

1 EGG ALBUMEN FLAKES

1.1 Introduction

Consumption of eggs is increasing in the country. At the same time, egg white has some industrial applications as well. Drying the egg white makes egg albumen flakes. This dried product has a crystalline appearance with golden yellow colour. Technical grade flakes are used in tanning of leather, in offset printing and as adhesive in crown cork cap manufacturing. The food grade product is mainly used in bakery and confectionery production. Egg yolk can be pasteurized and frozen for edible usage.

1.2 Objective

The primary objective of the model report is to facilitate the entrepreneurs in understanding the importance of setting up unit of Egg Albumen Flakes, technology and financial parameters of various components for preparation and submission of project proposal to bank for sanction of long term loan. This model report will serve as guidance to the entrepreneurs on starting up such a new project and basic technical knowledge for setting up such a facility.

1.3 Raw Material Availability

The only raw material will be eggs and hence the location has to be nearer to the poultry farms. Total egg production in the state in 2003-04 is 8962 lakh numbers.

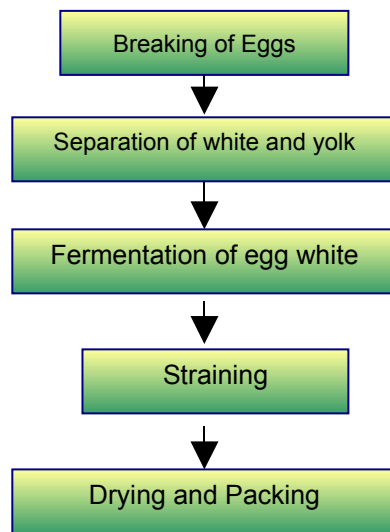
1.4 Market Opportunities

Egg Albumin flakes is a product made by drying the egg white and two different grades can be manufactured. Technical grade has industrial applications in leather tanning, offset printing and as adhesive in crown cork cap manufacture. The food grade flakes are mainly used in bakery products and confectionery manufacturing. Pasteurized egg yolk is used for edible purpose as well as in the manufacture of cosmetics.

1.5 Project description

1.5.1 Manufacturing Process

To begin with, eggs are broken either manually or mechanically and white and yolk are separated. Egg white is then fermented to bring down the glucose content. Fermented material is subsequently strained and dried. Dried product is finally packed in containers. The process flow chart is as under:



1.6 Availability of know how and compliances

National Research Development Corporation, New Delhi, has developed the technical knowhow. For edible grade flakes, compliance under the PFA Act is compulsory

1.7 Capacity of Plant

As against the rated capacity of 15 tonnes per year, actual utilization in the first year is assumed to be 60% and 75% in the second year thereafter third year onwards it will run at 100% capacity.

1.8 Project component and cost

Major components of the projects and their costs are described in the table hereunder:

Particulars	Unit	Qty	Cost/unit	Total
LAND & BUILDING				27.13
Land	SqM	500	625.00	3.13
Land Development				
Land Area		500	1,500.00	7.50
Building				
Production unit	SqM	100	5,000.00	5.00
Storage and Packageing	SqM	200	5,000.00	10.00
Contingencies		10%		1.50
PLANT & MACHINERY				14.03
Walk in Coolers	No	2	50,000.00	1.00
Fermentation Tanks	No	4	40,000.00	1.60
Tray or tunnel drier	No	1	150,000.00	1.50
Pasturizer	No	1	675,000.00	6.75
Plate Freezer	No	1	60,000.00	0.60
Packing Line	No	1	75,000.00	0.75
Contingencies		15%		1.83
MISCELLANEOUS FIXED ASSETS				2.01

Miscellaneous Fixed Assets	LS	1	175,000	1.75
Contingencies		15%		0.26
PRE-OPERATIVE EXPENSES				8.74
Establishment		1	514,000	5.14
Professional Charges		1	200,000	2.00
Security Deposits		1	160,000	1.60
TOTAL				51.91

The cost of the various components will depend on the location of the project. Item wise assumptions are as under:

1.9 Plant and Machinery

The main machineries are walk in coolers, fermentation tanks, tray or tunnel drier, pasteurizer, plate freezer, packing line. The total cost of plant and machinery is Rs. 14.03 lakhs.

1.10 Building

The main production block will cost around Rs. 16.50 lakhs. The entire building will be divided into two zones – production and storage cum packing room.

1.11 Miscellaneous Assets

A provision of Rs. 2.01 lakhs would take care of all the requirements.

1.12 Preliminary & Pre-operative Expenses

A provision of Rs. 8.74 lakhs would take care of pre-production expenses like establishment, professional charges, security deposits etc.

