

Effect of Feeding Camel Rumen Content on Growth Performance and Haematological Parameters of Broiler Chickens under Semi-Arid Condition

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Abstract : One hundred and fifty (150) day old chicks were randomly allocated into five dietary treatments birds and each treatment where replicated twice in groups of fifteen birds in each replicate. Camel rumen content (CRC) was included in the diets of broiler at 0, 5, 10, 15, and 20% to replace maize and groundnut cake to evaluate the effect on the performance and hematological parameters at the starter and finisher phase. A completely randomized design was used and 600g of feed was given daily and water was given ad libitum. At the starter phase, the daily weight gain and feed conversion ratio were significantly affected by the test ingredients, although T1(0% CRC) which serve as a control, were similar with T2(5% CRC), T3(10% CRC), and T4(15% CRC), while the lowest value was recorded in T5(20% CRC). The result indicates that up to 15% (CRC) level can be included in the starter diet to replace maize and groundnut cake without any effect on the performance. However, at the finisher phase, the daily feed intake, daily weight gain and feed conversion ratio show no significant ($F > 0.05$) difference among the dietary treatments. Similarly, Packed cell volume (PCV), Red Blood Cell (RBC), White Blood Cell (WBC), Mean Corpuscular Volume (MCV), and Mean Corpuscular Haemoglobin (MCH) also did not differ significantly ($F > 0.05$) among the dietary treatments while hemoglobin (Hb) and Mean Corpuscular Haemoglobin Concentration (MCHC) differs significantly. The differential counts of eosinophils, heterophils, and lymphocytes differ significantly among the treatment groups, while that of basophils and monocytes shows no significant difference among the treatment groups. This means up to 20% CRC inclusion level can be used to replaced maize and groundnut cake in the finisher diet without any adverse effect on the performance and hematological parameters of the chickens.

Keywords : camel, rumen content, growth, hematology

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