



Housing Practices Ranked at Top in Backyard Poultry Farming by the Beneficiaries in Rajasthan

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ABSTRACT

The study was conducted to measure the adoption of backyard poultry farming practices by the beneficiaries in SKNAU Jobner-Jaipur, Rajasthan. Out of a total 120 beneficiaries from Jaipur district, 80 were selected randomly for the study purpose. The data were collected with the help of personal interview technique through a suitable well-structured interview schedule for measuring adoption by the beneficiaries. The study concluded that majority of the beneficiaries (76.3 %) belonged to middle level of adoption followed by low level of adoption (15.0 %) and only 8.8 per cent beneficiaries were having high level of adoption. First rank was given to provision of night shelter, adequate and clean water, adoption of improved breeds, vaccination against diseases. Regarding overall adoption housing practices was at the first rank.

Key words: Adoption Index, Backyard poultry farming, Beneficiaries, Feeding, Watering.

INTRODUCTION

Backyard poultry, a traditional system of poultry keeping is a part of livestock rearing practiced by rural folks since time immemorial. It is a type of organic farming with no harmful residue in egg and meat and advantageous and provides supplementary income in shortest possible time with very minimum capital investment, simple in operation and ensures availability of egg and meat even in remote rural areas. Backyard poultry, widely accepted by the rural poor is characterized by small flock size consisting of 5-20 predominantly non-descript birds maintained in extensive system under zero or low input venture. Mainly local birds are reared although there are specific or specialized indigenous breeds in some areas. These breeds represent a rich source of disease resistant germplasm (Joshi *et al*, 2019).

Backyard poultry is an important source of supplementary and nutrition security for a large number of poor households across the

country. In the present scenario, poultry farming in rural area is contributing about 21 per cent to the national egg production (Anonymous, 2010). The demand of eggs and meat of rural areas is fulfilled by rearing poultry (Nath *et al*, 2012). Village chickens provide cheap, readily harvestable protein-enriched white meat and eggs with high quality, digestible protein for immediate home consumption and sale for income generation. Deka *et al* (2020) reported that there was an urgent need to design regular training programs in identified thematic areas to minimise the knowledge gap and adoption gap among the farmers. Training on feeding management should be prioritized across all sectors. Construction of house with locally available materials was the most preferred subtopic among the farmers in Assam. Acharya and Behera (2019) revealed that the backyard poultry system with improved birds provides a solution to food security to the rural masses thus, paving a way for sustainable livestock production. Ahmad and Singh

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(2019) concluded that Srinidhi birds performed better in terms of body weight gain, age at sexual maturity, egg production and egg weight. The bird adopted well in the local climatic conditions of Ambala district in Haryana. So, farmers from rural areas of Ambala could rear the Srinidhi birds for their livelihood and nutritional security. Saikia *et al* (2017) reported that Vanaraja birds adapted well under traditional backyard rearing system among the tribal communities in Dhemaji district of Assam. Likewise, Deori (2015) stated that the average body weight gain and feed conversion ratio were better in probios fed group compared to the control group of Kuroiler birds in Arunachal Pradesh. Kumari *et al* (2018) concluded that CARI PRIYA strain in backyards of poor family should be reared in order to secure their livelihood and to overcome with malnutrition problem.

Looking to the above facts in mind, the present investigation was carried out with the objective to measure the adoption level of beneficiaries about backyard poultry farming practices.

MATERIALS AND METHODS

The present investigation was conducted in Sri Karan Narendra Agriculture University, Jobner-Jaipur Rajasthan. To measure the adoption level of the beneficiaries regarding recommended backyard poultry practices. Jaipur district was purposively selected for the study purpose because maximum number *i.e.* 120 beneficiaries were benefited from this district. Out of a total 120 beneficiaries from Jaipur district, 80 beneficiaries were selected randomly for the study purpose. The selected beneficiaries belonged to six tehsils of Jaipur districts namely- Phulera, Chomu, Renwal, Amber, Dudu and Phagi. Purposive and random sampling technique was applied for the selection of beneficiaries for this study. The data were collected with the help of personal interview technique through suitable well-structured interview schedule of measuring adoption level of beneficiaries. In formulating the questions and statements for the schedule, the investigator has taken opinion and guidance of the experts and

other extension personnel. The collected data were tabulated and analysed by using mean pre sent score, mean, standard deviation, percentage and ranks. For measuring the adoption of backyard poultry farming by the farmers Adoption Index was developed. The statements related to backyard poultry farming were collected from books, journals and reviewed literature. The extent of adoption was measured on a 3-point continuum namely- full adoption, partial adoption and least adoption with the scores of 3, 2 and 1, respectively. After that extent of adoption of backyard poultry farming was measured based on mean and standard deviation. Adoption Index was calculated by the following formula :-

$$\text{Adoption Index} = \frac{\text{Total score obtained by the respondent}}{\text{Maximum possible attainable score}} \times 100$$

After that the adoption of beneficiaries was classified into three categories *viz.*, (i) Low (ii) Medium (iii) High level of adoption. These categories were formed on the basis of mean and standard deviation.

RESULTS AND DISCUSSION

A perusal of data (Table1) showed that majority of backyard poultry beneficiaries *i.e.*, 76.30 per cent belonged to middle level of adoption followed by low level of adoption (15.0%) whereas, only 08.80 per cent backyard poultry beneficiaries were having high level of adoption. High level of literacy, extension orientation and social participation among the farmers might be considered as a reason for high rate of adoption among the beneficiaries. These findings were in accordance with the findings obtained by Jat and Yadav (2009) and Choudhary *et al* (2017).

