

POULTRY FARMING - (BROILER)



1.8 Introduction :-

Rearing of one day old chicks, dressing, packing and marketing as ready to cook broilers are the main activities of Poultry Farm (Broiler). Broiler farming has become popular in the North Eastern Region in the last couple of years though other states of the country has made much progress in the line over a period of time.

To cater the domestic requirement of meat and eggs, most of the families in Tripura rear few poultry birds. However, due to low production potential of indigenous birds the anticipated economic benefits could not be accrued to the people of this state. Besides, due to the gap between demand and availability, meat and eggs are being imported from places like Guwahati, Calcutta and even some time Delhi to meet the requirements. As such, poultry is one of the fast multiplying species of birds which can help in narrowing the gap between demand and supply of meat and eggs to the state in the shortest span of time besides being a business to the people and providing self employment. In view of all the factors indicated above, it would be in the interest of the state and unemployed people as a whole to undertake small scale poultry farming. It is found that the climate of the North East region though humid, is suitable for broiler farming without any ill effect on gaining weight provided the house is scientifically made to keep it dry, sunny and airy. Most people have the wrong

notion that farm reared birds and the eggs have less nutritive value but in fact they have more nutritive value because they are being given well balanced diet. Poultry meat contains more proteins and essential amino acids when compared to other meat.

2.0 Present Status and Market Potential :-

Poultry meat and eggs are very common commodity. Due to its high protein content, it attains key position in diet. Besides being wholesome it is also nutritional. Moreover, there being hardly any chance of adulteration, most people prefer it.

At present, there are very few poultry farms in the state of Tripura. Looking to the demand existing in the market, these poultry farms are not in a position to fulfill the market requirements. That is why most of the demand for poultry meat is being met through procuring of the stuff from other places. During the market survey discussion with experience and knowledgeable people it is revealed that there is good demand for poultry farming in the State. The proposed farm will cater the need of individuals as well as the hotels.

3.0 Proposed Capacity :-

It is proposed to start with 1000 birds exclusively for Broilers. To start with one day old chicks the maturity level reaches by about 8 weeks subsequent to which the weight gain would be negligible. Thus considering and restarting with a fresh batch of one-day old chicks, there would be four production cycles in a year. Accordingly, the output of broilers per annum is estimated to be 4,000 numbers.



4.8 Production Process :-

The sole aim of rearing birds is to get eggs or meat. The birds which lays eggs are known as layers and the hybrid variety which gives the meat are known as broilers.

There are four different methods of poultry farming :

- i) Range Method;
- ii) Semi-intensive;
- iii) Deep Litter System; and
- iv) Cage System

The method which will be applied in this project will be the Deep Litter System.

As in the factory for good quality production, good quality of raw materials are required, in the same manner, to increase the production of eggs and meat, good quality of feed is necessary. The detailed process line is as below :

First of all, one day old chicks are brought from reputed commercial hatchery of quality breed, vaccinated with F-1 (R.D.) and kept in the brooder house till four weeks. In the meantime, they are given proper feed, water and medicines and kept warm at about 90-95^o F. The temperature should be decreased by 5^o F every week till they no longer need supplementary heat. The heat is supplied by the electric brooder.

After the 4th week, they will be transferred to the grower house and here too they will be given proper feed and water till 8th week. The chickens will be sold from sixth to eighth week as ready to cook broilers.

Dressing :-

The birds will be secured in shackles and the stick is made. Sticking causes the relaxation of muscles that holds the feather in place and enables the feathers to be plucked easily. Most commercial dressing farms use the soft or semi-scaled process. The bird is completely submerged in hot water for 30 to 60 seconds. Then, the feathers are removed with the help of mechanical feather plucker. It is then immediately plugged into an ice or water bath. The internal temperature of the bird should be lowered to 35 to 40^o F. The rapid lowering of body heat retards the growth and multiplication of bacteria.

Removing of the entrails starts after the feet and head have been removed and the bird is vented. By applying gentle traction the entrails are drawn outside. The body cavity is then rinsed thoroughly with clear cool water and set aside to drain. The giblets should be cleaned and placed inside. The dressed poultry should then be packed and keep in freezer and sold within 48 hours of the time of slaughter as ready to cook broilers.

5.0 Raw Materials Requirement :-

The basic raw material is the poultry feed. Poultry farming



cannot be profitable unless feed of proper qualities are given to the birds. The feed must supply various nutrition in a balanced form. The general composition of the feed consists of water, protein, carbohydrate, fats, minerals and vitamins. Poultry feed is readily available from the market.

