

Measurement of Attitude towards the Adoption of Back Yard Poultry Farming in Arunachal Pradesh

M. Kanwat (Corresponding author)

Subject Matter Specialist (Agril. Extension)

ICAR RC for NEH Region AP Centre, Basar, Arunachal Pradesh, India

Tel: 91-75-6891-2689 E-mail: kanwat_manish1980@yahoo.co.in

M.S Meena

Senior Scientist, (Extension)

ICAR Research Complex for Eastern Region, (Patna), Bihar, India

Tel: 91-94-7046-5688 E-mail: ms101@sify.com

P Suresh Kumar

Scientist (Horticulture)

ICAR RC for NEH Region AP Centre, Basar, Arunachal Pradesh, India

Tel: 91-436-632-299 E-mail: psureshars@gmail.com

V.K Choudhary

Scientist (Agronomy)

ICAR RC for NEH Region AP Centre, Basar, Arunachal Pradesh, India

Tel: 91-940-247-4973 E-mail: ind_vc@rediffmail.com

R. Bhagawati

Joint Director

ICAR RC for NEH Region AP Centre, Basar, Arunachal Pradesh, India

Tel: 91-379-522-2237 E-mail: rbhagawati@rediffmail.com

Received: August 2, 2011

Accepted: August 18, 2011

Online Published: December 29, 2011

doi:10.5539/jas.v4n3p131

URL: <http://dx.doi.org/10.5539/jas.v4n3p131>

Abstract

This study explored the farmers' attitude towards back yard poultry farming and identified the factors associated with it. An attitude scale consisting of 12 items was developed and administered to 35 back yard poultry farmers of West Siang district in Arunachal Pradesh, India. The results revealed that majority of the respondents were of medium age group and majority of them were literate and had middle and primary level of education and less number of respondents were illiterate, and had medium level of innovativeness. Almost an equal number of respondents practice agriculture as major occupation and lived in joint families. Most of the respondent had good contacts with the KVK's personnel for receiving knowledge about new technology and interventions. When their attitude was assessed, majority belonged to 'favorable' category and among the independent variables 'family-type' had a negative value with attitude. Based on the findings, implications were drawn for the extension agencies to promote poultry farming as income generating venture in the tribal areas.

Keywords: Attitude, Backyard poultry, Adoption, West Siang, Arunachal Pradesh

1. Introduction

Poultry farming is possible widely in different agro-climatic environments, as the fowl possess marked physiological adaptability (FAO,2007). It requires small space, less capital investment. Quick return and well distributed turn-over throughout the year which make poultry farming remunerative in rural as well as urban areas. Backyard poultry farming (BYPF) is a low input or no input venture, and is characterized by indigenous night shelter (Zoungrana and Slenders, 1992, Saha 2003), scavenging system with little supplementary feeding (Rangnekar and Rangnekar 1996), and natural hatching of chicks. It is a fact that, it is a source of livelihood improvement for most of the tribal population in India. As extension principles have always highlighted the fact that every region and community is different from others, which require different extension strategies. Arunachal Pradesh is one of the northeastern states of India and is dominated by the diverse tribal population.

The state harbors 12.90 lakh poultry population with the density of 20.81 / sq. km (17th State Quinquennial Livestock Census Report, 2003) with 20.11 % growth rate. Lack of understanding of village chicken production system makes it difficult to design and implement poultry based development programs for the benefit of tribal people. Traditional poultry farming in tribal dominated villages is the primary source of animal protein, and supplementary income. More than 50 % population of country has suffered in the wake of commercialization (Singh, 2000). Hence, the present study was taken up to pave the way for development of backyard poultry into a sustainable income-generating activity for the tribal households. The objectives of the study were (i) to study the socio-economic profile of the respondents, and (ii) to measure the attitude and factors responsible in adoption of backyard poultry farming.

2. Research Methodology

2.1 Locale of the study

West Siang district is situated between 57° and 93° East Longitude and 20° and 27° North Latitude. It is surrounded by Tibet and China in the North, East Siang and Upper Siang District in the East, Upper Subansiri and Lower Subansiri District in the West and Dhemaji District of Assam in the South. West Siang district of Arunachal Pradesh has 11 community development blocks. Out of 11 blocks, seven blocks were selected purposively on the basis of higher population of poultry birds. The selected blocks were namely Liromoba, Aalo (East), Kaying, Basar, Likhali, Mongong and Mechuka.

2.2 Research method

2.2.1 Participants

A random sampling method was employed to select the sample of farmers from study area. From each block, one village was selected randomly. Out of each selected village, 5 poultry growers were randomly selected. The final sample size consisted of 35 poultry farmers.

2.2.2 Instrument

For studying the attitude, initially, 77 statements covering various aspects of poultry farming such as, physiology, economics, nutrition, housing, marketability etc. were collected for scale construction. Out of these statements, 47 statements were selected following the guidelines for attitude scale construction (Thurston and Chave, 1929; Likert, 1932 and Edwards, 1957). After subjecting these items to judges' rating, the final scale was designed, which consisted of 12 statements (**Table 1**). The response of poultry farmers was obtained on 5-point continuum namely 'Highly Favorable', 'Favorable' 'Neutral' 'Unfavorable' and 'Highly Unfavorable'. The mean and standard deviation of all 12 statements were mentioned below in the table 1. It helps to reveal the response of the respondent towards the statements and it will help to get the clear picture of study. The data were collected through personal interviews on pre-tested schedules.

