

PROJECT PROFILE

ON

FLAKED CEREALS

Month & Year
Aug 2010

**PREPARED BY
TANSTIA-FNF SERVICE CENTRE
B-22, INDUSTRIAL ESTATE
CHENNAI-600032**

Supported by

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STIFTUNG **FÜR DIE FREIHEIT**

FLAKED CEREALS

1. Introduction

Flaked cereals consisting of corn and wheat flakes are a commonly consumed commodity for breakfast in many households. They are consumed with addition of little milk and sugar. Being easy to serve and use without any terminal processing facility, it finds an easy acceptability among households. Moreover, these breakfast foods are very nutritive, providing all the essential nutrients for sustenance for an individual.

2. Market

The major market outlets are the “ A” and “B” class stores. The product also finds placement in self service counters and departmental stores. The market is predominantly in all metros and major towns and almost all households use the product.

3. Packaging

Flaked cereals are packed in 500 grams and 1 kg packaging.

4. Production capacity

- The plant will be in operation for three shifts a day.
- The production capacity is estimated at 100 kilograms per hour.
- The yield of flaked cereals will be 2.0 tonnes per day and that per annum would be 600 metric tonnes.
- The time period required for achieving full capacity utilisation is one year.

5. Sales revenue

- With an ex-factory selling price at Rs. 100.00 per kilogram inclusive of taxes, The net sales revenue will be Rs. 600.00 lakhs on full capacity utilisation.

6. Production process outline.

Mature corn received from the farms is first cleaned by passing through the sieves and destoner in the preparatory section. It is then conditioned in the conditioner, degermed and flaked to the desired thickness in the flaker rolls. The raw flakes are then toasted using the desired quantities of fat, sugar and malt.

The toasted flakes are cooled and packed in pouches with the aid of the packing machine.

7. Quality specifications

Corn flakes

- It shall be obtained from dehulled, degermed and cooked corn.
- It shall be in the form of crisp flakes of reasonably uniform size and golden brown in colour.
- It shall be free from dirt, insects, larvae, and impurities and any other extraneous matter.
- It shall have a maximum moisture content of 7%.
- Total ash shall not exceed 1% on dry weight basis.
- Acid insoluble ash - 0.1% maximum
- Alcoholic acidity - shall be equivalent to not more than 2.0 ml of 1 N NaOH per 100 grams of dried substance.
- It shall test negative for coliforms, salmonella and streptococci bacteria.

8. Pollution control measures

Not necessary as there are no pollutants or effluents.

9. Energy conservation measures

Common measures will do.

10. Land and construction cost for the proposed unit

Land 0.5 acres - Rs. 2.0 lakhs.

Processing area is 7000 square feet as detailed below.

SI	Description	Sq. feet
1	Processing area	2000
2	Packing area	1000
3	Raw materials (cereals) store	1000
4	Raw materials (others) store	500
5	Packing material store	200
6	Finished goods store	400
7	Laboratory	400
8	Boiler area	500
9	Machinery spares store	200
10	Office space	200
11	Toilet space	200
12	Miscellaneous space	400
13	Total	7000

Construction cost – Rs. 800 per square foot

Total cost of civil works – Rs. 56.00 lakhs

Total cost of land and civil works – Rs. 58.00 lakhs.

11. Costing of machinery and equipment

SI	Description	Rs. lakhs
1	Boiler and accessories	2.650
2	Preparatory section for cleaning and conditioning	8.400
3	Milling section with degermer unit; Flaking section with flaker rolls and accessories; and Processing section with toaster and accessories	15.200
4	Packing machine	7.850
5	Weighing scales – large and small	0.400
6	Working tools	0.250
7	Total	34.750
8	Laboratory equipment	1.000

