INTRODUCTION

The economy of Bangladesh mostly depends on agriculture recourses. Poultry industry is an important part of agriculture in our country. Poultry Egg & meat can contributes around 38% of the total animal protein supply of Bangladesh (Ahmed -2011) Poultry egg is a quality food for human diet. It provides cash income and creates employment opportunity. Commercial poultry sector has created employment opportunities for about 5 million people. Bangladesh has long historical record of poultry rising under commercial farming. In 1964 a commercial poultry farm, Eggs and Hens limited has been established by the late Ekramul Hossain which may be recognized as a mother of poultry industry in the private sector. After the liberation of Bangladesh, Biman Bangladesh Airlines started a commercial poultry farm in the name of Biman poultry complex at savar, for their own flying services and as well as transferring the commercial poultry farming technology to the farmers. The farm has been selling day old chick of broiler and layer to the small farmers.

Poultry keeping is a source of pleasure as well as income from selling of eggs and meats. Poultry farming has become increasingly popular both in urban and rural areas.

Poultry production in an efficient way can bridge up this nutritional gap further rate than other animal source. The share poultry in the animal protein of human diet is estimated to be 30%. As the indigenous chicken is not capable of to produce more meat and eggs to meet up the increased demand of our increasing population, the farmers are now raising imported hybrids.

According to WHO, 55 gm animal protein is require per person per day but we are getting only 7.6 gm. To reduce the gap between demand and supply of animal protein poultry can play an important role.

Poultry production has been constantly increasing over the past decades and a very recent survey made by FAO shows that the whole poultry in the World reaches about 14 billion, among those 75% are in the developing countries. According to the Bangladesh Bureau of Statistics (BBS, 1998) about 89% of the rural household rear poultry and the average number of per household are 6.8. Now a day’s broiler farming is very rapidly growing poultry industry, has already got commercial excellence and is also becoming a income generating enterprise in rural and Urban areas of Bangladesh. According to the directorate of livestock services there were 47168 chickens and 26944 duck farms of 50 to 1 lac. birds capacities in 1996 (Rahman et Al.1998). Agriculture generated 39% of the GDP and the share of the livestock sector is 2.8%. The number of poultry is increasing at an annual rate of 5.9% (Haque et. al 2001).

# Poultry is one of the most prospective sector for development Egg and meat originated from poultry. Every person should consume 120gm meat per day and 104 no of egg per year. But present availability is 21.20gm meat per day and 41 no of egg per year. The production level is far behind the requirement level. It is essentially needed to increase the production of egg and meat. The expansion of poultry sector depends among other thing. on the profitability of chicken rearing and egg production at farmers level (Alam et al 1998) There are many strain of layer producing eggs in different commercial farms in Bangladesh.total egg productionWhich is far behind of total requirement.However production rate is different from strain to strain.here the NOVOZEN BROWN is considred for study its performance in cage of commercial farming in Chittagong district.

The economy of Bangladesh is based primarily on agriculture, and livestock is an essential component of the rural economy and the livelihood of the subsistence farmers. The country has a sub-tropical monsoon climate and 84.4% of its population is living in rural areas. Countries 25 percent peoples are directly engaged in livestock sector, and 50 percent peoples are partly associated in livestock production.

In 2011-12 fiscal, the growth of Livestock in GDP was 2.50(BBS).According to the last statistics of livestock and poultry population for the year 1993-94, the number was 3 crore 52 lac and 12 crore 28 lac respectively.

According to statistics available from operators in the sector, there are now about five grand parent stock farms, 40 to 50 parent stock farms and hatcheries, 70,000 to 80,000 poultry farms and 15 to 20 poultry feed factories in the private sector. The sector is also poised to grow rapidly.  
It has already posted growth of some 20 per cent in the last 15 years. Owners and operators in the industry are confident that it could grow rapidly in the coming years and create employment opportunities for another 10 million people.   
The poultry industry is not only meeting local needs very substantially; it has also found newer opportunities from value addition. Food industries have grown up based on chicken that produce soups, nuggets, sausages and other products in accordance with the changing preferences of the customers. Some of these local poultry-based and value-added products have found some export markets as well.(newsroom-meattradenewsdaily.co.uk**).**