3. Results and Discussion

3.1 Descriptive statistics

It could be inferred from the table.2 that majority of the respondents (65.70 %) involved in poultry farming were laying from 31 to 45 years. Study revealed that majority of the respondents (88.58%) were literates and but still 11.42 % of the respondents of them were illiterates. High level of illiteracy among the tribal farmers of the region is due to the fact that education system still in infant stage. If the Govt. and other organizations would like to get some better results from that region then we have to focus on the development of sound educational policies for the tribal farmers who live in the remote areas. The distribution also shows that a majority of the respondents (51.40%) had agriculture as their main occupation and most of the rich and medium level of farmers had taken an interest in poultry farming. More than half of respondent had joint family system (57.10 %)

represented in the sample. Exactly, 51.40 % of the respondent fall under the category of medium innovativeness and 25.70 % of farmers had low innovativeness. This might be due to the reason that poultry farming being relatively a new enterprise and only innovative farmers tend to venture. About 60 % of respondents had close contacts with experts of Krishi Vigyan Kendra, West Siang. People living in joint families had a positive attitude towards backyard poultry farming. It can be assumed that they had less labour constraints in maintaining their poultry. Hence, farmers living in joint families could be identified and advised to take up poultry farming, as they can be convinced that they could manage with family labor (Okot, 1990).

3.2 Attitude of farmers

The respondents were classified based on their attitude scores and the results are presented in table 3.

The results revealed that majority of the respondents' possessed favorable attitude towards backyard poultry farming. Contrary to the popular opinion prevailing in the country, the results shows that the farmers have a positive attitude towards poultry farming which may be because the respondents were convinced with the benefits reaped from the backyard poultry rearing. However, favorable category consisted of 74.0 per cent of the respondents only; it may also be assumed that the 26 % of the farmers were still not fully convinced of all the aspects of backyard poultry rearing and that they do expressed apprehension on its advantages. Therefore, the extension functionaries will impart the training to them and change their attitude towards the adoption of backyard poultry as profitable venture.

3.3 Factors influencing the attitude of farmers towards poultry farming

To establish the relationship between characteristics of respondents and their attitude, simple correlation coefficient and multiple regression analysis were employed. As per the table 4 revealed that correlation coefficient of independent variables namely, innovativeness, education, occupation, social participation and extension contact were significant at 0.05% level of probability. While social participation with extent of farmer's response was positive and significantly associated with the attitude (Kabatange & Katule, 1989). As we know that community is reservoir of knowledge and it act like extension organization people will learn from the society or farmers can easily get the information's about any technology from their neighbor farmer field. Innovativeness is significant towards the attitude of poultry farming, if the farmers are highly passionate about to learn the new technology therefore the farmers will have favorable attitude about the technology and he can easily adopted the new technology.

Contrary to these findings, Dessie & Ogle (1996) found that family type was negative and not significant, it specify that family type is not a factor to have an effect on the attitude of respondent towards the adoption of backyard poultry farming.

The independent variables showing positive and significant relationship need greater attention on the part of extension agencies like KVK, line departments and non- government organizations (NGOs) to enhance the adoption of this backyard poultry farming enterprise being an asset for income generating occupation.

4. The Regression Analysis (Multiple Regressions)

The multiple regression analysis was done to find out the extent of outcomes of each variable on attitude of farmers towards backyard poultry are presented in table 5. It could be concluded from the equation that out of six variables taken for analysis of regression, only five variables viz, innovativeness, education, occupation, social participation and extension contact were found significant association with the attitude of farmers towards the back yard poultry as income generating activity used as tool for livelihood improvement.

5. Conclusion and Recommendations

Study reveals that farmers had a high level of favorableness towards poultry farming. Since the farmers aged from 31 to 45 years and had literate, hence, improved back yard poultry technologies could be disseminated through print media and farmers their skills could be developed though hands-on experience on successful back yard poultry production. On-farm trials on poultry farming technologies at farmer's fields or can even motivate farmers for participatory researches, so, participating farmers as well as the fellow-farmers could gain the confidence. It is the endeavor for all development departments like KVK, department of Animal Husbandry, extension agencies, non-governmental organizations etc., who are involved in poultry enterprise. The extension agencies should concentrate more on contributing factors which aims to manipulate these variables to their great extent of advantages promoting favorable attitude towards the poultry farming. Social change is part of life and changes to the poultry sector in developing countries will change the social fabrics and livelihoods portfolio of many vulnerable people.

