**CHAPTER-I**

**INTRODUCTION**

Broilers are kept for commercial production of meat in our country. Broiler keeping is a source of pleasure, diet as well as income from selling of meat. Broiler farming has become popular both in urban and rural area. Broiler farming has encouraged the people of different sections such as small farmers, landless laborers and educated unemployed as well as for industrialists to establish broiler farms on small & large scale. The growth performance of broiler bird might simply be a function of higher feed intake. Feed consumption followed similar trend to that of weight gain. These non significant differences in growth performances support the findings of **(Oliveira *et al,* 1974), (Shanmugasundaran *et al,* 1976), (Haque & Chowdhury, 1994), (Anisuzzaman & Chowdhury, 1996), (Hussain *et al,* 1996) and (Sarica *et al,* 1998).** Findings of the study clearly indicate that all broiler farms made good profit. Bangladesh is a densely populated country. Most of the people suffer from malnutrition. Bangladesh is unable to provide proper nutrition for her people. Protein is the important element of food, which is found in meat, egg and fish. Price of beef, chevon, mutton etc. is too high for most of the people to buy. Broiler meat may be the easy and cheap source of protein. Poultry meat contributes a good percentage of the total meat in Bangladesh. Contribution of poultry to GDP and foreign exchange is essential and increasing day by day. Now-a-days, Bangladesh Government gives more opportunity for developing broiler farms in urban and rural areas. During my internship program I worked in Upazila Veterinary Hospital, Boalmari, Faridpur. Broiler farms have not been established in this area as per the demand because of various types of problems including unconsciousness among the people. During study period (16/07/12 to 06/09/12) visited 15 broiler farms. Flock size of most of the farms is 500 to 1800.

**Justification:**

There are many broiler farms at Boalmari upozila under Faridpur district. Recently many others are going to be established. Broiler farming is much profitable now a days. As a result lots of people are getting interest in broiler farming. But in this area no such research work yet has done. Without this type of work and appropriate support from the researcher the farms are not going further on. Therefore, to estimate and compare with the broiler sector of other area this work has done.

**Objectives of the study:**

* To study the management pattern of broiler farming
* To estimate the cost and return for broiler farming.
* To identified the problems of broiler farming and suggest some recommendation.

**CHAPTER II**

**REVIEW OF LITERATURE**

**Yasmin *et. al.* (1989)** studied the characteristics of backyard poultry farmers in Bangladesh. Findings of the indicated that 17% had low knowledge, while 13% had considerable knowledge. Statistical tests revealed that education, family size, occupation, number of birds and extension contact of the farmers had a positive and significant relationship with their knowledge on poultry production.

 **Miah (1990)** surveyed small scale poultry farmers in saver areas. The purpose of the study was to determine the profitability of poultry farming. The researcher found that the average numbers of birds in small and medium farms were 589 and 3139 respectively. The average annual costs per small medium farms were Tk. 136788 and 567034 respectively. The income earned from small and medium farms were Tk. 308779 and 1480302 respectively. The researcher also found that the profitability of poultry farming was positively co-related to the size of individual farms.

 **Das (1995)** reported that 80% poultry products were purchased by institutional buyers and 20% by individual consumers in Sylhet Sadar thana. Egg price was fully dependent on market demand while broiler price was equally dependent on production cost and market demand. Owing to religious belief and social tradition, live poultry birds were purchased by the consumers. The processing and dressing as marketing operation was uncommon in Sylhet town market. This scenery is common in most area of Bangladesh.

 **Kashem and Sarker (1998)** conducted a study at Tarunda union in Mymenshing disrict and determined the extent of problems faced by the farmers in respect of breeding, feeding, housing, prevention and control of diseases in poultry raising. The findings revealed that prevention and control of diseases were the most disturbing problem followed by feeding, breeding and housing.

 **J. Alam (2001)** conducted a similar nature of study in 5 districts ofBangladesh has evaluated the impact of inventions made by the SLDP on socio-economic condition of the poor people. The generation of income and employment from SLDP activates has enhanced the status women in the family. An overwhelming majority of beneficiaries reported that their socio-economic condition improved after their participation in SLDP.

 **S. K. Raha (2004),** conducted a research study entitled as poultry Farming Under Participatory Livestock Project: An Agribusiness Study, to examine the cost, benefits and profitability as well as marketing system of the products of different poultry rearer under some areas of PLDP. The study found that the BCR on full cost basis per chick was 1.09 for the chick rearer. The study also revealed that chick rearer sold about 87% of pullets and key rearer sold 825 each of eggs spent hens . Model Breeder sold 97% of eggs and 86% of hens while Mini hathery marketed 100% of the DOC and also identified some problems associated with procurement of inputs, poultry rearing and distribution of outputs are identified and the suggestions as perceived by the concerned participants are also recorded. A few recommendations are also no the basis of the field study for considerable by the policy makers and implementing agencies to improve the workability of the semi-scavenging poultry model in Bangladesh.

