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Awareness Level of Poultry Husbandry Practices by the Poultry Farmers in Imphal West District of Manipur

Manglemba Paonam[1] and Daya Ram[2]

ABSTRACT

It has been observed that considerable number of poultry farms has grown up in Imphal district and particularly in Imphal west district of the state. Imphal being the main commercial centre of the state, availability of inputs like superior chicks, feeds, scientific equipments and labours has added momentum to the poultry business. Moreover veterinary services are also readily available with the establishment of veterinary hospital and private veterinary clinics in and around the Imphal city. Hence, there is a great scope for poultry rearing so as to fulfil the egg and meat requirement of the state and also to generate employment opportunities for unemployed youth in general and women section in particular. Thus, every effort should be made to utilize the proven poultry technology so as to increase the efficiency of poultry business in Manipur state. The present study was conducted in Imphal- west district of Manipur. A multi-stage sampling procedure was followed for selection of sub-division; village and respondents Total 120 respondents (poultry farmers) were selected based on proportional random sampling method. The study concluded that majority of the farmers had medium level of knowledge on different aspects of poultry production practices. Education, annual average income, socio-economic status, flock size, extension contact, utilization of mass media and attitude toward poultry rearing were the important factors which have contributed to the knowledge gained by the poultry farmers.

Keywords: Housing, brooding, feeding, watering, vaccination practices & scientific equipments.

INTRODUCTION

Poultry farming has become one of the viable and proven enterprises all over the world. Poultry farming is possible in widely different agro-climatic environment (FAO; 2007, National Commission on Agriculture, 1976), as the fowl possesses marked physiological adaptability. Requirement of small space, low capital investment, quick return from outlay and well distributed turn over throughout the year make poultry farming remunerative in both rural and urban areas. The rearing of poultry provides an excellent opportunity for gainful employment to idle or unemployed members of rural communities. Additionally, chicken meat consumption is a significant protein source which helps to cover the nutritional needs of the rural population. Over the past few decades' poultry farming had changed its status from backyard poultry farming to commercial poultry farming.

The traditional poultry farming in villages, which was the primary source of animal protein, and supplementary income for more than 50 per cent of the population of this country, has suffered in the wake of commercialization (Singh, 2000). Scavenging poultry birds normally maintained by women, sometimes contribute as much as 80 per cent of annual income to households (Anonymous, 2001). In developing countries, poultry represents an appropriate system to feed the fast growing human population and to provide income particularly to landless and small farmers, especially women. It makes one of the best uses of locally available resources. Although requiring low resource inputs and generally considered secondary to other agricultural activities by smallholder farmers, this type of production has an important contribution in supplying local populations with additional income and high quality protein. Poultry are also valued in religious and socio-cultural lives. However, high mortality, due to various diseases, constitutes one of the greatest constraints on poultry farming. Other problems are related to breeding, feeding and marketing. Over the last decade, poultry population has grown spectacularly throughout the world, 23 per cent in developed and 76 per cent in developing countries, respectively.

Among the north-eastern state of India, Manipur stands third in poultry production next to Assam and Tripura and in meat production it stands in fourth position. The total poultry population is 29.41 lakhs in 2003 as compared to 30.57 lakhs in 1997(Anonymous, 2007). But

[1]M.Sc. (Ag) student (Extension Education) and [2]Assistant Professor (Extension Education) College of Agriculture, Central Agricultural University, Imphal-795 004 (Manipur)

there have been increases anfrom 22.28 tonnes in 2003-04 to 24.26 tonnes during 2008-09 (Anonymous, 2008-09). Poultry farming in the state were found to be one of the important sources of income, particularly for landless agricultural labourers. But poultry production under modern technologies needs high expenditure which is very difficult to adopt for the rural farmers of Manipur. Few resource rich farmers are involved in this venture. Some rural youths are also running their farm and earning a handsome amount with contractual basis and solely depend upon the resource rich farmer. Hence, another way to fulfil out the increasing demand of egg and chicken in state and to boost up the economic condition of the farmer is to adopt scientific poultry farming using locally available resources. Poultry farmers should essentially posses the scientific knowledge on farming to take preventive action, identify the disease condition, and various poultry management practices, *etc.* This knowledge could be acquired through experience or through contact with extension agencies and input suppliers. Knowledge is the totality of understanding of information possessed by a person. Knowledge is defined as those behaviour and test situation which emphasized the remembering either by recognition or recall of ideas, material or phenomenon (Bloom *et al.* 1956). Hence, a study was carried out to assess the commercial poultry farmers' knowledge on scientific poultry farming.