References

- Dessie T, & Ogle B. (1996). Studies on poultry production systems in the Central Highlands of Ethiopia. Swedish University of Agricultural Sciences, MSc thesis, department of Animal Nutrition and management.
- Dipeolu M A, Erubetina D & Williams T J. (1996). Indigenous chicken rearing under village conditions. *International Journal of Animal Sciences*, 11(1): 63-67.
- Edwards A L. (1957). Techniques of attitude scale construction. New York: *Appleton-Century Crofts*.
- FAO. (2007a). Actors: poultry as a tool in human development, Paper prepared for FAO. Rome.
- Kabatange M A and Katule A M. (1989). *Rural poultry production systems in Tanzania*. In: Proceedings of an International Workshop on Rural Poultry Development in Africa (Sonaiya E B editor), 13-16 November 1989, Ile-Ife, Nigeria, pp. 171-176.
- Likert R. (1932). A technique for the measurement of attitudes. *Archives of Psychology*, 140.
- Okot M W. (1990). *A cooperative approach to small-holder poultry production in Uganda*. In: CTA Seminar Proceedings, Smallholder Rural Poultry Production, Thessaloniki, Greece, 2: 249-253.
- Rangnekar D and Rangnekar S. (1996). Traditional poultry production system - A need for fresh look from rural development perspective. XX World's Poultry Congress, New Delhi, 2-5 Sept., pp. 405-408
- Saha D. (2003). Status of rural poultry production in North 24 Parganas district of West Bengal. M.V.Sc. Thesis, Division of Extension Education, IVRI, Izatnagar.
- Singh D. (2000). Kadaknath the native fowl needs to be conserved. *Indian Farming*, March 1990, pp. 29-32.
- State Report. (2003). 17th Quinquennial report of livestock census, Govt. of Arunachal Pradesh, Department of Animal Husbandry and Veterinary.
- Thurstone L L & Chave E J. (1929). The measurement of attitude, Chicago: *University of Chicago Press*.
- Zoungrana B & Slenders G. (1992). Burkina Faso: poultry in the backyard. *ILEIA Newsletter*, 8: 17.

Table 1. Aspect wise attitude of farmers towards adoption of BYP of West Siang district, N=35

Sl. No.	Statements	Mean (X)	S.D.
1	Backyard poultry rearing provides gainful self-employment	4.34	.539
2	Housing costs for backyard poultry rearing are exorbitant	2.94	.968
3	Backyard Poultry litter can be used for manure / vermiculture	4.42	.502
4	Backyard Poultry are unclean creatures	3.05	.905
5	Poultry can be reared at backyards with inexpensive feeds	4.51	.507
6	Backyard have less structured market potential for good quality chicken	3.74	.950
7	Backyard Poultry have a rapid growth rate	4.48	.562
8	Backyard Poultry are vulnerable for many diseases	4.31	.796
9	Backyard Poultry enterprise will start with very small amount	3.97	.785
10	Ready-made feeds are less available for backyard poultry	4.08	.886
11	Backyard Poultry cannot provide the scope of value addition	3.65	.838
12	Backyard poultry can suited in any climate	4.34	.639

Table 2. Demographic attributes of Poultry Farmers, West Siang district, N=35

Demographic attributes	Frequency (f)	Percentage(%)
Age		
Up to 30 yrs.	8	22.80
31-45 yrs.	23	65.70
Above 46 yrs.	4	11.50
Education		
Illiterate	4	11.42
Primary	19	54.28
Middle	12	34.30
Occupation		
Laborer	4	11.40
Agriculture	18	51.40
Service / Business	13	37.20
Family Type		
Nuclear type	15	42.90
Joint type	20	57.10
Innovativeness		
Low	9	25.7
Medium	21	51.4
High	15	42.9
Social Participation		
No Participation	7	20.00
Member of one organization	23	65.70
Member of a committee	4	11.40
Public leader	1	2.90
Extension Contact		
Neighbor farmers	14	40.00
Experts of KVK	21	60.00

Table 3. Extent of attitude of farmers towards backyard poultry farming of West Siang district, N=35

Category	f	%	Cumulative percentage	Mean (X)	S D
Neutral	9	26.0	26.0	48.02	2.64
Favorable	21	60.0	86.0		
Highly favorable	5	14.0	100.0		

Table 4 Study the relationship of independent variables with the attitude of the farmers towards the Backyard Poultry farming

Sl.No	Items	Correlation (r)
1	Innovativeness	.341*
2	Education	.397*
3	Occupation	.334*
4	Family type	-.323
5	Social participation	.344*
6	Extension contact	.370*
* Correlation is significant at the 0.05 level		

Table 5. Effect of independent variable with extent of attitude towards the back yard poultry farming practices through multiple regression

Variable code	Independent variable	'r' value	Non standardized coefficient B	Standardization coefficient Beta	't' value
X1	Innovativeness	.341*	.431	.083	.421
X2	Education	.397*	.547	.179	.816
X3	Occupation	.334*	1.091	.229	.881
X4	Family Type	-.323	1.027	.195	.600
X5	Social Participation	.344*	.255	.127	.517
X6	Extension Contacts	.370*	1.108	.228	1.032
R =.490, Adjusted R Square = 0.78, ** Significant at 1 % level					