Productive performance of Bovans brown and Hy-sex brown laying hens as affected by body weight at 20 weeks of age.

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Abstract:

Two hundred and fifty two from Bovans brown (BV) and Hy-sex brown (HS) pullets at 20 weeks of age were used in this experiment. Each strain included one hundred and twenty six of hens were classified according to body weight (X); into three category groups (42 hens of each) being heavy body weight averaged (1440 and 1740 g), medium body weight (standard body weight, 1323 and 1647 g) and light body weight (1236 and 1547 g) in Bovans brown and Hy-sex brown pullets, respectively. The hens of each group divided into six replicates (7 birds each). Each replicate was kept in wire cage (7 hens per cage) for 68 weeks of age. The obtained results could be summarized as follows: The medium birds of Bovans Brown strain (MBV) showed significantly (P≤0.05) higher hen day egg production (HDP) by 4.0 and 5.4%, hen housed egg production (HHP) by 4.0 and 12.3%, eggs number (EN) by13.4 and 18.4 eggs and egg mass by 0.90 and 1.38 kg/hen and exceeded economical efficiency by 17.5 and 16.2% as compared with those of heavy and light birds of Bovans brown (HBV and LBV), respectively. The HBV showed a significantly (P≤0.05) higher egg weight (EW) by about 1.8 and 2.4% and feed consumption by 2.5 and 4.4% as compared with that of MBV and LMV, respectively. The heavy and medium birds of Hy-sex brown strain (HHS and MHS, respectively) showed significantly (P≤0.05) higher HDP by 5.0 and 5.2%, HHP by 8.6 and 8.8%, EN by 16.9 and 17.6 eggs, EW by 1.8 and 1.5%, EM by 1.26 and 1.16 Kg/hen, FC by 2.1 and 1.1% and EE by 14.9 and 18.3%, respectively as compared with that of light birds of Hy-sex brown (LHS). There were no significant differences in cumulative feed conversion (g feed/ g egg mass or g feed/ 12 eggs) among three body weight categories of both BV and HS strains. No deaths occurred of high and medium birds of both BV and HS strains at all ages, while the mortality rate was 8.0 and 4.8% for LBV and LHS, respectively. It could be concluded that, the medium birds (standard body weight) of BV and medium and heavy birds of HS recorded the best EE value as compared with the other body weight categories.

Keywords:

Body weight, laying performance, Bovans and Hy-sex brown

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