Journal of Entomology and Zoology Studies

Available online at www.entomoljournal.com

D Behera
Department of Livestock Production Management, College of Veterinary Science and A.H., Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

CR Pradhan
Department of Livestock Production Management, College of Veterinary Science and A.H., Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

NC Behura
PG Department of Poultry Science, Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

LM Mohapatra
PG Department of Poultry Science, Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

GP Mohanty
PG Department of Poultry Science, Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

K Behera
PG Department of Poultry Science, Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

DP Das
Department of Veterinary Pathology, College of veterinary Science and A.H., Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

RK Sahu
Department of Veterinary Public Health & Epidemiology, C.V.Sc, Hyderabad

Correspondence
D Behera
Department of Livestock Production Management, College of Veterinary Science and A.H., Orissa University of Agriculture and Technology, Bhubaneswar, Odisha, India

Production performance of Hansli chicken in Odisha

D Behera, CR Pradhan, NC Behura, LM Mohapatra, GP Mohanty, K Behera, DP Das and RK Sahu

Abstract
A total of 260 numbers Hansli day old chicks were taken for the study. For males body weight increased from 30.69 ± 0.43 g at day- old to 436.40 ± 9.69 g and 1629.42 ± 25.47 g at 8th week and 20th week respectively where as the in case of females it was increased from 30.93 ± 0.28 g to 381.35 ± 8.36 g and 1318.43 ± 23.78 g at 8th week and 20th week. The cumulative FCR increased from 6.12 in 1st week to 4.54 in 8th week and to 7.70 in 20th week. For the male, female and combined sex, respectively, the slaughter weights averaged 1331.33 ± 23.09, 1092.33 ± 12.06 and 1211.83 ± 38.11 g; dressing percentage 75.09 ± 0.07, 72.1 ± 0.004 and 73.60 ± 0.45, and evisceration percentage 70.20 ± 0.06, 66.85 ± 0.09 and 68.53 ± 0.50 respectively.

Keywords: Hansli, body weight, FCR, dressing percentage, eviscerated percentage

1. Introduction

Indian Poultry Industry is 5,000 years old; recently it began to witness remarkable growth from backyard to poultry industry. Organized sector contributes about 70 per cent of the total output of poultry industry and remaining 30 per cent by unorganized sector [1]. In India, poultry keeping was largely a backyard venture before 1960, but today it has been transferred in to a vibrant agribusiness with annual turnover of more than 45,000 corers [1]. The poultry population in the country has increased by 12.39% over the previous census. The total meat production in the country was reported as 4.6 million tons in the year 2009-10 and the production of meat shown an increasing trend during the period 2009-10 to 2015-16 with an average annual growth rate of 7.73% [2]. Indigenous breeds of chickens are playing major role in rural economies in most of the developing and underdeveloped countries. They play an incredible role for the rural poor and marginalized section of the people with respect to their subsidiary income and also provide them with nutritious chicken egg and meat for their own consumption [10]. Hansli chicken is predominantly reared in Mayurbhanj and some parts of its nearby districts like Keonjhar of Odisha [8]. It is also kept by some of the urban and city dwellers mainly for cock fighting or as fancy. Hansli birds have a different body morphology, which distinguishes them from other birds. Hansli resembles to Aseel, but phylogenetic tree analysis indicated that Hansli is very much different from Aseel [12]. Until to date, much scientific intervention has not yet been given for this valuable genetic resource. Keeping in view the above facts, a study was undertaken to evaluate the productive performances of Hansli chicken under intensive system of management.

2. Materials and Methods

Total 260 nos. of day old Hansli chicks obtained from the hatchery of AICRP on poultry breeding, PG Department of Poultry Sciences, Bhubaneswar was taken for the study. Chick starter and grower birds were reared in floor pens up to 20 weeks of age in the PG department of poultry science, College of Veterinary Science and Animal Husbandry, Orissa University of Agriculture and Technology (OUAT), Odisha for evaluation of growth performances. The birds were fed conventional starter from 0-8 weeks and grower 9-20 weeks. All the birds had access to clean and fresh drinking water 24 hours. Body weights (g) of all birds were recorded at day-one, and at weekly interval up to 20th week of age. Body weight was recorded using a digital electronic balance nearest to 1.0 g accuracy. Weekly cumulative body weight gain (g) was calculated by subtracting the day-old body weight from the body weight of the respective

week. The feed consumption of the experimental birds was recorded on weekly basis by subtracting the left over feed at the end of the week from the total feed offered during the week. From the weekly body weight gain and feed consumption, weekly feed conversion ratio was calculated.