The estimated feed requirement for broiler comes to 4 kgs. of feed per bird consumed in 8 weeks time which is the maturity period. Considering that there would be 1000 birds and four cycles in a year, the broilers would number to about four thousands. The annual requirement of feed for broilers is estimated to 16500 kgs. after allowing for feed to additional 10% of one-day old chicks procured to account for possible mortality.

For immunization and treatment of possible diseases, medicines would be needed for which necessary provision has been made while calculating the cost of raw materials. For production of 1000 numbers in one cycle and 4 cycles in a year, the requirement of one day old chick would be the tune of 4400 numbers after allowing 10% mortality rate.

6.0 Infrastructural Requirement :-

The proposed project will require a total 500 Sq.Mtrs. of land, out of which about 300 Sq.Mtrs. will be required as built-up area. This will take care of the office space as well as housing the chickens also. The chicken house will have side walls of

about 6 feet height. Half of it being masonry and the other half will be covered by wire mesh.

Water is required not only to clean the chicken house but also to feed chicken. The requirement of water is to the tune of 18 litres. per day per 100 chicks. Power is required for electric bulbs installed in brooders which act as source of heat. About 20 bulbs of 100 w each would be required. They would operate about 3 to 4 weeks for each cycle of broiler. Further power is needed to light the chicken house.

7.0 Project Outlay :-

The estimated cost of the project is as below :

(Rs.in lacs)

i) Land	0.50
ii) Building	3.60
iii) Equipments	0.63
iv) Preliminary & Pre-operative Exp.	0.10
v) Misc. Fixed Assets	0.10
vi) Working Capital	0.17

Total....	5.10

Means of Finance

i) Term Loan	3.62
ii) Promoter's Contribution	1.28

Total	5.10



7.1 Land and Building

As indicated earlier, the farm would require about 500 Sq.Mtrs. of land. The estimated cost of land has been worked out to Rs.50,000, i.e., Rs. 100/- per Sq.Mtr. As regards the building the total built up area required is to the tune of 300 Sq.Mtrs. Since the construction of the chicken house has half well and half wire mesh construction, the estimated cost for built up area has been worked out to Rs.3.60 lac, i.e., @ Rs. 1200/- per Sq.Mtr.

7.2 Plant & Machinery :-

Details about the plant and machinery required for poultry farm are given in Annexure-I. Names and addresses of the equipment suppliers are also given at the end of the same annexure. The estimated cost for plant & machinery has been worked out to Rs. 0.63 lac. This includes taxes, freight, insurance, installation, erection, etc.

7.3 Preliminary & Preoperative Expenses :-

Entrepreneur is expected to meet certain expenses towards establishment of the proposed project. These expenses have to be incurred by the entrepreneur before starting the venture. Certain expenses like market survey cost, project report preparation cost, travelling, loan application fee, scrutiny fee, etc. are covered under this head. A provision of Rs. 10,000/- has been made for this.

7.4 Working Capital Requirement :-

While working out the working capital requirement for the project, about 15 days' raw material stock and 15 days' receivables have been kept in mind. This apart, one month's production expenses like wages, salaries, utilities, etc. have also been considered. The total working capital requirement for the poultry farm has been worked out to Rs. 0.70 lac. out of which the entrepreneur has to bring Rs. 0.17 lac. towards Promoter's contribution being 25% of the total working capital requirement.

8.0 Manpower Requirement :-

The poultry farm will require one skilled person who will also act as supervisor, two semi-skilled and two unskilled workers to look after the various activities related to the farm. It is also proposed to have one watchman. Other activities like accounting, marketing, purchasing and overall management of the farm will be looked after by the entrepreneur himself. Details about total wages and salaries are given in Annexure - II.

9.0 Profitability :-

The price of dressed chicken varies from Rs. 65 to 85 per bird. However, for the calculation purpose, it has been taken @ Rs. 75/- per bird which is an average price. Considering this, the total revenue per year comes to Rs. 3.00 lacs. Against this, the



total operating cost has been worked out to Rs. 2.47 lac. Thus, there is a surplus of Rs. 0.53 lac. every year. Detailed calculation for profitability has been given in Annexure - IV.

10.0 Break Even Analysis :-

The project's break even point has been calculated @ 67%. Details are given in Annexure - IV.

