

## Research Article

# Extension Activities of the Government Poultry Farm, Amanotgang, Barishal, Bangladesh

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## Introduction

In Bangladesh, since the beginning of 21<sup>st</sup> century, the poultry industry has become a unique platform for a quick profit, the generation of local employment, and the production of cheaper animal proteins. About two decades ago, the people of Bangladesh usually reared indigenous chicken for hospitality. After years passed, the people use to rear backyard poultry for dual purpose (meat and egg). At present the people rearing poultry for meat and egg production as commercial venture. Poultry farming is now considered to be one of the most integral and dynamic component of the. The poultry farming is seemingly in the phase of rapid expansion. The poultry farms in Bangladesh have made a significant contribution towards the enhancement of food production strategies and measures. Since time immemorial backyard poultry farming has played an important role to meet the domestic as well as socio-cultural needs of the rural people. However, the traditional poultry farming in villages, which was the primary source of animal protein, and supplementary income for more than 50 percent of the population of the region, has suffered in the wake of commercialization. Backyard poultry production system is the integral part of poultry farming. Traditional free range poultry has a great importance in rural production systems in small communities in Bangladesh. Backyard poultry provides high quality nutrition and is a wonderful tool for creating employment opportunities for the rural poor throughout the year. It also generates some cash income when sold in the market, also a means for ensuring additional earnings to rural disadvantaged and destitute women. Rural poultry production system can easily be converted to organic

## Abstract

To fulfill the demand of meat and eggs for the growing population, Government of Bangladesh established some poultry farm in the different region of the country. Government poultry Farm, Amanotgang, Barishal is one of them which was established in 1956. The area of this farm is near about 18 Acre. A number of buildings and sheds are established to support the rearing and production processes in the premises. The main activities of this farm is extension of poultry technologies. Initially, they had duck for the extension. But, government stopped the program since 2006. Now, they maintain Rhode Island Red and Fayoumi as parents. The crossbreds named Sonali are used for meat production. They marketed different aged birds. The source of the parents is Central Poultry Farm, Mirpur, Dhaka. In the farm, there are three Technical Officers and others supporting staff. The vision of the farm are solve the unemployment problem and production of egg and meat to meet the growing demand of protein. Their routine activities includes brooding management, shed preparation, grower and layer management, ration formulation, hatchery operation and management, litter management, beak trimming, vaccination, medication and biosecurity management. Marketing of birds is also another important activities. They arrange motivational campaign for building awareness among the farmers about bio-security and more important side of the poultry rearing system.

**Keywords:** Amanotgang; Poultry; Production; Bio-security

farming, which is gaining its popularity due to increased consumer awareness on food safety and environmental concerns. It is evident that free range backyard poultry production will continue to thrive to help poor and destitute women for increasing their income and employment. Backyard poultry farming is a very familiar activity among rural women in many countries. Women have been considered to be the predominant owners of rural poultry. Most women in the rural areas rear the indigenous types of domestic fowl in extensive system of poultry production. Backyard poultry production serves as a small scale business for generating income controlled by women. The enterprise provides regular income using little inputs and the production can be solely managed by women in the household. Although rural poultry production cannot contribute any large income, it represents a very familiar skill to most of the poor women and it can help them in moving into a positive spiral of events that may lead them for elevation of their socio-economic status. As most of the poor and marginal farmers have very limited capital assets and they mostly depend on poultry farming for their livelihood.

This report summarizes the extension work of government poultry farm Amanotgang, Barishal. This farm was established in 1956. Total area of this farm is 18 acre including 6 acre of pond. Objectives activities of this farm is to do limited research works with major extension activities among the farmers. Initially two species duck and chicken were supplied but now only chicken are supplied to the local small scale farmers such as hybrid sonali and two pure lines Rhode Island Red, Fayoumi. They produce different aged birds. This poultry farm sets giving priority to improve poultry production

in the locality.

## Inventory of the Farm

### Land area

Government Poultry Farm, Amanotgang, Barishal was Established in 1956. Before the establishment of the farm, it was a brick field under the Public Works Department. After the land area was transferred to BADC. Initial land was 20.30 acre. Now, Farm area is 18.00 acre where 12 acre pond and 6 acre land.

### Establishment

In the Poultry farm there are a number of sheds and buildings. These are given in Table 1 and 2.

Staffs positioning are given in the Table 3.