$$\text{Feed conversion ratio (FCR)} = \frac{\text{Feed consumption in kg}}{\text{Body weight gain in kg}}$$

Six Hansli birds of each sex were taken for carcass study at the age of 16th week. The calculations were carried out as follows:

1. Live weight at the time of slaughter (g)

2. Dressing yield (%) $= \dfrac{\text{Dressed Weight}}{\text{Live Weight}} \times 100$

3. Eviscerated yield (%) $= \dfrac{\text{Eviscerated Weight}}{\text{Live Weight}} \times 100$

4. Giblet yield (%) $= \dfrac{\text{Giblet Weight}}{\text{Eviscerated Weight}} \times 100$

5. Neck yield (%) $= \dfrac{\text{Weight of the neck}}{\text{Eviscerated Weight}} \times 100$

6. Wing yield (%) $= \dfrac{\text{Weight of the wings}}{\text{Eviscerated Weight}} \times 100$

7. Back yield (%) $= \dfrac{\text{Weight of the back}}{\text{Eviscerated Weight}} \times 100$

8. Breast yield (%) $= \dfrac{\text{Breast Weight}}{\text{Eviscerated Weight}} \times 100$

9. Thigh yield (%) $= \dfrac{\text{Weight of the thighs}}{\text{Eviscerated Weight}} \times 100$

10. Drumstick yield (%) $= \dfrac{\text{Weight of the drumsticks}}{\text{Eviscerated Weight}} \times 100$

Data collected on various parameters were subjected to statistical analysis using SPSS 16.

3. Results and Discussion

3.1 Weekly body weight of Hansli from day-old to 20 weeks

The body weight (g) of Hansli birds are presented in Table 1. Body weights of male and female chicken increased progressively with age of the birds. For male Hansli, body weight increased from 30.69 ± 0.43 g at day-old to 436.40 ± 9.69 g at 8 weeks and to 1629.42 ± 25.47 g at 20 weeks. For the females, body weight increased from 30.93 ± 0.28 g at day-old to 381.35 ± 8.36 g at 8 weeks and to 1318.43 ± 23.78 g at 20 weeks of age. The combined sex body weight increased from 30.93 ± 0.28 g at day-old to 409.62 ± 6.18 g at 8 weeks of age and to 1471.58 ± 18.04 g at 20 weeks of age. While there was no significant difference ($p \geq 0.05$) in day-old weights between male and female chicks, the male Hansli showed higher body weights right from the first week, the differences being significant ($p \leq 0.05$ or 0.01) at every week from 3rd till 20th week of age.

From Table 1, it was revealed that the day old weight (g) of Hansli chicks (Male 30.69 ± 0.43, Female 31.18 ± 0.37, Combined 30.93 ± 0.28) were found higher than the reported weights of 28.40 g [4]. The variations might be due to differences in feeding and management conditions between the studies. When compared with Aseel, both higher and lower weights have been reported. The day-old chick weights of Aseel reported were 29 ± 0.05 g (NBAGR, 2011), 29.32 ±

0.20 g and 29.72 ± 0.21 g [6] which were lower than the weights of the Hansli found in the present study. Higher weights for Aseel have also been reported. Earlier scientist report revealed a weight of 33.19 ± 0.20 g and 33.18 ± 0.91 g [5, 15]. The variations observed may be attributed to differences in genotype, environment, feeding and husbandry practices.

The 2-week old Hansli chick weights (g) (Male 56.85 ± 1.0, Female 54.82 ± 1.11, Combined 55.85 ± 0.74) were found lower than 85.84 ± 5.31 g [4]. The variations might be due to different seasons of rearing. As compared with Aseel, higher as well as lower weights have been reported. Earlier report revealed a weight of 48.63 ± 3.99 g, 54.21± 1.92 g for males and 52.07 ± 2.28 g for females of Aseel [13, 15], which were lower than that of the Hansli chicks, as found in the present study. On the other hand previously reported a weight of 65.1 ± 1.04 g and a weight of 72.88 ± 0.99 g in Aseel which were higher than the weight for Hansli chicks, as found in the present study [3, 5]. The variations might be due to differences in genotype, climatic conditions and feeding practices followed.

