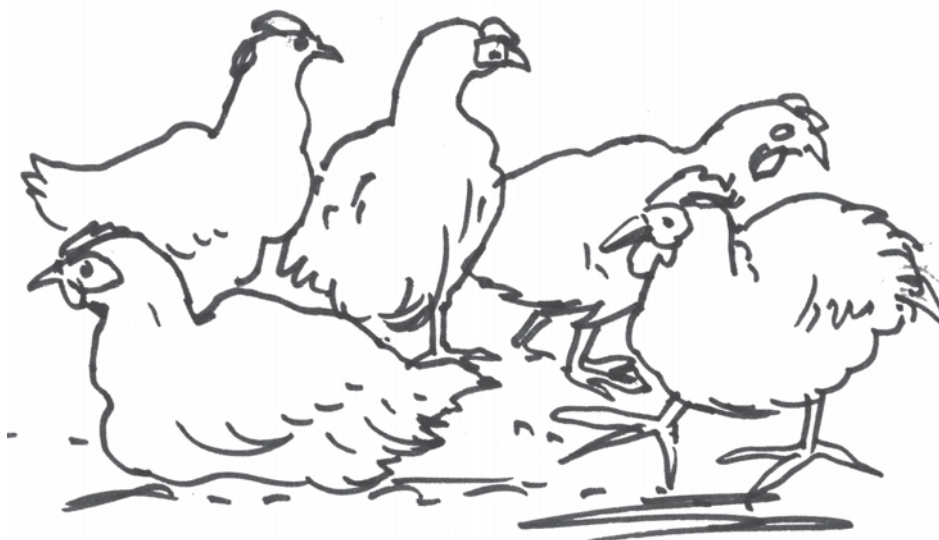


POULTRY PROCESSING



1.0 INTRODUCTION

Poultry farms are increasing steadily. Many government agencies are encouraging poultry farming and even short term training courses are organised regularly. Such farms have generated considerable employment opportunities in semi urban and rural areas. Marketing of poultry birds is expensive and death of birds during transit is the main bottleneck. This compels most of the poultry farms to concentrate on nearby markets even if it means less prices. Instead, if these birds are processed after dressing and packed in tins then transportation is easier and shelf life of the product increases.

Good quality poultry birds are slaughtered and after dressing, they are cooked and packed in cans. This ensures longer shelf life and also takes care of problems associated with transportation of live birds, higher costs and loss of birds during transit.

The project profile is for setting up of a Poultry Processing unit with installed capacity of 600 kg per day based on single shift of 8 hrs.

2.0 MARKET POTENTIAL

Number of non-vegetarians are steadily increasing and because of changing social structure, eating non

vegetarian food is no more a taboo. Even amongst the non vegetarians, various food and snack preparations made from chicken are popular. Increase in the disposable incomes of people, changing lifestyles and preference for instant or convenience food has seen many new products becoming popular during last few years. Likewise, number of star hotels, exclusive restaurants and other eateries are also going up year after year. Clubs, canteens, caterers and flight kitchens is yet another growing market. Longer shelf life and hygienically packed poultry products would be preferred by many.

3.0 PROCESS DETAILS

The process starts with slaughtering of birds and subsequently their feathers, lungs, kidneys, head and other unwanted parts are removed and balance portion is thoroughly washed in water. Then this cleaned portion is cut into required sizes and packed into sterilised tins. They are canned either with 3 to 5% brine or with curried vegetables. These tins are then subjected to live steam in an exhaust box for around 15 minutes at a temperature of about 60-65 C. Then the cans are sealed air tight and are further processed in retort at a pressure of 10 to 15 lbs. for about 40-45 minutes. Then the cans are immediately cooled to room temperature and labelling and further packing is undertaken.

4.0 COST OF THE PROJECT

The estimated project cost is given below.

Particulars	Amount (Rs lacs)
Land & Site Development	-
Building & Civil Works	6.01
Machinery & Equipment	8.40
Misc. Fixed Assets	1.85
Preliminary & Pre-operative Expenses	1.46
Contingencies & Escalation @ 3%	0.49
Working Capital	4.79
TOTAL	22.99

4.1 Land & Site Development: No. cost has been considered for land & site development. It is assumed that the unit will be set up in own land.

