

Study the production performance of *Navogen* Strain of Chicken and comparative analysis of its performance with other chicken types in Sri Lanka

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Abstract

A study was conducted to analyse and compare the performance of *Navogen* strain at Dombewela farm. The productive parameters were collected from the performance records. For the analysis 120 eggs from each chicken genetic group were selected. The parameters measured were the egg weight, shape index, shell weight, egg yolk percentage, shell thickness, yolk: albumin ratio, shell colour, shell thickness and yolk colour.

The results of the study revealed that the age at first lay of *Navogen* layer was 18 weeks. At this age 2% of egg production was observed. The average monthly egg production and productive period were 26 ± 1.34 and 14 months, respectively. Weekly egg laying percent was increased from 18th to 29th week. Maximum egg production was observed between 26th and 29 weeks. After that egg laying percent was decreased by 1.1% weekly. No significant clutch interval and broodiness were recorded. Culling rate during laying was 1.25%. Among the total eggs collected randomly for evaluation nearly 50% was with brown egg shell colour. Egg shape index, egg weight, yolk weight, yolk:albumin ratio and specific gravity were significantly higher ($P < 0.05$) in the eggs of *Navogen* layer. No significant difference ($P > 0.05$) was observed on egg shell weight and thickness among different genetic groups except in village chicken. Further it was concluded that *Navogen* was performed well in terms of productive parameters and egg quality traits. For further confirmation the performance of *Navogen* strain should be analysed in various agroecological regions.

Keywords: Navogen, shape index and yolk:albumin ratio