9	Grand total machinery and equipment	35.750
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12. Project cost

SI	Description	Rs. lakhs
1	Land	2.000
2	Civil works	56.000
3	Plant machinery	34.750
4	Laboratory equipment	1.000
5	Transport vehicle (1 LCV)	7.500
6	Pollution control equipment	0.000
7	Energy conservation equipment	0.000
8	Cost of power connection	0.500
9	Cost of electrification	1.000
10	Erection and commissioning	3.575
11	Cost of machinery spares	0.500
12	Cost of office equipment	1.000
13	Deposits if any	1.000
14	Company formation expenses	0.100
15	Gestation period expenses	1.000
16	Sales tax registration expenses	0.100
17	Initial advertisement and publicity	10.000
18	Contingencies	1.000
19	Working capital margin money	16.520
20	Total	137.545

13. Working capital requirements per month

a. Salaries and wages

SI	Description	No of persons	Total salary / month (Rs. lakhs)
1	Production Manager	1	0.400
2	Production supervisor	3	0.750
3	Chemists	3	0.750
4	Skilled workers	3	0.300
5	Unskilled workers	6	0.300
6	Packing workers	6	0.240
7	Administrative staff	2	0.500
8	Driver	1	0.100
9	Sales Manager	1	0.300
10	Sales representatives	3	0.450
11	Security staff	4	0.240
12	Total	33	4.330

b. Raw material requirement per month

SI	Description	Qty (kgs)	Rate / kg (Rs)	Value (Rs. lakhs)
1	Corn	60000	16.00	9.600
2	Malt, sugar, vanaspathi	1800	70.00	1.260
3	Total raw material	61800		10.860

c. Packaging material requirement per month

SI	Description	Qty	Rate / unit (Rs)	Value (Rs. lakhs)
1	Primary packaging material – metallized film	4000 kgs	250	10.000
2	Cartons and straps	10000 nos	40	4.000
3	Total			14.000

Total raw + packaging material - Rs 24.860 lakhs

d. Utilities per month

SI	Description	Rs. lakhs
1	Power 30000 kwh @ Rs. 5.50 per unit	1.650
2	Water	0.150
3	Boiler fuel	0.300
4	Total utilities	2.100

e. Contingent expenses per month

SI	Description	Rs. lakhs
1	Rent for processing shed	0.000
2	Postage and stationery	0.020
3	Telephones, fax etc.	0.050
4	Consumable stores	0.050
5	Repairs and maintenance	0.352
6	Local transports, loading and unloading	0.500
7	Advertisement and publicity @ 10% of sales	5.000
8	Insurance	0.038
9	Sales expenses @ 1% of sales	0.500
10	Miscellaneous expenses @ 1% of sales	0.500
11	Trade incentives @ 2% of sales	1.000
12	Taxes @ 4%	2.000
13	Total contingent expenses	10.010

f. Total working capital requirement per month

SI	Description	Rs. lakhs
1	Salaries and wages	4.330
2	Raw material and packaging material	24.860
3	Utilities	2.100
4	Contingent expenses	10.010
5	Total	41.300

14. Means of finance

SI	Description	Rs. lakhs
1	Total Project Cost	137.545
2	Equity	45.390
3	Debt	92.155

4	Working capital margin money	16.520
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15. Financial analysis

SI	Description	Rs. lakhs
1	Total recurring cost per year	495.600
2	Depreciation on land and building	5.800
3	Depreciation on machinery and vehicle	4.325
4	Depreciation on furnaces	0.000
5	Depreciation on moulds and fixtures	0.020
6	Depreciation on office equipment	0.100
7	Interest on long term loan @ 13.5%	12.441
8	Interest on short term borrowings@ 13.5%	3.345
9	Total cost of production	521.631

16. Turnover per year

SI	Item	Qty	Rate/unit (Rs)	Total Rs. lakhs
1	Corn flakes	600,000 kgs	100	600

17. Viability analysis

SI	Description	Value
1	Net profit before income tax (Rs. lakhs)	78.369
2	Net profit ratio	13.1%
3	Internal rate of return	28.5%
4	Break even percentage	38%
5	Debt service coverage ratio	2.126

List of machinery suppliers for Flaked Cereals

1. Heat and Control (S)Private Limited, E-2, 3rd Avenue, Anna Nagar East, Chennai 600102. ; Tel: 044 - 26212943
2. M. Son Industries, D - 33, Sector - 2, Noida 201301, District Ghaziabad, Uttar Pradesh