4.2 Building & Civil Works: Details of building & civil works are given below.

Particulars	Area (Sqm)	Rate (Rs)	Amount (Rs)
Work Shed (Open shed, CGI sheet roofs, Concrete Floor)	100	3000	300000
Office cum Store (Brick wall, CGI sheet roofings, Concrete Floor)	25	5000	125000
		Sub total	425000
Add: Electrification, water supply, etc @ 12%			51000
		TOTAL	601000
		Say (Rs. in lacs)	6.01

4.3 Machinery & Equipment: Details of machinery & equipment are given below.

Particulars	Qty	Rate (Rs)	Amount (Rs)
Oil-fired Steam Boiler	1	120000	120000
Straight Line Exhaust Box with accessories	1	80000	80000
Canning Retort with accessories	1	70000	70000
Can Reformer & Flanger	1	120000	120000
Can Seamer	1	90000	90000
Can Tester	1	120000	120000
Miscellaneous items	LS	LS	100000
		Sub total	700000
Add: Transportation, taxes, etc. @ 20%			140000
		TOTAL	840000
		Say (Rs. in lacs)	8.40

4.4 Misc. Fixed Assets: Details of miscellaneous fixed assets are given below.

Particulars	Qty	Rate (Rs)	Amount (Rs)
40 HP power connection	1	100000	80000
Water supply system (STW boring, 3 HP pump set, storage, pipes & fittings)	1	80000	75000
Furniture & Fixtures	LS	LS	20000
Miscellaneous items	LS	LS	10000
		TOTAL	185000
		Say (Rs. in lacs)	1.85

4.5 Preliminary & Pre-operative Expenses: Details of preliminary & pre-operative expenses are given below.

Particulars	Amount (Rs lacs)
Travelling expenses	0.50
Professional & other fees	0.50
Interest during implementation	0.26
Miscellaneous expenses	0.20
TOTAL	1.46

4.6 Contingencies & Escalation: Contingencies & escalation has been assumed at 3% of the cost of building & civil works, machinery & equipment and miscellaneous fixed assets.

4.7 Working Capital: Details of working capital are given below.

Particulars	Period (days)	Amount (Rs lacs)		
		Yr 1	Yr 2	Yr 3
Raw Materials & Consumables	15	3.11	3.73	4.35
Power	30	0.10	0.12	0.14
Salary	30	1.10	1.12	1.13
Finished Goods	15	3.78	4.43	5.08
Receivables	15	3.88	4.66	5.44
Total		11.97	14.05	16.13
Working Capital Margin in Yr 1 (40%)	4.79			

5.0 MEANS OF FINANCE

The means of finance for the project is estimated as below.

Particulars	Percent	Amount (Rs lacs)
EQUITY		
A. Equity from Promoters	40%	9.20
B. Subsidy from Central/State Govt.	-	
DEBT		
Term Loan from Banks/FIs	60%	13.80
TOTAL	100%	22.99

6.0 PROFITABILITY STATEMENT

(Rs. in lacs)

Particulars	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7
A. INCOME							
Installed capacity (kg)	126000	126000	126000	126000	126000	126000	126000
Capacity utilisation	50%	60%	70%	70%	70%	70%	70%
Production at CU (kg)	63000	75600	88200	88200	88200	88200	88200
Price (Rs/kg)	150	150	150	150	150	150	150
Income from sales (Rs)	94.50	113.40	132.30	132.30	132.30	132.30	132.30
B. OPERATING EXPENSES							
Raw Materials & Consumables	75.60	90.72	105.84	105.84	105.84	105.84	105.84
Power	1.25	1.50	1.75	1.75	1.75	1.75	1.75
Salary	13.44	13.57	13.71	13.85	13.99	14.13	14.27
Repair & Maintenance	0.16	0.20	0.23	0.28	0.34	0.40	0.49
Selling Expenses	0.95	1.13	1.32	1.32	1.32	1.32	1.32
Miscellaneous Expenses	0.47	0.57	0.66	0.66	0.66	0.66	0.66
Total Operating Expenses	91.87	107.69	123.52	123.71	123.90	124.11	124.33

Less: Working expenses capitalised	4.79	0.00	0.00	0.00	0.00	0.00	0.00
Operating profit	7.42	5.71	8.78	8.59	8.40	8.19	7.97
C. FINANCIAL EXPENSES							
Depreciation	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Interest on Term Loan	1.10	0.98	0.80	0.63	0.45	0.27	0.10
Interest on WC Loan	1.15	1.35	1.55	0.00	0.00	0.00	0.00
Net Profit	4.26	2.47	5.52	7.06	7.04	7.01	6.96
Net cash accruals	5.17	3.38	6.43	7.97	7.95	7.92	7.87
Principal Repayment	0.55	2.21	2.21	2.21	2.21	2.21	2.21

6.1 Estimation of Production Capacity: Production of processed chicken at installed capacity is estimated as below.

Rated processing capacity (kg/day in single shift of 8 hrs)	600
Days/annum	300
Quantity of raw materials processed/annum (kg)	180000
Less: Process loss	30%
Total production/annum at installed capacity (kg)	126000

