

CATTLE AND POULTRY FEED



1.0 INTRODUCTION

Development of livestock farming is receiving attention considering the nutritional requirements of the population as well as the large employment opportunities generated by these activities. Besides, due to liberal policies, there has been a substantial growth of livestock farms all over the country. Along with the growth of the industry, the feed industry is keeping pace. Cattle and poultry feed are mixtures of various ingredients like maize, rice bran, groundnut cake, molasses, soyabean cake, fish meal etc. The composition of cattle/poultry feed can be varied depending on the availability of various raw materials. Balanced feed is essential for proper growth of cattle and chicks and consequently to increase the output of milk, broiler/eggs.

This project profile is for setting up of cattle and poultry feed unit with installed capacity of 1000 ton per annum, based on 300 working days per annum and 8 working hours per day.

2.0 MARKET POTENTIAL

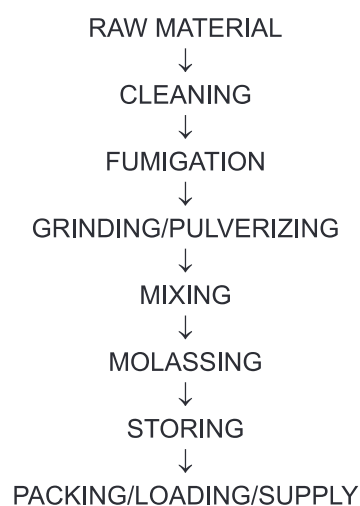
Livestock production in the North-Eastern Region is characterized by traditional backyard or small scale unit. But due to import of better breed and improvement of the existing livestock through cross-breeding the genetic potentiality of the livestock population can be improved. But livestock feed has been a major constrain to small farmer livestock developers and the most single important constrain for the increased production in this region is the inadequacy of feeds and fodder resources both in quality and quantity.

The availability of feeds and fodder is not commensurate with their requirements. When estimated for the N E

Region the shortage is about 75% concentrate, 35% green fodder and 28% dry fodder for the present livestock population alone. It is clear that the region has to depend largely upon other states for procurement of concentrate feeds. The need for animal/poultry feed increasing substantially. There is, thus, untapped potential in the cattle/poultry feed sector and a number of tiny units can be set up to meet the local demand.

3.0 PROCESS DETAILS

The ingredients are pulverized in a pulveriser to the required mesh size. The Product is mixed and meshed in a vibrating screen to ensure correct particle size. The product is packed in ordinary gunny bags or polythene lined gunny bags. The flow diagram of the process is as follows:



4.0. COST OF THE PROJECT

The estimated project cost is given below:

(Rs. in lacs)	
Particulars	Amount (Rs)
Land & Site Development	Own Land/ On Lease
Building & Civil works	4.95
Plant & Machinery	5.50
Misc. Fixed assets	0.50
Preliminary & pre-operative expenses	0.77
Contingencies & escalation @ 3%	0.33
Working capital	1.18
TOTAL	13.22

4.1 Land & Site Development: Nil. Total Area: 5,000 Sq. Ft. Covered Area: 1,500 Sq. Ft.

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

Particulars	Area (Sq ft)	Rate (Rs)	Amount (Rs)
Factory Building cum Office	1500	275	412500
Sub total			412500
Add: Electrification, water supply and sanitation @ 20%			82500
TOTAL			495000
Say (Rs. in lacs)			4.95

4.3 Plant & Machinery: Details of plant & machinery are given below.

Particulars	Qty	Amount (Rs)
Feed Grinder 15 HP	1	450000
Conveyor 2 HP	1	
Batch Prin Ribbon Blender 1 Ton capacity	1	
Feed Mixer 7.5 HP	1	
Sealing Machine (Manual)	1	
Miscellaneous items	LS	50000
Sub total		500000
Add: Installation, transportation, etc @ 10%		50000
TOTAL		550000
Say (Rs. in lacs)		5.50

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

Particulars	Qty	Rate (Rs)	Amount (Rs)
Furniture & fixtures	LS	--	25000
Miscellaneous items	LS	--	20000
Sub total			45000
Add: Installation, transportation, etc @ 10%			4500
TOTAL			49500
Say (Rs. in lacs)			0.50

4.5 Contingencies & escalation: Contingencies & escalation has been assumed at 3% of the cost of land & site development, building & civil works, plant & machinery and miscellaneous fixed assets.

