

**Research Article****STATUS OF KNOWLEDGE AND MANAGEMENT SKILLS AMONG THE BROILER FARMERS IN THE VICINITY OF AFU, CHITWAN, NEPAL****P. Tandan<sup>1</sup>, A. Shrestha<sup>2</sup>, A. Khanal<sup>2</sup>, S. Shrestha<sup>2</sup>, D. Lamsal\***<sup>1,2</sup>B.V.Sc &A.H, Agriculture and Forestry University, Chitwan, Nepal

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**Abstract**

*Broiler farming plays crucial role for income generation, employment creation, trade and is the basis of poverty alleviation in Nepal. Broiler population accounts around 87% of total poultry population of Nepal. A study regarding status of Broiler farms, knowledge and adoption of management skills by the broiler farmers was conducted in the vicinity of Agriculture and Forestry University (Bharatpur Metropolitan ward numbers 15, 17, 18, 19 and 20). Pre-testing of questionnaire prior to data collection was done. Household survey with personal interview via structural questionnaire among a total of 104 broiler farmers, proportionate to the area covered by each ward, was performed from July 13th 2018 to July 29th 2018 and these data were analyzed using MS-Excel-2013. Out of total respondents, education status revealed 16.34% uneducated, 27.88% primary, 39.42% secondary and 16.34% above secondary level. Rearing pattern showed 91.34% rearing on their own farm whereas 8.66% in rent. Cobb-500 (92.30%) showed higher dominance on rearing strain than Cobb-400 (6.73%) and Hub-bard (0.96%). Vaccination schedule was found to be regularly followed by 76.92%. Among the total farmer surveyed, 18.27% reported of having loss whereas 81.73 % reported profit. Farmers with training prior to farming were quite low, accounting only 29.80%, of which 93.54% reported of having profit and 6.46% reported loss. Pre-defined criteria for scoring level of knowledge and management skills of respondents showed 15.38%, 48.07% and 36.53% had high, medium and poor knowledge level respectively. Similarly, 25.96 %, 55.76 % and 18.26 % had high, medium and poor management skills respectively. This study indicated that regular trainings on management skills to the broiler farmers could help them get optimum profit, for which Agriculture and Forestry University can play a significant role.*

**Keywords:** Broilers, Knowledge, Management, Questionnaire, Skills**Introduction**

Poultry business being one of the major agricultural practice (Osti et al., 2017) is an important occupation of the people in Nepal. Easy for rearing, less manpower, less investment etc. are some possible causes for the attraction of people towards this field. In the world Nepal stands at 112<sup>th</sup> position in chicken meat production ranking and at 92<sup>nd</sup> in egg production ranking. (Shrestha et al, 2014). Poultry farming is extensively increasing in Nepal and has greater contribution to the National GDP. Poultry production contributes 4% of the national GDP alone. Out of 75 districts, commercial poultry farming is done in 64 districts with total of 21,956 poultry farms comprising of 20,486 (93.29%) broiler, 1,137 (6.095%) layers farms, 128 (0.58%) hatchery and 8 (0.04%) Giriraj farms (Central Bureau of Statistics, 2073). There are

1,923 poultry farms in Chitwan of which 1,365 are broilers, 502 are layers, 56 hatcheries and no any Giriraj farms (Central Bureau of Statistics, 2073). Broiler production stands as an important part of commercial poultry production playing a crucial role for employment generation and poverty alleviation. Although in Nepal it is believed that the history of poultry farming as a business have been reported since back in 1980, but the expected achievements has not been reached (Osti et al., 2017).The optimum production and profit from the broiler farming can only be ensured if the farmers are well acknowledged of the scientific knowledge and management skills required for the rearing. Poultry management usually refers to the rearing practices or production techniques of poultry that help to maximize the

efficiency of production. Sound and effective management practices are must for the optimization of production. The aim of scientific poultry management is maximization of return with minimum investment. Knowledge of farm house requirements, feeding requirements, poultry disease management, litter management, vaccination, use of antibiotics, sanitation and biosecurity are the important facets of sound broiler farming practices. This study was performed to assess the status of knowledge and management skills among the farmers in commercial broiler farms.

