

Influence of hemedubumi (*Andrographis paniculata*) on serum biochemical parameters and liver morphology in broiler chickens

ABSTRACT

Serum biochemical parameters data was evaluated in broilers fed diets supplemented with hemedu bumi (*Andrographis paniculata*, AP) ground leaf. Birds (n = 160) were assigned in four treatment groups with five replication and each group contain eight birds. Broilers in the control group were fed the basal diet without additives, the group dietary treatments, Diet AP2 (Basal diet + 2g/kg *Andrographis paniculata*); Diet AP4 (Basal diet + 4g/kg *Andrographis paniculata*) and Diet AP8 (Basal diet + 8g/kg *Andrographis paniculata*). During day-21 and day-42, five birds from each treatment groups were randomly selected for serum biochemical analysis which involve pancreatic, renal, and hepatic functions (aspartate transaminase (AST), alkaline transaminase (ALT), alkaline phosphatase (ALP), glucose, cholesterol, triglycerides, total protein, albumin, urea, sodium, potassium, chlorine, and globulins). Liver morphology was determined after slaughtering two birds and collected the liver samples. Based on these results AP at 8g/kg diet lowered serum cholesterol, glucose and triglycerides. It also maintain the normal structure of liver indicating that no toxic effect from AP supplementation at a rate up to 8 g/kg, it also that AP lowered ALP and ALT in blood of chicken. In conclusion, supplementation of AP at 8g/kg in diet its beneficial effects on health and safe for broiler chicken production.

Keyword: *Andrographis paniculata*; Broiler chicken; Liver; Serum.