11.0 Key Elements

- i) The litter should be rotated every 3 to 4 days and should be kept dry. It should be changed with every batch of birds.
- ii) Feed and water should be given regularly.
- iii) All equipments must be cleaned every time.
- iv) Medicines for coccidiosis from 7th to 11th day - 3 gms. in 5 litres. of water and from 14th to 42nd day Femix 100 gms. in 1 Qn. of feed should be used.
- v) Drugs like Amdon should be used 30 to 40 gms. in 100 litres. of water to prevent occurrence of fowl typhoid, Pullorum disease. Sulmenellosis, Fowl Cholera etc.
- vi) Blodax (1 gm in 8 litres of water) should be given from 1st day to 7th day to avoid chronic respiratory disease (C.R.D.) and other infections.
- vii) It is also advisable to use a single moderate dose of Anthelmintic at the end of 4 1/2 week.

viii) Vitamins and Minerals like Merivite AB2D3 (10 gms in 1 qtl. of feed) and Meriplex (20 gms in 1 qtl. of feed) should be mixed with feed regularly.



LIST OF PLANT & EQUIPMENTS

Sr. No.	Particulars	Quantity
1	Feather Plucker	1 No.
2	Electric debeaker	1 No.
3	Automatic Vaccinator	1 No.
4	Electric Brooder	1 No.
5	Chick feeder	20 Nos
6	Chick Drinker	10 Nos
7	Grower Feeder	40 Nos
8	Grower Drinker	10 Nos
9	Deep Freezer	1 No.
10	Stabilizer	1 No.
	Total	Rs. 0.50
	Add: 25% for taxes freight, insurance installation, erection etc.	Rs. 0.13
	Total	Rs. 0.63 =====

Names & Addresses of equipment suppliers

1. M/s Raman Sirgica Pvt Ltd
Kadam Kuan, Patna, (Bihar)
2. M/s Unique Surgical Works
Exhibition Road, Patna (Bihar)
3. M/s Perfect Engg. Works
Pirmohni, Patna (Bihar)
4. M/s Kegg Farms Pvt. Ltd
79/9B, Acharya Jagdish Bose Road
Calcutta 700 014
5. M/s Diamond Poultry Equipments
B-16/8, Jhilamid Industrial area
G.T. Road, Shahdara
Delhi 110 032

MANPOWER REQUIREMENT

(Rs. in lakhs)

Sr. No.	Particulars	Nos. reqd.	Total wages & Salary
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1	Skilled workers-cum-Supervisor	1 @ Rs.1500/- per month	0.18
2	Semi-Skilled workers	2 @ Rs.1000/- per person	0.24
3	Unskilled workers	2 @Rs.800/- p.m. per person	0.19
4	Watchman	1 @ Rs. 500/- p.m.	0.06

			0.67
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ANNEXURE - III

PROFITABILITY STATEMENT

(Rs. in lacs)

Sr.No.	Particulars	
1	Capacity Utilisation	300 working days
2	Annual Income	3.00
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3	Raw Materials	0.70
4	Consumables, Stores, Repairs & Maintenance	0.03
5	Power, Water	0.06
6	Salary & Wages	0.67
7	Rent, Taxes, etc.	0.02
8	Admn. Expenses	0.06
9	Interest @ 15% on T.L. 0.57 @ 18% on W.C. 0.09	0.66
10	Depreciation @ 18% on P&M 0.09 @ 5% on Bldg. 0.18	0.27
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11	Total Operating Cost	2.47
12	Operating Profit	0.53
13	Income Tax	-
14	Net Profit	0.53
15	Operating Profit to Income Ratio (%)	18%
16	Net Profit to Income Ratio (%)	18%

BREAK EVEN POINT ANALYSIS (BEP)

A	FIXED COST	(RS. IN LAKHS)
	Interest (Term loan)	0.57
	Rent, Taxes	0.02
	Salary	0.18
	Stores, Repairs, Maintenance (40%)	0.01
	Utilities (30%)	0.02
	Depreciation	0.27
	Admn. Expenses (50%)	0.03

		1.10

B	VARIABLE COST	
	Raw Materials	0.70
	Wages	0.49
	Stores, Repairs, Maintenance (60%)	0.02
	Utilities (70%)	0.04
	Admn. expenses (50%)	0.03
	Interest (working capital)	0.09

		1.37
		=====
C	CONTRIBUTION	
	Income - Variable cost =	
	3.00 - 1.37 = 1.63	
D	B.E.P.	
	Fixed cost	x 100
	-----	=
	Contribution	
	1.10 x 100	= 67%

	1.63	