**Management Practices and Problems in Broiler Farming in Mirzakhil Union, Satkania, Chittagong**

**MANAGEM**

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**Management Practices and Problems in Broiler Farming in Mirzakhil Union, Satkania, Chittagong**



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**LIST OF ABBREVISTIONS**

|  |  |
| --- | --- |
| **Abbreviations** | **Elaboration.** |
| GDP | Gross Domestic Products. |
| BCR | Benefit Cost Ratio. |
| PLDP  | Participatory Livestock Development Project. |
| SHLDP | Small Holder Livestock Development Project.  |
| Govt. | Government. |
| Dept. | Department. |

**ABSTRACT**

A report on Management Practices and Problems of Broiler farming system in Mirzakhil Union, Satkania, Chittagong. The necessary information of the study was carried out when I was staying at Mirzakhil poultry farm from 02/05/2015 to 15/09/2015. During this period I worked actively in the farm & collected data on prospects and problems of broiler farming in the Mirzakhil Union by using an interview schedule through face to face interview of the farm owner and the workers who work in the farm. There were 4 broiler sheds in Mirzakhil poultry farm. The owner of the farm was interested in rearing broiler under modern farming system. The estimated net profit of the farm from one batch was found Tk.36,120. But he felt always threaten to rear broiler due to various problems like lack of electricity, low quality feed, poor quality chicks, high mortality of chicks etc. So, the possibility was found high but facility was found very low. If the problems can be recovered, he along with other farmers would be more encouraged to establish broiler farms on a large scale in all seasons.

**Key Words:** Broiler farming, Net Profit, Possibility and Problems

**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 sectors 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) & (Sarica et al, 1998) 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 its’ people. Protein is an important element of food which is found in meat, egg and fish. Price of beef, chevon, mutton etc. are too high for most of the people to buy. Broiler meat may be the easy & 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 Mirzakhil poultry farm, Satkania, Chittagong. Broiler farms have not been established in this area as per the demand because of various types of problems including unconsciousness among the people.

 **Objectives:**

* To know the existing management system of broiler farming.
* To estimate the cost and return for broiler farming.
* To know the problems faced by the farm owner both in production and marketing.
* To suggest proper management system to solve the existing problems.

 **CHAPTER II**

**MATERIALS AND METHODS**

**2.1. Study area**

The study was conducted at Mirzakhil poultry farm. The farm is located at Satkania upazilla about 8 kms away from the Chittagong-Cox’s Bazar high way. The area was selected due to my internship placement.

**2.2. Study Period**

The study was carried out when I was staying at Mirzakhil Poultry farm from 02/05/2015 to 15/09/2015.

**2.3. Collection of data**

During the study period I collected data on prospects and problems of broiler farming at Mirzakhil union by using an interview schedule through face to face interviewing of owner and workers.

**2.4. Data analysis**

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

**CHAPTER III**

**MANAGEMENT PRACTICES OF BROILER FARMING**

**3.1.Husbandry practice:**

**3.1.1. Collection of chick**

Collection of broiler chicks is important for broiler farming. The farm owner collected the chicks from the Aftab poultry hatchery. The price of day old broiler chick(DOC) was paid at 70-75 tk. per chick.

**3.1.2. Flock size:**

During my internship period I worked in different size of broiler shed. The average flock sizes were found which is given bellow:

Table-1:Flock Size of broiler at the study area:

| Number of Broiler shed | Flock Size |
| --- | --- |
| 1 | 1200 |
| 2 | 1000 |
| 3 | 900 |
| 4 | 850 |
| Total | 3950 |

**3.1.3. Housing:**

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

 i. Brooder house

ii. Grower cum finisher house.

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

**a. Floor space**

Table-2: 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, 2010

**b. Feeder space**

Table-3: Average feeder space of broiler farming

|  |  |
| --- | --- |
| **Age of the bird** | **Floor 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, 2010

**c. Water space**

Table -4: Average water space of broiler farming

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

 Source: Field Survey, 2010

**3.1.5. Temperature Schedule**

Table -5: Temperature schedule of broiler farming

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

Source: Field Survey, 2010

**3.1.6. Litter management:**

Table -6: Litter of broiler farming management

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

Source: Field Survey, 2010

**3.1.7. Feeding**

Feeding is the main function to rear broiler chicks. The chicks should be given small quantity of feed frequently for the first week. The owner used the following way for feeding of the broiler.

Table -7: Feeding practices of broiler farming

|  |  |
| --- | --- |
| **Age (week)** | **Nature of feed** |
|  1  | Crumble |
|  2 | Crumble |
|  3  | Pellet |
|  4 | Pellet |
|  5th up to finishing  | Pellet |
|  6th up to finishing  | Pellet |

Source: Field Survey, 2010

****

**Fig-1**: Feeding of broiler.

**3.1.8. Weight gain**

After proper feeding weight gain which is recorded by the farm owner are given bellow.



 Fig: Graphical Representation of weight gain.