The 4-week old weights (g) of Hansli chicks (Male 132.61 ± 3.97, Female 121.10 ± 3.65, Combined 127.03 ± 2.57) were found lower than the reported weights of 219.03 ± 9.4 g [4]. The variation might be due to differences in season of rearing between the studies. A weight of 127.43 ± 1.28 g and 127.83 ± 1.18 g for Aseel, which were found similar to that of Hansli [6, 7], in the present study. As compared with Aseel, higher as well as lower weights have also been reported. As per earlier report 154.00 ± 2.39 g, 150.62 ± 2.44 g and 138.40 ± 5.91 g which were higher than the weights of Hansli [3, 5, 13]. Previously reported Aseel male weights of 86.08 ± 1.29 g and female weights of 83.00 ± 2.00 g which were found lower than the weights of Hansli [15]. The variations observed may be attributed to differences in genotype, environment, feeding and husbandry practices.

The 8-week old weight (g) of Hansli chicks (Male 436.40 ± 9.69, Female 381.35 ± 8.36, Combined 409.62 ± 6.18) were found lower than the reported weights of 740.33 ± 13.81 g [4]. The variation might be due to differences in seasons of rearing between the studies. When compared with Aseel, both higher and lower weights have been reported. The 8-week old weights for Aseel as reported were 393.00 ± 8.52 g [3], 361.00 ± 9.72 g [13], 273.72 ± 3.52 g [6] and 234.00 ± 0.14 g [9] which were lower than the weights for Hansli, found in the present study. Higher weights for Aseel have also been reported as males weighing 610.08 ± 0.23 g and females, 575.70 ± 0.14 g [15]. The variation observed may be attributed to differences in genotype, environment, feeding and husbandry practices.

The 12-week old Hansli weights were found to be 843.62 ± 16.83 g for male, 729.77 ± 13.64 g for female and 782.95 ± 10.74 g for combined sex. As compared with Aseel, higher as well as lower weights have been reported. Previouly reported a weight of 743.75 ± 24.65 g, 583.00 ± 18.18 g and 408.00 ± 0.22 g in Aseel which were lower than that for Hansli birds as found in the present study [13, 7, 9]. On the other hand, a weight of 796.00 ± 13.12 g and 1054.78 ± 1.40 g for males and 955.55 ± 1.56 g for females of Aseel were earlier reported, which were higher than the weight for Hansli chicks as found in the present study [3, 15].

The 16-week old Hansli were found weighing 1223.08 ± 23.33 g for male, 1021.21 ± 19.06 g for female and 1121.12 ± 14.54 g for combined sex. As compared with Aseel, higher as well as lower weights have been reported. Earlier report showed 678.37 ± 5.36 g which was lower than that for the Hansli birds as found in the present study [7]. On the other

hand, a weight of 1218 ± 19.0 g [3] and 1402.00 ± 24.54 g [13] which were higher than the weight for Hansli chicks as found in the present study.

The 20-week old Hansli were found weighing 1629.42 ± 25.47 g for male, 1318.43 ± 23.78 g for female and 1471.58 ± 18.04 g for combined sex. The weights for Hansli were found higher as compared to the reported weights for Aseel. While recorded weights of 1318.42 ± 22.24 g [5] and 1038.72 ± 6.73 g [7] were reported. The variations might be due to differences in genotype, climatic conditions and feeding practices followed.

3.2 Weekly gain in body weight

The mean weekly body weight gains for male and female Hansli chicken from 1st to 20 week of age are presented in Table 2. For male, female and combined sex, respectively, the gains increased from 10.35 ± 0.50, 9.45 ± 0.44 and 10.32 ± 0.32 g at 1st week to 405.18 ± 9.26, 350.02 ± 7.91 and 378.35 ± 6.12 g at 8th week and to 1581.31 ± 27.02, 1287.17 ± 21.99 and 1418.30 ± 21.03 g at 20th week. While there was no significant difference ($p \geq 0.05$) between male and female chicken till 3rd week, males showed significantly ($p \leq 0.05$ or 0.01) higher gains at each week from 4th to 20th week. From Table 2, it was found that the weekly gains in body weight increased consistently until 20th week, suggesting that the mature body weight had not been attained until 20 weeks. Male birds showed a higher rate of gain than the females, which was due to the higher body weights for the males.

