



Livelihood Security of Poor Families through Poultry Backyard Rearing System in Auraiya District of Uttar Pradesh

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ABSTRACT

The present study was conducted to evaluate the production performance and economics of “CARI PRIYA” poultry in the backyard production system through an On Farm Trial (OFT) by Krishi Vigyan Kendra, Parwaha, Auraiya. Five Farm women who were rearing local breed were selected from villages *i.e.* Parwaha, Kutubpur, Fateh Singh ka Purwa, Bhagyanagar, and Auraiya were provided with 20 Chicks (CARI PRIYA) to each farm women and rest five having desi poultry (non-beneficiaries) were selected thus making a sample of 10 respondents. It was found that the CARI PRIYA breed started laying of egg after 140-145d of age regularly whereas local Breed laying after 180d of age at 15 -18d intervals. Hence, it was concluded that the performance of CARI PRIYA was better than local colored poultry birds reared by non-beneficiary respondents.

Key Words: Body weight, Egg, Family, Livelihood security, Poultry Production.

INTRODUCTION

Backyard poultry is a need to increase the availability of protein food source in rural areas to alleviate protein malnutrition. This can be achieved by adopting poultry farming on small scale in the back yard of rural households or rearing them under intensive farm conditions in small numbers by utilizing locally available, less expensive feed and housing inputs. The socio-economic condition of the farmers does not permit them to adopt any new technology by their resulting in low productivity and low level of income. Today in India poultry is one of the fastest growing sectors that support protein requirements for millions. Trends in the poultry sector provide a striking example of how sector growth does not necessarily go hand in hand with poverty reduction (Singh *et al*, 2017). Livestock and poultry rearing is an imperative factor for improving the nutritional security of the rural poor in India. Rural farmers usually rear desi type chicken having low egg and meat production potential. Most of the backyard poultry production comprises of rearing indigenous birds with poor production performances.

MATERIALS AND METHODS

The present study was conducted under “On Farm Trial” in selected villages Parwaha, Kutubpur, Fateh Singh ka Purwa, Bhagyanagar and Auraiya. The sample size of the study was 20 chicks/unit. Hence, look out for a new strain was a demand from farmer’s perspective. The farmers under the study were randomly selected and the trial was conducted with farmers rearing practice of traditional strains (T₁) and recommended practice of improved strain CARI Priya(T₂) it is White Leghorn pure strains at Central Avian Research Institute, Izzatnagar under AICRP have covered 31 generations of selection with the production profile of its commercial cross namely CARI-PRIYA (white egger) of more than 300 eggs on hen house basis with an average egg weight of 57 g and feed efficiency of 1.77 kg feed/dozen eggs which was quite comparable with the leading commercial of the country. Chicks were supplied to the farmers free of cost along with initial chick feed, vitamins and vaccines. A pre tested interview schedule was used to collect data on mortality rate, age at sexual maturity, vaccination schedule, disease incidence, body weight, eggs

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laid and income. Simple percentage analysis was employed to analysis pertaining to egg production and body weight gain the data using standard statistical procedures as described by Snedecor and Cochran (1994). Ethical approval this research work did not involve the introduction of any intervention in/on birds, or direct collection of cells, tissues or any material from birds.

RESULTS AND DISCUSSION

The means of body weight and other economic traits of CARI-PRIYA chicken under field conditions have been depicted (Table 1). The overall mean body weight of CARI-PRIYA chickens at 2, 5, 7, 12, 15 and 20 wk of age were 130 ± 11.63 , 260 ± 15.87 , 854 ± 27.72 , 1045 ± 40.28 , 1325 ± 22.92 and 1506 ± 33.04 g, respectively. It was found that the CARI-PRIYA breed started laying of egg at 145 ± 2.71 d regularly, whereas local breed were started lying of egg 180 ± 3.24 d, respectively. Present study was more or less comparable with those reported by Malik and Singh (2010) in CARI Nirbheek. Various egg production traits results were supported (Niranjan *et al*, 2008; Khadda *et al*, 2017). It was found that the CARI-PRIYA chicken breed lays 205 eggs/ hen in nine month whereas local

Breed were lays 70 eggs/ hen in nine month. The data regarding recurring cost *i.e.* production cost and income from sale of eggs revealed that the total gross and net income earned from sale of eggs and birds for rearing of CARI-PRIYA chickens were Rs. 10115/- and 3689/-, respectively. Similar results were reported by Khan (2008). The benefit cost ratio was recorded with CARI-PRIYA was found to be 1.59:1 compared to 1.30:1 of local strain, which appears to be economical and viable for rearing under backyard farming system.

CONCLUSION

The results confirm that the poultry strain CARI PRIYA has a coupled advantage over the other local strains in terms of production and escaping predation. On the other hand the economic returns also show a positive trend that will be beneficial for the farmers compared to the native strains. Hence, extension efforts need to be intensified towards promoting this strain for larger adoption with large scale demonstrations. It was 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.

Table 1. Evaluation of production and economics “CARI PRIYA” in backyard production system

Sr. No.	Particular	T1 Local strain	T2 CARI PRIYA
1	No. of Farmers	05	05
2	No. of chicks given to each farm women	-	20
3	Mortality rate (%)	47	35
4	Average weight after 2 wk	150 ± 11.27	130 ± 11.63
5	Average weight after 5 wk	390 ± 15.12	260 ± 15.87
6	Average weight after 7 wk	1030 ± 34.06	854 ± 27.72
7	Average weight after 12 wk	1225 ± 42.93	1045 ± 40.28
8	Average weight after 15 wk	1570 ± 21.21	1325 ± 22.92
9	Average weight after 20 wk	1723 ± 32.12	1506 ± 33.04
10	Age of egg laying (days)	180 ± 2.71	145 ± 3.24
11	Average egg lays/ Poultry (9 months)	97	205
12	Weight of Egg (g)	49-54	45-58

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Table 2. Economics of CARI Priya chickens per family under backyard production

Sr.No.	Particular	T1 Local strain	T2 CARI PRIYA
1	Cost of chick (Rs)	15	18
2	Rate of Egg sale (Rs)	10	7
3	Production cost/ Unit (Rs.)	6426	6426
4	Total Returns (Rs.)	8400	10115
5	Net Returns (Rs.)	1974	3689
6	Benefit Cost Ratio	1.30:1	1.59:1

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Photographs during visit and data collection in adopted village