### Birds

Two type of breeds are present namely Rhode Island Red and Fayoumi. RIR and Foyoumi are crossed for the production of sonali which demandable due to their adaptability and productivity.

Layer .....1500

Cock .....165

Grower.....749

Chicks.....8000

These parents are brought from Central poultry Farm, Mirpur-1, Dhaka.

### Vision and Mission

Vision and mission of the Government poultry farm, Amanotgang, Barishal are given below:

#### Mission:

- By the taking bio-security control achieve the yearly target.

Table 1: Building facilities available.

Sl. No.	Name of Buildings	No.	Comment
1	Office	1	
2	Shed	12	
3	Hatchery	1	Seater- 4, Capacity 12000 per seater, Hatcher-01
4	Feed Storage	2	
5	Sells Center	1	
6	A.D Quarter	1	
7	Staff Quarter	2	
8	Pump House	1	
9	Water Tank	1	

Table 2: Sheds with facilities.

Sl. No.	Type of Shed	Number of Shed	Floor space	Capacity of shed
1	Layer	4 (Shed no- 6,7,11,12 )	6000 sq. ft	(2000-2500) Birds
2	Grower	4 ( Shed no- 1,5,9,10 )	7600 sq. ft	(5000-6000) Birds
3	Brooding shed	3 ( Shed no- 2,3,4 )	5000 sq. ft	(6000-7000) Birds
4	Isolation shed	1 ( Shed no- 08 )	600 sq. ft	(250-300) Birds

Table 3: Present Staffs and position.

Sl. No	Designation	Total No.	Present No.	Vacant	Comment
1	Assistant Director	1	1	-----	
2	PDO Officer	2	2	-----	Deputation-01
3	Computer Operator	1	1	-----	
4	Driver	1	1	-----	
5	Poultry technician	2	2	-----	
6	Electatian	1	1	-----	
7	Hatchery Attendant	2	2	-----	
8	Poultry Attendant	2	2	-----	
9	Tele Attendant	5	5	-----	Deputation-02
10	Guard	1	1	-----	
11	Guard Fodder	1	----	1	
12	Supervisor	1	1	-----	

Table 4: Achieved Upto 31/03/2021.

Sl. No	Events	Yearly target	Achieved upto 31/03/2021	Total Achieved (%)
1	Number of layer (average)	1500	1930	128.66
2	Egg Production	270000	246465	91.28
3	Chick production	120000	99851	83.2
4	Chick Rearing	33000	16888	51.17

- Farmer/unemployed youth/encourage the young female to established the farm and provide the technical services.

- Encourage to rearing the duck and poultry in family level.
- Provide information about the establishment of bio-gas plant.

- Given information for the use of cow dung as an organic fertilizer for the environmental safety.

#### Vision:

- Farmer/unemployed youth/by the attachment of youth female to established farm for the creation of self-employment.

- Solve the unemployment problem.
- By the production of egg and meat to fulfil the demand of protein.

- By the Increase of family income remove the poverty reduction.

- To encourage the establishment of a house and farm.

### Annual target vs. achievement

Annual target of the Government Poultry Farm, Amanotgang, Barishal are given by the Government and target are achieved by the respective officer of the farm. Target and a part of achievement are given in the Table 4.

### Routine activities

For a better management in the farm the workers at the farm should be alert to do the activities in a routine way. It is useful for the management of the farm. From the study it is found that in this

duck and poultry farm fourth class employee are work in the farm in two shift one is morning shift and other is late afternoon. One employee are attached in one shed. But all employee are gather in one place when emergency works are needed such as feed ingredients unloading, Chick sell and other work by the Officer.

## Brooding Management

Brooding management is the crucial point for the better performance of the birds. So, everyone should properly maintain the brooding period. All-in, all-out (single age) management provides the best control for sanitation programs and disease prevention. In the brooder they kept the chicks (3-4) weeks in the winter season and (2-3) weeks in the hot season. Some important step should be follow for better performance such as:

### Preparation of shed before brooding

- Spray an insecticide just after the old birds have been removed.
- Remove all the non-stationary equipment and residual feed from troughs and bins.
- Eliminate all rodents and wild birds if any.
- Remove all the manure, litter, feathers, cobwebs, dust, and any other organic materials by scrapping with hard brush.
- Remove all weeds and rubbish from the area outside the house, burn feathers, etc.
- Remove dust/ feathers from wire mesh, crevices, cracks, cages and floor using flame gun.