**Table-2: Poultry population in Bangladesh:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Number (In lac)** | | | | | | | |
| Poultry | 2005-06 | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12  February |
| Chicken | 1948.2 | 2068.9 | 2124.7 | 2213.94 | 2280.35 | 2346.86 | 2392.49 |
| Duck | 381.7 | 390.8 | 398.4 | 412.34 | 426.77 | 441.20 | 451.15 |
| Total Poultry | 2329.9 | 2459.7 | 2523.1 | 2626.28 | 2707.12 | 2788.06 | 2843.64 |

**Source: Ministry of Livestock and Fisheries( 2011-2012)**.

**Features of the poultry sector:**

In Bangladesh, the national poultry flock includes mainly chicken, ducks and pigeons, which are kept in different production systems. Poultry population estimates differ depending on the source of information. According to numbers provided by the Government of Bangladesh’s Livestock Department, the total chicken population is steadily increasing, from about 143 million birds in 2001 to 195 million birds in 2006. Over the same period the duck population increased from 25.8 million in 2001 to 38.1 million in 2006. The pigeon population was reported to be 10.8 million in 2005 (Bangladesh Bureau of Statistics (BBS) (2006, p.172). Other types of Domesticated birds such as geese are present in only small number.

**Geographical Distribution of Poultry Flocks**

**Chicken**

The Agricultural Sample Survey of Bangladesh, which was conducted in May 2005, contains information about the distribution of poultry in the country. The report on the survey, dated June 2006, makes a distinction between subsistence and commercial poultry, but not between ducks and chicken.

**Poultry sector review: Bangladesh**

Distribution of poultry by Administrative Division

|  |
| --- |
| Division Commercial Backyard |
| Number % Number % |
| Barisal 1001077 4,6 17172806 10,3 |
| Chittagong 4281804 19,6 30626134 18,4 |
| Dhaka 11634021 53,3 36749528 22,1 |
| Khulna 1668594 7,7 21980208 13,2 |
| Rajshahi 2052593 9,4 52296364 31,4 |
| Sylhet 1171560 5,4 7763610 4,7 |
| Total 21809649 100,0 166588650 100,0 |

**Source:Bangladesh bureau of statistics**

Recently, Rahman et al.(2005)have highlighted the prospects of rearing exotic hens by the rural poor in Bangladesh. The found projects are important tool for poverty alleviation and social empowerment for the poor, especially for the rural women. Seeing the prospects, various government and non government organizations have come forward helping distress women and unemployed youths across the country in establishing farms so as to make them self reliant. The nutritional and diseases problem are major constraints in Bangladesh for the development and maintenance of poultry, suitable breed and proper management results in profitable poultry production which are lack in traditional poultry rearing system.

For this aspect, the study was conducted on layer farm at **MOUSUMI POULTRY FARM** at Boalkhali, Chittagong to gain the skills in layer management practices and mixing up the theoretical knowledge with practical in an established commercial poultry farm(layer farm rearing of **NOVOZEN** brown)

**Objectives:**

**Therefore the present study was undertaken with following objectives:**

1. To observe the management practices of layer NOVOZEN brown.

2. To compare the production performance of this strain with the given specification.

3. To study the livability and mortality of this strain.

.

**REVIEW OF LITERATURE**

Scott et al.(1999) found that, feed restriction reduce body weight and hen day egg production proportionately to the restricted level that was with the decreased body weight.

Krishnappa et al(1992) concluded that feed restriction during growth (7-22) weeks old significantly reduce body weight, increase age at sexual maturity and also increase egg production.

Spalt and Lesson (1987) reported that ,excess intake is predominantly stored as fat which gradually results in increased body weight.Excessive body weight in females were negatively correlated with hen day egg production.

Hurwitz and Plavnik(1989) concluded that egg weight was functioning on both age and body weight at onset of production.the significant correlation between egg weight and body weight even after a year of production. They also describe that the relationships among egg weight body weight and age at the onset of egg production have special importance.

Ahmed(2008) reported that sudden excessive heat or cold lower the egg production due to quick temperature change in the reproductive tract egg formed very slowly.Normally it takes about 23 hours to form an egg in the reproductive tract.Remedy of the p roblem is temperature controlled by thermometer and application of it-C in hot season.

