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The Status of Homestead Poultry Production in Sylhet Region

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Abstract: Local chickens dominate poultry production in Bangladesh. For this reason, an investigation was conducted to determine the existing production system and production performance of native chicken in the Sylhet areas of Bangladesh. Data were collected from 180 households of 6 villages of Sylhet district in Bangladesh. In Sylhet mainly poor families, who have arrived from outside and are landless rear poultry. Most of the households (58.33%) had 0-15 chicken. Most of the families (75%) reared their chicken in combined house with duck. Materials used for housing were similar to other parts of the country. Mainly female members were involved in poultry rearing. About fifty percent farmers got on an average less than 70 eggs per year per bird. A few farmers (5.56%) informed that they had collected more than 130 eggs from a bird in a year. In most of the cases (47.22%) the length of clutch was less than 20. Interval between two clutches was found in highest percentage(42.22%). Highest egg production was observed in winter season (52.78%) followed by summer, spring and late autumn. Maximum (60%) farmer had vaccinated their birds and 55% farmers got service from Department of Livestock Services.

Key words: Homestead poultry, production pattern, Sylhet region

Introduction

The main driving force for the present worldwide revolution in poultry production has been efficient improvement in the qualitative genetic method of poultry breeding. Thus the current best commercial layer strains produce 280 to 290 eggs per year. Similarly the best meat producing strain now reaches the weight of more than 2 kg about six to seven weeks of age. But homestead chickens dominate Bangladesh poultry production. It was reported that about 86% of poultry meat and 76% of egg come from rural scavenging poultry, that means a significant proportion of contribution of the total eggs and meat are coming from native birds (Huque, 1999). The native poultry represent more than 70% of the total poultry where more than 74% household keeps these types of birds (Huque and Paul, 2001). Gueye (1999) reported that native poultry contributes about 28% of the total protein supply in Bangladesh and holding second place to milk products which contributes 38% even landless family (22% of total households) usually keep 5-6 chickens. Homestead is a low input-low output production system, which involves little care since the birds are scavengers, and supplied with little or no supplemental feed. It is one of the income generating activities for rural woman, landless poor and marginal farmers. It provides cash income and at the same time, it increases the production of very valuable animal protein, which significantly contributes to family nutrition and food security. In Bangladesh, there are about 142 million chickens and 14 million ducks (Anonymous, 2000) and traditionally mostly women and children rear them. FAO

(1984), therefore, suggested a study among native chicken population and conserving them if found worthy. Although, several studies were undertaken with native chicken on its production performance, with different feed supplementation, little information regarding the regional as well as seasonal variation in its production pattern is available. Therefore, the conservation of native chicken is of great importance to the welfare of the rural people. With this background, this investigation was conducted to determine the existing production system and production performance of native chicken in the Sylhet areas of Bangladesh.

Materials and Methods

A total of 180 farm households from 6 village of Sylhet district of Bangladesh were randomly selected. For data collection, a standard questionnaire (survey schedule) was prepared and it was pre- tested in the respective areas. Data were collected by personnel contact with the respondents (who care the birds). The visual observation of the birds in selected area including size, and tenurial status of farms, number and distribution of birds, cropping pattern and management practices followed by farmers were carried out. After completion of base line survey, the survey schedule rechecked for computation of data.

Results

Distribution of farm size: The distribution of farm size in the survey villages is presented in Table 1. The data showed that out of 180 farm families, the highest number (32.22%) was small farmers followed by

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Table 1: Classification of respondent farmers according to the land size

According to the land category	Land size (ha.)	No. of farmers	% of respondent
Landless	0.00-0.20	57	31.67
Marginal	0.21-0.50	42	23.33
Small	0.51-1.00	58	32.22
Medium	1.10-1.50	16	8.89
Large	1.50-above	7	3.89
Total		180	100

Table 2: Status of native chicken in farm families

No. of chicken	No. of farm families	% Respondent
0-15	105	58.33
16-30	41	22.78
31-45	26	14.44
46-60	06	3.33
60 above	02	1.11
Total	180	100

Table 3: Housing pattern of chicken

Types of house	No. of farmers	% of farmer
Separate chicken house	18	10
Separate duck house	7	4
Joint chicken & duck house	135	75
Chicken reared in dwelling house	20	11
Total	180	100

Table 4: Housing materials for rearing native chicken

Materials	Roof (%)	Fence (%)
Tin	63	10
Wood	05	7
Bamboo, Mud & Straw	32	67
Brick	-	16
Total	100	100

Table-5: Type of floor

Types of floor	No. of farmers	% Respondent
Paved	47	26
Mud	133	74
Total	180	100

landless (31.67%) marginal (23.33%), medium (8.89%) and large farmer (3.89%).

