

RAJASTHAN AGRICULTURAL COMPETITIVENESS PROJECT

RACP

Detailed Project Report on Poultry Feed in the state of Rajasthan



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Chapter 1: Introduction- Poultry Feed

Poultry refers to a group of domesticated birds kept for food, fibre. Poultry feed is nutritional food for various poultry including chicken, domestic fowls, ducks and geese. Before the twentieth century, poultry were mostly kept on general farms, and foraged for much of their feed, eating insects, grain spilled by cattle and horses, and plants around the farm. This was often supplemented by grain, household scraps, calcium supplements such as oyster shell, and garden waste.

Historically, the poultry farming has evolved through three major phases –

Traditional system which is largely done through the backyard farming

At small scale semi commercial level of farming is done

In large scale commercial poultry farming, nutritionally balanced feeds are used for enhancing meat quality and productivity.

Poultry feed comes in various types such as

- Fodder
- Forage
- Powder
- Granules
- Briquettes
- Pellets

All poultry feed can be categorized into three main kinds which are mentioned below in the diagram:



Pellets

- Pellets are the most widely available form of poultry feed
- These are cylindrical, compact poultry feed that are easily consumable and digestible by chickens.
- Most importanat benefit of Pellets is that it does not go to waste easily. More importantly, pellets are easy to store and provide to chickens



Mash

- Mesh are best suited for chicks, simply because they are unprocessed and are far easier to consume that pellets and crumbles.
- Best way of serving mash is to mix it with water to resemble like porridge, provided that it is served and consumed as quickly as possible as this form tends to expire a lot quicker



Crumbles

- They are rare to find , but if we manage to do it can be convinent to store
- Crumbles lie somewhere between mash and pellets in terms of being easy to eat and gather.
- In terms of nutrition, crumbles are no different to other types of poultry feed.

1.1 Global Scenario

Poultry is the largest meat production segment in the global meat industry. Poultry meat is universally consumed and, unlike beef and pork, is devoid of any religious impact. Globally feed industry serves a variety of animals including poultry, dairy (cattle, calf, beef), aquatic/marine, pig, pets etc. Poultry feed has the highest share in the total animal feed market by contributing a share of 439 million MT.

Globally, the market for Poultry Feed has been increasing due to growing population and increase in disposable income. Increase in quality of meat and dairy production is key drivers for the market. Hence, Poultry Feed Market is expected to reach \$220 billion market by 2020 at the end of the forecasted period and is expected to grow at CAGR of 2.7 % during the forecast period.

The growth of poultry feed market is directly related to the poultry meat demand and consumption. The end consumers of poultry feed are compound feed manufacturers, integrators, farmers, home-mixers, and poultry meat industry.

The below diagram shows the species break of Poultry feed market:

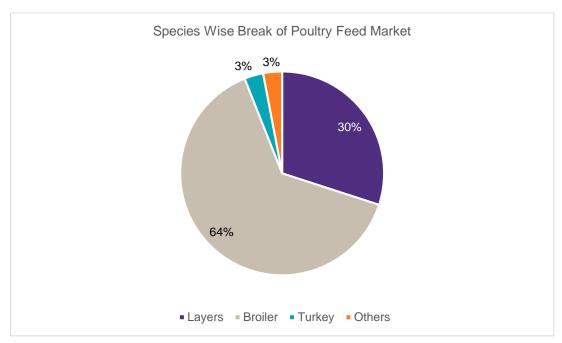


Figure 1: Species breakdown poultry feed market

Source: 2015 Altech Global Feed Survey

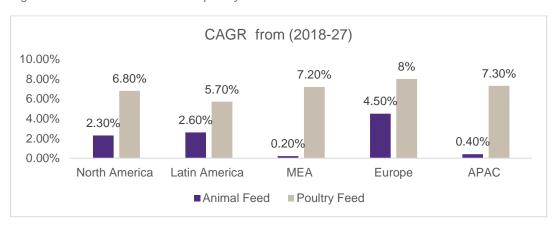
According to the above diagram broilers have a largest share in the poultry feed which is 64 %, it dominates the global poultry feed market with more than half of the market share followed by layers, turkey and others. The key players profiled in Global Poultry Feed Market includes-