Alam et al (2001) also conducted a research works to examine the productivity and profitability of poultry farms under traditional Semi intensive and intensive management systems were investigated.The production of egg per layer per year was 43.88 for traditional.141.11 for semi intensive and 230.15 for intensive farms.

Banerjee (2007) stated that the production cycle may be conveniently dividedinto three stages or phases (22nd week to 42nd week) egg production 0-85% increase body weight to mature body weight eggs of gradually increasing size, phaseII (43nd week to62nd week) egg production declines up to 65% and phaseIII (63nd wekk to 72nd week) egg production less than 65%.

Barnewll et al,(2003) reported that for metabolism from feed and water intake to occur at the optimum condition, the relative humidity should be 50% and the temperature should be 68-70F.

Chowdhury et al (2003) reported thatexotic breed reared in open sided house under Bangladesh conditions, in general able to achieve expected body weight through they were found to be very sensitive to production.

Robinson and Willson (1996) showed that broiler breeder when fed adlibitum or restricted feeding to achieve typical industry target weight during 22 to 26 weeks of age difference was observed. Adlibitum fed hens weighed significantly heavier and produce fewer eggs then restricted fed hens.

**MATERIALS AND METHODS**

The study was conducted on layer farm at **Mousumi poultry farm**, Boalkhali, Chittagong district. A total of chickens are reared in different sheds recorded to the age of birds **Novozen brown** among 22000 layer birds in cage system. They have a several sheds, where some are layer shed and some are brooding sheds to pullet shed.The birds were vaccinated against Mareks, Newcastle, Fowl cholera, chicken pox and Gumboro diseases.

**The following standards were maintained at Mousumi poultry farm during experimental period:**

**Birds:**

The total numbers of layer birds were 22000.

.**Housing:** the housing system was open sided house for layer

**In case of layer**: It was situated on high land and 5 sheds. And open places as well as well ventilated. The house made as east west length wise and maintains on dry litter. The layers were kept in cage after 18 weeks of age@ 18”x14” x 17” for 3 birds.

**Watering**:

For the prevention of diseases clean water and germ free water were supplied to bird and each 100 birds need one round drinker.

**Feeding and feeder**:

The experimental farm supplied feed to day old chick on papers or tissue(2 inch rich polish) for 1week. Then provide.the starter ration starter 24 hours 2-3 hours brought

after arrival and contained CP 19 to 20%, ME 2950/kg, lysine 1.07,methionine .43 to .54%.adlibidum feeding was allowed for 3 weeks. Then weighing which compared with guide line.

**Ventilation**:

In favor of proper ventilation the experimental farm used timer fan. Exhaust fan and also used for preventing extreme hot.

**Biosecurity**

**“Bio**” means life and “**security’**’ denotes safeguard .its a set of manage mental practices which reduce the incidences of diseases outbreak or inhibit to entrance of diseases curing in an organism into the farm,

It’s the hard fact of poultry livestock industry accounts for at least 10% of total production cost and overall costs of specific diseases in poultry.

**Table-1: fumigation of farm:**

|  |  |  |
| --- | --- | --- |
| Fumigation place | Ppm + Formalin  (gm + ml) | Fumigation time |
| Layer house | (20+40).2 | 20 minutes |

The firm disposed the dead birds with a pit and separates the diseases bird accurately.

**TABLE: 2, Management of Brooding at Mousumi poultry farm:**

|  |  |
| --- | --- |
| **Age** | **Temperature** |
| 1st 5 hours | 350c |
| 5 hours to 3 days | 340c |
| 4 to 7 days | 34 to 310c |
| 2 weeks | 31to 280c |
| 3 weeks | 28 to 260c |
| 4 weeks | 28 to 230c |
| After 4 weeks | 200c |