Housing

A perusal of data (Table 2) explains that the beneficiaries had had given first rank to night shelter to their birds followed by feeder in poultry house at second rank and third rank was given to keeping water in poultry houses. Provision of separate

Backyard Poultry Farming

Table 1. Distribution of beneficiaries according to their adoption level regarding backyard poultry farming.
n=80

Sr. No.	Adoption category	Frequency	Per cent
1	Low adoption (<59.23 score)	12	15.0
2	Medium adoption (score between 59.23 to 69)	56	76.3
3	High adoption (>69 score)	17	08.8

Mean= 64.12 ± 5.0

house was at last rank. The reason for giving first rank to night shelter might be that poultry birds are very sensitive to high and low temperatures at night. The findings were in agreement with the findings obtained by Khandait *at el* (2011) and Bunkar (2016).

Feeding and Watering

The data (Table 2) revealed that the beneficiaries provided adequate and clean water to birds was at first rank followed by readymade feed offered at second rank and kitchen waste was at third rank. Last rank was assigned to feeding and watering available in scavenging. The reason for adequate and clean water at first rank might be that the beneficiaries knew that it would help in good egg production and health of poultry. Similar findings were obtained by Mandal *at al* (2006) and Babu (2013).

Breeds and Breeding

The data (Table 2) showed that adoption of improved breeds was at first rank followed by sources of chicks and care of broody hen. The reason for adopting improved breeds was that the beneficiaries might be aware about the benefits of improved breeds suitable for backyard poultry for generating higher income. The findings are in accordance with the findings obtained by Nandi *et al* (2007) and Lenka and Behera (2015).

Management

Regarding management practices, it was observed that care of laying hen was at the first rank followed by care of chicks. The reason for

this might be that care of laying hen would have resulted in good egg production and higher income of the beneficiaries. The findings were similar with the results obtained by Sasidhar *at al* (2008) and Kushwah *at al* (2016).

Health Care

Vaccination against diseases was at the first rank followed by cleanliness of poultry house at second rank and control of parasites was at the last rank (Table 2). Vaccination against diseases was at the first rank might be due to the fact that poultry is highly affected by diseases and without vaccination the poultry enterprise may be destroyed within few days. The results were in accordance with the results obtained by Nath *at al* (2012).

Marketing

Regarding marketing (Table 2), it was evident that manure used for agriculture production was at the first rank followed by care of backyard poultry taken by women and children and time of selling and sale of eggs and birds was at the last rank. Use of poultry manure for agriculture production was highly adopted by the beneficiaries because of the reason that poultry manure possesses high nutrient content which was very advantageous for the production of crops. The findings are in line with the findings obtained by Panda *at al* (2008) and Meena *et al* (2012).

The data (Table 3) showed that the overall adoption level of housing practices was at first rank followed by feeding and watering practices at second rank,, breeds and breeding practices at

Table 2. Adoption of the beneficiaries regarding recommended backyard poultry farming practices.

Sr. No.	Poultry farming practice	MPS	Rank
A.	Housing		
1	Provision of night shelter	92.50	I
2	Feeder	90.00	II
3	Water	88.75	III
4	Litter materials provided	88.12	IV
5	Temperature arrangement in poultry shelters	85.62	V
6	Ventilation arrangement in poultry shelters	85.00	VI
7	Brooder area in winter	84.37	VII
8	Provision of separate house	76.87	VIII
B.	Feeding and Watering		
1	Provision for adequate & clean water	92.50	I
2	Readymade feed offered	91.87	II
3	Kitchen waste	90.62	III
4	Use of KMnO ₄ as water sanitizer	90.60	IV
5	Additional feed provision	89.37	V
6	Available in scavenging	59.37	VI
C.	Breeds and Breeding		
1	Adoption of improved breeds	65.62	I
2	Sources of chicks	62.18	II
3	Care of broody hen	55.87	III
D.	Management		
1	Care of laying hen	71.04	I
2	Care of chicks	42.91	II
E.	Health Care		
1	Vaccination against diseases	88.12	I
2	Cleanliness of poultry house	83.75	II
3	Treatment of birds	58.33	III
4	Control of parasites	15.31	IV
F.	Marketing		
1	Manure used for agriculture production	92.50	I
2	Care of backyard poultry taken by women and children	82.50	II
3	Time of selling	54.16	III
4	Sale of eggs and birds	42.86	IV

Backyard Poultry Farming

Table 3. Overall adoption of the beneficiaries regarding recommended Backyard Poultry Farming practices.

Sr. No.	Overall adoption level	MPS	Rank
1	Housing practices	86.40	I
2	Feeding & watering practices	85.72	II
3	Breeds & breeding practices	59.32	III
4	Management practices	57.08	IV
5	Marketing practices	56.59	V
6	Health care practices	53.92	VI

third rank, management practices at fourth rank, marketing practices at fifth rank and health care practices was at last rank. First rank was given to housing practices might be due to the fact that beneficiaries knew and that good housing was very important for getting higher production and ultimately good income. The findings were in accordance with the findings obtained by Jat and Yadav (2009) and Khandait *et al* (2011).

CONCLUSION

The study concluded that majority of the beneficiaries *i.e.*, 76.3 per cent belonged to middle level of adoption, followed by low level of adoption 15.0 per cent and only 8.8 per cent beneficiaries were having high level of adoption. The study also explained that regarding adoption of different poultry farming practices first rank was given to provision of night shelter, provision of adequate and clean water, adoption of improved breeds, care of laying hen, manure used for agriculture production and vaccination against diseases regarding housing, feeding and watering, breeds and breeding, management, marketing and health care practices, respectively. Regarding overall adoption housing practices was at the first rank.

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