3.3 Weekly feed consumption and FCR of Hansli chicken

The daily feed consumption recorded individual week-wise and cumulatively over the weeks are presented in Table 3. The individual week-wise consumption increased from 59.14 g in first week to 389.86 g in 8th week and to 1218.59 g in 20th week. The cumulative consumptions increased from 59.14 g in first week to 1702.62 g in 8th week and to 11443.24 g in 20th week. From Table 3, it was found that daily feed consumption continued to increase over the weeks. Since, body weight as well as gain in body weight continued to increase (Tables 1 and 2), feed consumption also increased concomitant to growth in live weight. The feed consumptions up to 8 weeks recorded in the present study were found at par with those who reported consumptions of 55.24 ± 8.69 g in 1st week, 464.49 ± 10.28 g in 8th week and a cumulative consumption of 1835.13 ± 71.28 g at the end of 8th week, in Hansli chicken [6].

The individual week-wise and cumulative FCR, recorded from 1st to 20th week, are presented in Table 3. The individual week-wise FCR increased from 6.12 in 1st week to 4.30 at 8th week and to 14.89 at 20th week. The cumulative FCR increased from 6.12 in 1st week to 4.54 in 8th week and to 7.70 in 20th week. The individual week-wise FCR decreased from 1st to 4th week and remained similar till 8th week, after which it increased till 20th week. The cumulative FCR showed a decreasing trend till 8th week, after which it gradually increased in successive weeks till the 20th week. From Table 3, it was found that the individual week-wise or cumulative FCR showed a decreasing trend from 1st to 8th week, after which it increased gradually. From the results it could be implied that the Hansli chicken had the maximum feed efficiency between 4th and 8th week. The week-wise FCRs at 8th week as recorded in the present study were found higher than FCRs of 2.17 ± 0.04, 2.26 ± 0.15, 2.57 ± 0.25 and 2.84 ± 0.33 in 1st, 2nd, 4th and 8th week, respectively [4]. The variations between the two studies might be attributed to seasonal differences.

3.4 Carcass characteristics of Hansli chicken

The carcass characteristics of Hansli chicken, slaughtered at 16 week of age, are presented in Table 4. For the male, female and combined sex, respectively, the slaughter weights averaged 1331.33 ± 23.09, 1092.33 ± 12.06 and 1211.83 ± 38.11 g; dressing percentage 75.09 ± 0.07, 72.1 ± 0.004 and 73.60 ± 0.45, and evisceration percentage 70.20 ± 0.06, 66.85 ± 0.09 and 68.53 ± 0.50. The carcass components expressed as percent of eviscerated yield were; neck yield 10.44 ± 0.17, 8.85 ± 0.58 and 9.65 ± 0.37 percent; wing 14.86 ± 0.31, 13.48 ± 0.16 and 14.17 ± 0.26 percent; back 18.15 ± 0.16, 18.09 ± 0.09 and 18.12 ± 0.08 percent; breast 20.54 ± 0.19, 25.03 ± 0.57 and 22.79 ± 0.73 percent; thigh 18.04 ± 0.05, 16.09 ± 0.45 and 18.35 ± 0.25 percent; drumstick 17.93 ± 0.19, 16.14 ± 3.01 and 16.90 ± 0.22 percent and, giblet 6.95 ± 0.08, 7.85 ± 0.14 and 7.40 ± 0.15 percent. For the giblet, the different components were heart 0.62 ± 0.02, 0.68 ± 0.04 and 0.65 ± 0.02 percent; liver 2.98 ± 0.07, 3.10 ± 0.05 and 3.04 ± 0.04 percent; gizzard 75.09 ± 0.07, 75.09 ± 0.07 and 75.09 ± 0.07 percent. The meat: bone ratios were found to be 2.118 ± 0.112, 2.512 ± 0.048 and 2.287 ± 0.032. Males had significantly ($p \leq 0.05$ or 0.01) higher yields than females in respect of slaughter weight, breast weight, eviscerated percentage, neck and wing percentage, while females had significantly ($p \leq 0.01$) higher yield of breast, giblet and meat: bone ratio. Male also showed non-significantly ($p \geq 0.05$) higher yield than females in respect of thigh and drumstick. The generally higher yields of carcass attributes in favour of males might be attributed to their higher growth rate resulting in higher slaughter weight. From Table 4, it was revealed that the findings in the present study are in conformity with the earlier findings [11] in Aseel who reported for Aseel higher ($p \geq 0.05$) weight for males in respect of dressed weight, eviscerated weight, neck weight, back weight, thigh weight and drum stick weight, and lower weight for males in respect of giblet and breast. The only difference was in respect of wing weight which was significantly higher ($p \leq 0.05$) yields for females in Aseel. The variation may be attributed to the differences in the breed types. However, the values of different attributes for Aseel were similar to those found for Hansli in the present study [11], except that the neck percentage for Aseel which was found lower than that for Hansli.

