



Backyard Poultry Management Practices in Rural Hilly Areas of Jammu and Kashmir

Khalid Hussain¹ • A.K. Chaturvedani² • Niranjan Lal^{3*} • Sanjolly Gupta⁴

¹Al-Hamd Agro-food Products Private Limited, Aligarh

²Division of Extension Education, Indian Veterinary Research Institute, Izatnagar, Bareilly, UP

³Sr. Scientist & Head, KVK Churachandpur Manipur

⁴School of Public Health, Guru Anand Dev Animal Science University, Ludhiana- 141004, Punjab

ARTICLE INFO

Article history:

Received 26 May 2016

Revision Received 6 August 2016

Accepted 14 October 2016

Key words:

Backyard poultry, Management Practices, Hilly Areas, Rajouri

ABSTRACT

Backyard poultry plays an important role in the livelihood of rural families in developing countries. In spite of a source of cash income, it also satisfies their social needs. This paper is based on a study conducted in 12 villages of rural hilly areas of Rajouri district of Jammu and Kashmir to present an overview of different managerial practices in those areas. The questionnaires were filled after open discussions with respondents. The survey indicated the existence of few birds in the study area with an average flock size of 8-10 birds per household. Egg production was about 50 eggs per bird per year. Diseases, predators and lack of veterinary services were the most quoted reasons for mortality there. None of the families was found to vaccinate their birds. 37.5% respondents were keeping their birds in coops or under woven baskets. Only 14.17% of respondents supplement their birds once a day with grains like wheat and millet, as scavenging was the only feed source for most of them.

1. Introduction

The term rural poultry or backyard poultry in most developing countries is indicative of the traditional domestic poultry with low input that are typically maintained by rural families (Akinola and Essien, 2011). Rural poultry was defined as any improved or unimproved genetic stock, that is raised in relatively small numbers extensively or semi extensively (Pederson, 2002). They are classified as dual purpose chickens which produce low to moderate levels of both meat and eggs (Majumder, 1989). In most of developing countries, rural poultry make up of about 80% of the world's poultry. In Africa too, free range indigenous birds make up more than 80% of the continent's poultry (Gueye, 1998). Generally, these birds are kept by rural households using family labour and occasionally use commercially and locally available feed resources (Larbi *et al.*, 2013). Despite of its low production performance, it's a valuable asset for local human population.

Rural families keep their poultry on a small scale within a limited area in their backyards (Adebayo and Fayeye, 2013) which significantly adds to their livelihood by providing cash income and satisfying religious, socio-cultural and nutritional needs. Birds are mostly reared by scavenging in the backyard where they eat anything available to them like insects etc. Housing may not be provided and if provided, local materials are used otherwise they rest wherever they find safe and suitable place especially on trees. Despite of the efforts to develop intensive poultry farming, backyard poultry rearing is still very important and a common practice in many developing countries. In most of the developing countries, backyard poultry keeping has been practiced for many generations. Although rural poultry farming doesn't produce a large income, it doesn't require any extra skill and assist rural families a lot in taking them out of poverty (Jensen and Dolberg, 2003). More than 90% of rural families keep one or more species of poultry birds (Gueye, 2005). Literature on backyard poultry farming shows its positive impact on the economy of rural families. Rural poultry has a remarkable contribution in the development of rural families and overall development of the poultry sector (Mack *et al.*, 2005).

*Corresponding author: lal_niranjan@yahoo.co.in

Backyard poultry farming is one of the important livelihoods of rural families and has a strong potential for generating income for them by the sale of eggs or chicken. Therefore this paper aims at studying different aspects of backyard poultry farming and status of rural chicken in Rajouri district of Jammu and Kashmir state of India.

2. Materials and Methods

Present study was planned to assess how rural families keep their poultry birds. Certain aspects were studied like their housing, feeding, vaccination, causes of mortality in the focused area etc.

2.1 Description of study areas

An informal field survey was conducted with objective of exploring the knowledge about rural poultry. The study was conducted in 12 villages selected from rural hilly area of district Rajouri. The study engaged about 10 households each from the 12 selected villages thus giving the total sample size of about 120 respondents. Random open ended discussions were held with the farmers at their households. Assessment was based on the administration of a well-structured questionnaire which sought information on management practices, flock size, rearing systems, vaccination, feeding practices and causes of mortality etc. The obtained data were subjected to statistical analysis and presented as percentage.

3. Results and Discussion

3.1 Baseline data on Rural Poultry Production

The study discovered that rural poultry is still at subsistence level and supporting rural families in the study area. Number of cocks, hens and chicks were counted. 85% houses were keeping poultry birds out of which 54.98% were chicks, 40.85% were hens and 4.17% were cocks. The totals of poultry number are mentioned (Table 1).

3.2 Housing

Housing is important for the birds as it protects them from varying temperatures, rain, wind and predators etc. In the study area families who used to keep their birds openly were higher in number. The percentage ranged between 62.5% for those houses who kept their birds openly and 37.5% for keeping in coops respectively. The probable reason perceived was the manufacturing cost involved in making coops. Mostly the birds were left to scavenge during day and confined at night.