It has been observed that considerable number of poultry farms has grown up in Imphal district and particularly in Imphal west district of the state. Imphal being the main commercial centre of the state, availability of inputs like superior chicks, feeds, scientific equipments and labours has added momentum to the poultry business. Moreover veterinary services are also readily available with the establishment of veterinary hospital and private veterinary clinics in and around the Imphal city. Hence, there is a great scope for poultry rearing so as to fulfil the egg and meat requirement of the state and also to generate employment opportunities for unemployed youth in general and women section in particular. Thus, every effort should be made to utilize the proven poultry technology so as to increase the efficiency of poultry business in Manipur state. Keeping in view, to assess awareness level of poultry farmers on poultry husbandry practices.

METHODOLOGY

The present study was conducted in Imphal- West District of Manipur. A multi-stage sampling procedure was followed for selection of sub-division, village and respondents.Three sub-divisions were selected randomly out of four (4) sub-divisions from Imphal west district of Manipur. Then, nine villages were randomly selected from each selected sub-divisions for the present study. Total 120 respondents (Poultry farmers) were selected based on proportional random sampling method. The data were collected using structured interview schedule. The data collected were then analyzed using appropriate statistical tools namely, frequency, percentage, mean, standard deviation simple correlation coefficient and multiple regressions.

RESULTS AND DISCUSSION

This section deals with assessment of level of knowledge of poultry husbandry practices followed by poultry farmers and analysis of knowledge on recommended farming practices. In all, eight selected poultry husbandry practices were studied in terms of number of knowledge efficiency as well as the assessment and nature of knowledge efficiency of each individual practice.

Table 1: Awareness Level Assessment of Poultry Husbandry Practices by the Poultry Farmers

n=120

Classification of Poultry Husbandry Practices	Category	Frequency (f)	Percentage (%)
Housing Practices	Low	30	25
	Medium	43	35.83
	High	47	39.17
Brooding Practices	Low	37	30.83
	Medium	36	30
	High	47	39.17
Feeding Practices	Low	25	20.83
	Medium	44	36.67
	High	51	42.5
Watering Practices	Low	33	27.5
	Medium	57	47.5
	High	30	25
Debeaking Practices	Performed	0	0
	Not performed	120	100
Deworming Practices	Performed	0	0
	Not performed	120	100
Vaccination Practices	Low	38	31.67
	Medium	73	60.83
	High	9	7.5
Scientific Equipments	Low	31	25.83
	Medium	48	40
	High	41	34.17

The result shown in Table 1 indicatedthat nearly half (39.17%) of the respondents belong to high category followed by medium category (35.83%) and low category (25%) respectively with respect to knowledge about poultry housing practices. About half (39.17%) of the respondents were having high knowledge of brooding management practices, followed by low (30.83%) and medium (30%) respectively. Since, brooding period of

chick is the crucial period for enhancing the growth, productivity and low mortality of the birds, majority of the respondents belonging to medium level of education, flock size and economic motivation generally adopted new brooding practices.

Table 1 revealed that 42.5 per cent of poultry farmers in the study area were having high knowledge about feeding practices, followed by medium (36.67%) and, with low (20.83%) feeding practices. The possible reason might be that majority of the respondents were aware of feeds and feeding method as they were conducive by medium level of education and medium flock size. Other reason might be due to that as feed being the main production factor for poultry production, majority of the respondents adopted new feeding practices to increase feed intake capacity of their birds. The second result is in line with the findings of Oyeyinka *et al.* (2011). Table 1 highlighted that 47.5 per cent of the respondents were having medium knowledge followed by low (27.5%) and high (25%) level of knowledge respectively, with respect to watering practices.