### Methods and Materials

A questionnaire paper covering the various aspects of personal information, knowledge attitude, management skills and practices of commercial broiler farmers was developed keeping in mind the prime objective of the research followed by pre-testing of this questionnaire prior to survey. Study area was Bharatpur Metropolitan ward numbers 15, 17, 18, 19, and 20 around the periphery of Agriculture and Forestry University. Questionnaire survey was conducted in altogether 104 commercial broiler farms from July 13<sup>th</sup> 2018 to July 29<sup>th</sup> 2018.

The number of farmers interviewed from each ward was proportionate to the area of these each wards. Data obtained were analyzed using MS-Excel 2012 and SPSS v.13. The knowledge level was evaluated based on whether or not they know about the following 10 aspects; feed ingredients, care to be taken in housing of birds, quality of broiler chickens, care during brooding period, vaccination, cleanliness of the shed, diseases of the broiler birds, medicines of regular use of farm, age of sale of birds and feed

supply to birds according to the age groups. Similarly, management level was evaluated based on adoption of following 10 aspects; daily record keeping, regular supply of quality feed, regular supply of clean water, follow of vaccination schedule, vaccination process, density of birds, use of foot bath, washing of farm equipment, litter management and fumigation and all in all out. Farmer having a good knowledge or idea on the respective item gets one score or point and if not then zero point. The scoring of each item was done either 1 or 0 based on whether the farmer has enough knowledge or not. Hence the farm management knowledge is measured on overall ten points from minimum zero to maximum 10. According to the overall knowledge score obtained by the farmers, they were categorized into high knowledge ( $\geq 7$  score), medium knowledge (4 -6 score) and poor knowledge ( $\leq 3$  score). Similarly, their management practices were also categorized into high, medium and poor.

### Results and Discussion

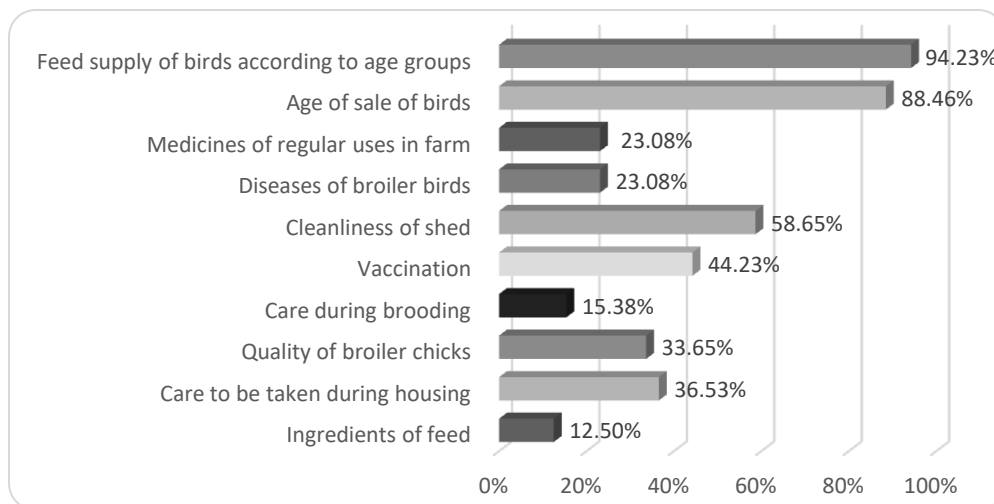
About 49% of the farmers were rearing less than 500 birds, 37% rearing 500 to 1000 birds and only 14% rearing more than 1000 birds. Educational level of farmers revealed 16.34 farmers with no formal education, 27.9% with primary education, 39.42% with secondary education and 16.34% farmers with higher secondary education. Cobb 500 was the most reared broiler followed by Cobb 400 and Hub-bard as shown in Table 1. Data revealed that most of the famers are doing commercial broiler farming in their own land accounting 91.34% whereas 8.66% are doing in rented land. The characteristics of broiler farms under the study area are shown in Table 1.

