



E-ISSN: 2320-7078

P-ISSN: 2349-6800

www.entomoljournal.com

JEZS 2020; SP-8(2): 101-102

© 2020 JEZS

Received: 18-01-2020

Accepted: 20-02-2020

Pawan Kumar Verma

Department of Livestock
production & Management,
Ranchi Veterinary College, Birsa
Agricultural University, Ranchi,
Jharkhand, India

Ravindra Kumar

Department of Livestock
production & Management,
Ranchi Veterinary College, Birsa
Agricultural University, Ranchi,
Jharkhand, India

S Shekhar

Krishi Vigyan Kendra (ICAR-
NRII), Jainagar, Koderma,
Jharkhand, India

Sushi Prasad

Department of Livestock
production & Management,
Ranchi Veterinary College, Birsa
Agricultural University, Ranchi,
Jharkhand, India

Growth performance of local Pig of Jharkhand under different management systems

Pawan Kumar Verma, Ravindra Kumar, S Shekhar and Sushil Prasad

Abstract

Pig rearing is one of the most important occupations of rural poor farmers and weaker sections of the society. Jharkhand is one of the leading states in the country where piggery has been accepted by rural people as remunerative enterprises. The study was undertaken in the three district of Jharkhand state viz, Ranchi, Dumka and Simdega. All the animals under study were local pigs reared by the local people in the study areas. A total of 90 Household rearing local pigs of different age group were selected and interviewed on the basis of questionnaire prepared. The average body weights of the local pigs of Ranchi, Dumka and Simdega districts at age groups of 0 day, 2nd month, 3rd month, and 4th months were found to be 0.51 ± 6.20 , 3.75 ± 0.22 , 4.95 ± 0.36 and 6.60 ± 0.40 ; 0.45 ± 5.60 , 2.82 ± 0.10 , 3.80 ± 0.30 and 5.20 ± 0.40 ; and 0.42 ± 7.1 , 3.19 ± 0.17 , 3.80 ± 0.29 and 5.60 ± 0.43 , respectively. No significant effect of housing system on growth performance of local pigs was observed. However, better growth performance was observed under semi-intensive system of management followed by intensive and scavenging system.

Keywords: Local Pig, Average body weight, housing, intensive system and scavenging system

Introduction

Pig rearing is one of the most important occupations of rural poor farmers and weaker sections of the society. It directly influences the socio economic status as it acts as an insurance coverage for the downtrodden and socially weaker section of the society because of their high feed conversion efficiency, shorter generation interval, faster growth rate, low maintenance cost, higher dressing percentage and ability to utilize agricultural by-products and waste material to high human value diet. Jharkhand is one of the leading states in the country where piggery has been accepted by rural people as remunerative enterprises. It provided tremendous employment opportunity to local people through integrated piggery development programme in most of the district of Jharkhand. 95.6 % of total pig population of Jharkhand are indigenous/local/ desi census (2012). However, the information regarding the indigenous pigs of Jharkhand is meagre. The pig especially indigenous one is well adapted and tolerable to various tropical environments with high temperature and relative humidity.

Materials and Methods

The study was undertaken in the three district of Jharkhand state viz, Ranchi, Dumka and Simdega. Three villages from each district were randomly selected. So, 9 villages were selected for the study. All the animals under study were local pigs reared by the local people in the study areas. A total of 90 Household rearing local pigs of different age groups were selected and interviewed. Data related to growth performance under different management system like housing, feeding were collected. Before collection of data, a questionnaire was prepared.

Results and Discussion

Body weight

The average body weights of the local pigs of Ranchi, Dumka and Simdega districts at age groups of 0 day, 2nd month, 3rd month, and 4th months were found to be 0.51 ± 6.20 , 3.75 ± 0.22 , 4.95 ± 0.36 and 6.60 ± 0.40 ; 0.45 ± 5.60 , 2.82 ± 0.10 , 3.80 ± 0.30 and 5.20 ± 0.40 ; and 0.42 ± 7.1 , 3.19 ± 0.17 , 3.80 ± 0.29 and 5.60 ± 0.43 , respectively. Significantly higher body weights were observed in Ranchi district followed by Dumka and Simdega at all the age groups under study. Results are conformity with the findings of earlier workers [1, 2, 3, 4] reported individual pig weight at weaning to be 4.87 ± 0.28 (Mizoram local), 4.97 ± 0.21 (Khasi Local), 4.90 ± 0.33 ,

Corresponding Author:**Ravindra Kumar**

Department of Livestock
production & Management,
College of Veterinary Science and
A.H., Birsa Agricultural
University, Ranchi, Jharkhand,
India

(Sikkim local), and 7.08±0.25 kg in Ghungroo pig and 5.47±0.13 kg in Niang-Megha respectively.