Table 1: Weekly body weight of Hansli from day-old to 20 weeks

Age (week)	Body weight (g) (mean ± SE)			p value
	Male	**Female**	**Combined**	
Day old	30.69 ± 0.43	31.18 ± 0.37	30.93 ± 0.28	0.304
1st	41.13 ± 0.57	40.20 ± 0.50	40.67 ± 0.38	0.231
2nd	56.85 ± 1.0	54.82 ± 1.11	55.85 ± 0.74	0.191
3rd	87.77 ± 2.23[a]	80.5 ± 2.26[b]	84.21 ± 1.60	0.014
4th	132.61 ± 3.97[a]	121.10 ± 3.65[b]	127.03 ± 2.57	0.015
5th	184.88 ± 5.18[A]	165.07 ± 4.91[B]	175.32 ± 3.63	0.002
6th	258.53 ± 6.69[A]	230.91 ± 5.99[B]	245.21 ± 4.59	0.002
7th	336.32±8.60[A]	297.41±7.55[B]	317.47±5.88	0.001
8th	436.40 ± 9.69[A]	381.35 ± 8.36[B]	409.62 ± 6.18	0.000
9th	538.26 ± 11.78[A]	470.16 ± 10.46[B]	505.15 ± 8.22	0.000
10th	633.88 ± 13.80[A]	554.35 ± 12.08[B]	595.39 ± 9.57	0.000
11th	740.01 ± 14.82[A]	646.4 ± 12.66[B]	694.29 ± 10.27	0.000
12th	843.62 ± 16.83[A]	729.77 ± 13.64[B]	782.95 ± 10.74	0.000
13th	926.76 ± 18.17[A]	801.37 ± 14.44[B]	864.97 ± 12.40	0.000
14th	1016.69 ± 19.79[A]	875.23 ± 15.98[B]	946.65 ± 13.64	0.000
15th	1106.78 ± 22.15[A]	944.23 ± 16.09[B]	1025.51 ± 14.80	0.000
16th	1223.08 ± 23.33[A]	1021.21 ± 19.06[B]	1121.12 ± 14.54	0.000
17th	1319.94 ± 23.87[A]	1108.19 ± 19.62[B]	1213.01 ± 17.11	0.000
18th	1426.94 ± 24.29[A]	1183.64 ± 20.27[B]	1304.06 ± 17.98	0.000
19th	1530.60 ± 25.32[A]	1254.98 ± 21.65[B]	1390.71 ± 19.25	0.000
20th	1629.42 ± 25.47[A]	1318.43 ± 23.78[B]	1471.58 ± 18.04	0.000

[ab]Means with different superscripts in a row differ significantly ($p \leq 0.05$)
[AB]Means with different superscripts in a row differ significantly ($p \leq 0.01$