1.13 Working Capital Assessment

ITEMS	Year 1	Year 3	Year 5
STOCK OF RAW MATERIAL	0.08	0.04	0.04
SUNDRY DEBTORS	7.50	12.50	12.50
TOTAL	7.58	12.54	12.54
MARGIN	1.89	3.14	3.14
MPBF	5.68	9.41	9.41
INTEREST ON WC	0.62	1.03	1.03

1.14 Means of Finance

EQUITY CAPITAL			35.00%	18.83
MOFPI SUBSIDY	25%	50.00	25.00%	13.45
TERM LOAN				
FINANANCIAL INSTITUTIONS		9.00%	40.00%	21.52
-Payable half yearly Installments	14	1.50		
TOTAL			100%	53.80

1.15 Cash flow statement

PARTICULARS	Year 1	Year 3	Year 5	Year 7
SOURCES OF FUNDS				
EQUITY CAPITAL	-	-	-	-
SUBSIDY				
NET PROFIT	0.69	9.98	9.64	9.35
(INTEREST ADDED BACK)				
DEPRECIATION	2.32	2.32	2.32	2.32
PRELIMINARY EXP.W/O	1.25	1.25	1.25	1.25
INCREASE IN TERM LOAN	-	-	-	-
INCREASE IN BANK BORROWINGS-WC	5.68	2.33	-	-
TOTAL	9.94	15.88	13.20	12.92

1.16 Projected balance sheet

PARTICULARS	Year 1	Year 3	Year 5	Year 7
LIABILITIES				
EQUITY CAPITAL	18.83	18.83	18.83	18.83
RESERVES & SURPLUS	11.58	20.61	36.02	51.99
TERM LOAN	20.02	14.02	8.02	2.02
BANK BORROWINGS-WC	5.68	9.41	9.41	9.41
TOTAL	56.12	62.87	72.28	82.24

1.17 Profitability

PARTICULARS	Year 1	Year 3	Year 5	Year 7
INCOME	22.50	37.50	37.50	37.50
EXPENDITURE	18.24	23.96	24.30	24.58
VARIABLE	7.80	10.59	10.16	9.73
FIXED	10.44	13.37	14.14	14.85
GROSS PROFIT	4.26	13.54	13.20	12.92
PROFIT BEFORE TAX	(1.87)	7.48	7.68	7.93
RETAINED PROFIT	(1.87)	7.48	7.68	7.93

1.18 Key Indicators

NET PRESENT VALUE at current Inflation (Rs. in lakhs)	56.91
INTERNAL RATE OF RETURN %	22.45
AVERAGE DSCR	2.26
BREAK EVEN POINT %	71.42
PAY BACK PERIOD (YEARS)	4.99

1.19 Man Power Requirement

PARTICULARS	NO s.
Supervisor	2
Skilled Workers	2
Helpers	6
Salesman	1
Security	2
TOTAL	13

1.20 Assumptions

Contingencies on Building		10%
Contingencies on Equipment		15%
Term Loan		40%
Rate of Interest on Term Loan		9%
Subsidy Considered	Subject to ceiling	25%
Expected time of Installation	Months	10
Moratorium	Months	6
CAPACITY		
Rated Capacity Per Annum	80% of Installed capacity TPA	15
Number of Operational Days	DAYS	300
Working Hours Per day	Hrs	21
CAPACITY UTILIZATION		
Year I		60%
Year II		75%
Year III		100%
SALES PRICE		
W S Price		250,000
OTHER EXPENSE		
Commission		10.0%
Marketing Expenses		2.5%
POWER		
Connected Load	HP	40
DEPRICIATION AS PER COMPANY'S ACT		
BUILDING		3.34%
PLANT & MACHINERY		10.34%
MISC. FIXED ASSETS		7.07%
LAND & SITE DEVELOPMENT		1.63%
MAINTENANCE		
BUILDING		1.00%
PLANT & MACHINERY		2.00%
MISC. FIXED ASSETS		1.50%
LAND & SITE DEVELOPMENT		1.00%

1.21 Sources of technology

- Flora Engg. Corpn, 28 A, Phoolbag, Rampura, New Delhi 110 035
Tel. No.: 25415335, 25411920
- Eastend Engg. Co, 173/1 Gopalrai Thakar Road, Kolkata 700 035
Tel. No.: 25773416, 25776324
- Raylon Metal Works, PB No 17426, JB Nagar, Andheri (E), Mumbai 400 059
- Somani International Corpn, 1510, Maker Chamber V, Nariman Point, Mumbai 400 021
- Cowel Can Ltd, PO Barotiwala, Dist. Solan (HP) Container Inds, C-299, Ghatkopar Indl Est, 72 LB Marg, Mumbai 400 080

The actual cost of projects may deviate on change of any of the assumptions.