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Original Research Article

Carcass Characteristics of Vanaraja Birds under Different System of Management

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A B S T R A C T

In backyard system of management, the dressing percentage was observed to be maximum (76.07±8.32) followed by semi intensive (75.70±5.68) and in deep litter (71.22±0.97) system of management in case of male birds. The corresponding values in case of female birds were (52.01±2.21), (50.36±2.41) and (54.55±4.54) respectively under backyard, semi intensive and deep litter system of management. The effect associated with systems of management was observed to be non-significant in all parameters except blood loss (%) in female and defeathered weight (%) in male.

Keywords

Dressing percentage, semi intensive, defeathered weight

Introduction

Poultry production systems in India are characterized by the simultaneous existence of the traditional extensive system of backyard production and the modern intensive system of production. Vanaraja is dual purpose multi-coloured bird for poultry production. Vanaraja closely resembles the jungle (Desi) fowl in colour and plumage pattern of backyard farming in villages and tribal habitations. The Vanaraja variety does not need any special diet supplement once left free in the backyard. It will feed on worms and other food materials available to it unlike the poultry bird when special care is needed to be taken. Vanaraja has been a hit in the rural environments and local population has accepted it for a backyard farming. Keeping in view the above facts, the present study is aimed at assessing the effects of three different housing systems (deep litter, semi-intensive and free-range) on growth, production performance of Vanaraja birds under agro-climatic condition of Chotanagpur.

Materials and Methods

A total of one hundred fifty (150) day-old chicks were taken and maintained for eight weeks (brooding period) on similar feeding and management conditions. After two months of brooding period birds were randomly divided into three groups Intensive, semi-intensive and backyard system. In each group fifty (50) birds were kept. The birds which were supplied to the

farmers for their evaluation under backyard system were housed only at night. Under backyard system, birds were provided with some amount of supplementary feed in the form of kitchen waste, broken rice or wheat in the morning and allowed to walk to a distance in search of feed and these birds used to come back at dusk. Chicks were fed standard balanced feed as per NRC (1994) recommendation. Reproductive performance and egg quality of Vanaraja birds were observed by standard procedure under different system of management.

Results and Discussion

The mean values of carcass yields viz. live weight (g), blood loss(%), defeathered weight(%), giblet(%), non-edible parts(%), dressing percentag of the Vanaraja birds reared under different systems of management are presented in table. Significantly higher blood loss (%) in female of Vanaraja birds were observed in deep litter (3.23±0.46%) followed by semi-intensive (2.65±0.24%) and backyard system (2.52±0.21 %) of management. However, no significant difference was observed between semi intensive and backyard system of management (Table 4.12). Significantly higher defeathered weight (%) in male of Vanaraja birds were observed in semi intensive system (94.46±0.23%) followed by backyard (93.85±0.95%) and deep litter system (89.31±0.61%) of management. Significantly difference defeathered weight (%) in male was observed between deep litter, semi intensive and backyard system of management (Table 4.12). The giblet (%) was observed to be significantly higher in male bird of backyard system (4.24±0.46%) followed by semi intensive (3.75±0.34%) and deep litter (3.42±0.17%) system of management. However deep litter, semi intensive system and backyard system of management did not differ significantly from each other (Table 4.12). Analysis of variance revealed no significant effect of different management systems on live weight (g), blood loss (%), non-edible parts (%), dressing percentage (Table 4.13).

Table.1 Average carcass yields of Vanaraja bird raised under different management systems

parameter		Treatment groups			
		T1 (Deep Litter)	T2 (Semi-Intensive)	T3 (Backyard)	F-Value
Live weight	male	1877.20±84.63	1864.20±76.26	1672.60±74.99	2.12^{NS}
	female	1675.00±47.70	1625.60±59.20	1494.60±43.66	1.66^{NS}
Blood loss %	male	3.68±0.43	3.24±0.54	3.17±0.70	1.64^{NS}
	female	$3.23±0.46^{a}$	$2.65±0.24^{b}$	$2.52±0.21^{b}$	6.20**
Defeathered wt. %	male	$89.31±0.61^{a}$	$94.46±0.23^{b}$	$93.85±0.95^{ac}$	16.47**
	female	91.36±0.74	94.70±0.64	95.38±0.70	1.64^{NS}
Giblet %	male	3.42±0.17	3.75±0.34	4.24±0.46	1.43^{NS}
	female	4.04±0.24	4.10±0.09	4.90±0.46	1.35^{NS}
Non-edible parts %	male	26.39±0.89	27.68±1.90	29.77±1.62	0.93^{NS}
	Female	30.04±1.13	24.20±10.25	25.60±13.67	2.31^{NS}
Dressing (%)	Male	71.22±0.97	75.70±5.68	76.07±8.32	0.21^{NS}
	Female	54.55±4.54	50.36±2.41	52.01±2.41	0.40^{NS}

Each value is the average of 3 male and 3 female observation

Mean values under the same superscript in a row did not differ significantly

The mean dressing percentage of male birds were 71.22±0.97%, 75.70±5.68%, 76.07±8.32% reared under deep litter, semi intensive and backyard system of management respectively (Table 4.12). In case of females the values were 54.55±4.54%, 50.36±2.41% and 52.01±2.41% respectively.

Menawat *et al.,* (1977) found that dressing percentage for Desi x RIR (73.7%) followed by Desi (73.60%) and RIR x (WLH x Desi) (73.5%) which is similar to present investigation. However, the values of giblet and non-edible percentage were higher for birds of backyard system than those of birds of deep litter and semi-intensive system of management. Better growth of giblet and non-edible parts under backyard system as compared to deep litter and semi-intensive system of management might be attributed to the free movement of birds under backyard system. The different management system had no significant effect on live weight (g), blood loss (%) in male, giblet (%) non- edible parts (%), dressing percentage except blood loss (%) in female and defeathered weight of male (%). The present findings are in close agreement with the findings of Singh and Singh (1980 b) and Anjum *et al., (1996). However Khawaja et al., (2012) observed lower dressing percentage.*

References

Anjum, M.S.; Saleem, C.M. and Ali, S. 1996. Comparative study of some slaughter characteristics and meat yield of Desi (local fowl) and Fayoumi (Egyptian) breeds of poultry. Pakistan J. Sci., 48: 3-4, 49.

Khawaja, T., Khan, S., Mukhtar, N., Parveen, A. 2012. Comparative study of growth performance, meat quality and haematological parameters of payomi, rholde island Rod and their reciprocal crossbred chickens *Italian Journal of Animal Science* 11: e 39.

Menawat, S.N.; Jain, L.S. and Sharma, V.V. 1977. A note on growth rate and production in desi and exotic fowls and their intermitted. Indian J. Anim. Sci., 47 (2): 854 – 855.

Singh, D.K., Singh, C.S.P. and Mishra, H.R. 1980b. Studies on some production characters in reciprocally crossed progeny of two White Leghorn strain. Indian J. Poult. Sci., 15:278-280.