**CHAPTER III**

**MATERIALS AND METHODS**

**3.1. Location:**

In Boalmari Upazila most of the farms are situated near the house. Some of the farms are separated from the house. Improved faming system, transport facilities and other facilities are considered during site selection for farming. The place must be high enough to facilitate well drainage.

**3.2. Selection of study area:**

The area was selected because no study of this type was conducted previously in this area.

**3.3 Preparation of the survey schedule:**

The survey schedule was developed in accordance with the objective of the study. Survey schedule was prepared to get the desired information from the broiler farm owner.

**3.4. Period of data collection:**

The necessary information of the study was carried out from Boalmari Upazila Veterinary Hospital, under Faridpur district in period of 16/07/12 to 06/09/12.

**3.5 Collection of data:**

In total 15 broiler farms in different unions in Boalmari Upazila werw selected for the study by using random sampling technique.

**Table no. 1** At a glance cenerio of Broiler farming at Boalmari Upazila

|  |  |
| --- | --- |
| **Name of the union** | **Number of broiler farm(s)** |
| Baljani | 5 |
| Amgasadangi | 3 |
| Banaer | 4 |
| Bonir char | 6 |
| Char para | 5 |
| Maina | 3 |
| Madhapara | 4 |
| Ruejani | 2 |
| Gohalbari | 2 |
| Noapara | 4 |
| Sator | 5 |
| Sutasi | 3 |
| Total | 46115 |

**3.6. Data analytical Techniques:**

The collected data were analyzed after coding, decoding, summarized when stay in CVASU campus with the correspondence of supervisor. Simple statistical methods such as mean, percentage etc. were applied for analyzed the collected data to meet up the study goals and objectives.

**3.7**. **Limitations of the study:**

The required information of the study were collected by a single visit in each farm after ending of one batch of broiler marketing due to shortage of time.

**CHAPTER IV**

**Management Practices of Broiler Farming:**

**4.1. Husbandry practice:**

**4.1.1. Collection of Chick:**

Collection of broiler chicks is important for broiler farming. The farm owner collect the chicks from different hatcheries. The price of day old broiler chick was paid 45 Tk. Per chick.

**4.1.2. Flock size:**

During study period 15 broiler farms were visited Different flock size were observed in different unions. The average flock sizes were found which is given bellow:

**Table no. 2** Flock Size of broiler at the study area:

| **Number of visited farm** | **Flock Size** |
| --- | --- |
| 1 | 700 |
| 2 | 650 |
| 3 | 500 |
| 4 | 1000 |
| 5 | 700 |
| 6 | 600 |
| 7 | 650 |
| 8 | 1200 |
| 9 | 500 |
| 10 | 1800 |
| 11 | 750 |
| 12 | 1300 |
| 13 | 700 |
| 14 | 1200 |
| 15 | 700 |
|  **Average** | **900** |

**Source: Field Survey, 2012**

**4.1.3. Housing:**

A suitable house is the prime need for the rearing of poultry birds in the intensive method. In Boalmari Upazila there are two types of house are observed.

 1. Brooder house

 2. Grower cum finisher house.

 **4.1.4. Floor, feeder and waterer space followed by the farmers are given below:**

**a. Floor space:**

**Table no.3:** Average available floor space of broiler farming

|  |  |
| --- | --- |
| **Age of the bird** | **Floor space / bird** |
| 1st weekweek | . 5 sq. ft. |
| 2nd weekweek | . 5 sq .ft. |
| 3rd week | 1 sq. ft. |
| 4th week | 1 sq. ft. |
| 5th week to finishing | 1 sq. ft. |

 **Source: Field Survey, 2012**

AboveTable no.3 1st week aged birds floor space needs 0.5 sq. ft.per bird. But by increasing age required more floor space.5th weeks to finishing required floor space

1 sq.ft. per bird.

**b. Feeder space:**

**Table no. 4 :**Average Feeder space of broiler farming

|  |  |
| --- | --- |
| **Age of the bird** | **Feeder space/bird** |
| 1st Week | 1 inch |
| 2nd week | 1 ½ inch |
| 3rd week | 1 ½ inch |
| 4th week | 2 inch |
| 5th week to finishing | 2 inch |

 **Source: Field Survey, 2012**

By increasing age required more floor space due to increase their size.5th weeks to finishing required feeder space 2 inch .per bird .Where as 1st Week required feeder space 1 inch per bird.