4.6 Preliminary & pre-operative expenses: Details of preliminary & pre-operative expenses are given below.

(Rs. In lacs)	
Particulars	Amount (Rs)
Travelling expenses	15000
Professional & other fees	20000
Interest during implementation	31790
Miscellaneous expenses	10000
TOTAL	76790
Say (Rs. in lacs)	0.77

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

(Rs. in lacs)				
	Period (Days)	Total Current Assets		
		Year 1	Year 2	Year 3
Raw materials	15	1.12	1.30	1.49
Power & utility	30	0.06	0.07	0.08
Salary	30	0.30	0.30	0.30
Finished Goods	15	0.00	1.51	1.70
Receivables	15	1.48	1.73	1.97
Total		2.95	4.90	5.54
Working capital margin in Year 1 (40%)	1.18			

5.0 MEANS OF FINANCE

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

(Rs. in lacs)		
Particulars	Percent	Amount
<u>EQUITY</u>		
A. Equity from Promoters	40%	5.29
B. Subsidy from Central/State Govt.	-	
<u>DEBT</u>		
Term Loan from Banks/Financial Institutions	60%	7.93
TOTAL	100%	13.22

6.0 PROFITABILITY STATEMENT

(Rs. in lacs)

Particulars	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
<u>A. INCOME</u>						
Production Capacity (Ton/annum)	1000	1000	1000	1000	1000	1000
Capacity utilisation	60%	70%	80%	80%	80%	80%
Production/ annum at capacity utilisation	600	700	800	800	800	800
Total income/annum	36.00	42.00	48.00	48.00	48.00	48.00
<u>B. OPERATING EXPENSES</u>						
Raw Materials	27.17	31.69	36.22	36.22	36.22	36.22
Power & Utility	0.70	0.81	0.93	0.93	0.93	0.93
Salary	3.60	3.62	3.64	3.65	3.67	3.69
Repair & Maintenance	0.17	0.17	0.17	0.18	0.18	0.18
Other Expenses	0.36	0.42	0.48	0.48	0.48	0.48

Total Operating Expenses	0.00	36.72	41.44	41.46	41.48	41.51
Operating profit	0.27	5.28	6.56	6.54	6.52	6.49
C. FINANCIAL EXPENSES						
Depreciation	0.49	0.49	0.49	0.49	0.49	0.49
Interest on Term Loan	0.63	0.58	0.45	0.32	0.20	0.07
Interest on Working Capital Loan	0.14	0.24	0.27	0.27	0.27	0.27
Net Profit	-0.99	3.99	5.36	5.46	5.57	5.67
Net cash accruals	-0.50	4.47	5.84	5.95	6.05	6.16
Principal Repayment	0.00	1.59	1.59	1.59	1.59	1.59

6.1 Production capacity and Sales Realisation: Total production of **Cattle and Poultry Feed** at 100% capacity utilization is estimated as below.