Figure 2: Key Players in Global feed market



Poultry feed market is likely to witness a steady growth as poultry producers strive to meet increasing demand for poultry across the globe. Growing consumption of poultry meat has pushed the poultry production, in turn triggering an imbalance between supply and demand for poultry. As compared to animal feed, poultry feed production growth is rapid and can be understood by the below given comparative graph

Figure 3: CAGR Of animal feed and poultry feed



Source: Fact.MR

Region wise North America is the largest producer and consumer of the Poultry Feed and has 32.40% of market share, followed by APAC, Europe, Latin America and MEA with 29.60%, 20.70%, 10.40% and 6.90% respectively. Some of the countries which have high growth potential in the poultry market includes Mexican and Canadians markets. The highest poultry production is expected in developing parts of the world such as China and Brazil because of rising living standards, production cost benefits, strong export and domestic demand. The poultry industry in these countries also benefits from lenient feed related regulation.

Demand for poultry feed continues to remain concentrated in the emerging economies of Asia Pacific. Countries such as China and India have been showcasing increasing preference for Poultry feed since the past few years. This has resulted in the increasing dependence of quality poultry feed to cater to the growing poultry production. On the other hand, sales of poultry feed in the United States is likely to account for a lion's share in the poultry feed market Overall, stakeholders in the poultry feed market can expect an opportunistic scenario driven by a combination of industry specific and macroeconomic factors during the assessment period.

1.2 Indian Scenario

India is fourth largest broiler producer and third largest egg producer. The poultry sector is the key driver with the broiler production of 3.5 million tonnes in 2013 and egg production of 70.24 billion in 2012-13. 90 percent of the broiler industry uses compound feed.

Poultry consumption has seen a steady growth over the last few years. The key factor for this is growth in household incomes. Growth in income is associated with an increase in animal-based protein intake. Being a white meat, broiler meat has the advantage of being a healthier choice vis-a-vis red meats like mutton, pork and beef, while also being cheaper than seafood.

Per capita consumption of broiler meat grew by 7.4 per cent CAGR from 2009-10 to 2013-14, while that of eggs rose by 3.7 per cent CAGR. These levels are, however, much lower than the National Institute of Nutrition's per capita consumption recommendation of 11 kg of meat and 180 eggs per year. Over 2013-14 to 2017-18, per capita consumption of broiler meat is estimated to continue to grow by a slower 6 per cent CAGR, while eggs will improve slightly to 3.9 per cent CAGR. The use of the compound feed in the layer industry varies from 5 to 25 percent and is highly underpenetrated. Based on the current egg production total feed demand is about 11.6 million tonnes although the consumption is 2-3 million tonnes. In future, the layer industry offers a promising potential for the growth of the feed industry. Poultry Feed accounts for 58 percent of the total feed market in India. Poultry feed consumption has increased from 7 percent in 2007-08 to 8 percent in 2012-13. The current demand for poultry feed in India is almost 22 million tons. The broiler industry has been considered the strongest driver behind the development of feed industry in India, benefiting largely from the presence of integrators (70% of the total industry) and a shorter production cycle. This has brought in feed based efficiencies and rationalization in the industry.

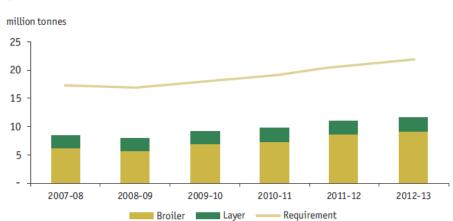


Figure 4:Indian Poultry Feed Consumption Growth

While poultry integrators are much stronger in regional pockets of Andhra Pradesh, Karnataka and Tamil Nadu, the much larger landscape for the poultry industry and its expansion beyond these belts provide ample opportunity for standalone feed players. The demand is expected to grow by 7-8 percent in near term.

