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Title of the research: Effect of Management Factors on Welfare and Productive Performance of Muscovy Ducks

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Abstract

This study was conducted on two separate experiments in a factorial arrangement. In the 1st experiment stocking density and garlic supplementation on welfare status of Muscovy ducks was studied, 180 one - day -old Muscovy ducklings (108 female and 72 male) were housed into 12 symmetrical pens (2.5 m length, 2 m wide, 3 m high) classified into 6 treatments (2 replicate / treatment). [control (C) group] fed on basal diet with standard stocking density(4 birds/m²) , (HS) group fed on basal diet with high stocking density (8 birds/m²), (SS+G₃₀₀) group fed on basal diet with 300 g. garlic powder / ton feed with standard stocking density, (HS+G₃₀₀) group fed on basal diet with 300 g. garlic powder / ton feed with high stocking density, (SS+G₆₀₀) group fed on basal diet with 600 g. garlic powder / ton feed with standard stocking density, (HS+G₆₀₀) group fed on basal diet with 600 g. garlic powder / ton feed with high stocking density. Results revealed that garlic supplementation (600 g. garlic powder / ton feed) reducing feed intake with better FCR and higher final body weight also improve carcass quality by reduce fat % and improve immune status of birds in standard stocking density and can effectively compensate the negative effects of the high stocking density in Muscovy ducks. The 2nd experiment conducted to investigate the effect of floor system and environmental enrichment on Muscovy ducks welfare, 80 one - day -old Muscovy ducklings (48 female and 32 male) were housed into 8 symmetrical pens classified into 4 treatments (2 replicate / treatment) each treatment 4 birds /m². [Control (C) group] reared on litter floor (wood shaving), (LF+EN) group reared on liter floor with enrichment (perch), (SF) group reared on slat floor, (SF+EN) group reared on slat floor with enrichment (perch), results showed that rearing birds on slat floor improve final body weight, FCR and hygienic condition so improve immune status of birds, this practice favored by using environmental enrichment (perch) which increase comfort behaviour and can improve physical condition of birds so better welfare status of birds.

(Key Words: Welfare, Muscovy ducks, garlic supplementation, stocking density, Floor types, Enrichment).