Table 2: Cumulative weekly gain in body weight

Age (week)	Cumulative weekly gain (g) (mean ± SE)			P value
	Male	**Female**	**Combined**	
01	10.35 ± 0.50	9.45 ± 0.44	10.32 ± 0.32	0.193
02	25.94 ± 0.92	23.93 ± 0.98	24.95 ± 0.65	0.176
03	56.90 ± 2.12	49.95 ± 2.09	53.43 ± 1.53	0.086
04	101.93 ± 3.78[a]	89.90 ± 3.44[b]	96.07 ± 2.49	0.011
05	153.92 ± 4.96[A]	133.86 ± 4.67[B]	144.19 ± 3.53	0.003
06	227.57 ± 6.44[A]	199.6 ± 5.69[B]	214.07 ± 4.23	0.002
07	305.26 ± 8.27[A]	266.40 ± 7.19[B]	286.28 ± 4.69	0.001
08	405.18 ± 9.26[A]	350.02 ± 7.91[B]	378.35 ± 6.12	0.000
09	506.87 ± 11.16[A]	435.04 ± 10.66[B]	471.44 ± 8.21	0.000
10	602.56 ± 13.17[A]	523.02 ± 11.36[B]	564.06 ± 8.74	0.000
11	708.72 ± 14.00[A]	616.56 ± 11.89[B]	662.97 ± 9.88	0.000
12	812.19 ± 15.55[A]	698.44 ± 12.73[B]	752.13 ± 10.82	0.000
13	895.33 ± 16.80[A]	770.10 ± 13.44[B]	833.62 ± 11.74	0.000
14	985.13 ± 18.15[A]	843.99 ± 14.81[B]	910.68 ± 12.75	0.000
15	1075.17 ± 20.14[A]	912.99 ± 14.92[B]	994.08 ± 13.86	0.000
16	1191.40 ± 20.77[A]	989.14 ± 17.44[B]	1072.95 ± 16.68	0.000
17	1275.13± 24.37[A]	1075.95 ± 18.11[B]	1181.56 ± 15.87	0.000
18	1380.87 ± 25.14[A]	1151.45 ± 18.55[B]	1246.81 ± 19.21	0.000
19	1468.37 ± 29.63[A]	1223.75 ± 19.98[B]	1352.30 ± 18.93	0.000
20	1581.31 ± 27.02[A]	1287.17 ± 21.99[B]	1418.30 ± 21.03	0.000

[ab]Means with different superscripts in a row differ significantly ($p \leq 0.05$)
[AB]Means with different superscripts in a row differ significantly ($p \leq 0.01$)

Table 3: Weekly feed consumption and FCR of Hansli chicken

Week	Week-wise feed consumption (g)	Cumulative feed consumption per bird (g)	Week-wise FCR	Cumulative FCR
1st	59.14	59.14	6.12	6.12
2nd	83.19	142.33	5.51	5.75
3rd	138.39	280.72	4.93	5.32
4th	181.60	462.32	4.25	4.85
5th	216.88	679.2	4.53	4.75
6th	282.23	961.43	4.03	4.52
7th	351.33	1312.76	4.92	4.62
8th	389.86	1702.62	4.30	4.54
9th	518.83	2221.45	5.50	4.73
10th	509.60	2731.05	5.36	4.83
11th	578.57	3309.62	5.77	4.97
12th	639.28	3948.9	7.27	5.22
13th	689.47	4638.37	8.85	5.55
14th	805.09	5443.36	9.94	5.91
15th	794.85	6238.31	10.06	6.22
16th	791.95	7030.26	8.90	6.42
17th	997.98	8028.24	9.63	6.68
18th	1031.40	9059.64	11.28	6.99
19th	1102.01	10161.65	11.82	7.30
20th	1218.59	11443.24	14.89	7.70