The table below depicts the state-wise requirement of and broiler and layer feed in India (2013).

Figure 5:State-wise poultry feed requirement:

S. No	Region	Annual Broiler Feed requirement (MMT)	Annual Layer Feed Requirement (MMT)
1	Tamil Nadu	1.38	1.97
2	Karnataka	0.88	0.52
3	Andhra Pradesh	1.27	3.09
4	Maharashtra	1.23	0.36
5	Gujarat	0.20	0.13
6	West Bengal	1.12	0.12
7	Odisha	0.27	0.24
8	Punjab & Haryana	0.88	1.49
9	Rajasthan	0.16	0.11
10	Uttar Pradesh	0.63	0.1
11	Madhya Pradesh	0.19	0.03
12	Chhattisgarh	0.20	0.22
13	Others	1.51	0.06
	Total	9.92	8.44

Source: CLFMA Annual Survey 2013-14, YES BANK Analysis

Considering the layer industry, the total feed demand is about 11.6 million tonnes. The consumption is expected to grow by 5-6 percent. In the near term, significant opportunities exist in layer industry for compound feed demand. With farms consolidating and growing in size in long term, layer farmers will be integrated backwards into feed milling.

Poultry industry is an important aspect of the livestock subsector in India with a potential to solve the problem of malnutrition, unemployment and augmenting rural economy. Poultry sector in India is valued at about Rs. 80,000 crores (2015-16) broadly divided into two subsectors – one with a highly organized commercial sector with about 80% of the total market share (say, Rs. 64,000 crore) and the other being unorganized with about 20% of the total market share of Rs. 16,000 Crore.

Poultry processing is also an important factor in the poultry industry, in this there is a conversion of live poultry into raw poultry products for human consumption and these process includes chemical preservations. The domestic poultry industry mainly consists of broiler meat and table egg with other poultry meat forming a marginal proportion of the overall market. The below graph depicts the Market size and growth forecast of the poultry processing industry

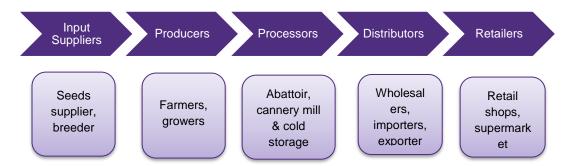
120 107.6 95.9 100 85.5 76.2 80 68.3 Billion 61.6 56 60 50 NR. 40 20 0 2016 2017 2018 2019 2020 2021 2022 2023

Figure 6: Market size and growth forecast of the poultry processing industry

Source: Research on India

The poultry processing industry in India is expected to expand at a CAGR of ~12% between 2018 and 2023, and reach a value of INR 107.6Bn by the end of 2023.

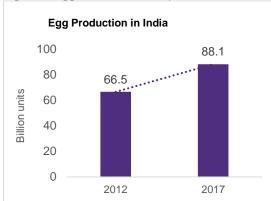
The below diagram shows the value chain of Poultry processing market: Figure 7: Value Chain of Poultry Processing

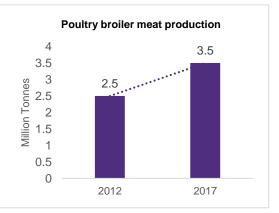


Broiler has the largest share in the poultry industry with a total broiler market size in India estimated at 4.2 million tons. The average farm gate broiler realizations for FY2018 is Rs 75 kg which is better than the previous year which was Rs. 70.

Egg production in the country has increased from around 66.5 Bn to 88 Bn units in 2017. around 75% of the egg production in the country is by commercial poultry farms and the remaining comes from household backyard poultries. The highest egg producing states in India are Tamil Nadu, Andhra Pradesh, Telangana, West Bengal and Haryana. Currently the per capita consumption of broiler meat in India is just 3.35 kg per person per year. The poultry broiler meat production has increased at a rate of 7 % from 2012 to 2017. The average bird placement in the broiler segment is 65-70 million birds per week. The highest meat producing states are Uttar Pradesh, Maharashtra, West Bengal, Andhra Pradesh & Telangana. The below diagram showcases the production of egg and poultry meat in India.

