



Effect of Prebiotic on the Behavioural Patterns, Performance, Carcass Characteristics, Antibody Titer and Some Blood Parameters of Mule Ducks

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Abstract:

This study was conducted to investigate the effects of dietary supplementation of prebiotic on behavioural patterns performance and some blood parameters of ducks. A total of forty-eight 15 days-aged ducks (Mule) were randomly allotted to three dietary treatments containing 0 (Control), 1.5 g/ kg and 3.0 g/kg prebiotic, respectively. The results indicated that using prebiotic as a feed additive at a dose of 1.5 g/kg effect on duck movement activities as it increased walking and standing activities, while it reduced the resting behavioural activities. Further, regarding the ingestive behaviour, both 1.5 and 3.0 g/kg prebiotic addition increased the feeding activities, while, only adding 3.0 g/kg prebiotic increased the drinking activities in comparison to the control. Moreover, the result indicated that prebiotic did not affect preening activities. Moreover, the inclusion of prebiotic at 1.5 or 3.0 g/kg caused numerical improvement in all measured performance parameters (i.e. body weight, weight gain, feed consumption, feed conversion ratio, caloric conversion ratio, and performance index). The 3.0 g/kg level of prebiotic induced significant decreased in serum cholesterol and both 1.5 and 3.0 g/kg prebiotic increased the HI titer of Avian influenza vaccine. In conclusion, prebiotic supplementations up to 0.30 g/kg diet show a non-significant positive effect on duck growth performance. However, the behavioural and haematological responses of duck to prebiotic supplementation are needed to be carefully considered.

Keywords:

Duck, Prebiotic, Behavior, Performance, Blood Parameters

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