**c. Water space:**

**Table no. 5: Average** Water space of broiler farming

|  |  |
| --- | --- |
| **Age of the bird** | **Waterer space / bird** |
| 1st week | .5 inch |
| 2nd week | .75 inch |
| 3rd week | .75 inch |
| 4th week | 1 inch |
| 5th week to finishing | 1inch |

 **Source: Field Survey, 2012**

1st week aged birds Waterer space needs 0.5 inch .per bird. But by increasing age required moreWaterer space.5th weeks to finishing required Waterer space

1 inch. per bird.

**4.1.5. Temperature Schedule:**

**Table no. 6:** Temperature Schedule of Broiler Farming

|  |  |
| --- | --- |
| **Age of bird** | **Temperature** |
| 1st week | 95º F |
| 2nd week | 90º F |
| 3rd week | 85º F |
| 4th week | 80º F |
| 5th week | 75º F |
| 6th week to finishing | 70º F |

 **Source: Field Survey, 2012**

AboveTable no.6 1st week aged birds Temperature needs 95º F per bird. But by increasing age required more.6th weeks to finishing required 70º F per bird.

**4.1.6. Litter management:**

**Table no. 7:** Litter management of Broiler farming.

|  |  |
| --- | --- |
| Litter material | Depth |
| Rice husk | Winter Summer |
|  | 1.5-2 inch 1 inch  |

**Source: Field Survey, 2012**

Depth of Rice husk in winter 1.5-2 inch and summer 1inch used as a litter.

**4.1.7. Feeding:**

Feeding is main part of rearing broiler chicks. More feed consumption, more weight gain. The chicks should be given small quantity of feed frequently for the 1st week. The farmer use the following way for feeding the broiler.

**Table no. 8:** Feeding Practices of Broiler Farming

|  |  |
| --- | --- |
| **Age** | **Nature of feed** |
| 1st week | Crumble |
| 2nd week | Crumble |
| 3rd week | Pellet |
| 4th week | Pellet |
| 5th week to finishing | Pellet |
| 6th week to finishing | Pellet |

**Source:** Field Survey, 2012

1st week aged birds required Crumble . But increasing age required crumble to pellet nature of feed at 6th week to finishing.

**4.1.8. Weight gain:**

**Table no. 9:** Occurring of weight gains in Broiler farming

|  |  |
| --- | --- |
| **Age** | **Weight** |
| 22 days | 600 gm |
| 25 days | 800 gm |
| 30 days | 1000 gm |
| 35 days 40 days | 1400 gm |
| 40 days | 1700 gm |

**Source: Field Survey, 2012**

In 22 days weight gain per broiler 600 gm and 35 to 40 days weight gain per broiler 1400 to 1700 gm. due to proper feeding and management.

**Fig**: Graphical Representation of weight gain.

**4.1.9. Vaccination schedule:**

**Table no. 10 Vaccination schedule of Broiler farming system.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Age** | **Vaccine** | **Disease** | **Dose & route** |
| Days 1-3  | BCRDV  | Ranikhat  | 1 drop in 1 eye  |
| Days 12-14  | Gumboro (D-78/228E) | Gumboro  | 1 drop in 1 eye |
| Days 21-22  | BCRDV | Ranikhat  | 1 drop in 1 eye |
| Day23-24 | Gumboro (D-78/228E) | Gumboro  | 1 drop in 1 eye |

**Source: Field Survey, 2012**

Proper vaccination schedule is maintain in the farm at 1to 24 days

 **4.2. Feeding Practices of Broiler Farming:**

The broilers need more feed and the farmers collect the feed from different companies. The farmers mainly follow the literature of the Quality and Pro vita feed company for their feeding management. Two companies supply three types feed that is broiler starter, broiler grower and broiler finisher.

**Nutritional level of Quality & Provita feed is as follows:**

 **Table no. 11:** Feeding Practices of Broiler Farming

|  |  |  |
| --- | --- | --- |
|  | **Quality feed** | **Provita feed** |
| **Nutrients** | **Broiler starter** | **Broiler grower** | **Broiler finisher** | **Broiler starter** | **Broiler grower** | **Broiler finisher** |
| Moisture % | 11 | 11 | 11 | 11 | 11 |  |
| Cp% | 21 | 21 | 21 | 22 | 20 | 20 |
| CF% | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| Fat% | 5.6 | 5.5 | 5.5 | 5.8 | 5.8 | 5.8 |
| P% | .5 | .5 | .5 | .5 | .5 | .45 |
| Ca% | 1 | 1 | 1 | 1 | 1 | 1 |
| Me kcal/ kg | 3000 | 3000 | 3000 | 3050 | 3150 | 3150 |