Figure 8: Egg and broiler meat production





Source: Research on India

Market drivers in the poultry industry in India are mentioned below:

Figure 9: Market drivers in Poultry Industry in India

Favourable Market Conditions

- Globally, India is the second largest egg and third largest broiler chicken producer.
- Poultry is a highly vertically integrated industry in India It matches the efficiency levels of many western countries.

Government **Initatives**

- · Various govt. policies are aimed at helping the poultry processing market .
- Under the policy initative of the Indian govt. to double the income of farmers by 2022, the poultry sector is going to be major sector

Poultry Association in India

- Poultry Fedration of India , Compond Livestock Feed Manufacturers Assocoiation , National Egg Coordination Commitee , Broiler Coordination Commitee are some of the poultry associations.
- It provides valuable information about the poultry industry ,poultry feeds , poultry equipments, chicken breeders, poultry nutrition.

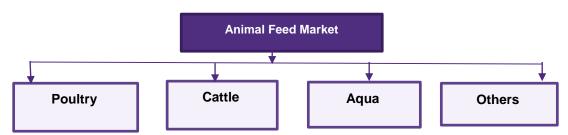
Increased Accesibility and Availability

- The demand for processed poultry meat is increasing beacuse of affordable prices.
- Easy availability and accesibility of processed meat in urban areas is an important factor in contributing in the growth of poultry processing industry.

India is one of the largest and fastest growing compound feed markets in the world. Feed manufacturing on a commercial and scientific basis started around 1965 in India with the setting up of medium-sized feed plants in northern and western India. Feed was produced mainly to cater to the needs of dairy cattle. The Indian feed industry is undergoing a very exciting phase of growth for the next decade.

The major share of India's animal feed industry include poultry, aqua and meat and the feed market is worth INR 348 Billion in 2017 and is projected to reach INR 788 Billion with a CAGR of 14.5 % in 2023.

Figure 10:Components of animal feed market



The table below provides a detailed breakup of animal feed industry into various segments – Poultry (broiler and layer), cattle and aqua in India. Table 1: Detail breakup of Animal Feed Market

	Feed (Million Ton	Consumption s)	Potential Volume Requirement (2017-18)	Feed	Estimated Future Annual Feed Consumption Growth Rate (%)
Poultry -Broiler	9.4		10.4		8
Poultry-Layer	2-3		11.6		5-6
Cattle	7.5		67		6
Aqua	1		7		9

Source: Industry Notes, YBL Research

As depicted in the above table, broiler feed constitutes a major share of animal feed industry consumption (45%) followed by cattle feed (36%), layer (14%) and aqua feed (5%). Only about 11 percent of cattle feed, 14 percent of aqua feed and 55 percent of poultry feed requirements are met through compound feed.

Major players operating in India poultry feed market are:

Figure 11: Major feed players in India

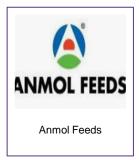












Poultry feed in India consists of grains like maize, wheat, sorghum, bajra, ragi and broken rice and grain by products like rice polish, deoiled rice bran and maize gluten meal; oilseed meals from soybeans, mustard, groundnut and sunflower; animal protein sources like fish meal,

whole fish, meat and bone meal, poultry by-product meal; vitamins, minerals and various feed additives.

Poultry Feed accounts for 58 % of the total feed market in India. In broilers, three types of feeds – pre-starter, starter and finisher are used. In layers, chick mash, grower mash and two-three types of layer mash are used. Feed sector in India is clearly at an inflection point currently and is poised for a glorious future. Poultry segment is seeing a high growth trajectory due to increase of home consumption as well as Quick Service Restaurants. All these have led to an increased usage of high quality raw material for feed across all sub segments in India.

