marmalades etc. for fuller utilisation of capacity.