

Effect of Neem (*Azadirachta Indica*) Leaf Meal on Growth Performance, Haematology and Serum Biochemistry Indices of Broilers Not Administered Vaccines and Antibiotics

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Abstract : This experiment was conducted to investigate the growth performance, haematology and serum biochemistry indices of broiler birds fed diets containing Neem leaf meal. A total of 96 unsexed day-old broiler birds were allocated to four treatments of T1, T2, T3 and T4 and replicated three times with eight birds per replicate in a Completely Randomized Design. The treatments were diets containing 2.0, 4.0, 6.0 and 8.0% Neem leaf meal respectively. Growth performances, packed cell volume, red blood cell count, haemoglobin, white blood cell count, lymphocytes, mean corpuscular volume, mean corpuscular haemoglobin concentration, platelet count, aspartate amino transaminase, alanine amino transaminase, alkaline phosphate, cholesterol, albumin, globulin, urea, glucose, total protein and creatinine were evaluated. Results showed that there were no significant differences ($P>0.05$) in all the growth performance parameters among the treatments. The results of the experiment showed that there were significant differences ($P<0.05$) in all the haematological and serum biochemistry parameters at finisher phases. Mean corpuscular volume, white blood cell count, lymphocytes, red blood cell count, haemoglobin, platelet count, creatinine and triglyceride increased and were highest in treatment two while treatment four had the least values in mean corpuscular volume, urea, white blood cell, haemoglobin and triglyceride. This implies that the levels of inclusion of Neem leaf meal in this experiment did not affect the growth performance of the broiler chicks but the haematological and serum biochemistry indices were affected. Treatment two with a 4% inclusion level of Neem leaf meal has shown the capacity to replace vaccines and antibiotics in broilers due to the positive effects it had on both the haematological and serum biochemistry.

Keywords : leaf meal, broiler, *Azadirachta indica*, serum biochemistry, haematology

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