Distribution of native chicken: The chickens distributed in the surveyed area is presented in Table 2. About 58.33 farm households had 0-15 chickens followed by 22.78% households of chicken and 14.44% households of 31-45 chickens. The farmers having 46-60 and 60 above chickens were very few in number, which were 3.33% and 1.11% respectively.

Housing was an important factor for increasing native poultry production. The type of house used by farmers in survey areas is presented in Table 3. The data showed that about 75% respondents reared their chicken in combined house and only 10% farmers prepared a separate house for chicken. It was observed that about 11% farm households kept their chicken in the dwelling house. The farmers in the study area followed no

special housing system. The farmers usually built the houses for poultry adjacent to their dwelling houses.

Good housing materials are important to provide comfort to the birds for sustainable good production as well as good health. The type of materials used by the farmers to make, houses for poultry are presented Table 4. About 63% roofs of house were made of tin followed by bamboo, mud & straw (32%) and wood (05%) respectively. Similarly, farmers used tin, wood, bamboo, mud & straw and brick as fence, which were 10, 7, 67 and 16 %, respectively among farm households. Data regarding the floor type indicated that 74% of poultry houses were made of mud whereas 26% were paved floor.

Family members especially women were the main operators for successful native poultry production. Most of the related activities of native poultry production such as feeding, rearing, cleaning of house, medication, hatching and brooding management were carried out by women. Women performed about 70% of the total works when they handled native poultry production. (Table 6).

Length of clutch: It was found that 47.22% birds had less than 20 days of length of clutch followed by 38.33% had 20 to 25 days and 12.78 had 25-30 days of clutch. Only 1.67 birds had more than 30 days of length of clutch.

Interval between two clutch: The highest percentage of interval between two clutch were observed between 60 to 90 days about 42.22% followed by 30 to 60 days 31.67% and 90 to 120 days 26.11%.

Egg production per bird per year: It was reported from the farmers that most of the birds laid 50-70 no. of eggs per year after started of laying followed by 70-90 no. of eggs (21.11%) . About 18.33% birds had the lowest production i.e. 30-50 no. of egg per year per bird and only 5.56 birds had highest egg production i.e. 130 to above.

Highest egg production period: The highest egg production period was reported in winter season 52.78% followed by summer season 40%. Few farmers also reported that they got highest egg Production in spring (5%) and in the late autumn (2.22%).

Application of vaccine and availability of veterinary service: Sixty percent farmers informed that they had vaccinate their birds and 55% farmers informed that they got service from different institute of Department of Livestock Services (DLS).

Discussion

Land ownership among the farmers in the survey area followed national tenurial system of the Country. It had shown that small farm category was the highest number

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Table 6: Participation of family members in different activities of native chicken production

Type of work	Husband	Wife	Daughter	Son	Labor	Others
Feeding	-	70	7	3	4	16
Rearing	-	65	12	5	-	18
House making	55	4	-	10	31	-
Cleaning of house	-	78	10	-	5	7
Egg selling and purchase of feed & medicine	52	5	-	35	2	6
Selling of live birds	55	5	-	30	3	7

Table 7: Length of clutch

Days	No of farmers	% of farmers
Less than 20 days	85	47.22
20-25	69	38.33
26-30	23	12.78
30 above	3	1.67
Total	180	100

Table 8: Interval between two clutches

Days	No of farmers	% of farmers
30-60	57	31.67
61-90	76	42.22
91-120	47	26.11
Total	180	100

Table 9: Egg production/ bird/year

No. of produced egg	No of farmer	% of farmer
30-50	33	18.33
50-70	57	31.67
70-90	38	21.11
90-110	27	15
110-130	15	8.33
130 above	10	5.56
Total	180	100

Table 10: Highest egg production period

Season	No. of farmers	% of farmers
Summer	72	40
Late Autumn	4	2.22
Winter	95	52.78
Spring	9	5
Total	180	100

