

Intestine Characteristics and Blood Profile of Broiler Chickens Treated with Garlic

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Abstract : A completely randomized design experiment with 3 treatments was conducted to study the effects of garlic on intestine characteristics, haematology and serum biochemistry of Marshal broilers. Thirty three (33) broiler chicks were randomly allotted to each treatment designated T1, T2 and T3. The birds in each treatment were replicated 3 times with 11 broilers per replicate. They were fed diets supplemented with garlic at 0, 1.5 and 2.5 % /kg feed for t1, T2 and T3, respectively with T1 as control. Data were collected on intestine parameters, serum biochemical parameters and haematological indices. The results showed significant ($P>0.05$) dose-dependent decrease in intestine weight and caeca microbial load of the broilers. The intestine of broilers in the treatments showed normal histological architecture in all the treatments. The red blood cell (RBC), white blood cell (WBC), haemoglobin (Hb) and other haematological indices showed no significant differences ($P<0.05$) among the treatments. Cholesterol, globulin, glucose and alanin aminotransferase (ALT) were significantly different ($P<0.05$) among the treatment groups. Serum biochemical parameters such as, total protein albumin, bilirubin and others were not significant among the treatments. All the blood parameters studied fall within the normal range for broilers. Garlic supplementation in the diets of broilers did not have any detrimental effects on the treated birds since their serum biochemistry and haematology fall within the normal range for broilers birds. The microbial examination of intestine and caeca, as well as the histopathological studies of the intestine confirmed antimicrobial properties of garlic.

Keywords : broiler, biochemistry and haematology, garlic, intestine

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