**Fig-2:** Graphical presentation of weight gain

**3.1.9. Vaccination schedule**

Table -8: 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(D78/228E) | Gumboro  | 1 drop in 1 eye |
| Days 21-22  | BCRDV | Ranikhat  | 1 drop in 1 eye |
| Day 23-24 | Gumboro(D78/228E) | Gumboro  | 1 drop in 1 eye |

Source: Field Survey, 2010

**3.2. Feeding practices of broiler farming**

The broilers need more feed and the farm owner collects feed from the Aftab poultry feed. The owner mainly follows the literature of the Aftab poultry feed company for their feeding management. The company supplies three types feed that is broiler starter, broiler grower and broiler finisher.

**3.2.1. Nutritional level of Aftab feed is as follows**

Table -9: Feeding practices of broiler farming

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

Source: Field Survey, 2010

Table -10: 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.

**CHAPTER IV**

**RESULTS AND DISCUSSIONS**

**4.1. Profitability of Broiler Farming:**

Net Profitability: π = TR ­­- TC

Where, TR = Total meat produced (Qty. kg) x

 Multiplied by per Kg broiler

 TC = Cost for all factors

The cost benefit analysis of a farm is given below (Average Flock size- 985).

**4.1.1. Recurring expenditure**

1. Land: Lease.

1. Housing Rent: Tk. 35,0000 (one time)
2. Day old chick cost­: Total chick 3950 at the rate of tk. 70.00 per chick; 39500 X 70 = Tk.2,76,500.00

4. Feed cost: 4kg /bird = 3950 X 4 = 15,800 kg. at the rate of tk.30 per kg of feed; Total feed cost: 15,800 X 30 = Tk.4,74,000.00

 5. Other cost:

Electricity, medicine and labor: Tk. 30,000

Tota1cost = Tk. (35,000+2,76,500+4,74,000+30,000) = Tk.8,15,500.00

 6. **Income:** Average body weight: 2kg / bird

Total weight: (3,871 X 2) kg = 7,742 kg (considering 2% mortality)

Total income: Tk. (7,742 X 110) = Tk.8,51,620.00 (at the rate of 110 Tk./ kg)

 Net profit = Tk. (8,15,500.00 – 8,51,620.00) = Tk.36,120.00

**4.2. PROBLEMS OF BROILER FARMING IN MIRZAKHIL POULTRY FARM, BASHKHALI, CHITTAGONG.**

**4.2.1. 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.

**4.2.2. 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 this area there is a huge deficiency of electricity. So, broiler farms cannot be established though there is a large demand of broiler meat.

**4.2.3. 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.

**4.2.4. Poor quality chick**

The hatchery owner supplies low quality chicks. As a result the farm owner 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.

**4.2.5. 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 owner face to huge loss.

**4.2.6. Lack of knowledge**

The farm owner are not well educated and have lack of knowledge about farm management. As a result, the broilers do not grow rapidly.

**4.2.7. Lack of well established diagnostic lab.**

There are no any opportunities for diagnosis of diseases in this level because of lack of well established diagnostic laboratory in this area.

**4.2.8. Lack of post mortem facilities**

There is lack of post mortem facilities of dead birds for the diagnosis of diseases. As a result they can not know the accurate causes of the diseases and can not take proper preventive measures.

**4.2.9. Lack of proper vaccination**

Proper vaccination is also barrier for the establishment of broiler farm in this area. The farm owner does not vaccinate the birds in due time for the lacking of proper knowledge about vaccination.

**4.2.10. Lack of bio-security knowledge**

The farm owner does not maintain bio-security strictly. Local people, cattle, goat, dog, cat, other birds are always a threat for the farm. Farm owner does not use foot bath at the entrance of the farm.

**4.2.11. Absence of proper disease control model**

There is no any disease control model in this farm on which the owner can prevent diseases occurred in the farm.

**4.2.12. Acute shortage of veterinary support staff**

There is lack of veterinary doctor and other staffs for the suggestion of farm owner for the development of broiler farm.

**4.2.13. Influence of Drugs Company**

Representatives of drug companies communicate with the farm owners and influence them for using their low quality drugs. As a result, the birds do not get sufficient active ingredients used in drug and die of disease unexpectedly. It acts as a barrier.

**4.2.14. Influence by feed supplying company**

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

**CHAPTER V**

**CONCLUSION**

From the above discussion it can be concluded that Mirzakhil is a very suitable and prospectious zone for broiler production. But it is crying need to solve the constraints. Then it would be possible to establish broiler farms to meet the protein demand of the people and to recover the poverty of people creating employment opportunities for the unemployment people. As veterinary student I am very disappointed at such poor condition in broiler farming in my intern placement farm. So, by my study I would like to request the Government of The People’s Republic of Bangladesh to take necessary steps for the establishment of a poultry zone in this area by solving the problems and giving more opportunities for the existing farm owners.

**Limitations of the study**

The required information of the study were collected by staying only 02/09/2015 to 15/09/2015, ending of one batch of broiler marketing due to shortage of time and fund during the internship placement period at Mirzakhil Poultry farm.

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The Author

December, 2015

**APPENDIX**

**Questionnaire for data collection**

1.

a. Name of the farm..................................................

b. Name of the owner....................

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

d. Address: .....................………

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...................................................................**