Cattle & Poultry Feed	1000 Ton
Total production per annum at 100% capacity (in Ton)	1000 Ton

Products	Qty	Average Rate Per Unit (Rs.)	Amount (Rs)
Cattle & Poultry Feed	1000 Ton	6000	6000000
Total Sales Turnover per annum at 100% capacity			6000000

6.2 Raw materials: Total expenses on raw materials at 100% capacity utilization are estimated as below.

Products	Qty	Average Rate Per Unit (Rs.)	Amount (Rs)
Broken rice, Maize, Rice bran, Fish meal etc. (In Ton)	1150 Tons	3800 Per Ton	4370000
Gunny Bags (In Nos.)	10500 Nos.	15 Per Bag	157500
Expenses on raw material at 100% capacity (Rs)			4527500

6.3 Power & Utility: Total expenses on power & utility at 100% capacity utilization is estimated as below.

Particulars	Quantity	Power (Kw)	Total (Kw)
Plant & Machinery	--	10.00	10.00
General Lighting	10	0.10	1.00
Total power requirement/ day (Kw)			11.00
No. of hrs/day	8		
No. of days/annum	300		
Annual power requirement (kwh)	26400		
Rate per unit (Rs)	3.50		
Expenses on Power (Rs)	92400		
Expenses on other Utility (Rs)	24000		
Expenses on power & utility at 100% capacity (Rs)	116400		

6.4 Salary: Total expenses on salary in the 1st year are estimated as given below. It is assumed that salary expenses will increase @ 0.5% every subsequent year.

Particulars of Employees	Numbers	Salary/ Month (Rs)	Cost/ annum (Rs)
Manager	1	6000	72000
Sales man	2	5000	120000
Skilled workers	2	4000	96000
Unskilled workers	2	3000	72000
Expenses on salary in the 1st year (Rs)			360000

6.5 Repair & Maintenance: Total expenses on repair & maintenance in the 1st year is estimated as given below. It is assumed that expenses on repair & maintenance will increase @ 2% every subsequent year.

(Rs. in lacs)

Particulars	Cost (Rs)	Rate	Amount (Rs)
Building & Civil works	4.95	1.00%	0.05
Plant & Machinery	5.5	2.00%	0.11
Misc. Fixed assets	0.50	1.50%	0.01
Expenses on repair & maintenance in year 1			0.17

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

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

(Rs in lacs)

Description	Cost (Rs)	Rate	Amount/ annum (Rs)
Building & Civil works	4.95	3.34%	0.17
Plant & Machinery	5.50	5.28%	0.29
Misc. Fixed assets	0.50	6.33%	0.03
TOTAL			0.49

6.8 Interest on term loan & principal repayment: Interest rate has been assumed at 8%. Duration of Loan repayment has been considered for a period of 6 years including moratorium period of 1 year with equal monthly instalments. The details of calculation are given below.

(Rs in lacs)

Month	Year	1	2	3	4	5	6
Month 1	Opening balance	7.93	7.93	6.35	4.76	3.17	1.59
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest (8%)	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.80	6.21	4.63	3.04	1.45
Month 2	Opening balance	7.93	7.80	6.21	4.63	3.04	1.45
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.67	6.08	4.50	2.91	1.32
Month 3	Opening balance	7.93	7.67	6.08	4.50	2.91	1.32
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.54	5.95	4.36	2.78	1.19
Month 4	Opening balance	7.93	7.54	5.95	4.36	2.78	1.19
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.40	5.82	4.23	2.64	1.06
Month 5	Opening balance	7.93	7.40	5.82	4.23	2.64	1.06
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.27	5.68	4.10	2.51	0.93
Month 6	Opening balance	7.93	7.27	5.68	4.10	2.51	0.93
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.14	5.55	3.97	2.38	0.79
Month 7	Opening balance	7.93	7.14	5.55	3.97	2.38	0.79
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.02	0.01
	Closing balance	7.93	7.01	5.42	3.83	2.25	0.66
Month 8	Opening balance	7.93	7.01	5.42	3.83	2.25	0.66
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.03	0.01	0.00
	Closing balance	7.93	6.87	5.29	3.70	2.12	0.53
Month 9	Opening balance	7.93	6.87	5.29	3.70	2.12	0.53
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.05	0.04	0.02	0.01	0.00
	Closing balance	7.93	6.74	5.16	3.57	1.98	0.40
Month 10	Opening balance	7.93	6.74	5.16	3.57	1.98	0.40
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.04	0.03	0.02	0.01	0.00
	Closing balance	7.93	6.61	5.02	3.44	1.85	0.26
Month 11	Opening balance	7.93	6.61	5.02	3.44	1.85	0.26
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.04	0.03	0.02	0.01	0.00
	Closing balance	7.93	6.48	4.89	3.31	1.72	0.13