Table 1. Tabular Representation of Obtained Data (N=120)

Birds Distribution	Frequency	Percentage
Total No of houses visited	120	-
No of houses having birds	102	85%
No of houses without birds	18	15%
No of families who keep their birds in coops	45	37.5%
No of families who keep their birds openly	75	62.5%
No of Birds in 102 houses	1415	-
Number of Cocks	59	4.17%
Number of Hens	578	40.85%
Number of Chicks	778	54.98%
Scavenging	120	100%
Supplementation	17	14.17%
Vaccination	0	0%
Mortality due to diseases	60	50%
Mortality due to predators	48	40%
Mortality due to lack of veterinary services	12	10%

3.3 Feeding

Birds of all ages used to scavenge together during day times. After hatching, chicks roam freely with their mothers. Drinking water was irregularly provided in clay pots. Only 14.17% of respondents supplement their birds once a day with grains like wheat and millet etc.

3.4 Vaccination

Vaccination is very important for the prevention of diseases but none of the respondents was known to vaccinate their chicks.

3.5 Egg production

Egg production was not uniform. In some houses it was about 63-64%. The reason was the high education level of those families and their interest in keeping birds. While in others it was 33-34% due to lack of interest and aged birds. The average egg production was about 50 eggs per bird per year.

3.6 Mortality

The mortality among rural birds in the target area recorded was due to three major reasons as diseases, predators and unavailability of veterinary services as mentioned in Table 1. Poultry production is constantly moving towards modernization due to introduction of modern intensive farming system. But in spite of that backyard poultry farming is a common practice in rural areas due to significant proportion of rural population in developing countries. The number of birds kept depends upon the area of household and the economic status of the family. Stress factors from environment, disease and predators *etc.* have a major impact on egg production, body weight and mortality of birds. Low productivity was due to poor nutrition, housing and lack of health care *e.g.* lack of vaccination *etc.* Apart from scavenging Supplementation plays role in better egg production. Rather than kitchen scrap only, chickens need a well-balanced diet to produce eggs. Suitable poultry housing is important for successful poultry farming. It helps keeping the birds safe from adverse weather conditions like hot sun, cold and rain.

It also provides shelter for egg laying hens. In order to protect birds safe from predators and harsh weather housing is an important factor. The rural environment is conducive to many diseases which affect the liveability of rural chicken. Diseases are major threats faced by birds specifically during the changing weather. Vaccination is vital in backyard chickens to control diseases. Vaccines mimic natural infection allowing the birds to develop immunity against the diseases without any harmful effects in chickens. There is therefore a need to create awareness among rural poultry farmers regarding balanced feed, importance of housing, different diseases, dangers caused by them and importance of vaccination. Majority shared that lack of training and awareness is one of the major barriers in the development of their household poultry. They desired that training programs in the rural areas for women may be arranged regularly. Facilities for immunization of rural poultry should be made available. There is no doubt that backyard poultry farming should be encouraged as it is a valuable asset due to its numerous contributions to rural livelihood. It's a way of improving rural income and also empowering women as rural poultry is the only aspect whose income directly comes in the hands of rural women. It should be supported by inputs regarding management, feeding and disease control. Preparation and implementation of plans for backyard poultry rearing should be ensured for poverty reduction in developing countries.

References

- Akinola L.A.F., Essien, A. 2011. Relevance of rural poultry production in developing countries with special reference to Africa. *Worlds. Poultry Science Journal* 67: 697-705.
- Majumder M. 1989. Poultry rearing by women: problems and Prospects in Bangladesh. *Journal of Rural Development* 21(2): 20-25.
- Pederson C.V. 2002. Production of semi scavenging chickens in Zimbabwe, Phd Thesis, Department of Animal Sciences and Animal Health. The Royal Veterinary and Agricultural University, Copenhagen, Denmark.
- Mack S., Hoffmann, D., Otte, J. 2005. The contribution of Poultry to Rural Development. *World's Poultry Science Journal* 61(1): 7-14.
- Gueye E.F. 2005. Gender aspects in family poultry management systems in developing countries. *World's Poultry Science Journal* 61(1): 39-46.
- Jensen H. A., Dolberg, F. 2003. A Conceptual Framework for using poultry as a Tool in Poverty Alleviation. A paper presented at the International Conference on Staying Poor: Chronic Poverty and Development Policy, IDPM, University of Manchester. April 7-9
- Larbi M.B., M'hamdi, N., Haddad B. 2013. Indigenous chicken production systems in villages in the south of Tunisia. *Livestock research for rural development*. 25(6).
- Gueye E.F. 1998. Village egg and fowl meat production in Africa. *World's Poultry Science Journal* 54: 73-86
- Adebayo S. A., Fayeye T.R. 2013. Scope and Common Diseases of Rural Poultry Production by Rural Women in Selected Villages of Kwara State, Nigeria. *International Journal of Poultry Science* 12 (3): 126-129.