6.2 Raw Materials & Consumables: Expenses on raw materials & consumables at installed capacity is estimated as below.

Raw material (poultry birds) required at installed capacity (kg)	180000
Rate (Rs/kg)	70
Expenses on raw materials (Rs)	12600000
Add: Additives, transportation charges, packing materials, etc @ 20%	2520000
Expenses on raw materials & consumables at installed capacity (Rs)	15120000

6.3 Power: Expenses on power at installed capacity is estimated as below.

Connected load ((kw)	30
Avg. load factor	70%
Total working days	300
Hrs/day	8
Total power consumption (kwh)	50131
Rate per unit (Rs)	5
Expenses on power per annum at installed capacity (Rs)	250656

6.4 Salary: Expenses on salary in the 1st year is estimated as given below. It is assumed that salary expenses will increase @ 1% every subsequent year.

Particulars of Employees	Numbers	Salary/Month (Rs)	Cost/annum (Rs)
Manager	1	20000	240000
Skilled workers/Machine Operators	5	10000	600000
Salesperson	2	6000	144000
Helpers	10	3000	360000
Expenses on salary in the 1st year (Rs)			1344000

6.5 Repair & Maintenance: Expenses on repair & maintenance in the 1st year is estimated as given below. It is assumed that expenses on repair & maintenance will increase @ 20% every subsequent year.

Particulars	Cost (Rs)	Rate	Amount (Rs lacs)
Building & Civil Works	6.01	1%	0.06
Machinery & Equipment	8.4	1%	0.08
Misc. Fixed Assets	1.85	1%	0.02
Expenses on repair & maintenance in the 1st year (Rs)			0.16

6.6 Selling Expenses: Selling expenses have been assumed at 1% of sales.

6.7 Miscellaneous Expenses: Miscellaneous expenses have been assumed at 0.5% of sales.

6.8 Depreciation: Depreciation has been calculated by straight line method. The details of calculation are given below.

Description	Cost (Rs)	Rate	Amount/annum (Rs lacs)
Building & Civil Works	6.01	3.34%	0.20
Machinery & Equipment	8.40	7.07%	0.59
Misc. Fixed Assets	1.85	6.23%	0.12
TOTAL			0.91

6.9 Interest on Term Loan & Principal Repayment: Interest rate has been assumed at 8% per annum. Duration of Loan repayment has been considered for a period of 7 years including moratorium period of 9 months with equal monthly instalments. The details of calculation are given below.

(Rs in lacs)

Month	Year	1	2	3	4	5	6	7
Month 1	Opening balance	13.80	13.24	11.04	8.83	6.62	4.41	2.21
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest (8%)	0.09	0.09	0.07	0.06	0.04	0.03	0.01
	Closing balance	13.80	13.06	10.85	8.65	6.44	4.23	2.02
Month 2	Opening balance	13.80	13.06	10.85	8.65	6.44	4.23	2.02
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.09	0.07	0.06	0.04	0.03	0.01
	Closing balance	13.80	12.88	10.67	8.46	6.25	4.05	1.84
Month 3	Opening balance	13.80	12.88	10.67	8.46	6.25	4.05	1.84
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.09	0.07	0.06	0.04	0.03	0.01
	Closing balance	13.80	12.69	10.49	8.28	6.07	3.86	1.66
Month 4	Opening balance	13.80	12.69	10.49	8.28	6.07	3.86	1.66
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.07	0.06	0.04	0.03	0.01
	Closing balance	13.80	12.51	10.30	8.09	5.89	3.68	1.47
Month 5	Opening balance	13.80	12.51	10.30	8.09	5.89	3.68	1.47
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.07	0.05	0.04	0.02	0.01
	Closing balance	13.80	12.32	10.12	7.91	5.70	3.50	1.29
Month 6	Opening balance	13.80	12.32	10.12	7.91	5.70	3.50	1.29
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.07	0.05	0.04	0.02	0.01
	Closing balance	13.80	12.14	9.93	7.73	5.52	3.31	1.10
Month 7	Opening balance	13.80	12.14	9.93	7.73	5.52	3.31	1.10
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.07	0.05	0.04	0.02	0.01
	Closing balance	13.80	11.96	9.75	7.54	5.33	3.13	0.92

