PROJECT PROFILE
CATTLE FEED

1. INTRODUCTION

With the development of dairy in India, there is a very good demand for cattle feed which is mainly used for cows, buffaloes, bullocks etc. Health of cattle depends on its feed. Generally cattle / poultry feed must contain good amount of food nutrients such as protein , carbohydrates, fat, vitamins, minerals, etc. Therefore, cattle feed should have right proportion of these ingredients. Cattle feed is available either in powder form or pellet form whereas poultry feed is available only in coarse form. But there are different types of poultry feed like layer mash, grower mash, chick mash, broiler starter mash, broiler finisher mash etc.

2. OBJECTIVES

The objective of the profiles is to encourage and assist prospective entrepreneurs in MSME sector in and guiding making them aware of the opportunities of this sector. It is also being developed by the Directorate of the Food Processing Industries, Government of West Bengal to help entrepreneurs with knowledge about raw materials availability, knowledge of market, source of technology and plant and machinery suppliers. M/s ITV Agro & Food Technologies Pvt. Ltd., New Delhi has helped in developing the project profile.

3. RAW MATERIAL AVAILABILITY

The main ingredients of cattle feed are oil cake, wheat or rice bran , maize , cotton seed, molasses, mineral mix , vitamin mix etc, while those of poultry feed are maize rice polish, wheat oil cake , fish meal etc. The required quantity is given below:

	Qty in MT	Rate per MT	Rs. in lacs
• Groundnut oil cake	18.750	24,000	54.00
• Wheat bran	37.500	6,000	27.00
• Rice bran	25.000	8, 000	24.00
• Maize	12.500	15,000	15.00
• Molasses	6.250	10,000	6.25
• Mineral mix & vitamin	(LS)	20,000	0.20
• Fish meal	12.500	15,000	30.00
• Bone meal	12.500	15,000	2.25
• Gunny bags for packing	2500	10,000	3.00
	Total		**161.70**

4. MARKET OPPORTUNITIES

The per capita consumption of milk and eggs in India is only about 50% of what we need . Cattle farming and poultry faming are nowadays considered as active & growing activity in agriculture or in animal husbandry. There are very few large manufacturers in this line . With the increase in no. of cattle and birds, the demand of cattle feed and poultry feed goes on increasing.

5. PROJECT DESCRIPTION

a) Product & Its uses

With the development of dairy in India, there is a very good demand for cattle feed which is mainly used for feeding the cows, buffaloes, bullocks etc. Health of cattle depends on it s feed. Generally cattle / poultry feed must contain good amount of food nutrients such as protein , carbohydrates, fats, vitamins, minerals, etc. Therefore, cattle feed should have right proportion of these ingredients.

Cattle feed is available either in powder form or pellet form whereas poultry feed only in coarse form.

b) Capacity

The proposed capacity of the plant is to manufacture 1500 MT / annum of cattle & poultry feed.

c) Manufacturing process

Depending on the product mix various raw material are disintegrated and made in to powder form. Ingredients are taken in required quantity in disintegrator and mix with the prescribed raw material such as oil cake, bran etc. Subsequently, vitamins and minerals are also added. After thorough mixing the cattle feed/ poultry feed is packed.

6. PROJECT COMPONENTS & COST

a) Land & Building

Land – 1000 sq. m @ Rs. 500 per sq. m Rs. 5,00,000

Building -	**Size in ft.**		**Area**
Process Hall	40x30	=	1200 Sq. ft.
Store (2)	40x20	=	1600
Laboratory	20x10	=	200
Office	20 x10	=	200
Total 3200 sq. ft.@ Rs. 600 per sq. ft. i.e		=	Rs. 19.20

b) Plant & Machinery

		Qty	**(Rs. in lacs)**
1.	Disintegrator	1	5.00
2.	Mixer	1	3.75
3.	Weighing scale	1	1.50
4.	Misc. Equipment	(L.S)	0.75
5.	laboratory equipment	(L.S.)	1.80

	Electrification & erection	**1**.65
	Total	**14.45**

c) Miscellaneous Assets

Some other assets like furniture and fixtures, storage facilities, plastic tubs etc. shall be required for which a provision of Rs. 3.80 lacs is made.

d) Utilities

			Rs. in lacs
1.	Electricity	3000 units	
		@ Rs. 5 per unit	1.80
2.	Water		0.25
3.	Grease, Machine oil etc.		0.35
		Total	**2.40**

e) Prel. & Pre Operative Expenses

A provision of Rs. 2.60 lacs is made towards certain pre-production expenses like establishment, registration, administrative and travelling charges, interest during implementation, trial run expenses etc.

f) Working Capital Assessment (Rs. in lacs)

Particulars	**Period**	**Margin**	**Total**	**Bank**	**Promoters**
Stock of Raw material & packing material	½ month	30%	4.04	2.83	1.21
Stock of Finished Goods	½ month	30%	5.33	3.73	1.60
Receivable	½ month	30%	6.37	4.46	1.91
Total			**15.74**	**11.02**	**4.72**

g) Project cost & Means of Finance

Item	**Amount (Rs. in lacs)**
Land and Building	24.20
Plant and Machinery	14.45
Miscellaneous Assets	3.80
P & P Expenses	2.60
Contingencies @ 10% on building and plant & machinery	3.36
Working capital margin	4.72
Total	53.13
Means of Finance	
Promoters' contribution	21.25
Term loan from Bank/ FI	31.88
Total	53.13
Debt Equity Ratio	1.5:1
Promoters contribution	40%

Financial assistance in the form of grant is available from the Ministry of Food Processing Industries, Govt. of India, towards expenditure on technical civil works and plant and machinery for eligible projects subject to certain terms and conditions.

