the eight cases were not associated with gestation, but rather occurred at a time of increased sexual activity when blood supply to the vulva/vestibulum was increased.

The vaginal prolapse appear to start from the proximal circular part of the vaginal vault (vestibulum vaginae) just caudal to the urethral opening, with the dorsal part of the vestibulum vaginae generally more severely distended than the ventral part (Quesenberry and Carpenter loc cit). The prolapses tissue consists of over expanded blood sinuses in the submucocal layer of the vestibulum vaginae.

References

Egg quality Traits of Different Native Chickens Reared under Intensive System in Tamil Nadu

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Abstract
A total of 60 fresh eggs comprising of twenty eggs each from Aseel, Kadaknath and Nicobari birds reared under deep litter system of management was collected at 40th week of age and studied for its internal egg quality characteristics. Highly significant differences were observed between native chicken breeds in egg weight, yolk index and shell thickness. Aseel had significantly heavier eggs (50.38±0.88g) and higher yolk index (0.43±0.009). Nicobari had significantly higher yolk index (0.43±0.009). Both Kadaknath and Nicobari eggs had significantly thicker egg shell (0.370±0.002mm; 0.361±0.003mm).

Key words: egg quality, chickens, intensive system.

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Aseel, Kadaknath and Nicobari are three native chicken breeds commonly reared for rural poultry farming system in India. Many reports on egg quality traits of commercial chicken breeds (Premavalli and Viswanathan, 2004) are available but limited reports on native chickens (Chatterjee et al., 2007; Niranjan et al., 2008) in India. Therefore, the present study was conducted to evaluate internal egg quality characteristics of three native chicken breeds namely Aseel, Kadaknath and Nicobari.

Materials and Methods
The experiment was carried out at the Poultry Research Station, Tamil Nadu Veterinary and Animal Sciences University, Chennai. A total of 60 eggs comprising of twenty eggs from three native chicken breeds namely Aseel, Kadaknath and Nicobari at 40th week of age were utilized for this study. Eggs were evaluated on
individual basis for internal egg quality traits viz., egg weight, albumen index, Haugh Unit score, yolk index and shell thickness. The data were analyzed statistically as per Snedecor and Cochran (1994).

Results and Discussion

The results of internal egg quality traits of different native chickens reared under intensive system in Tamil Nadu are presented in table 1. The overall mean egg weight was 44.92±0.75g. Highly significant difference was observed between native chicken breeds on egg weight and that the Aseel chicken laid significantly heavier eggs (50.38±0.88g) followed by Nicobari (44.73±0.84g) and Kadaknath (39.64±0.85g). Similarly, Haunshi et al. (2011; 2013) also observed that the egg weight was significantly (P<0.001) higher in Aseel as compared to Kadaknath. Parmar et al. (2006) showed that Kadaknath hens lay brown-shelled eggs weighing 43g. Singh et al. (2007) reported average egg weights of 47g for the Aseel breed and 43g for the Kadaknath breed at 40 wk of age. Ahmad (2013) reported the average egg weight of 45g from Mushki Aseel.

The overall mean albumen index was 0.08±0.004 and it did not vary significantly between eggs of different breeds studied. The result obtained in the present study is in consistent with observation made by Haunshi et al. (loc.cit). The overall mean Haugh Unit score was 93.78±0.55 and it did not vary significantly between eggs of different native chicken breeds studied. Similarly, non-significant differences on Haugh Unit score between breeds/strains were also reported by Haunshi et al. (loc.cit). The results obtained for Aseel eggs in the present study was higher than the observations made by Niranjan et al. (loc.cit) and Ahmad (loc.cit) for Peshawari Aseel for 1st, 2nd and 3rd production cycle (71.93±5.49, 81.99±2.89 and 84.95±2.18 respectively). Parmar et al. (loc.cit) observed wide variation in Haugh unit values for Kadaknath birds, ranging from 62.58 to 90.00 for eggs collected under field conditions.

The overall mean yolk index was 0.41±0.01 and genotype had highly significant (p<0.01) influence on yolk index. Nicobari (0.43±0.01) and Aseel had comparable yolk index (0.43±0.01) values, which was significantly (p<0.01) higher than Kadaknath (0.36±0.01) chicken. In contrast, Haunshi et al. (loc.cit) observed that the yolk index values were higher in the Aseel breed compared with the Kadaknath breed. However, Ahmad (loc.cit) observed non-significant differences in the yolk index of three production cycles of Peshawari Aseel. Kadaknath eggs had a lower yolk index as found in this study is in agreement with the earlier work of Parmar et al. (loc.cit). The overall mean egg shell thickness was 0.35±0.003mm and Nicobari and Kadaknath eggs had significantly (p<0.01) higher shell thickness (0.37±0.00; 0.36±0.00mm) than Aseel (0.33±0.01mm). The results obtained in the present study was higher than the observations (0.31 mm) made by Parmar et al. (loc.cit) in Kadaknath eggs and Chatterjee et al. (loc.cit) in Brown Nicobari eggs (0.29 mm).

<table>
<thead>
<tr>
<th>Egg quality Characteristics</th>
<th>Aseel</th>
<th>Nicobari</th>
<th>Kadaknath</th>
<th>Overall Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Egg weight**</td>
<td>50.38±0.88</td>
<td>44.73±0.84</td>
<td>39.64±0.85</td>
<td>44.92±0.75</td>
</tr>
<tr>
<td>Albumen indexNS</td>
<td>0.08±0.00</td>
<td>0.08±0.01</td>
<td>0.09±0.01</td>
<td>0.08±0.004</td>
</tr>
<tr>
<td>Haugh unitNS</td>
<td>94.07±1.10</td>
<td>93.38±0.88</td>
<td>93.89±0.93</td>
<td>93.78±0.55</td>
</tr>
<tr>
<td>Yolk index**</td>
<td>0.43±0.01</td>
<td>0.43±0.01</td>
<td>0.36±0.01</td>
<td>0.41±0.01</td>
</tr>
<tr>
<td>Egg shell thickness(mm)**</td>
<td>0.33±0.01</td>
<td>0.36±0.00</td>
<td>0.37±0.00</td>
<td>0.35±0.003</td>
</tr>
</tbody>
</table>

*Mean bearing different superscripts within the columns differ significantly (P<0.05)

References

Histomorphological Observations on the Ovaries of Jaffrabadi Buffaloes in Different Seasons

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Abstract

The study was conducted on ovaries of 30 adult Jaffrabadi buffaloes during different seasons viz; winter, summer and monsoon. The gross biometrical observations on weight, volume, length, breadth, thickness and surface follicular count of ovaries were recorded. There was no difference in weight, volume, length, breadth and thickness of ovaries during the different seasons but the average number of surface follicular count was more in winter (12.08 ± 0.75). The number of different ovarian follicles were counted during different seasons. There was no difference in number of primordial follicles during the different seasons but the average number of primary, secondary and Graafian follicular count was more in winter.

Key words: Jaffrabadi buffalo, Ovary, Histology, Seasonal.

Ovary is the primary female reproductive organ and thus for improving female reproductivity, understanding of the follicular dynamics is prerequisite. Buffaloes are very susceptible to extreme conditions of temperature and tend to perform better in cooler months. Thus temperature has a very potent effect on the ovarian function and thus fertility in buffaloes. The current knowledge of total number of different types of preantral and antral follicles, their development, number of atretic follicles and corpora lutea in ovaries of Jaffrabadi buffalo during different season is insufficient. Thus the data obtained from such a basic study can be

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