Month 8	Opening balance	13.80	11.96	9.75	7.54	5.33	3.13	0.92
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.06	0.05	0.04	0.02	0.01
	Closing balance	13.80	11.77	9.57	7.36	5.15	2.94	0.74
Month 9	Opening balance	13.80	11.77	9.57	7.36	5.15	2.94	0.74
	Repayment	0.00	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.06	0.05	0.03	0.02	0.00
	Closing balance	13.80	11.59	9.38	7.17	4.97	2.76	0.55
Month 10	Opening balance	13.80	11.59	9.38	7.17	4.97	2.76	0.55
	Repayment	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.06	0.05	0.03	0.02	0.00
	Closing balance	13.61	11.41	9.20	6.99	4.78	2.58	0.37
Month 11	Opening balance	13.61	11.41	9.20	6.99	4.78	2.58	0.37
	Repayment	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.08	0.06	0.05	0.03	0.02	0.00
	Closing balance	13.43	11.22	9.01	6.81	4.60	2.39	0.18
Month 12	Opening balance	13.43	11.22	9.01	6.81	4.60	2.39	0.18
	Repayment	0.18	0.18	0.18	0.18	0.18	0.18	0.18
	Interest	0.09	0.07	0.06	0.05	0.03	0.02	0.00
	Closing balance	13.24	11.04	8.83	6.62	4.41	2.21	0.00
Principal Repayment		0.55	2.21	2.21	2.21	2.21	2.21	2.21
Interest		1.10	0.98	0.80	0.63	0.45	0.27	0.10

6.10 Interest on Working Capital Loan: Interest rate on working capital loan has been assumed at 16%. Details of calculation are given below.

(Rs. in lacs)

Particulars	Year 1	Year 2	Year 3
Total current assets	11.97	14.05	16.13
Bank Loan (60%)	7.18	8.43	9.68
Interest @ 16%	1.15	1.35	1.55

7.0 DEBT SERVICE COVERAGE RATIO (DSCR)

(Rs. in lacs)

Year	1	2	3	4	5	6	7	Total
Profit After Tax (Net Profit)	4.26	2.47	5.52	7.06	7.04	7.01	6.96	
Depreciation	0.91	0.91	0.91	0.91	0.91	0.91	0.91	
Interest	1.10	0.98	0.80	0.63	0.45	0.27	0.10	
Total	6.27	4.36	7.23	8.59	8.40	8.19	7.97	51.00
Interest	1.10	0.98	0.80	0.63	0.45	0.27	0.10	
Loan repayment	0.55	2.21	2.21	2.21	2.21	2.21	2.21	
Total	1.65	3.19	3.01	2.83	2.66	2.48	2.30	18.12
DSCR	3.79	1.37	2.40	3.03	3.16	3.30	3.46	

Average DSCR = 2.81

8.0 BREAK EVEN POINT (BEP)

(Rs. in lacs)

Year	1	2	3
A. Net sales (Rs. lakh)	94.50	113.40	132.30
B. Variable cost			
Raw Materials & Consumables	75.60	90.72	105.84
Power	1.25	1.50	1.75
Selling Expenses	0.95	1.13	1.32
Miscellaneous Expenses	0.47	0.57	0.66
Total variable cost	78.27	93.92	109.58
C. Contribution (A-B)	16.23	19.48	22.72
D. Fixed & Semi-fixed Costs			
Salary	13.44	13.57	13.71
Repair & Maintenance	0.16	0.20	0.23
Interest on Term Loan	1.10	0.98	0.80
Depreciation	0.91	0.91	0.91
Total fixed cost	15.61	15.66	15.66
E. BREAK EVEN POINT	96.20%	80.40%	68.91%
F. BEP at operating capacity	48.10%	48.24%	48.23%
G. Cash BEP	45.30%	45.44%	45.43%

9.0 INTERNAL RATE OF RETURN (IRR)

(Rs. in lacs)

Year	0	1	2	3	4	5	6	7
CASH OUTFLOW								
Capital Expenditure	16.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Working Capital	0.00	11.97	2.08	2.08	0.00	0.00	0.00	0.00
Total (A)	16.75	11.97	2.08	2.08	0.00	0.00	0.00	0.00
CASH INFLOW								
Profit After Tax		4.26	2.47	5.52	7.06	7.04	7.01	6.96
Add: Depreciation		0.91	0.91	0.91	0.91	0.91	0.91	0.91
Add: Interest		1.10	0.98	0.80	0.63	0.45	0.27	0.10
Add: Salvage Value (20%)								3.35
Total (B)	0.00	6.27	4.36	7.23	8.59	8.40	8.19	11.32
NET FLOW (B-A)	-16.75	-5.71	2.28	5.15	8.59	8.40	8.19	11.32

IRR = 15%

MACHINERY SUPPLIERS

- (a) Zigma International
#11, Ground Floor, Narayan Marutham Buildings, Thoundamuthur Road, Vadavalli, ,
Coimbatore, Tamil Nadu -641041, India
- (b) Dr. Froeb (I) Pvt. Ltd.
C-22, 2nd Floor, Sector-2, , Noida, Uttar Pradesh -201301, India
- (c) Rising Industries
Tanushree Apartment (Ground Floor), Jhowtala, Hatiara, Near Lokenath Mandir, Ghosh
Dutta Para, Opposite Of Honda Service Center, , Kolkata, West Bengal -700157, India