7) PROJECTED PROFITABILITY

a) Production Capacity

The rated production capacity of the plant is 1500 tonnes per year whereas actual capacity utilization is expected to be 60% and 75% during 1st year & 2nd year respectively.

b) Sales Revenue at 100%

Product	**Qty (Tonnes)**	**Selling Price (Rs./Ton)**	**Sales (Rs. in lacs)**
Cattle feed	750	17,000	127.50
Poultry feed	750	17,000	127.50
		Total	**255.00**

c) Projected Profitability **(Rs. in lacs)**

S. No.	Particulars	1st year	2nd year
A.	**Installed capacity**	**1500 Tons**	
	Capacity Utilisation	60%	75%
	Sales Realisation	153.00	191.25
B.	**Cost of Production**		
	Raw material & packing material	97.02	121.27
	Utilities	1.44	1.60
	Salaries	6.66	7.32
	Stores and Spares	3.35	4.18
	Repairs and Maintenance	1.80	2.25
	Selling Expenses @ 25%	15.30	19.12
	Administrative Expenses	2.50	3.12
	Total	128.07	158.86
C.	**Profit before Interest & Depreciation**	**24.93**	**32.39**
	Interest on Term Loan	3.18	2.58
	Interest on Working Capital	1.32	1.65
	Depreciation.	3.36	3.02
	Net Profit	17.07	25.14

	Income-tax @ 20%	3.41	5.02
	Profit after tax	13.66	20.12
	Cash Accruals	17.02	23.14
	Repayment of Term Loan	Nil	6.00

d) Break Even Point Analysis

S. No.	Particulars	Amount (Rs. in lacs)	
(A)	**Sales**		**153.00**
(B)	**Variable Costs**		
	Raw material & packing material	97.02	
	Utilities(70%)	1.08	
	Salaries (60%)	3.99	
	Stores and spares	3.35	
	Selling Exps (70%)	10.71	
	Admn Expenses (50%)	1.25	
	Interest on WC	1.32	**118.72**
(C)	**Contribution (A) – (B)**		**34.28**
(D)	**Fixed Costs**		**13.91**
(E)	**Break Even Point**		**41%**

e) Debt Service Coverage Ratio (DSCR) *(Rs. in lacs)*

Particulars	1st year	2nd year	3rd year
Cash Accruals	17.02	23.14	27.76
Interest on TL	3.18	2.58	1.98
Total (A)	20.20	25.72	29.74
Interest on TL	3.18	2.58	1.98
Repayment of TL	Nil	6.00	6.00
Total (B)	3.18	8.58	7.98

DSCR (A) / (B)	6.35	2.99	3.72
Average DSCR	4.35		

f) Internal Rate of Return (IRR)

Cost of the project is Rs. 53.13 lacs

(Rs. in lacs)

Year	**Cash Accruals**	**20%**	**28%**	**24%**
1	17.02	14.17	13.27	13.71
2	23.14	16.05	14.11	15.04
3	27.76	16.07	13.24	14.54
4	27.76	13.38	10.35	11.82
Total		59.67	50.97	55.11

The IRR is 24 %

g) Manpower requirement

Particulars	**Nos.**	**Monthly**	**Total yearly Salary (Rs.)**
Skilled workers	2	7500	1.80
Helpers	3	5,000	1.80
Production Manager	1	10,000	1.20
Salesman	1	8,000	0.96
Others	1	7,500	0.90
		Total	**6.66**

8. ASSUMPTIONS

- The plant will work for 300 days in a year. :
- The operating capacity is 60% , 75%, 90 % during 1st year , 2nd year and 3rd year respectively.

- The interest on term loan is taken at 10% per annum and on working capital it is 12% per annum.
- Selling price of finished products is taken at Rs. 17000 / ton .

9. SOURCES OF TECHNOLOGY

CFTRI, Mysore, has successfully developed the technical know-how for the product. BIS has laid down the quality standard. The compliance under FSSAI act is a must.

10. PLANT & MACHINERY SUPPLIERS

1. Namdhari Agro Industries
   D-26, Focal Point,
   Khanna – 141001 (Punjab)
   Ph. 9888531657
   email.nandhariagroind@yahoo.in

2 Best Engineering Technologies,
Plot No. 69-A, No. 5-9-285/13,
Rajiv Gandhi Nagar, Industrial Estate,
Kukatpally, Hyderabad – 500037 (AP)
Ph. 08447523620
www.bestengineeringtechnologies.com