**Table 1: Factors associated categories of selected characteristics of broiler farms (N=104)**

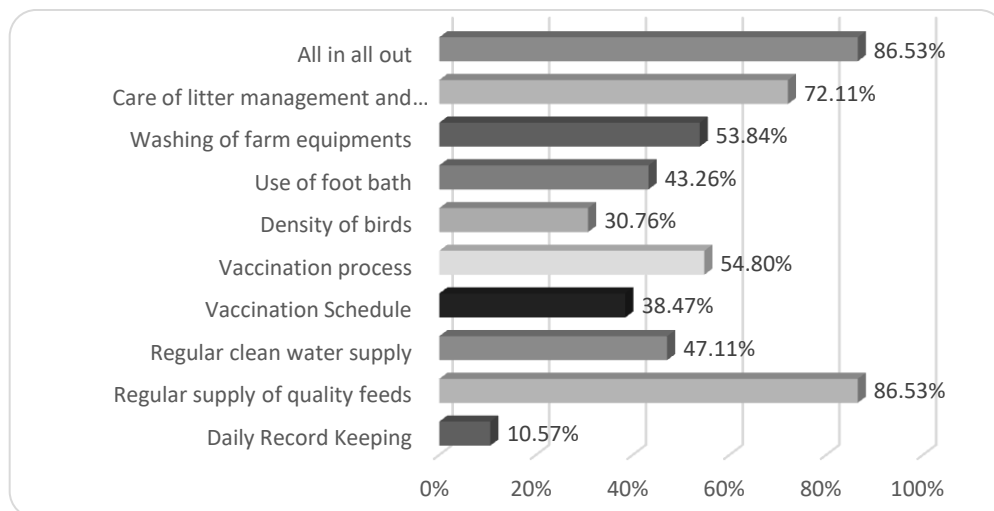
Variables	Categories	Percent of total farmers
Size of farms(acc. to total bids)	<500	49
	500-1000	37
	>1000	14
Educational Level of farmers	No formal education	16.34
	Primary	27.9
	Secondary	39.42
	Higher Secondary	16.34
	Cobb-500	92.30

Types of broiler strains reared	Cobb-400	6.73
	Hubbard	0.96
Training on broilers rearing	Taken	29.8
	Not taken	70.2
Farm land ownership	Rent	8.66
	Own land	91.34
Floor management	Deep litter	100
	Slate system	0
Vaccination	Regular	76.92
	Irregular	23.08
Experience in broiler farming	Below 3 years	60.57
	3 to 6 years	19.23
	More than 6 years	20.19

**Figure1:-Percent of Respondents having knowledge on different rearing skills**



**Figure 2:- Percent of respondents adopting different management skills**



The percentage of respondents having knowledge on predefined different rearing skills is shown in Figure 1. For example, 88.46% of the total farmers surveyed had knowledge about the correct age to sale their birds. Likewise, the percentage of respondents adopting different management skills is shown in Figure 2. For example, 86.53% of the total farmers surveyed are adopting all-in all-out principle in their farms. According to the response of farmers, 81.73% reported of having profit whereas 18.27% reported of having loss from broiler farming. Farmers with training prior to farming were quite low, accounting only 29.80%, of which 93.54% reported of having profit. Profit of the farm was found to be significantly associated with training (chi-square value=4.131;  $p=0.042$ ). But it was found that following of

vaccination schedule (regularly or irregularly) was not significantly associated to the profit of farm. These results supported the findings of (Rahman et al., 2002), who emphasized on training in routine management aspects. The categorization of knowledge level and management skills of farmers regarding the commercial broiler farming is shown Table 2. Majority of the farmers had medium knowledge level as well as medium level of management skills. Trainings to the farmers were found to be provided mainly by the feed companies and hatcheries. The findings indicated that majority of the farmers engaged in commercial broiler farming are lacking enough knowledge as well as lacking proper management aspects of commercial broiler farming.

**Table 1:- Distribution of respondents according to their knowledge and managerial skills about broiler farming (N=104)**

Participation level	Number	Respondents	
			Percentage
<b>Level of Knowledge</b>			
High	16		15.38
Medium	50		48.08
Poor	38		36.54
Total	104		100
<b>Level of Managerial Skill</b>			
High	27		25.96
Medium	58		55.78
Poor	19		18.26
Total	104		100

## Conclusion

Poultry management aims at maximizing returns with minimum investment. Sound management practices are very essential to optimize production. These could be achieved through dissemination of knowledge, techniques and scientific management skills to farmers. The findings showed the efficiency of trainings to farmers in achieving optimum production and profit. Agriculture and Forestry University (AFU), being only agricultural University of country, could play a significant role by facilitating and encouraging the needy farmers around the university in transforming their conventional management techniques of farming towards more scientific and productive techniques through the provisions of

training time and again. Similarly, it is recommended that government and concerned authority should responsibly take lead in providing extension service to the commercial farmers to uplift the productive status of their farm. On the other hand, farmers should take proper trainings on commercial broiler farming prior to start farming.

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