1.3 Rajasthan Scenario

Rajasthan is not entirely untouched with the rise of poultry farming in India. The state has about 11.27% of the livestock of the country and ranks 14th in egg production in the country. State produces nearly 105 of meat in India, which includes poultry meat as well. In egg production, since 2009-10 to 2015-16 state has witness 106% of production increase.

Rise of the poultry meat and egg industry in the state has propelled the demand for quality poultry feed, as feed is essential material for poultry farming. As per 2013-14 CLFMA annual survey, state requires 0.16 MMT and 0.11 MMT of broiler and layer feed.

Major poultry players in the state are:

- Suguna Poultry Farm Limited
- Simran Farms Limited
- Sugna Foods

Apart from above mentioned organized players in the sector, there are many small traders and retailers active in the supply chain of Poultry meat, eggs and feed.

Chapter 2: Process Flow & Machines

2.1 Introduction

Dry feeds may be ground, sifted, screened, mixed, compressed, expanded, texturized, coloured and flavoured. By one or more of these processes, a wide variety of ingredients can be prepared into a standardized product.

2.2.1 Grinding

Grinding or particle-size reduction is a major function of feed manufacturing. Many feed mills pass all incoming ingredients through a grinder for several reasons:

- (a) Clumps and large fragments are reduced in size.
- (b) Some moisture is removed due to aeration.
- (c) Additives such as antioxidants may be blended.

All of these improve the ease of handling ingredients and their storability. There are other reasons for grinding and the associated sieving of ingredients in formula feeds before further processing. Layers and boilers require plankton-size feeds available in dry form as a meal or granule.

The grinding of ingredients generally improves feed digestibility, acceptability, mixing properties, palatability, and increases the bulk density of some ingredients. It is accomplished by many types of manual and mechanical operations involving impact, attrition, and cutting.

2.2.2 Hammer mills

Hammer mills are mostly impact grinders with swinging or stationary steel bars forcing ingredients against a circular screen or solid serrated section designated as a striking plate (Material is held in the grinding chamber until it is reduced to the size of the openings in the screen. The number of hammers on a rotating shaft, their size, arrangement, sharpness, the speed of rotation, wear patterns, and clearance at the tip relative to the screen or striking plate are important variables in grinding capacity and the appearance of the product. Heat imparted to the material, due to the work of grinding, is related to the time it is held within the chamber and the air flow characteristics. Impact grinding is most efficient with dry, low-fat ingredients, although many other materials may be reduced in size by proper screen selection and regulated intake.

Feed mixing may include all possible combinations of solids and liquids. Within each ingredient are differences in physical properties. For solids there are differences in particle size, shape, density, electrostatic charge, coefficient of friction as represented by the angle of repose, elasticity or resilience and, of course, color, odor, and taste. For liquids there are differences in viscosity and density.

The term "mixed" can mean either blended, implying uniformity, or made up of dissimilar parts, implying scattering. As applied to formula feeds, the objective of mixing combines each of these definitions; i.e., the scattering of dissimilar parts into a blend. However, it is improbable that uniformity is attained with particles within a, sample arranged in some order of position or concentration. That is only a quality control; goal. It has been suggested that a proper title for a discussion of mixing should be "mixing and unmixing", for during the operation there is a constant tendency of particles which have been mixed to become separated. Three mechanisms are involved in the mixing process:

(a) the transfer of groups of adjacent particles from one location in the mass to another,

- (b) diffusion distribution of particles over a freshly developed surface,
- (c) shear slipping of particles between others in the mass.

In theory, the position of particles within a container is determined by chance, and the effects of chance accumulate until they outweigh the direct effects of mixing action. In the mixing of liquids, chance movement of components creates order or uniformity. With dry solids, chance distribution creates disorder. When disorder is at a more or less stable maximum, it may be called "random". Many factors in dry solids cause particles to avoid a chance or random arrangement. In fact, the result of mixing feed ingredients may be a definite pattern of particle segregation or non-random arrangement.

