

Study on the Scientific Knowledge and Managerial Skill in Commercial Broiler Farming Programme at the Farmers Level of Rajshahi District

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Abstract: Information of broiler farms, adoption of scientific knowledge and managerial skill of broiler farmers were collected. Data were collected through personal interview from 140 farmers at 6 thana's of Rajshahi district. In this study, 45.3% large, 30.7% medium, 12.5% small, 7.0% marginal and 4.5% landless farmers were involved in commercial broiler farming programme. In case of educational level, about half of the farmers (47.30%) had above secondary, 36.0% had secondary, 12.2% had primary and rest of the farmers (4.5%) had no educational qualification. In case of feed use, percentage of self-preparation and ready made feed were 60.0 and 40.0% respectively. In vaccination, 70.0% broiler farmers vaccinated their birds regularly and 30.0% farmers vaccinated their birds irregularly. In case of floor management system, 80.7% farmers used deep litter system with saw dust or rice husk and rest 19.3% farmers used slate system. About 54.5% farmers did not have any training on broiler farming, whereas only 45.5% farmers had taken training on broiler farming, 71.43% of the respondents had high level of knowledge, 24.29% in medium and only a few respondents (4.28%) possessed very poor knowledge about broiler farming. On the other hand, 37.86% of the broiler farmers had high level of managerial skill based scientific knowledge. However, 52.85% respondents possessed medium managerial skill and a few of them (9.29%) never cared about the skilled management. So this indicates that broiler farmers need to be trained in routine management aspects.

Key words: Scientific knowledge, managerial skill, farmers, broiler farming

Introduction

Poultry plays a vital role in the agricultural economy of Bangladesh. It is recognized that the climatic condition of Bangladesh is suitable for poultry rearing. Broiler is an important part of commercial poultry enterprise. Broiler is a young chicken of either sex easily reared for meat purpose aged 6-8 weeks with soft meat and bone cartilage. Now in Bangladesh there are about 10 International Poultry Breeding Companies who supply day old chicks, either from imported parent stocks or from imported hatching eggs (Latif, 1998). The present broiler industry in Bangladesh is getting momentum in this respect. About 1200 broiler farms are present in this area (District Livestock Office, Rajshahi). It has been recognized as a major enterprise under the self-employment scheme in this area. Poultry, commercial broiler strains are playing an important role in employment generation and poverty alleviation in the rural areas. It has been using as an important tool for protecting the migration of rural poor to the urban area. The densities of poultry are very high in Bangladesh compared to many other countries in the world. In spite of these high densities, country suffers from an acute shortage of animal protein deficiency due to lower average production/unit. Poultry sector is an important sector in Bangladesh to meet up the protein requirements of the people through meat and egg production. Hoffman and Gwin (1954) exposed that chicken meat are an excellent source of essential amino acids for human being. Recent studies indicated that about 10% people are normal and 47, 38 and 4.3% people are suffering from mild, moderate and severe malnutrition respectively in Bangladesh (Anonymous, 1998). According to Anonymous (1995), 36 g animal protein is required per person per day but we getting only 9.56 g. This has resulted malnutrition in Bangladesh (Ahmed and Islam, 1990). Broiler meat can efficiently and rapidly fulfils the shortage of protein requirement, since it can be produced at least possible time as compared to other meat-producing animals. To reduce the gap between demand and supply of animal protein, poultry can play an important role. Poultry contributes approximately 37% of total animal protein supplied in Bangladesh (Ahmed and Islam, 1990). Bangladesh has a great prospect for raising broilers. Broiler production reveals the fact of minimum expense with maximum return. It can be mentioned here that small area of available land can be well utilized for commercial broiler farming in thickly populated country like Bangladesh (Sarker et al., 2001). However, broiler farming requires great deal of knowledge and experience.

In these respects, management that involves several skilled operations to be performed timely assumes greater significance. An attempt was therefore made in this study to find out the adoption of scientific knowledge and managerial skill in broiler farming programme at the farmer's levels and to draw out a conclusion.

Materials and Methods

Data were collected through personal interview from 6 thanas namely Godagari, Tanor, Poba, Bagmara, Boalia and Puthia of Rajshahi district in Bangladesh during Sep. to Dec. 2001. Out of 165, only 140 farmers were taken for the purpose of present study as the rest 25 were seasonal farmers who run the farms as subsidiary business during peak period of demand. A special questionnaire relating to factors associated with broiler farming scientific knowledge and management aspect of broiler farming by the farmers was developed for this purpose. Parameter of factors associated with broiler farming was educational level, type of farmer, name of strain, number of birds, use of feed, vaccination, floor management system, training and source of money. The 10 items were selected for assessing the knowledge aspect of farmers were ingredients broiler feed, care to be taken during housing of the birds, quality of the broiler chicken, during brooding period, vaccination, cleanliness of the shed, disease of the broiler birds, medicines of regular use of farm, age of disposal/sale of birds and feed supply to birds according to their age groups. The other 10 items selected for finding out the managerial skill of broiler farmers were broiler farm hygiene, regular supply of quality feed, regular clean water supply, vaccination schedule, vaccination processes, density of birds, use of foot bath, washing of farm equipments, care of letter management and fumigation of broiler farm. Each item was given one score if followed by the respondent. Thus, for knowledge aspect the maximum score each respondent could get was 10. Similarly, one score was given to each management item. Thus, each respondent could get maximum score of 10 for all management items, if followed by him. The knowledge scores obtained were categorizing into high knowledge (≥ 7 score), medium knowledge (4-6 scores) and poor knowledge (≤ 3 score). Similarly, high, medium and poor management received respective scores as indicated above. The collected data were then edited, summarized and tabular analysis along with statistical technique using computer package MSTAT-C (Freed, 1992) were applicable were followed for this study.