**Lighting :**Lighting schedule followed in this farm is given below in table

**Table:3, Lighting schedule were @ watt/ sq.ft**

|  |  |  |
| --- | --- | --- |
| **Age/day/week** | **Light/day(in hour)** | **Watt/sq.ft** |
| 1-3day | 24hours | .56 watt |
| 4-6day | 23 hours | .50 watt |
| 7-8day | 23 hours | .37 watt |
| 1-2weeks | 23 hours | .25 watt |
| 2-3weekas | 22 hours | .19 watt |
| 3-4weeks | 18 hours | .19 watt |
| 4-5 | 16 hours | .19 watt |
| 5-6 | 14 hours | .19 watt |
| 6-10 | 13 hours | .19 watt |
| 11-18 | 12 hours | .095 watt |
| 18-20 | 11.30 hours | .019 watt |
| 20-21 | 12 hours | .25 watt |
| 21-22 | 12.30 hours | .25 watt |
| 22-23 | 13 hours | .25 watt |
| 23-24 | 13.30 hours | .25 watt |
| 24-25 | 14 hours | .25 watt |
| 25-26 | 14.30 hours | .25 watt |
| 26-27+weeks | 16 hours | .25 watt |

**Debeaking:** They debeaked 9th week of age but it should be done 10th weeks of age.

**Use of Anthelmintics**: First time, at the age of 45 days, then they used to every 45 days alternatively.

Note: when we use Anthelmintics, we did not use vitamin that day, but we had to use vitamin for following 3 days.

**TABLE: 4, Chart of lighting program of Novozen brown what we provided**

|  |  |  |
| --- | --- | --- |
| **Age** | **Temperature** | **Day light + Artificial light** |
| 0 to 3 days | 340c | 24 hours |
| 4 to 7 days | 31-340c | 23 hours |
| 2nd weeks | 27-310c | 22 hours |
| 3rd weeks | 23-270c | 21 hours |
| 4th weeks | 20-230c | 20 hours |
| 5th weeks | 200c | 18 hours |
| 6th weeks | 200c | 16 hours |
| 7th weeks | 200c | 14 hours |
| 8th to 18th weeks | 200c | 13 hours (include maximum day light) |
| 19th weeks | 200c | 13.5 hours |
| 20th weeks | 200c | 14 hours |
| 21st | 200c | 14.5 hours |
| 22nd weeks | 200c | 15 hours |
| 23rd weeks | 200c | 15.5 hours |
| 24th weeks | 200c | 16 hours |
| 25th to 78th weeks | 200c | 16 hours |

**Table:5- Definite ration (nutrient, vitamin and minerals) which supplied with some**

**Some deviation of standard level:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Age in week | 0-4 | 4-7 | 8-14 | 15-17 | 17-40 | 40-60 | + 60 |
| CP% | 21-22% | 19.5% | 17.5 | 15.0 | 17-18 | 16-17 | 15-16 |
| ME/K CAL/KG | 2900 | 2900 | 2825 | 2775 | 2800 | 2775 | 2750 |
| Crude Fiber% | | 3-5 | 3-6 | 4-7 | 3-6 | 3-6 | 3-7 |
| Crude fat % | | 2.5-6 | 2.5-7.0 | 2.5-7.0 | 3-7 | 3-7 | 3-7 |
| Linoleic acid | | 1.2 | 1.0 | 1.0 | 1.2 | 1.2 | 1.2 |

**Minerals (minimum- maximum)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Calcium % | 1-1.1 | .9-1.1 | .9-1.1 | 3.3-3.5 | 3.6-3.8 | 3.8-4.0 |
| Available phosphorus % | .45 | .40 | .36 | .40 | .38 | .34 |
| Chloride % | .15-.25 | .15-.25 | .15-.25 | .15-.25 | .15-.25 | .15-.25 |
| Sodium % | .16 | .15 | .15 | .15-.2 | .15-.25 | .15-.20 |

**Amino acid (% minimum)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Lysine % | 1.05 | .95 | .72 | .80 | .77 | .72 |
| Methionine % | .45 | .40 | .34 | .40 | .38 | .35 |
| Met +cystein% | .80 | .75 | .56 | .71 | .68 | .65 |
| Tryptophan % | .20 | .17 | .15 | .18 | .17 | .16 |