Particle segregation is due to differences in the physical properties of ingredients and the shape and surface characteristics of the mixer. Particle size may be the most important factor in causing segregation. An improvement in mixing which approaches random distribution of solids by decreasing particle size can be measured quantitatively by statistical methods. In general, the smaller and the more uniformly sized the ingredients are prepared, the more nearly they will approach random distribution during mixing.

2.2.3 Mixing

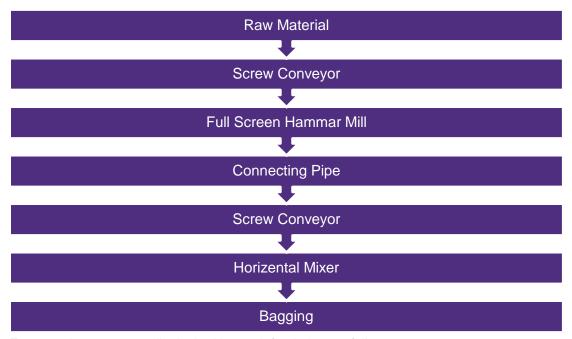
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- (a) The transfer of groups of adjacent particles from one location in the mass to another,
- (b) Diffusion distribution of particles over a freshly developed surface,
- (c) Shear slipping of particles between others in the mass.

Mixing may be either a batch or a continuous process. Batch mixing can be done on an open flat surface with shovels or in containers shaped as cylinders, half-cylinders, cones or twincones with fixed baffles or moving augers, spirals, or paddles. Continuous mixing proportions by weight or volume, is a technique best suited for formula feeds with few ingredients and minimal changes. The below flowchart process of semi-automatic mash feed plant.

Figure 12:Process Flow Chart for the Semi-Automatic Mash Feed Plant



Features that are generally desired in mash feed plant as follows:

- It should give consistent output for which it is designed.
- In Grinding it should give desired texture with uniform grinding
- In mixing it should give accurate mixing in shortest time
- It should have provision of reliable magnetic separator
- Ease of control in feeding of raw materials
- All the machines should be of matching capacity
- It should have minimum dust with good working conditions
- It should consume minimum energy per ton of feed processed
- Highly reliable with minimum breakdown.
- Need minimum maintenance

Chapter 3: Technology Options

Available

We propose a medium end technology option for poultry feed. The medium end option includes a Semi-Automatic processing plant of 1000 Kilogram per hour (KGs per hour).

3. Medium End Technology - Poultry feed Processing line

3.1 Business Assumption:

The business plan has assumed that the business model operates under Captive Mode.

The Captive Model involves direct selling of Poultry feed products such as layer feed composition and boiler feed composition.

The assumptions for the poultry feed model is as follows:

Table 2: Assumptions for Captive Model

Business Case -	Yea	Year								
Assumptions	r 1	2	3	4	5	6	7	8	9	10
Captive	0	100	100	100	100	100	100	100	100	100
Trading	0	%	%	%	%	%	%	%	%	%

The assumptions for Operating Capacity utilization is given below.

Table 3: Assumptions for Operating Capacity utilization

Business Case -	Year									
Assumptions	1	2	3	4	5	6	7	8	9	10
Operating Capacity	0	50%	55%	60%	65%	70%	70%	70%	70%	70%

3.2 Project Cost

The total cost of the project is estimated at Rs.38.67 Lakhs, out of which civil cost constitutes Rs 16.80 Lakhs, plant and machinery constitutes Rs.9.18 Lakhs, utilities & support of Rs. 10.36 Lakhs, Interest during construction of Rs. 0.83 Lakhs and Preliminary & pre-operating expenses of Rs. 1.50 Lakhs. The detailed description of each component of project cost is depicted in the tables below.

