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Backyard poultry farming: A suitable intervention for upliftment of socio economic status of marginal farmers in Rajouri district of J&K

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Abstract

Backyard poultry farming plays an important role in the economic upliftment of poor farmers and to increase the availability of protein food source in rural areas to alleviate protein malnutrition. Backyard poultry is identified as a significant livelihood activity for many poor and landless families and particularly for women who look for additional income. The socio economic condition of the farmers does not permit them to adopt any new technology there by resulting in low productivity and low level of income. To increase the income of such family a need was to introduce improved breeds of backyard poultry for livelihood security of poor family through conducting front line demonstrations and training Programmes. After analyzing the background and social scenario of district, KVK Rajouri scientists intervene to make Backyard poultry farming as more productive, remunerative and commercial by introducing improved breeds like Van raja and Chabro etc. those are phenotypically similar to existing local poultry population. The improved breeds of the chicks were being given as frontline demonstration unit (15 chicks/Unit) to the 314 number of Farmers and Farm Women including tribal communities farmers during the last three years.

Keywords: Backyard poultry farming, Vanaraja, Chabro, income

Introduction

Poultry farming in India has reached remarkable growth especially in commercialized and integrated farming activities like a broiler and layer with the average growth rate of 4 to 6 per cent and 8 to 10 per cent respectively per year (Chatterjee and Rajkumar, 2015) [3], but the growth is still limited in the traditional way of poultry rearing called backyard poultry rearing. Livestock and poultry provide a major contribution to India's economy (Nath *et al.*, 2012) [6]. In rural economy poultry farming contributes an important role especially for the socio-economic development of the weaker section of the society in the District Rajouri. It generates self-employment, provides supplementary income and supplements protein rich diet at relatively low cost. Poultry represents an important sector in animal production, with backyard flocks representing a huge majority, especially in the developing countries. The present per-capita availability of eggs is 54, while chicken meat consumption is 2.2 kg whereas the ICMR recommendation is the consumption of 180 eggs and 10.8 kg poultry meat per person per annum. Therefore, to bridge the gap between availability and requirement, the layer and broiler industry has to be up scaled by 5 and 10 folds, respectively (Singh M *et al.*, 2017) [7]. Poultry keeping is an age old practice among rural and tribal community in Jammu & Kashmir. Mostly women and children are involved in village poultry rearing. Most of them rear local poultry at their backyard as secondary source of their livelihood and also to supply family nutrition through production of egg and meat. However, due to low productivity of the local chicken some improved dual type chickens like Vanaraja, Chabro etc. have been gaining popularity among the farmers of the Rajouri District.

Material & Methods

The improved breed of the chicks were being given as frontline demonstration unit (15 chicks/Unit) to the 314 number of Farmers and Farm Women including tribal communities farmers during the last three years. Under the study, hundred twenty farmers were selected randomly as the sample involving both tribal and other farmers and farm women of the Rajouri district from the six villages *viz.* Laroka, Ganiya, Kotedhara, Thandapani, Lamberi and Mubarakpura. A pre-tested structured interview schedule was used to elicit information from the respondents. The statements as specified in the schedule were asked systematically.

Sufficient probing and clarifications were made to make clear understanding. The data were analyzed using appropriate statistics tool.

Results & Discussion

Profile characteristics of the respondents

The profile characteristics of the respondents presented in Table-1 indicate that 53 per cent and 33 per cent of the respondents were respectively belonged to young and middle age group. The results are in favour with Balamurugan P *et al.*, 2017 [1]. Majority of the respondents had relatively better level of education probably attributed to the measures taken by the government towards female education and linking it

with other welfare benefits of the government of Jammu & Kashmir. Deka P., *et al.* [4] reported similar findings. Around three fourth (72%) of the respondents lived in nuclear families which is the prevalent system of living in the present day villages. Similar finding was observed by Bikash *et al.*, 2010 [2] where majority of the family involved in poultry rearing belonged to nuclear family than joint family in Assam. More than three fourth of the respondents were land holders. Average animal husbandry holding of the respondents were two cows and three buffaloes. Average flock size of sheep, goat and poultry were respectively 8, 6 and 12. The average per capita family consumption of egg and chicken were respectively 365 and 24 Kg.

Table 1: Profile of the back yard poultry beneficiaries (N=120)

S. No.	Profile Characteristics	Responses in %
1	Age	Young - 53
		Middle – 33
		Old - 14
2	Educational status	Primary -30
		Secondary -57
		College-13
3	Family system	Nuclear family-72
		Joint family- 28
4	Land holding	Land owners – 84
		Land less - 16
5	Average cattle holding/family	Cow -2 animals
		Buffalo – 3 animals
6	Average flock size of sheep goat and poultry	Sheep-08 animals
		Goat -06 animals
		Poultry -12 birds
7	Average Family consumption of egg	1 egg /day
8	Chicken consumption (Family average)	2 Kg /month

Front line demonstrations laid

The KVKs are involved in conducting various training programmes and Frontline Demonstrations (FLD) to popularize the improved technology at farmers' field. KVK Rajouri has laid frontline demonstrations of improved

varieties of chicks *viz.* Vanaraja and Chabro to the 314 number of beneficiaries during the last three consecutive years. The demonstration units of 15 chicks/ beneficiary were established.

S No.	Year	No. of demonstration units established	Improved breed	Chicks per demonstration unit @15 chicks / demonstration
1	2015-16	188	Vanaraja	2820
2	2016-17	66	Chabro	990
3	2017-18	60	Chabro	900

Table 2: Comparative performance of Vanaraja, Chabro and Local chicken under backyard system of rearing

Parameter	Performance		
	Vanaraja	Chabro	Local Chicken
Mortality to 10 weeks	Less than 5%	Less than 5%	Less than 4%
Mortality to 20 weeks	Less than 10%	Less than 12%	Less than 8%
Mortality during laying stage	Less than 12%	Less than 15%	Less than 10%
Average age at first lay (days)	152	154	184
Average body weight at first lay (g)	2.30	2.75	1.25
Average annual egg production (nos.)	165	160	60
Colour of egg	Tinted	Tinted	Tinted
Average Egg weight at 40th weeks (g)	51	50	41

In Table 3. Mortality of local chicks is less as compared with the improved breeds of chicks *viz.* Chabro, Vanaraja. However average body weight gain, annual egg production and average egg weight is higher in improved breeds than local chicks. The income from *Vanaraja* chicken by selling of eggs was much higher than its local counterparts, which was

due to production of more numbers of eggs by *Vanaraja* birds, might be because of their better genetic makeup (Islam R *et al.*, 2015) [5]. Constraints include inadequate veterinary services, feed shortage and lack of poultry production knowledge in the study area.

Conclusion

Backyard poultry production is playing an important role in increasing socio-economic status of rural community and employment in rural areas. However, disease control and improved management in backyard chicken production are lacking in the study area. Diseases followed by predation were found to be the major constraint of backyard chicken production in rural area. Interventions to improve backyard chicken production could have considerable benefits. This could considerably reduce the losses and maximize the returns. Therefore KVK scientists and animal husbandry service units have planned to train poultry farmers to increase the level of awareness and benefits from backyard birds. Furthermore, improvements in management by provision of feed and clean water to young chicks, indoor management of chicken and control of diseases and predators and improving the genetic potential should also be promoted. Vaccination schemes should be developed by availing vaccines and training to community vaccinators to carry out vaccinations at village level in a wide coverage.

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