### Brooder preparation

**Step 1: Light distribution:** In the brooding area light are given for the source of heat and helping to the chicks for searching feed ingredients and proper water source. In the government duck and poultry farm, Amanotgang, Barishal. They make brooding (800-1000) chicks under a hobbar. In the hot season provide 100 watt 3 light under the hobbar and 1 light are above the hobbar. But in the winter season they provide 200 watt 4 light under the hobbar and one 100 watt light above the hobbar. They provide heat and light (12- 24) hours before the chicks arrival on the farm.

**Step 2: Drinker distribution:** In the brooding area waterer is the important component for the proper brooding management. Because in the brooding area chicks at first drink the water so that they minimize their transportation stress and get some instant energy. If the birds drink first water their digestive system work smoothly. So, At least 3 hours before the chicks placement in the brooding area waterer must be provide glucose, vitamin -c rich electrolytes containing fresh and clean cold water. In the winter season mild hot water supply will be given priority. Waterer should be placed proper height and equal distance from one another. In the Government duck and poultry farm in Amanotgang, Barishal they provide (7-8) number of auto waterer for (800-1000) chicks.

**Step 3: Feeder distribution:** In the brooding area feeder placement is the very important work for successful brooding. Feeder should be supplied on the basis of number of birds in the brooding area. In the government duck and poultry farm in barishal, they

provide (10 -12) feeder for (800-1000) of chicks under a brooder. They supplied Hand mixed starter feed (Table 5) two times daily in the early morning and the late afternoon. Feed should be supplied at least 3 hours after the water consumption. Feeder should be supplied with proper height and equal distance from each another. Initially (3-5) days paper feeding are performed with the tray feeder.

**Step 4: Covering the Litter by paper during brooding period:** During the preparation of brooding for chicks everyone should covering the litter with paper, same colour paper will get preference. Litter covering with paper is so much important for successive brooding. The foot pad of the day old chicks remain so much soft initially to near about (3-5) days.

**Step 5: Maintain the temperature and humidity:** Temperature and humidity is crucial point for good starting of brooding. Improper temperature and humidity make some disease like brooder pneumonia, ascitis, Naval Infection and make influence to occur BCRDV etc. So, temperature should be maintain by the use of thermometer and humidity by the use of hygrometer. Brooding temperature should remain 95°F at first week, 2<sup>nd</sup> week 90°F, 3<sup>rd</sup> week 85°F, 4<sup>th</sup> to 8<sup>th</sup> weeks 80°F and relative humidity 90%.

### Rules of day old chick rearing

Some important rules for day old chicks husbandry are given below with some points:

- At first remove the organic materials from the shed and then wash the shed with disinfectant.
- After the Dry out of shed make the brooder with saw dust in depth of (3-4) cm in winter season and (1.5 - 2) cm in the hot season.
- Three hours before the arrival of chicks must be supplied water and start the lighting into the chick guard.
- For remove the transportation stress water should be supplied with glucose, vitamin -c and electrolytes.
- After the three hours of water consumption hand mixed feed (Table 5) should be supply.

### Grower management

In the grower shed birds are rearing from 8 weeks to 18 weeks. Before the transfer of birds from the brooder to the grower, shed should be prepared with proper lighting, feederer, waterer. Birds should transfer at night because at night birds remain claim. After and before birds transfer vitamin-c rich water should be supplied so

**Table 5:** Composition of Starter ration.

Ingredients	Percentage (%)
Maize	56
Rice police	10
Soybean meal	24
Protein concentrate	6
Oyester shell	1.5
DCP	1.75
Vitamine GS	0.25
Salt	0.5
Total	100

that birds don't suffer stress long time. If possible feeder and waterer should be placed same as brooder distribution. Litter should be dry and proper depth. In the Government duck and poultry farm, Amanotgang, Barishal kept the litter depth (3-4) cm in the winter season and (1.5-2) cm in the hot season. They have no any hygrometer so they maintain the litter moisture level by the visual test. They don't remove all litter at a times but they remove some over moist litter after then they add some new litter materials with old litter. They gives maximum attention for litter management because maximum disease are born from the litter. In the duck and poultry farm rice husk and saw dust are used as a litter materials. Every shed supervised by the one employer. Water supply in the farm two times daily at 8am and 4.30pm. After the water supply hand mixed feed for grower (Table 6) are supplied two times daily. Proper vaccination are apply at the age of grower period. If any disease occurs proper medication will supply by the veterinary doctor. In this stage proper body weight and lighting schedule are maintain.