Table 4: Project Cost Summary

Capex Components	Year 1
Civil Cost	16.80
Plant & Machinery	9.18

Utility & Support	10.36
Preliminary & Pre-operative expenses	1.50
IDC	0.83
Total Capex	38.67

Note: We have not considered the land cost in this business model

3.3 Proposed Means of Finance

The promoter's equity in the project is Rs 19.34 Lakhs which is 50% per cent of the total project cost. The term loan considered for the project is estimated at Rs. 19.34 Lakhs which is 50 per cent of the total project cost.

Table 5: Means of Finance Summary

Means of Finance (INR Lacs)	Year 1
Total Project Cost	38.67
Funding	
Equity (Promoters Cost)	19.34
Debt	19.33
Total Funding Required	38.67

Note: We have not considered grant in aid being offered by National Horticulture Board or any other government entity/ institutions. Which may have an impact on the overall profitability of the project in a positive way.

3.4 Civil Work

The total cost of civil work has been estimated to be Rs 16.80 lakhs. Cost of civil work comprises of the built-up cost of poultry feed machine, Raw material storage & Finished goods storage. The total cost of technical civil works has been arrived at on the basis of the estimates provided by the Chartered Engineer (Civil) and are substantiated with the requisite certificate.

Table 6: Civil Cost Summary

Civil Cost	Total Area Required (SQM)	Total Civil Cost (Lacs)
Poultry Feed Processing Machine, Finished good storage structure and Raw Material Storage structure		
	200	16.80
Total Civil Cost		

3.5 Utilities and other project components

The total cost of Utilities has been estimated to be Rs 10.36 lakhs, which includes water storage of 10,000 LT/hour, generator set of 50 KVA, weighing scale, and electrical wires & panel.

Table 7: Utilities and other project components

Utility & Support Infrastructure	Capacity (No. of Units)	Overall Cost (INR Lacs)
Water Storage	10000 LT	0.36
Generator	50 KVA	6.24
Weighing Scale	4	1.20
Transformer / Electrical wires and Panel		2.40
Gunny Bag Sewing Machine		0.18
Total Utility & Support		10.36

3.6 Plant and Machinery

The total cost of plant and machinery has been arrived on the basis of quotation received from various suppliers of equipment and machinery. The total cost of P&M is considered as Rs. 9.18 Lakhs (including IGST). The following table captures the components under Plant & Machinery.

Table 8: Plant and Machinery

Plant & Machinery	Total Cost (Lacs)
Plant & Machinery	
FOUNDATION ATTACHMENT	0.27
SCREW CONVEYOR (FOR GRINDER)	0.43
FULL SCREEN HAMMER MILL (GRINDER)	0.88
CONNECTING PIPE	0.03
SCREW CONVEYOR	0.43
HORIZONTAL FEED MIXER: (Double Ribbon Screw Mixer)	3.18
MEDICINE HOPPER:	0.31
PLATFORM FOR ACCESS TO MIXER	0.24
V-BELTS and COUPLING	0.03
Coupling for Grinder	0.03

MOTORS	1.31
MOTORS CONTROL CENTRE	0.86
Magnet System	0.19
HAND PALLET TRUCK	0.96
Total Cost of Plant & Machinery	9.18

3.7 Income Statement

The below mentioned is the income statement for processing line of Poultry Feed:

Table 9: Income Statement

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Income										
Layer Feed Composition		56	65	75	85	96	101	106	111	117
Boiler Feed Composition		98	113	129	147	166	174	183	192	202
Total Income (Rs.Lakhs)	0	154	178	204	232	262	275	289	303	318
Raw Material										
Layer Concentrate		25	29	33	38	43	45	47	50	52
Makka		45	52	59	67	76	80	84	88	93
DORB		2	3	3	4	4	4	5	5	5
Shekgrid		1	2	2	2	3	3	3	3	3
Boiler Concentrate		7	8	10	11	12	13	14	14	15
Soya		20	23	26	29	33	35	37	38	40
Power		5.62	5.90	6.19	6.50	6.83	7.17	7.53	7.90	8.30
Packing Cost		2.36	2.73	3.13	3.56	4.02	4.22	4.44	4.66	4.89
Water		0.42	0.44	0.46	0.49	0.51	0.54	0.56	0.59	0.62
Total Direct Expenses		109	125	143	162	183	192	201	211	222
Gross Profit		45	53	61	70	79	83	88	92	97
Manpower		11.61	12.19	12.80	13.44	14.11	14.82	15.56	16.34	17.15
Repairs & Maintenance		1.09	1.14	1.20	1.26	1.33	1.39	1.46	1.53	1.61
Insurance		0.39	0.41	0.43	0.45	0.47	0.50	0.52	0.55	0.58