**Vitamin/kg**

|  |  |  |  |
| --- | --- | --- | --- |
| TRAITS OF VITAMIN | **Starter(0-5)weeks** | **Grower(5-170weeks** | **Layer(17-up to production)** |
| VitaminA(IU) | **10000** | **10000** | **9000** |
| VitaminD3(IU) | **2200** | **2000** | **1800** |
| VitaminE(IU) | **20** | **15** | **15** |
| Vitamin K3/mg | **2.5** | **2.0** | **2.0** |
| Thhiamin mg | **1.0** | **1.0** | **1.0** |
| Riboflavin mg | **4.0** | **4.0** | **4.0** |
| Pantothenic acid mg | **10** | **8.0** | **8.0** |
| Niacin mg | **30** | **30** | **25** |
| Pyridoxine mg | **2.5** | **2.0** | **2.0** |
| Folic acid mg | **0.5** | **0.5** | **0.4** |
| Cholene mg | **300** | **300** | **400** |
| Vitamin b12mg | **.020** | **0.015** | **0.015** |
| Biotin mg | **0.2** | **0.1** | **0** |

**Amino acid and ME/KG according to feed intake in various period of Novogen brown(standard level).**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Hen day  production | Feed  Gm/hen/day | ME/KG | Methione % | Met+ cys % | Tryptophan % | Lysine % |
| 90%  production | 105 | 3020 | .40 | .76 | .18 | .87 |
| 110 | 2880 | .38 | .72 | .17 | .83 |
| 115 | 2760 | .36 | .68 | .17 | .79 |
| 120 | 2650 | .35 | .65 | .16 | .76 |
| 85-90%  Production | 100 | 3080 | .4 | .73 | .18 | .84 |
| 105 | 2930 | .38 | .70 | .17 | .80 |
| 110 | 2800 | .36 | .66 | .16 | .76 |
| 115 | 2680 | .35 | .63 | .16 | .73 |
| 120 | 2570 | .33 | .61 | .15 | .70 |
| 80-85% production | 100 | 2970 | .38 | .69 | .17 | .82 |
| 105 | 2830 | .36 | .66 | .16 | .78 |
| 110 | 2700 | .35 | .63 | .15 | .74 |
| 115 | 2580 | .33 | .60 | .15 | .71 |
| Below 80%  production | 100 | 2900 | .36 | .66 | .16 | .79 |
| 105 | 2760 | .34 | .63 | .15 | .75 |
| 110 | 2640 | .33 | .60 | .15 | .72 |
| 115 | 2570 | .31 | .57 | .14 | .69 |

**Table : 6, Temperature in various production level with body weight of Novogen Brown.**

|  |  |  |
| --- | --- | --- |
| Temperature | Production | Body weight |
| 180c | Above 90% production | 1430-1390 |
| 220c | 85-90%production | 1360-1320 |
| 260c | Below 85% production | 1320-1280 |
| 300c | Below 80% production | 1280-1220 |

**Table : 7, % of calcium during laying period with feed intake**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Feed intake/  Day | % of calcium in feed | | | | |
| 3.2% | 3.4% | 3.6% | 3.8% | 4.0% |
| 90 | 2.88 | 3.06 | 3.24 | 3.42 | 3.60 |
| 95 | 3.04 | 3.23 | 3.42 | 3.61 | 3.80 |
| 100 | 3.20 | 3.40 | 3.6 | 3.80 | 4.00 |
| 105 | 3.36 | 3.57 | 3.78 | 3.99 | 4.20 |
| 110 | 3.52 | 3.74 | 3.96 | 4.18 | 4.40 |
| 115 | 3.68 | 3.91 | 4.14 | 4.37 | 4.60 |
| 120 | 3.84 | 4.08 | 4.32 | 4.56 | 4.80 |

**TABLE: 8 Vaccination schedule at Mousumi poultry Farm:**

|  |  |  |
| --- | --- | --- |
| Age (day/week) | Name of the VACCINE | Route of administration |
| IST day | Mareks | S/C in neck |
| 5th day | BCRDB+IB | Eye drop or drinking water |
| 8thday | Gumboro | Eye drop or drinking water |
| 9thday | GUMBORO+RANIKHET | S/C in neck |
| 14-18thweeks | Mareks | S/C In neck |
| 21st weeks | Ranikhet (live) | Eye drop or drinking water |
| 28th day | Gumboro (live) | Eye drop or drinking water |
| 35th day | IB | Eye drop or in drinking water |
| 6th weeks | Fowl pox | Wing web |
| 8th weeks | Ranikhet+Coryza | Drinking water |
| 10th week | Fowl Pox + Cholera | Wing web or S/C |
| 14th weerk | Cholera | BREAST muscle |
| 16th week | Coryza | Breast muscle |
| 18th week | IB+Ranikhet+EDS | Breast muscle or S/C |