### Breeder layer management

Breeder Layer management are very much critical than other. Proper vaccination, medication should maintain because their characteristics, immuno system, disease carrier will be pass to the next generation. Vaccination schedule are followed by the government duck and poultry farm, Amanotgang, Barishal. Strict bio-security are maintain in the breeder farm. Employer wear their farm dress when they entire into the farm. Footbath are not use properly. They clean their foot bath one times between two days. Proper vaccination are perform in the breeder farm. Litter quality are maintain by the visual test and only rice husk are used in the breeder farm. Because rice husk are more suitable than other bedding materials in the breeding materials. Hand mixed feed for layer (Table 7) are supplied two times daily. In the morning 8 am supplied 60-65% of ration and rest of the ration are supplied in the 4.30pm. Water are also supplied two times at a day. They maintain the male female ration in the breeder flock 1:10 respectively. In the breeder flock they provide 9 number of nest for (800-900) birds which nest are separated into two equal part. They collect egg frequently so that egg are remain clean and hygienic. In the breeder side they rear two pure line one is RIR and other is Fayoumi. Then, by the mating between RIR and Fayoumi they produce Sonali for the extension.

### Importance of nest preparation and management

Nests must be in adequate number considering the number of hens in the house. Nests should be dark, isolated, warm and free of air drafts. Make sure nests are easy to access. Any obstructions should be removed. Feed line should not be directly in front of nests. A good nest floor mat provides comfort for nesting female. Cushion egg to prevent damage. Keeps egg clean, separate dirt and feathers from egg surfaces. In the Government Duck and poultry farm, Amanotgang, Barisal, they are provide 9 number of Wood made nest for (800-900) birds. Each nest have two equal section or part. In the nest box they provide only rice husk.

Types of nests:

- Individual nests with straw, wood shavings or rice hulls and manual egg collection
- Collective nests with an automated collection belt.

Avoid using a material that is less comfortable than the floor litter. Chopped wheat or barley, straw is a good solution and it is better than wood shavings. Hay is not recommended. Opening and filling the nests just before the start of production, allows one to profit from the higher exploration activities that hens show at this stage of their physiology. Both change and the activity created will arouse their curiosity to the nests at this critical moment. Some eggs left in the nests at the start of production will also help to make the nests appear more attractive. It is not good place a lot of nest material all at once in the nests. Regular filling is preferable for better hatchability.

### Ration formulation

Feed formulation is very much important for the layer bird management because layer birds are rearing for the egg production not for the meat production. For the body maintaining and maximum uniformity and egg production feed and feeding system makes a major rule. On the basis of this situation different type of layer feed are formulated by the Assistant Director and Poultry Development Officer. In the farm they don't use the ready feed or pellet formed feed, they use machine mixing feed. Feed formulation on the basis of stage of the birds are given below:

**Starter ration:** Starter ration is a ration which are offered to the birds at the age of (0-8) weeks. Particle size < 1mm and the 1-3 mm diameter, Crumble feed should contain <10% fine feed particles. But in the Government poultry Farm they supplied mash form machine mixing feed to the birds. Composition of the starter ration are given in the Table 5.

**Grower ration:** Grower ration is a ration which are supplied to the birds at the age of (8-18) weeks. Optimum feed particle size <1 mm (<15%), 1-2 mm (45-60%) and 2-3 mm (10-25%) fine feed particles. Composition of the starter ration are given below with Table 6.

**Layer ration:** Layer ration is a ration which are offered to the birds at the age of (19-72) weeks. Layer ration allocation is more critical than other ration. So, more concentration are given here for the better production. The composition of layer feed are given with the Table 7.

