Effects of Dietary Supplementation of Citric Acid and Mannanase on the Growth Performance of Broilers

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ABSTRACT

The study was conducted to evaluate the effects of citric acid and mannanase feed supplementation on the growth performance of broiler chickens. Three hundred twenty (320) day-old unsexed Cobb broiler chicks from a commercial hatchery plant were used in the study. The chicks were randomly assigned to four treatment groups following a completely randomized design. The following treatment groups were used: T1: Control, T2: 3% Citric Acid supplementation, T3: 80 ppm Beta-Mannanase supplementation, and T4: 3% Citric Acid and 80 ppm Beta-Mannanase supplementation.

The production parameters for growth performance that were evaluated are body weight, body weight gain, feed intake, and feed conversion ratio. The parameters were evaluated at the end of each growth stage and after the whole period of the experiment. The income over feed and chick cost (IOFCC) was also evaluated. The results showed significant improvement in the growth performance of treatment groups 2, 3, and 4, with treatment 4 having the most desirable outcome. The IOFCC also showed that the highest profit was attained in T4.

Keywords: broiler, citric acid, growth performance, mannanase