1.Daily egg production

2.Body weight mesearrment

3.Feed intake

4.Mortality rate

Daily egg production was recorded and hen day and hen house egg production was calculated at their different age

Body weight was measured by using top balance.

Feed intake was measured by supplying and daily intake by birds.

Mortality was calculated from the number of dead chicken during this period

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Date | Age | No of total birds | No of dead birds | Feed/  hen/d  gm | Bwt/  Kg | Egg  pro./day | % of  Egg/day | % of hen house egg pro duction |
| 11th jan | 1/33 | 22000 | 0 | 116.5 | **1.83** | 19148 | 87.06 |  |
| 12th jan | 2/33 | 22000 | 2 | 116,9 | - | 19190 | 87.60 |  |
| 13th jan | 3/33 | 21998 | 2 | 117.2 | - | 19302 | 88.96 |  |
| 14th jan | 4/33 | 21996 | 0 | 116.4 | - | 19336 | 89.38 |  |
| 15th jan | 5/33 | 21996 | 1 | 117.3 | - | 19336 | 89.38 |  |
| 16th jan | 6/33 | 21995 | 1 | 116.5 | - | 19248 | 88.324 |  |
| 17th jan | 7/33 | 21994 | 0 | 116.3 | - | 19096 | 86.47 |  |
| 18th jan | 1/34 | 219904 | 1 | 117.7 | **1.87** | 19202 | 87.772 |  |
| 19th jan | 2/34 | 21993 | 0 | 116.8 | - | 19090 | 86.323 |  |
| 20th jan | 3/34 | 21993 | 2 | 116.6 | - | 19212 | 87.303 | 87.13% |
| 21st jan | 4/34 | 21991 | 1 | 116.5 | - | 19018 | 85.443 |  |
| 22th jan | 5/34 | 21990 | 0 | 117.2 | - | 19004 | 85.113 |  |
| 23th jan | 6/34 | 21990 | 1 | 116.3 | - | 18926 | 84.35 |  |
| 24th jan | 7/34 | 21989 | 0 | 115.9 | **1.89** | 19094 | 86.42 |  |
| 25th jan | 1/35 | 21989 | 2 | 117.8 | - | 19030 | 85.88 |  |
| 26th jan | 2/35 | 21987 | 0 | 116.6 | - | 19114 | 86.66 |  |
| 27th jan | 3/35 | 21987 | 0 | 117.1 | - | 19124 | 86.95 |  |
| 28th jan | 4/35 | 21987 | 1 | 116.9 | - | 19340 | 89.64 |  |
| 29th jan | 5/35 | 21986 | 1 | 117.9 | - | 19186 | 87.85 |  |
| 30th jan | 6/35 | 21985 | 0 | 116.6 | - | 19196 | 87.93 |  |
| 31th jan | 7/35 | 21985 | 0 | 116.1 | **1.94** | 19356 | 87.68 |  |

**RESULTS AND DISCUSSION** In my experimental period I worked on both management and production side.

Obtained result on body weight,mortality,feed intake of novozen brown what I have got during my study time compared with standard level

|  |
| --- |
|  |

**WEEKLY PRODUCTION PERFORMANCE**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Age  In week | Total birds | Death /week | **Standard** | | | | **Observation** | | | | |
| Hen  Day  % | Feed intake  gm/d | Total  Intake  kg/hen | Bwt gm | Total feed intake kg | Feed  gm/day/bird | B.wt./week | Mortality/week | % egg in a week |
| **33** | **22000** | **06** | **93** | **117** | **10.4** | **1960** | **2567** | **116.69** | **1.87** | **.027%** | **87.43%** |
| **34** | **21994** | **04** | **93** | **117** | **11.2** | **1960** | **2570** | **116.71** | **1.89** | **.018%** | **86.01%** |
| **35** | **21990** | **04** | **92** | **117** | **12.0** | **1970** | **2570** | **116.98** | **1.94** | **.018%** | **85.67%** |

Results was obtained on Hen day Egg production was 87.43% , 86.71%, 85.67% and mortality was 0.027%, 0.018%,0.018% respectively in 33,34 35 weeks of age.