**Source: Field Survey, 2012**

**Table no. 12 Standard Level of Broiler Feed**

|  |  |  |  |
| --- | --- | --- | --- |
| **Nutrients** | **Broiler starter** | **Broiler grower** | **Broiler finisher** |
| Moisture % | 11 | 11 | 11 |
| CP% | 22 | 21 | 20 |
| CF% | 3.5 | 3.5 | 4 |
| Fat% | 3 | 3 | 3 |
| P% | .5 | .5 | .5 |
| Ca% | 1 | 1 | 1 |
| ME kcal/ kg | 2900 | 3000 | 3000 |

**Source:** Jadhav M. F. Siddiquei-1999, Hand book of Poultry Production Management.

Here mentioned that the ME (kcal / kg) and Fat% of Pro vita feed is higher than the standard level.

**4.3 COST AND RETURN**

**Table 13:** Cost in per batch of broiler. (900)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Variable cost |  **Items** | **Gross****Cost (Tk.)** | **Depreciation****cost (Tk.)** | **Total cost****(Tk.)** |
|  |  |
| Day old chick cost | 40,500 | - | 40,500 |
| Feed cost | 119700 | - | 119700 |
| Labour cost | 7200 | - | 7200 |
| Electricity cost | 1100 | - | 1100 |
| Medication cost | 6300 | - | 6300 |
| Total Variable cost |  - | 174800 | - | 174800 |
| Fixed cost | Housing cost | 12000 | 1000 | 1000 |
| Equipment cost | 2250 | 225 | 225 |
| Total Fixed cost |  - | 14250 | 1225 | 1225 |
| Total cost |  Total Variable cost+ Total Fixed cost | 176025 |

**Source:** Field survey, 2012

Variable cost is 174800 which is 99.3% of total cost.

Fixed cost is 14250 where depreciation cost is 1225 which is 0.7% of total cost.

**Table 14:** Total returns in one batch of birds. (900)

|  |  |
| --- | --- |
| **Items** | **Per bird return (Broiler)** |
| Selling of birds | 187920 |
| Total return | 187920 |
| Net return (Total return- Total cost) | 11895 |
| BCR( Total return Total cost) | 1.06 |

 **Source:** Field survey, 2012

Total return 187920. Net return = (Total return -Total cost) = 11895.

So, profit from per batch of broiler 11895 TK.

**3.3.3 Benefit Cost Ratio**

If BCR>1 the farming will be benefited and acceptable

The BCR is shown in table. The BCR (Benefit Cost Ratio) is 1.06 which is >1.

So the farming will be benefited and acceptable.

**B. PROBLEMS OF BROILER FARMING IN BOALMARI UPAZILA**

**l. Shortage of feed & proper nutrition:**

Bangladesh is a highly populated country. There is no enough land for feed cultivation. As a result, the farm owner faces the crisis of feed. The feed which are found in the market have less nutritive value. The broiler does not gain proper weight by consuming those feed.

**2. Lack of transport facilities:**

A transport facility of Boalmari Upazila is not so good. It is difficult for the farmers to transport the necessities from one place to another. So people do not find interest to establish farm.

**3. Lack of electricity:**

Electricity is the prerequisite to make broiler farm. Without electricity it is almost impossible to manage a broiler farm from first to last. But in our Upazila there is a huge deficiency of electricity. So broiler farms can not be established though there is a large demand of broiler meat.

**4. Low quality feed: -**

The feed which are found in the market are of low quality. The feed suppliers do not maintain proper nutritive composition and hygienic condition.

**5. Low quality chick:**

The hatchery owner supply low quality chicks. As a result the farm owners are deprived from having good and healthy chicks. Many chicks die in their early stage of life. It is very harmful for a farm and farmers lose interest to do farm.

**6. High mortality rate of chicks:**

When the farms become affected by any contagious disease, the mortality rate of the birds is very high. The farm owner do not take proper care and treatment in due time. As a result the farm owners face to huge loss.

**7. Lack of knowledge:**

Most of the farm owners are illiterate and they have lack of knowledge about farm management, as a result the broilers do not grow rapidly.

**8. Lack of well established diagnostic lab:**There are no any opportunities for diagnosis of disease in village level because lack of well established diagnostic laboratory in the village.

**9. Lack of post mortem facilities:**

There is lack of post mortem facilities of dead bird for the diagnosis of disease. As a result they can not know the accurate cause of the diseases and not take proper preventive measure.