Results and Discussion

About 45.3% large, 30.7% medium, 12.5% small, 7% marginal and 4.5% landless farmers were involved in broiler farming in Rajshahi district (Table 1). These findings indicated that, in this sector, comparatively rich farmers are more involved than poor. In case of educational level, about 47.30% of the farmers were in above secondary, 36.0% were in secondary, 12.2% were in primary and rest of the (4.5%) farmers had no educational qualification. The results also indicated that, broiler is a major enterprise under self-employment of the educated persons in this region. Among the different strains, about 50.5, 30.5, 10.6 and 8.4% farmers reared Kasila, Starbro, Anik and Arbor Acres respectively. About 8.0% farmers had more than 1500 broiler birds, 30.5% had 1001-1500 birds, 40.6% had 500-1000 broiler birds and 20.9% had less than 500 numbers of birds. In case of feed use, percentage of self-preparation and ready made feed were 60.0 and 40.0% respectively. In vaccination, 70.0% broiler farmers vaccinated their birds regularly and 30.0% farmers vaccinated their birds irregularly. In case of floor managerial

Table 1: Factors associated categories of selected characteristics of broiler farming by the farmers in Rajshahi district (N = 140)

Variables	Categories	Percent of total farmers
Types of farmers	Landless (0.00-0.50acre)	4.5
	Marginal (0.51-1.24acre)	7.0
	Small (1.25-2.47acre)	12.5
	Medium (2.48-4.94acre)	30.7
	Large (> 4.95acre)	45.3
Educational level	No education	4.5
	Primary	12.2
	Secondary	36.0
	Above secondary	47.3
Name of strain	Ksila	50.5
	Starbro	30.5
	Anik	10.6
	Arber Acres	8.4
	< 500	20.9
Number of birds	500-1000	40.6
	1001-1500	30.5
	> 1500	8.0
Use of feed	Self preparation	60.0
	Ready made feed	40.0
Vaccination	Regular	70.0
	Irregular	30.0
Floor management	Deep litter system	80.7
	Slate system	19.3
Training	Taken	45.5
	Not taken	54.5
Sources of money	Own	60.5
	Bank loan	30.5
	With interest from moneylender	6.2
	Without interest from moneylender	2.8

Table 2: Distribution of respondents according to their knowledge and managerial skill about broiler farming programme (N = 140)

Participation level	Respondents		Mean ±SD	CV
	No.	%		
Level of knowledge				
High	100	71.43	7.55 ± 2.07	27.62
Medium	34	24.29		
Poor	6	4.28		
Total	140	100.00		
Level of managerial skill				
High	53	37.86	6.36 ± 2.40	37.83
Medium	74	52.85		
Poor	13	9.29		
Total	140	100.00		

system, 80.7% farmers used deep litter system with sow dust or rice husk and rest 19.3% farmers used slate system. About 54.5% farmers did not have any training on broiler farming, whereas only 45.5% farmers had taken training on broiler farming from local Youth Training Center (YTC), Thana Livestock Office, NGOs and other different broiler farming related agencies. About 60.5%

farmers themselves financed their broiler farming business, whereas 30.5% farmers got bank loan and rest 6.2 and 2.8% farmers got moneylender with or without interest respectively (Table 1).

Data revealed that 71.43% of the respondents had high level of knowledge about broiler farming, whereas, 24.29% of them were in medium level of knowledge and only a few (4.28%) respondents possessed very poor knowledge which may attributed to the factors like ignorance in getting sufficient information and lack of conviction, etc. (Table 2). These findings are in conformity with those of Ayyadurai and Knight (1991) and Nimje *et al.* (1992).

In managerial skill 37.86% of the broiler farmer's interview had high level of managerial skill about broiler farming. However, 52.85% respondents possessed medium managerial skill and a few of them (9.29%) never cared about the skill management (Table 2). This indicated that the majority of broiler farmers were lacking in proper managerial aspects, such as hygiene, in broiler shed was not adequately taken care of by the farmers nor they were caring for the regular feed supply to the birds. This indicates that the broiler farmers need to train in routine managerial aspects like clean and regular water supply, proper feeding, timely vaccination and medication, etc. These results support the findings of Joon (1972), Nimje *et al.* (1992) and Kumar and Mahalati (1994) who also emphasized the need for proper training to farmers/entrepreneurs in respect of broiler management.

From the above study in this sector, comparatively rich farmers are more involved than poor. In case of educational level, the results also indicated that, broiler is a major enterprise under self-employment of the educated persons in this region. 71.43% and 24.29% of the respondents are high and medium level of knowledge about broiler farming of them respectively and only a few (4.28%) respondents possessed very poor knowledge which may attributed to the factors like ignorance in getting sufficient information and lack of conviction, etc. About 54.5% farmers did not have any training on broiler farming, whereas only 45.5% farmers had taken training on broiler farming. The majority of broiler farmers were lacking in proper managerial aspects, such as hygiene, in broiler shed was not adequately taken care of by the farmers nor they were caring for the regular feed supply to the birds. So, it was concluded that the broiler farmers need to train in routine managerial aspects like clean and regular water supply, proper feeding, timely vaccination and medication, etc.

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