Productive performance of Dandarawi chickens during rearing and laying periods as affected by different photoperiods in the rearing period.

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Abstract:

The lighting program can have a major influence on the productive performance of Dandarawi chickens during rearing and laying periods. Two hundred 8 weeks old Dandarawi pullets were equally distributed into 5 groups (G1 to G5). The pullets in G1 to G5 were exposed during the rearing period (8 to 18 weeks of age) to 8L:16D, 10L:14D, 12L:12D, 14L:10D, and 16L:8D hrs daily, respectively. The results showed that, at 26 and 62 weeks of age, no significant differences were observed in body weight among the 5 groups. Body weight gain during the rearing period for G5 significantly (P≤0.05) exceeded that of all the other groups. The total mortality rate (8-62 weeks of age) of the G3 group was lower than those of the other groups. The age at sexual maturity decreased gradually with increasing the photoperiod. No significant differences were observed in feed consumption (FC) and feed conversion, as g feed per g gain during rearing period among the 5 groups. However, during laying period, the hens of the 12L:12D group had significantly (P≤0.05) better feed conversion as g feed per g egg mass; decreased FC; greater egg production, eggs number, egg mass; and better shell percentage and economical efficiency than the other groups. No significant differences were observed in egg weight, egg shape index, egg yolk and albumen percentages among the 5 groups. The egg yolk index of 14L:10D group was significantly better (P≤0.05) those of the other groups. Haugh units of the G2, G3 and G4 were significantly (P≤0.05) higher than those of the G1 and G5. It was recommended to expose Dandarawi pullet's, during the period from 8 to 18 wks of age, to 12L:12D hrs daily to obtain higher productive performance during the laying period.

Keywords:

Dandarawi, photoperiods, rearing, laying, egg quality, performance.

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