**10. Lack of proper vaccination:**

Proper vaccination is also barrier for the establishment of broiler farm in rural areas. The farm owner do not vaccinate their birds in due time because of lack of vaccine supplied by the Govt.

**11. Lack of bio-security knowledge:**

The farm owners do not maintain bio-security strictly. Local people, cattle, goat, dog, cat, other birds are always threatened for a farm. Many farmers do not use foot bath at the entrance of the farm.

**12. Unavailability of expert consultants:**

People of remote area do not get good & expert poultry consultants. So many birds die without any treatment.

**13. Unavailability of drugs:**

Good and varieties quality of drugs are not found in the village. It is a major cause of death of poultry and a barrier of establishment of farms.

**14. High cost of drug:**

The cost of poultry drug is very high. The poor farm owners are not able to buy drug of high cost for the treatment of their birds.

**15. Absence of proper disease control model:**

There is no any disease control model in the rural level on which the farmer can prevent diseases occurred in the farm.

**16. Acute shortage of veterinary support staff:**

There is lack of veterinary doctor and other staff for the suggestion of farm owner for the development of broiler farm in the village level.

**17. Influence by feed supplying company:**

Many feed companies communicate with farm owner and influence them for using their low quality feed. It also acts as a barrier for development of broiler farm is rural area.

**18. Lack of Govt. influence:**The Govt. does not take care of the remote area like ours. People do not get the help of the Govt. on broiler farming in this area. So this area is lag behind in this sector.

**19. Condition of the people**:

The overall condition of the people is not so good. Most of the people are illiterate, poor and unconscious. The illiterate people do not know how to establish a farm, poor people can not invest money and the unconscious people do not realize the value of protein for the formation of our body. They also do not know that this demand of protein for the body can be achieved by broiler meat in comparison to other meat. For the above causes Boalmari Upazila is not developed on broiler production.

**C. Feasibility of broiler farming in Boalmari Uazila:**

Boalmari is a large Upazila with an area of about 1350 square kilometers. About 4.0 lakhs people live in this area. The geographical location, environmental condition, number of people, protein demand of people, cordiality of people, unemployed people favor the establishment of broiler farm on a large scale in this area.

**CHAPTER-V**

**CONCLUSION**

From the above discussion it can be concluded that Boalmari Upazila under Faridpur district is a very suitable and prospectious zone for broiler farming and broiler production. But first it is crying need to solve the problem related with broiler farming. Then it would be possible to establish broiler farms to meet the protein demand of the people and to remove the poverty of people creating employment opportunities for the unemployment people .There occur poor condition on broiler farming in Boalmari upazila. So I would like to request the literate, elite and rich persons, persons dealing with animals, authority concerned and ultimately Government to take proper steps and play an important role for establishment of a poultry zone in this area by solving the all problems and giving more opportunities for the existing farm owners. The Govt. can take a mega plan to establish a farm in each Upazila in Bangladesh

**CHAPTER: VI**

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**Appendix-1**

**Questionnaire for data collection**

**1**. a. Name of the farm..................................................

b. Name of the owner/Farmer/Employee....................

c. Father’s name...........................................................

d. Address: Village..........Road no...........House no………

Union......................P.O..........................Thana....................District............................Phone no/Mobile no..........................

**2. Husbandry practice:**

A. Housing:

 a. Brooder house b. Grower cum finisher house

 **B. Feeding:**

* Collection of feed..................................... Storage of feed …..........................................
* Types of feed...................................................
* How many times feed supplied daily.............

**C. Watering:**

* Source of water

 a. Deep tube well b. Pond

* System of water storage

 a. Water tank b. Water house

* Frequency of water supply

 a. Adlibitum b. Insufficient

D. Litter materials................................................................

E. Litter change....................................................................

 F. Ventilation

 a. Sufficient .b. Insufficient

G. Natural light...................................................................

H. Artificial light.................................................................

I. Bio-security....................................................................

J. Foot bath: a. Yes b. No

K. System: a. all in all out b. Not

3. Number of sheds.........

4. Drainage facility a. sufficient b. Insufficient.

5. Have electric fan a. Yes b .No

6. Most common diseases prevalence in the farm................

7. Management of disease condition:

 a. Self management

 b. Quack

 c. Veterinary doctor

8. Feature of Veterinary doctor calling:

 a. Actively b. occasional c. In critical situation d. Not at all.

9. The farm is profitable or not......................................................

Name of the interviewee............... Name of the interviewer...........

Date.......... Date: ……………

Signature............. Signature ……………………

**…..........................................................THE END..........................................................**