USING SAVING LIGHT BULBS AS ECONOMICAL ALTERNATIVE LIGHT SOURCE FOR RAISING DANDARAWI CHICKEN

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Abstract:

Seven hundred and twenty, four weeks old Dandarawi chicks were used to study the effects of light source on their productive and reproductive performance. Chicks were divided into 3 equal groups (240 birds each) and housed in floor pens. The first group was used as control and reared under incandescent light bulbs (IL), while the second and third groups were reared under fluorescent (FL) and saving light bulbs (SL), respectively. All birds were raised under photoperiod of 12 and 16 hours per day during the growing and laying periods, with light intensities of 5-10 and 10-25 Luxes, respectively. Feed and water were available ad lib. and all the other conditions were the same during the experimental period. Results showed that birds reared under SL and FL bulbs had significantly (P≤0.05) higher body weight (BW), daily weight gain (BWG), egg yolk index, liver and giblets percentages than the control group. Also, egg shell thickness of birds reared under SL bulbs significantly increased (P≤0.05) compared to birds reared under FL and IL bulbs. In addition, birds reared under IL bulbs had significantly (P≤0.05) higher egg number, hen day production (HDP) and ovary percentages as compared to the other two groups. No significant differences (P≤0.05) were found between groups in leg problems, carcass traits, testes percentage, egg weight and fertility and hatchability. Finally, the economical efficiency of the birds reared under SL and FL bulbs was better than the IL groups during the growing period by 26.4 and 36.1%, respectively. However, the economical efficiency of the birds reared under IL light bulbs was better than the FL and SL groups during laying period by 12.1 and 9.9% as well as by 2.3 and 1.5% for table and fertile eggs, respectively.

Keywords:

DANDARAWI CHICKEN , SAVING LIGHT Source

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