Table 1: Growth performance (kg) of local pigs in Ranchi, Dumka and Simdega districts of Jharkhand

Parameters	Ranchi (114)	Dumka (105)	Simdega (108)	Overall (%) (327)	Sig.
0 day	0.51±6.20	0.45±5.60	0.42±7.1	0.48±4.5	NS
2 nd month	3.75±0.20 ^b	2.82±0.10 ^a	3.19±0.17 ^{ab}	3.57±0.12	*
3 rd month	4.95±0.30 ^b	3.80±0.30 ^a	3.80±0.29 ^a	4.58±0.34	*
4 th month	6.60±0.40 ^b	5.20±0.40 ^a	5.60±0.43 ^a	6.31±0.24	*

Fig. In parentheses indicate no. of local pigs, (*) = $P \leq 0.05$, NS= Non-significant

Effect of management system on growth performance

No significant effect of housing system on growth performance of local pigs was observed at all the periods under study in Ranchi, Dumka and Simdega districts. However, better growth performance was observed under semi-intensive system of management followed by intensive and Scavenging system. Overall body weight were observed to be 0.51±6.2 kg, 3.75±0.22 kg, 4.95±0.36 kg and 6.60±0.40 kg (Ranchi), 0.45±5.6 kg, 2.82±0.21 kg, 3.8±0.3 kg and 5.20±0.40kg (Dumka) and 0.42±7.18kg, 3.19±0.17kg, 3.80±0.29 and 5.60±0.43kg during the period of 0 days, 2nd month, 3rd month and 4th month of age respectively. Similarly, Sharma *et al.* [5] also observed better growth in five genetic group of pigs maintained under intensive system of Government pig breeding farm, Kanke, Ranchi than Semi-intensive system maintained by the farmers in the rural areas. Under semi intensive system of management better growth performance in pig might be due to the fact that the better housing, feeding, grazing etc. as compared to Scavenging and Intensive system of management where limited feed are provided to pigs that is responsible for comparatively low growth performance.

Table 2: Effect of housing system on growth performance (kg) of local pigs

Parameter	Intensive (35)	Semi intensive (37)	Scavenging (42)	Overall (114)	Sig.
0day	0.54±11.70	0.53±12.30	0.50±8.60	0.51±6.20	NS
2 nd months	3.77±0.37	3.93±0.35	3.60±0.40	3.75±0.22	NS
3 rd month	4.86±0.6	5.02±0.04	4.95±0.50	4.95±0.36	NS
4 th month	6.50±0.08	6.90±0.71	6.50±0.66	6.60±0.40	NS

Table 3: Effect of housing system on growth performance (kg) of local pigs in Dumka district

Parameter	Intensive (34)	Semi intensive (26)	Scavenging (45)	Overall (105)	Sig.
0day	0.42±15.00	0.44±9.90	0.46±8.60	0.45±5.60	NS
2 nd months	2.69±0.38	2.89±0.4	2.87±0.36	2.82±0.21	NS
3 rd month	4.2±0.57	4.10±0.5	3.7±0.37	3.8±0.3	NS
4 th month	5.00±0.83	5.70±0.7	4.87±0.66	5.20±0.4	NS

Fig In parentheses indicate no. of local pigs, NS= Non-significant

Table 4: Effect of housing system on growth performance (kg) of local pigs in Simdega district

Parameter	Intensive (39)	Semi intensive (33)	Scavenging (36)	Overall (108)	Sig.
0day	0.43±11.5	0.44±12.1	0.40±13.11	0.42±7.18	NS
2 nd months	3.12±0.32	3.57±0.25	2.85±0.30	3.19±0.17	NS
3 rd month	3.00±0.5	4.76±0.50	3.83±0.52	3.8±0.29	NS
4 th month	5.57±0.72	5.62±0.70	5.62±0.75	5.6±0.43	NS

Fig In parentheses indicate no. of local pigs, NS= Non-significant

References

1. Kumaresan A, Bujarbaruah KM, Pathak KA, Chhetri B, Das SK, Das A *et al.* Performance of pigs reared under traditional tribal low input production system and chemical composition of nonconventional tropical plants used as pig feed. *Livestock Sci.* 2007; 107:294-298.
2. Bujarbaruah KM. Status and strategies for pig production in North East India. *Pig systems in Asia and the Pacific: how can research and development enhance benefits to the poor?* Proceedings of the regional workshop held 23–24 November, Bangkok, Thailand, 2006.
3. Nath BG, Pathak PK, Ngachan SV, Tripathi AK, Mohanty AK. Characterization of smallholder pig production system: productive and reproductive performances of local and crossbred pigs in Sikkim Himalayan region. *Trop. Anim. Health Prod.* 2013; 45(7):1513-8.
4. Sahoo NR, Das A, Naskar S, Banik S, Pan S, Tamuli MK. A monograph on Ghungroopig. A new promise in Indian Piggery. ICAR-NRC pig, Rani, Guwahati, 2012.
5. Sharma BD, Singh SK, Dubey CB, Mishra HR. A comparative study on growth pattern of exotic and desi pigs and their halfbred under farm and village conditions of rearing. *Indian J. Anim. Sci.* 1992; 62(4):378-380