### Hatchery management

There are certain basic tenets which if followed like frequent collection of eggs, point-down setting of egg, candling, proper turning, accurate temperature and humidity, setting eggs of same weight, shell thickness and quality monitoring, fumigation etc. which improve hatchability immensely. The indicators of sanitation and

**Table 6:** Composition of Grower Ration.

Ingredients	Percentage (%)
Maize	57
Rice police	14
Soybean meal	19
Protein concentrate	5
Oyestershell	2.5
DCP	1.75
Vitamine GS	0.25
Salt	0.5
Total	100

**Table 7:** Layer Ration.

Ingredients	Percentage (%)
Maize	58
Rice police	10
Soybean meal	18
Protein concentrate	5
Oyester shell	6.25
DCP	2
Vitamine GS	0.25
Salt	0.5
Total	100

**Table 8:** Temperature management in the Incubator.

SI. NO	Traits	Seater	Hatcher
1	Temperature	100°F	99°F
2	Relative Humidity	85%	88%

**Table 9:** Hatchability rate of Sonali from June 2020 to March 2021.

Month	Rate of Hatch ability
July 2020	83.06 % + 85.69 % + 88.23 % = 85.66 %
August 2020	72.18 % + 75.86 % + 72.79 % = 73.61 %
September 2020	87.37 % + 80.19 % + 80.88 % = 82.81 %
October 2020	84.49 % + 81.61 % + 82.00 % = 82.70 %
November 2020	84.06 % + 83.01 % + 69.22 % = 78.76 %
December 2020	79.90 % + 76.69 % + 60.02 % = 72.20 %
January 2021	78.01 % + 65.01 % + 63.11 % = 68.71 %
February 2021	68.62 % + 77.20 % + 61.62 % = 69.14 %
March 2021	65.00 % + 58.00 % + 62.27 % = 61.75 %
	Average hatchability = 75.03851%

hygiene are also reflected in improved hatchability and quality of Day-Old-Chicks. Government poultry Farm, Amanotgang, Barishal have a one hatchery in their Farm area. It has 4 seater and only one hatcher. Capacity of per seater is 12000 and the capacity of the hatcher is 5000 Day-Old-Chicks production. Three hatch are performed in a month. There are 3 types of DOC are produce here which is Sonali, Fayoumi and RIR. Initially they produce duck DOC but due to the bird flu Prevention in 2006 Government Stop the Duck rearing in the farm. Because duck is the Suitable carrier for bird flu virus. At this present they produce only 4080 DOC per hatch and 12240 DOC per month. They use the deshi incubator so the hatchability rate is lower than the standard. Due to the old incubator they do not control the temperature and humidity accurately. Some managerial factor are also responsible for the low hatchability such as nutrition and improper ventilation system in the shed. Candling are performed two times 7 and 15 number days after seating of egg. Turning, Temperature and humidity are automatically controlled by the command of manager. Temperature management in the incubator (Table 8) and the hatchability of the Sonali from June 2020 to March 2021 (Table 9) which are given below:

#### Hatchery operation:

- The standard hatchery operations includes the following

steps

- Hatching egg receiving
- Fumigation (formalin with potassium par manganese)
- Grading, selection and traying
- Storage of hatching egg in a cold room
- Loading in setter (Setter room management)
- Transfer to hatcheries (hatcher room management)
- Chicks pull out and chicks room

Hatchability rate of Fayoumi, Rhode Island Red are 80% and 78.5% respectively and Sonali is 75.03% (Table 9) in the government poultry farm, Amanotgang, Barishal from July 2020 to March 2021. But Omar faruq el al. [1] found the hatchability of Fayoumi chicks is 87.1% in Noakhali and hatchability of sonali is 90.2% in Chittagong Districts.

#### Litter management

Keeping litter dry is a critical part of overall management on every poultry farm. Litter conditions influence bird performance, which in turn affects profits of growers and integrators. Dry litter helps control ammonia levels, provides a healthy flock environment, and reduces condemnations due to hock and footpad burns and breast blisters. Poultry litter consists of bedding material (shavings, rice husk, saw dust, sant etc.), manure, feathers, and other components. Dry litter is important for the health and welfare of birds, as well as the people who work in the houses. When litter begins to retain moisture it will clump together, which is referred to as caking. Moisture can build up because the ventilation rate within the house is inadequate over a prolonged period (not just a few hours). To prevent caking, this added moisture within the litter must be removed through adequate ventilation. Once cake starts to form, it is difficult to reverse the process. It usually requires over-ventilation to correct the problem. Caked litter also increases house ammonia levels. Negative effects of ammonia on birds health, welfare, performance, and carcass quality. Poultry are most susceptible to elevated ammonia levels at 1 to 21 days of age, which is the early brooding period [2,3]. Adequate ventilation and use of litter amendments are two practices that help control ammonia volatilization [4]. Handheld ammonia sensors are available, although the technology is somewhat expensive (\$300 to \$500 range). However, sensors can help producers accurately manage ammonia levels. But in the Government duck and poultry farm they have no any hygrometer and pH meter for measurement of litter quality so, they maintain the litter quality by the visual test. Good litter and air quality can be maintained with proper ventilation, but it has to start when the previous flock goes out and continue throughout the new flock. Keeping litter in good condition and avoiding caking are extremely important because of the high cost of litter, and because disposal of this litter is becoming more of an environmental issue. In some areas, many growers still practice a traditional total cleanout once a year. This litter is then used locally as fertilizer on pastures and hay meadows, or shipped out of the area for use as fertilizer elsewhere. Wet litter greatly .increases pathogen load and, therefore, chances of a disease outbreak that may require a total cleanout. However, barring a major disease challenge, some poultry complexes never require a complete cleanout, but rather only need close management of litter