Table 1 revealed that all the respondents under the present study were not performed debeaking practices. The reason might be that the entire respondents reared broiler birds and deabeaking seemed to be not necessary to them. It was found that all the respondents under the present study were not performed deworming practices. The reason might be due to lack of awareness of benefits from deworming practices in the study area. Majority (60.83%) of respondents belongs to medium categories followed by low (31.67%) and, high (7.5%) categories with regard to vaccination knowledge. Table-1 indicated that about 40 per cent of the respondents used medium level of scientific equipments followed by high (34.17%) and only 25.83 per cent of respondents with low used of scientific equipments on their poultry farms. The reason might be due to the fact that majority of the respondent had medium level of education, and flock size which facilitated them to maintain scientific equipments. Another reason for respondents falling in low category might be low income and small flock size.

Table 2: Distribution of respondents on the basis of their overall awareness score on various poultry husbandry practices

n=120

Category	Frequency (f)	Percentage (%)
Low(>73.94)	30	25
Medium(73.94-92.28)	78	65
High (<92.28)	12	10

Mean= 83.11 S.D. = 9.17

The results presented in Table 2 indicated that majority 65 per cent of the respondents had medium level of knowledge followed by respondents having low level of knowledge (25%) and, only 10 per cent of the respondents had high level of knowledge on different aspects of poultry rearing technology. The reason might be due to the fact that majority of the respondents were found to be young and had enjoyed medium level of education, mass media utilization, contact with extension staff and medium flock size which facilitated them to adopt more knowledge on different poultry husbandry practices. Other reason might be that majority of poultry farmers belonging to medium and high knowledge level category in the study area were taken care of by the private investors. Further, low flock size, low extension contact, less media utilization, and illiteracy might be the reason for having low level of knowledge on poultry rearing practices. The results were in line with the finding of Ezeh *et al.* (2012) and Thammi *et al.* (2007).

Table 3: Relation between independent variable (X) and with the awareness level assessment of poultry husbandry practices (Y)

Independent variable	'r'
Age	-0.079
Family size	-0.020
Educational status	0.248**
Annual average income	0.281**
Socio-economic status	0.300**
Flock size (no. of poultry birds)	0.529**
Innovation proneness	-0.142
Attitude toward poultry rearing	0.189*
Economic motivation	-0.272**
Utilization of mass media	0.233*
Contact with extension staff	0.208*
Marketing facilities	0.035
Supervision of poultry farm	-0.061

** Significant at the 0.01 level * Significant at the 0.05 level NS= Non Significant

There was no positive and significant relationship between farmer age and level of knowledge of poultry husbandry practices. This indicated that gain in knowledge is not affected by age. The finding was associated with the finding of Oyeyinka *et al.* (2011) and Ezeh *et al.* (2012).

Relationship between family size and knowledge was found negative and not significant; it specifies that family size is not a factor to have effect on knowledge of respondent about different poultry farming practices. The finding is in line with Dessie and Ogle (1996).

It was found that there was positive and significant relationship between education and knowledge level of poultry farmers. It indicated that education was important

factor that enhanced knowledge. The finding was in support with the research result of Thammi *et al.* (2007).

There was a positive and significant relationship between income and knowledge of poultry farmers. It suggests that increase in income affect the knowledge of farmers. The finding is in line with the finding of Saha *et al.* (2010).

It was found that socio-economic status was positive and significantly associated with gain in knowledge. It indicated that higher the economic status higher is the adoption of scientific technology practices. The finding was similar with the research result of Bhushan *et al.* (2012).

There was positive and significant relationship between flock size and knowledge level of poultry farmers. This indicated that increase in flock size also increase in knowledge level of the respondents. The finding is in consonance with the finding of Ezeh *et al.* (2012).

Non significant and negative relationship was found between innovation proneness and knowledge of poultry farmers. It suggests that innovativeness has no influence on farmers' awareness of various poultry production practices. The finding was in support with the research result of Singh and Kumar (2006).

Positive and significant relationship exists between attitude of farmers toward poultry rearing and their knowledge. It shows that attitude have positive impact on acquiring improved poultry production practices. The finding was in line with the finding of Oyeyinka *et al.* (2011).