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Admin Expenses		0.50	0.53	0.55	0.58	0.61	0.64	0.67	0.70	0.74
Travelling Expenses		5.28	6.01	6.88	7.83	8.85	9.29	11.09	11.64	12.22
Selling & Distribution Expenses		7.70	9.34	10.69	12.77	14.44	15.92	16.72	18.43	19.35
Total In-Direct Expenses	0.00	27	30	33	36	40	43	46	49	52
EBITDA		18	23	28	33	40	41	42	43	45
Depreciation for Civil Works	0.00	1.68	1.51	1.36	1.22	1.10	0.99	0.89	0.80	0.72
Depreciation on P&M	0.00	1.38	1.17	1.00	0.85	0.72	0.61	0.52	0.44	0.38
Depreciation on Others Components	0.00	1.04	0.93	0.84	0.76	0.68	0.61	0.55	0.50	0.45
Sub-Total	0.00	5	4	4	3	3	2	2	2	2
EBIT	0.00	14	19	25	30	37	39	40	41	43
Interest on Term Loan		2	2	1	1	1	0			
Interest on Working Capital - Normal		5	6	7	8	9	9	10	10	11
PBT	0.00	7	11	16	21	27	29	30	31	33
Tax	0	0	1	3	5	6	7	7	7	8
PAT	0.00	7	10	13	17	21	22	23	23	25

3.8 Balance Sheet

The below mentioned is the balance sheet statement for processing line of Poultry Feed:

Table 10: Balance Sheet

TOTAL LIABILITIES	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
A) Promoters Funds										
Capital Contribution	14	19	19	19	19	19	19	19	19	19
PAT	0	7	10	13	17	21	22	23	23	25
PAT after appropriations	0	7	17	31	47	68	91	113	137	161
Sub-Total	14	26	36	50	67	88	110	133	156	181
B) Debt										
Long Term Loans										
Term Loan - Outstanding	13	17	14	11	8	4	0	0	0	0
Sub-Total	13	17	14	11	8	4	0	0	0	0
C)Current Liabilities										
Creditors - others	0	1	1	1	1	1	1	1	1	1
Creditors - Raw Material	0	7	8	9	10	11	12	13	13	14
Bank Finance - Working Capital	0.00	35.56	41	47.18	53.72	60.81	63.85	67.04	70.39	73.91
Total Current Liabilities	0	43	50	57	65	73	77	81	85	89
TOTAL LIABILITIES	26	86	100	118	139	165	187	214	241	270
TOTAL ASSETS									1	
D)Land	0	0	0	0	0	0	0	0	0	0
Fixed Assets										_
Gross Block (Civil + P&M)	9	24	32	29	25	23	20	18	16	14

TOTAL LIABILITIES	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Purchases	15	12	0	0	0	0	0	0	0	0
Less: Depreciation	0	4	4	3	3	3	2	2	2	2
Sub-Total	24	32	29	25	23	20	18	16	14	13
E)Current Assets										
Net Debtors	0	12	14	16	19	21	22	23	24	25
Cash & Bank Balance	0	9	21	35	51	72	92	117	142	168
Stock	0	31	36	41	46	52	55	58	61	64
Sub-Total	0	52	70	92	116	145	169	198	227	257
F)IDC, Pre-ops written off	2	2	1	1	0	0	0	0	0	0
TOTAL ASSETS	26	86	100	118	139	165	187	214	241	270



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