Table 4: Carcass characteristics of Hansli chicken

Attributes	Carcass yields (Mean ± SE)			P value
	Male	Female	Combined	
Live weight (g)	1331.33 ± 23.09[A]	1092.33 ± 12.06[B]	1211.83 ± 38.11	0.000
Dressing %	75.09 ± 0.07[A]	72.1 ± 0.004[B]	73.60 ±0.45	0.000
Evisceration %	70.20 ± 0.06[A]	66.85 ± 0.09[B]	68.53 ± 0.50	0.000
Neck%	10.44 ± 0.17[a]	8.85 ± 0.58[b]	9.65 ± 0.37	0.027
Wing %	14.86 ± 0.31[A]	13.48 ± 0.16[B]	14.17 ± 0.26	0.004
Back %	18.15±0.16	18.09±0.09	18.12±0.08	0.520
Breast %	20.54 ± 0.19[A]	25.03 ± 0.57[B]	22.79 ± 0.73	0.000
Thigh %	18.04 ± 0.05	16.09 ± 0.45	18.35 ± 0.25	0.086
Drumstick %	17.93 ± 0.19	16.14 ± 3.01	16.90 ± 0.22	0.228
Giblet %	6.95 ± 0.08[A]	7.85 ± 0.14[B]	7.40 ± 0.15	0.006
Heart %	0.62 ± 0.02	0.68 ± 0.04	0.65 ± 0.02	0.272
Liver %	2.98 ± 0.07	3.10 ± 0.05	3.04 ± 0.04	0.192
Gizzard %	75.09 ± 0.07[A]	75.09 ± 0.07[B]	75.09 ± 0.07[a]	0.003
Meat: Bone	2.118 ± 0.112[A]	2.512 ± 0.048[B]	2.287 ± 0.032	0.000

[ab]Means with different superscripts in a row differ significantly ($p \leq 0.05$)
[AB]Means with different superscripts in a row differ significantly ($p \leq 0.01$)

4. Conclusion
From this study, we concluded that the Hansli chicken exhibited better growth performance. Enough scope is left to study this genotype and explore its potential.

5. References
1. Ali MM. Emerging prospective of Indian livestock: A study on poultry industry, Asian Journal of Managerial Science. 2015; 4(1):33-39.
2. BAHS. Basic Animal Husbandry Statistics, Department of Animal Husbandry, Dairying and Fisheries, India. 2016, 1-162.
3. Chatterjee RN, Sharma RP, Reddy MR, Niranjan M, Reddy BLN. Growth, body conformation and immune responsiveness in two Indian native chicken breeds, Livestock Research for Rural Development. 2007; 19(10).
4. Ekka R, Behura NC, Samal L, Nayak GD, Pati PK, Mishra PK. Growth performance and linear body measurements of Hansli, CSML and Hansli × CSML cross under intensive system of rearing, Journal of Livestock Science. 2016; 7:114-121.
5. Haunshi S, Niranjan M, Shanmugam M, Padhi MK, Reddy MR, Sunitha R *et al*. Characterization of two Indian native chicken breeds for production, egg and semen quality and welfare traits, Poultry Science. 2011; 90:314-320.
6. Jha DK, Prasad S. Performance of improved varieties and indigenous breed of chicken in Jharkhand, Indian Journal of Poultry Scienc. 2013; 48(1):109-112.
7. Jha DK, Prasad S, Soren SK, Bharti A. Production performance of indigenous chicken in intensive farming system, Indian Journal of Poultry Scienc. 2013; 48(1):105-108.
8. Mohapatra SC, Mishra SC, Das K. Poultry Genetic Resources of Orissa (ISNNRMPO Programme Series 4) Published by Intercorporation India-Deligation, Hyderabad and Indo–Swiss Natural Resources Management Programme, Orissa, Bhubaneswar. 2006, 1-58.
9. NBAGR. Breed descriptor of chicken. Indian Journal of Animal Science. 2011; 81:310-323.
10. Padhi MK. Importance of indigenous breeds of chicken for rural economy and their improvements for higher production performance, Scientifica. 2016, 9.
11. Premavalli K, Omprakash AV, Sangilimadan K, Ashok A, Rajendran R, Thyagarajan D, *et al*. Egg quality traits of different native chickens reared under intensive system

in Tamil Nadu, Indian Veterinary Journal. 2016; 93(6):72-74.

12. Sahu PK, Das B, Sahoo L, Senapati S, Nayak GD. Genetic relationship and population structure of three Indian local chicken, Mitochondrial DNA. 2015; 12:1-3

13. Sarker Md, Bhuiyan JA, Alam MS, Faruque Md, Omar A, Ashraf Md *et al*. Phenotypic characterization of Aseel chicken of Bangladesh, The Korean Society of Poultry Science. 2012; 39(1):9-15.

14. SPSS, 2001. 16.0. SPSS for Windows. SPSS, Chicago, IL.

15. Valavan SE, Omprakash AV, Bharatidhasan A, Kumar VRS. Production performance of Aseel under Indian Tropical condition, International Journal of Applied and Pure Science and Agriculture. 2016; 2(11):107-110.