It was found that there was negative and significant relation between economic motivation and knowledge of poultry farmers. It suggests that higher the economic motivation, farmers have no impact on knowledge regarding scientific poultry farming practices.

There was positive and significant relationship between mass media utilization and knowledge of poultry farmers. It indicated that mass media influences farmer in acquiring new scientific poultry farming technology. The finding is similar with the finding of Senthilkumar *et al.* (2009).

The positive and significant relation was found between extension contact and knowledge of poultry farmers. It indicated that more the extension contact more was the gain in knowledge to improve farming practices. The finding was in line with the research result of Yhome *et al.* (2011).

There was no significant relation between marketing facilities and knowledge of poultry farmers. This indicated that marketing facilities have very little positive impact on poultry farmer's knowledge due to their low market participation. The finding got support from the study result of Holloway *et al.* (2002).

There was negative and non significant relation between supervision of poultry farm and knowledge of farmers. The implication of this is that supervision of poultry farm has no influence on poultry practices' awareness of the farmers.

Table 4: Regression analysis of independent variables (X) and with the knowledge level assessment of poultry husbandry practices (dependent Variable-Y)

Independent variables	Regression Co-efficient 'b'	Standard error (S.E)	't' value
Age	-0.069	1.239	-0.847 NS
Family size	-0.141	1.442	-1.798 NS
Educational status	0.127	0.464	1.472 NS
Annual average income	-0.021	2.294	-0.126 NS
Socio-economic status	0.015	0.691	0.092 NS
Flock size (no. of poultry birds)	0.466	1.322	4.839**
Innovation proneness	-0.083	0.486	-1.006 NS
Attitude toward poultry rearing	0.084	0.207	0.974 NS
Economic motivation	-0.222	0.358	-2.761*
Utilization of mass media	0.080	0.329	0.861 NS
Contact with extension staff	0.016	0.699	0.177 NS
Marketing facilities	-0.005	0.759	-0.066 NS
Supervision of poultry farm	-0.051	0.384	-0.636 NS

** Significant at the 0.01 level * Significant at the 0.05 level NS= Non Significant
$R^2 = 0.398$ F = 5.392*

The determinants of knowledge level on poultry production practices are presented in Table 4 the result of the analysis indicated that out of total 13 independent variables only two of them *i.e.* flock size and economic motivation were found to be significant at 0.01 and 0.05 level of significant respectively. The estimated coefficient for flock size was positive (0.466) and has 't' value (4.839), that implies every one per cent increase in flock size, would lead to 46.6 per cent increase in knowledge of poultry produced. The finding is in consonance with the result of Ezeh *et al.* (2012) and Effiong (2005). Economic motivation has negative coefficient of (-0.222) and has 't' value (-2.761) which indicated that increase in economic motivation reduces the level of knowledge. The R^2 value (0.398) indicated that 39.8 per cent was contributed towards the changes in knowledge level due to independent variables. These two variables (*i.e.* flock size and economic motivation) could be term as good predictor of knowledge of the poultry farmers.

CONCLUSION

Majority (65%) of the respondents possessed medium level of knowledge about selected poultry husbandry practices. Poultry farmers had high level of knowledge regarding poultry housing (39.17%), brooding (39.17%) and feeding (42.5%) practices. The respondents were found to have medium level of knowledge about poultry watering (47.5%) and vaccination (60.83%) practices. All the respondents did not practice debeaking and deworming practices. Majority (60.83 per cent) of the respondents was using scientific equipments on their poultry farms. Education, annual average income, socio-economic status, flock size, attitude toward poultry rearing, utilization of mass media and, contact with extension staff were significantly and positively related with the knowledge level of poultry farmers. In determination of regression analysis it was found that out of total 13 independent variables only two variables i.e. flock size and economic motivation were significant at 0.01 and 0.05 level of significant respectively. A very strong and robust finding of the study is that about 40 per cent was contributed towards changes in knowledge level due to independent variables in the model. The study concluded that majority of the farmers had medium level of knowledge on different aspects of poultry production practices. Education, annual average income, socio-economic status, flock size, extension contact, utilization of mass media and attitude toward poultry rearing were the important factors which have contributed to the knowledge gained by the poultry farmers.

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