And Hen house egg production was 87.27%.

Feed intake was 116.79gm/day.

The facilities of the present study was similar to the standard of no.during study mortality was 0.027%,0.018% and 0.018% in 33,34 and 35 weeks respectively.

**Impact of feed intake and body weight during laying period:**

1. Body weight and feed intake may vary due to season, housing system, composition of feed, transport, debeaking.

**CONCLUSION**

It was reviled from the study that the findings of the strain of NOVOGEN BROWN was similar to the standard. However the production performance indicated the strain was superstrain as well as ISA BROWN, ISAWHITE HISEX BROWN, HISEX WHITE.

Although the studied farm follows the management of layer farming system, the egg production did not reached to the peak compared to standard level but mortality was lowest during laying period **.**It may be concluded that the egg production can be increased up to the standard level with good management of the layers during rearing.

**REFERENCES**

B.B.S.(1998); Statistical pocket book of Bangladesh. Ministry of planning, Government of people’s republic of Bangladesh, Dhaka

Commercial poultry production by Saleque, 2007

Chowdhury, S.D. Das, C. Pramanik, H.A.M Roy, C.R and Saha, K.S. (2003).Growth and egg

production performances of purebred and crossbred chicken. The Bangladesh veterinarian,

19(1),43-47.

Hand book of egg producer best practicing for minimize cannibalism

Poultry health hand book 4th ed. 1994, Schwartz

Hammond’s proposal on poultry production.1947

Layer parent stock production in Bangladesh.Proc.3rd WPSA, International poultry show and

seminar, pp.15-23.

Poultry production in rural area by Bhuian, et all 2005

Rahman , S.M Islam ,J.M Howlider, R.A.M & Rahaman, H. M (2002). Department of Animal

sciences and Avian sciences, University of Maryland. College park.

Status of poultry Production and consumption pattern of poultry meat and egg .The Bangladesh

Veterinarian , 19(1), 39-42.

Saleque, M. A (2001).Poultry as a tool in poverty alleviation; a special programme for the rural

poor in Bangladesh, Proc. 2nd WPSA. International poultry show and seminar, pp.66-69.

Fattah, K.A. 2003 Poverty alleviation and poultry development strategies in Bangladesh

Hurwitz, S. and Plavnik, L. 1998 Severe feed restriction in pullets during the early growing period: performance and relationship among age, body weight and egg weight at the onset of production , Poultry Science, 68(7): 914-924.

Krishnappa, P., Devagowda, G.R. and Ramappa, B.S. 1992 Effect of restricted feeding on subsequent performance of layer Indian Journal of Poultry Science 27(1): 29-31.

Miah, M.S., Islam, A.M. and Ali 2002 Growth and Egg Production Performance of Purebred and Crossbred Chicken. The Bangladesh Veterinarian,19(1): 43-47.

North,O.M. and Bell,D.1996 Commercial Chicken Production Manual,4th edition. Chapman and sHall New York, pp: 175-210, 227-254, 407-432, 711-713.

Rahaman S.M., Islam Howlider, R.A.M. and Rahman H.M. 2002 Status of poultry production and consumption pattern of poultry meat and egg. The Bangladesh Veterinarian,19(1): 39-42.

.

Saleque, M.A. 2001 Poultry as a tool in poverty alleviation: A special programme for the rural people in Bangladesh, Proc. 2nd WPSA International Poultry Show and Seminar, pp: 66-69.

Scott, T.A., Silversides, F.G.,Tietge, D., and Swift. 1999 Effect of Feed formulation and restriction on performance of laying hen. Canadian Journal on Animal Science pp: 79, 171-178.

Spralt, R.S. and Leeson, S.1987 layer performance in response to diet protein and energy. Poultry Science, 66: 683-693.