Month 12	Opening balance	7.93	6.48	4.89	3.31	1.72	0.13
	Repayment	0.00	0.13	0.13	0.13	0.13	0.13
	Interest	0.05	0.04	0.03	0.02	0.01	0.00
	Closing balance	7.93	6.35	4.76	3.17	1.59	0.00
Principal Repayment		0.00	1.59	1.59	1.59	1.59	1.59
Interest		0.63	0.58	0.45	0.32	0.20	0.07

7.0 DEBT SERVICE COVERAGE RATIO (DSCR)

(Rs. in lacs)

Year	1	2	3	4	5
Profit After Tax (Net Profit)	-0.99	3.99	5.36	5.46	5.57
Depreciation	0.49	0.49	0.49	0.49	0.49
Interest	0.63	0.58	0.45	0.32	0.20
Total	0.13	5.05	6.29	6.27	6.25
Interest	0.63	0.58	0.45	0.32	0.20
Loan repayment	0.00	1.59	1.59	1.59	1.59
Total	0.63	2.16	2.04	1.91	1.78
DSCR	0.20	2.33	3.09	3.29	3.51

Average DSCR = 2.97

8.0 BREAK EVEN POINT (BEP)

(Rs. in lacs)

Year	1	2	3
A. Net sales	36.00	42.00	48.00
B. Variable cost			
Raw Materials	27.17	31.69	36.22
Power & Utility	0.70	0.81	0.93
Other expenses	0.36	0.42	0.48
Interest on Working Capital Loan	0.14	0.24	0.27
Total variable cost	28.36	33.16	37.90
C. Contribution (A-B)	7.64	8.84	10.10
D. Fixed & Semi-fixed Costs			
Salary	3.60	3.62	3.64
Repair & maintenance	0.17	0.17	0.17
Interest on Term Loan	0.63	0.58	0.45
Depreciation	0.49	0.49	0.49
Total fixed cost	4.89	4.85	4.75
E. BREAK EVEN POINT	64.03%	54.90%	46.98%
F. BEP at operating capacity	38.42%	38.43%	37.58%
G. Cash BEP	34.59%	34.57%	33.73%

9.0 INTERNAL RATE OF RETURN (IRR)**(Rs. in lacs)**

Year	0	1	2	3	4	5	6
CASH OUTFLOW							
Capital Expenditure	11.27	0.00	0.00	0.00	0.00	0.00	0.00
Working Capital	0.00	2.95	1.95	0.64	0.00	0.00	0.00
Total (A)	11.27	2.95	1.95	0.64	0.00	0.00	0.00
CASH INFLOW							
Profit After Tax		-0.99	3.99	5.36	5.46	5.57	5.67
Add: Depreciation		0.49	0.49	0.49	0.49	0.49	0.49
Add: Interest		0.63	0.58	0.45	0.32	0.20	0.07
Add: Salvage Value							
Total (B)	0.00	0.13	5.05	6.29	6.27	6.25	6.23
NET FLOW (B-A)	-11.27	-2.82	3.10	5.66	6.27	6.25	6.23

IRR = 28%

Sl. No.	Name of the Machinery Suppliers	Communication Address
1.	M/s Hardcase Engineering Works (P) Ltd	Mahatma Gandhi Road, Secunderabad, Pin-500 003
2.	M/s James Engineering Co. Ltd	22, Brabourne Road, Kolkata, Pin- 700 001
3.	M/s Spectomes Engineering Pvt. Ltd.	8-A, Shyamaprasad Mukherjee Road, Kolkata, Pin-700 025.