**Table 10:** Vaccination Schedule.

Sl. NO	Name of Vaccine	Age of vaccinate	Route of vaccine	Doses
1	Marek's	01 day	S/C	0.2ml
2	BCRDV	03 days	Eye	0.2ml
3	Gumboro	10 days	Eye	1 drop
4	BCRDV	21 days (Booster)	Eye	1 drop
5	Gumboro	25 days (Booster)	Eye	1 drop
6	RDV	60 days	I/M	1 cc
7	RDV	Each 5 month after	I/M	1 cc

**Table 11:** Deworming schedule.

1 <sup>st</sup> Dose	2 <sup>nd</sup> Dose	3 <sup>rd</sup> Dose	4 <sup>th</sup> Dose	5 <sup>th</sup> Dose
08 weeks of age	12 weeks of age	20 weeks of age	44 weeks of age	56 weeks of age

**Table 12:** Coccidiosis prevention Schedule.

1 <sup>st</sup> Dose	2 <sup>nd</sup> Dose	3 <sup>rd</sup> Dose
14-16 days	29-31 days	64-66 days

**Table 13:** Government fixed price of birds and eggs in the farm.

Serial no.	Age of the Birds/Egg	Price of the birds /egg
1	Day old Chick	10 TK (November- January) 12 TK ( February - October )
2	2 month	75 TK
3	3 month	.....
4	4 month	.....
5	Fertile egg	7 TK
6	Table egg	6 TK

depth [5,6]. This multiyear build-up of litter can be beneficial by providing a deeper insulating layer of litter with greater moisture absorbency that will generate more heat during winter. But in the government duck and poultry farm they do not cleanout all litter at a time, they mixed new litter with moist litter on the basis of moisture which are estimate by the visual test by farm officer.

## Beak Trimming

Beak trimming is the procedure of removal of extra sharp part of the birds beak. Beak trimming are performed to decrease injuries caused by cannibalism, bullying, and feather and vent pecking. Bird is most successfully beak trimmed at infrared beak treatment or between 7-10 days of age by precision beak trimming (Hy-line M.G). If necessary, re-trim at 6 weeks of age. A second beak trim is recommended in open-sided housing. In light controlled housing, one beak trim should be sufficient. Hatchery beak trimming reduce feed wastage and leaves the beak less damaging to other birds. In the Government duck and poultry farm, Amanotgang, Barishal they performed beak trimming on the basis of condition of the birds but of the time they performed at near about 40-45 days of age. After the beak trimming, they supplied vitamin-c with water for minimize the stress. They do not beak trimming second time.

## Vaccination

Certain disease are too widespread or difficult eradicate and require a routine vaccination program. In general, all layer flocks

should be vaccinated against Marek's disease, Newcastle disease (NDV) baby chick ranikhet disease (BCRDV), Infectious bursal disease (IBD), RDV. Other vaccinations are added to the program as local disease challenges dictate. Vaccination schedule (Table 10), deworming schedule (Table 11), and coccidiosis preventive schedule (Table 12) of Government duck and poultry farm, Amanotgang, Barishal are given below:

## Medication

They do not use any medicine without any disease except vitamin, minerals premix. In any serious cases they use higher antibiotic by the suggestion of veterinarian. At first they ensure the disease by the post mortem of chicken. In the Government duck and poultry farm, Amanotgang, Barishal BCRDV and IBD outbreak are frequently than other disease.

