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Comparative study of the effects of probiotic and cormmercial enzyme on growth rate, haematology and serum biochemistry of broiler chicken

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Twenty broiler chickens were randomly divided into 4 groups (P1-P4) of 20 birds each to study the effects of combined and individual probiotic (*Saccharomyces cerevisiae*) and a commercial enzyme (Zyme*) on weight gain, haematology and serum biochemistry. Each group was subdivided into 5 replicates of 4 birds each. The diets were designated as P1, P2, P3 and P4. P1, the control had no probiotic and enzymes. P2 had enzymes in water at 0.02ml/lit but no probiotic. P3 also had enzymes in water at 0.02ml/lit and probiotic in the feed at 0.8g/kg; while P4 had probiotic in the feed at 0.8g/kg) and no enzymes in the water. These diets were fed *ad libitum*, and the quantity of feed and water consumed each day were recorded. The birds were weighed weekly and at the 6th week haematology and serum biochemistry were studied following standard procedures. Data obtained showed that birds in group P4 had significantly (P≤0.05) higher final mean weight 2.31±0.05kg/bird; followed by P3 at 2.43±0.05kg/bird and P2 at 2.33 ± 0.08 kg/bird while P1 (the control) had final mean weight 2.31±0.02kg/bird. There was also significantly (P≤0.05) decreased while total proteins were higher in the probiotic treated groups (P3 and P4). P3 (Probiotic + enzyme (P3) gained less weight compared P4 the birds on the probiotic only diet. Based on available data, combinations of probiotic and enzyme are not recommended for inclusion in broiler chicken diets.

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