Table 11: Application of Vaccination

Item	No. of farmers	% of farmers
Application of vaccine	108	60
No vaccination	72	40
Total	180	100

Table 12: Veterinary service

Item	No. of farmers	% of farmers
Service from DLS	99	55
No service	81	45
Total	180	100

in the survey areas. During collection of data it was observed that in Sylhet region there were very few large farmer(7%). Because in rich family there are one or more family member reside in foreign country. From that source they get extra income. So they are not interested to rear poultry. Mainly poor family who have arrived from outside of the Sylhet district and are landless rear poultry

in Sylhet region. Out of 180 farm households 105 farms households had on an average 15 chickens, which was higher than national average per farm (BBS, 1995). Regarding the house pattern and materials used for housing, the result was similar to what were traditionally observed all over the country. These types of materials are easily available to the farmers and even farmers constructed their house by sparing their own labor. The works of poultry rearing such as, feeding, cleaning of house, purchasing of feeds, medicine and selling of eggs were considered in this study. The poultry rearing practices were completed by husband, wife daughter, son and labor. It was observed that male members specially husband were mainly concern with construction of house, because they had greater involvement in outside works. On the other hand, wife is solely responsible in homestead activities like poultry keeping and other household Works. Participation of daughter and son in poultry keeping was small because they were probably not so attentive to this job. It was mentioned that son were Mainly responsible for egg selling and purchase of feeds. This similar findings was also reported by Haque and Paul, 2001. Participation of women was dominant in rural poultry husbandry in Bangladesh. Participation of husband in poultry keeping was increased with the increase of farm size. Many farmers use their hen for hatching purpose. This is why about 50% farmers got less than 70 eggs per bid per year. About 14% farmers informed they got more than 110 eggs per bird per year. Because they have not use their birds for hatching. Production will increase if feed supply becomes available mainly protein source. A bird will require 18 gm of protein to produce an egg (Singh and Panda, 1992). So if adequate amount of protein is supplied, it will increase the Production. In homestead poultry farming birds can get their protein from by taking earth worm, snail, insects etc.

The highest egg production was found in winter because at that season feed is available. From highland farmers collect their paddy and other crops at the onset of winter season. So, feed becomes available at that time that had increased egg Production. After winter egg production is decreased. So only 5% farmer informed that they got the highest egg production in spring. In Sylhet region, there are many low land, farmers harvest their crops from these low land from mid spring to onset of summer. Poultry get their feed at that time. Moreover at summer season it rains sometimes. As a result earth

worm, snail, and this type of protein source become available. For this reason in some areas egg production is increased and 40% farmer got their highest production at that time. After summer heavy rain immerge most of the low land and feed become unavailable this is why in rainy season and in Autumn egg production decreases. In the late autumn the low land becomes muddy. So some aquatic insects are available and also some crops become available. So egg production increase again and 2.22% farmer got their highest production in late Autumn.

Most of the birds of Sylhet region were found indigenous non-descriptive breed. So their production capability is low and decreases their length of clutch, about 47.22% birds had less than 20 days of length of clutch. When feeds are available in winter and summer season length of clutch increases slightly and about 38.33% birds had 20 to 25 days of length of clutch. A few birds (1.67%) had more than 30 days of length of clutch. Interval between two clutch were normally (42.22%) were 2 to 3 months. When feed become available and birds should not used for brooding, it decreases from one month to two month. But if birds are used for brooding the interval increases up to 120 days or more.

Poultry production in Bangladesh is dominated by local chickens. For this reason, an investigation was conducted to determine the existing production system and production performance of native chicken in the Sylhet areas of Bangladesh. Data were collected from 180 households of 6 villages of Sylhet district of Bangladesh. In Sylhet mainly poor families, who have arrived from outside and landless reared poultry. Most of the households (58.33%) had 0-15 chicken. Most of the (75%) females reared their chicken in combined house with duck. Materials used for housing were similar to other parts of the country. Mainly female members were found to rear poultry. About fifty percent farmers got on an

average less than 70 eggs per year per bird in a year. A few farmer (5.56%) informed that they had collected more than 130 eggs from a bird in a year. In most of the cases (47.22%) the lengths of clutch were less than 20. Interval between two clutches were found in the most cases 42.22%. Highest egg production was observed in winter season (52.78%) followed had vaccinated their birds and 55% farmers got service from DLS.

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