## Biosecurity Management

Biosecurity is the best method of avoiding disease. A good biosecurity program identifies and controls the most likely ways a disease could enter the farm.

### Traffic control

- Human and equipment movement onto the farm are strictly controlled.
- Visitor to the farm are limited to those essential for its operation.
- Visits are documented in a logbook.
- All visitors and Workers should shower at a central location before entering
- Clean boots, Clothing and head cover should be provided for workers and visitors
- Clean footbaths containing disinfectant should be placed outside entries to all poultry houses
- House should be designed to prevent exposure to wild birds, insects and rodents
- Quickly and properly dispose of dead chickens

### Rodent control

Rodents are knows carriers of many poultry disease and the most common reason for re-contamination of a cleaned and disinfected poultry facility. They are also responsible for house to house spread of disease on a farm.

- Feed and eggs should be stored in rodent-proof areas.
- Bait station should be placed throughout the house and maintained with fresh rodenticide.
- The farm should be free of debris and tall grass that provide a hiding area for rodents.

## Cleaning and Disinfectant

Cleaning and disinfectant of the house between flocks reduces infection pressure for the next flock. Allow a minimum of 2 weeks downtime flocks.

- All feed and manure should be removed from the house before cleaning.
- The house should be cleaned of organic matter with a high pressure spray water
- Wash the upper portion of the house before the pit.
- Allow the house to dry before repopulating.

### Present status of bio-security in the farm

In the Government duck and poultry farm, Amanotgang, Barishal they have two types bath one is transportation bath and other is foot-bath which is located in-front of gate and other is in-front of shed respectively. But they do not use the foot-bath properly. Vehicles can entrance without any showering. Due to the staff quarter into the farm premises, their family member frequently movement into the farm and from outside to the house. Staff quarter is situated less than 100ft. In the farm area have no boundary around all side, most of the side are open and attached with the local habitats. Construction bio-security is not well so ventilation problem is much. Employ have their farm dress and gum booth but the maximum time they do not use it. Side of the farm are not properly clean by the employee. Respective person of the shed are entrance into the farm with their outside use shoes.

### Feed storage

For the good running of a farm feed storage is an important work of a farm officer so that they can run the farm at any adverse condition. Proper storage is much important because many disease can transmitted by the feed intake. Raw feed ingredients are purchase by the government tender for the farm. After the feed ingredients truck arrival in the farm, Ingredients are unloaded with the presence of District Livestock Officer or other Government officer for the judgment of ingredients quality and weight of the ingredients. In the government duck and poultry farm they have two feed storage room but their condition is not well. Temperature and humidity cannot control in the farm due to the ventilation system. For the prevention of rodent into the farm they close the door of the storage room at the afternoon every day. They don't use any chemical for the control of rodents into the feed storage room.

### Marketing of chicks and growing birds

The Government poultry farm were not established for the income from this farm. The main goal of this farm research and extension of the native and highly performance duck and poultry breed. But from the 2006 government stop the duck species research and extension because duck was the suitable carrier of the Bird flu disease. In the government poultry farm sell different type of birds, fertile and table egg. Price of the egg and birds are given below with Table 13.

### Problem faced by the farm

In the Farm premises there are a lot of problem some are

operational and some are constructional problems. From there some are point out below:

- Ventilation system of the shed is very poor.
- Condition of the Incubator is not well.
- They have no boundary all the farm area.
- Condition of the foot and transportation bath is not well and they do not use it exactly.
- Frequently movement of the staff's family member in the breeder shed area.
- In the feed storage room they cannot maintain the temperature and humidity.
- Surroundings of the farm area is not well for breeder birds rearing because of locality.

### Conclusion

The present study was undertaken to know the Research and Extension work of Government poultry farm, Amanotgang, Barishal. For this purpose, secondary data were collected from the farm with the discussion, record book data and open data collection method. From the results of this study, I found that they have a lot of extension work and at this moment they have no any project or research work. They are providing the different age birds and fertile, table egg to the farmer at a government fixed price so that people can rear the chicken under the local condition. They have two pure breed such as Rhode Island Red and Fayoumi. By the cross of RIR and Foyoumi they Produce Sonali which is more demandable in the small scale poultry rearing in the Bangladesh. Everyday many people getting more information from the Government Poultry Farm, Amanotgang, Barishal.

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