

The Effect of Protexin and Curcuma Longa on Growth Performance, Serum Lipid and Immune Organ Weight of Broilers at Starter Period

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Abstract : The aim of present research was to investigate the effect of different levels of protexin (PRT) and Curcuma longa (CUR) on performance, serum lipid and indices of immune system in broiler chickens at the starter stage. A total of 300, one-day-old male broiler (Ross-308) were allotted, in a 2×2+1 factorial design contain 2 levels of protexin (10 and 40 mg/kg diet) and 2 levels of Curcuma longa (200 and 400 mg/kg diet) with four replicate and 15 birds per pens. Experimental diets were: T1 control (basal diet); T2 (2g/kg CUR+0.1g PRT/kg diet), T3 (2g CUR/kg+0.2g PRT/kg diet), T4 (4g CUR/kg+0.1g PRT/kg) and T5 (4g CUR/kg+0.2g PRT/kg). Results indicated that body weight gain and feed conversion ratio had significantly improved ($P < 0.05$) in birds that fed diet inclusion any levels of additive. The highest BWG and lowest FCR observed in T5 birds group as compared to control ($P < 0.05$). Relative bursa of Fabricius and spleen weight in T5 and T3 birds groups were higher than control ($P > 0.05$). The serum of cholesterol, TG, LDL had significantly decreased ($P < 0.05$). As well, HDL was higher ($P < 0.05$) in T5 birds group compared to control. In conclusion, results of present trial indicated that blend of mention additive was better than using individual of those and improved performance traits.

Keywords : broiler, Curcuma longa, performance, protexin, serum

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