

Influence of effective microorganisms on growth performances of broilers under dry zone environmental conditions in Sri Lanka

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The study was conducted to determine the effects of Effective Microorganisms (EM) as an additive to drinking water on growth performance of broiler chicken under dry zone environmental conditions in Sri Lanka. Hundred and ninety eight, day-old chicks were randomly allocated into two treatments in a Complete Randomized Design (CRD) with three replicates of 33 birds each. One group was provided with EM in single level; 10 mL EM/L with drinking water and other group was considered as the control. Body weights of birds were measured at day 1, 10, 26 and 42 and feed intakes were measured weekly. Weight gain and feed conversion ratio (FCR) were calculated for the starter, finisher and total study period. At the age of 42 days, ten birds were randomly selected from each pen and scarified. Observed data were analysed using the T-test procedure in 'SAS'. Growth performance and FCR in starter period were significantly different ($P < 0.05$) between EM treated and control groups. The groups treated with EM showed significantly higher body weight, feed intake and FCR during starter period ($P < 0.05$). However, in the finisher period, EM did not significantly effect on growth or FCR of birds ($P > 0.05$). Total feed intake was significantly higher in EM treated birds than control group ($P < 0.05$). There were no significant differences observed in FCR, carcass yield and dressing percentage between EM treated birds and control ($P > 0.05$). Hence, results revealed that EM positively affect on the initial growth phase of broilers under dry zone conditions though there is no significant influence on their latter part of growth. Further, providing EM increases the feed intake of broilers.

Keywords: Broiler, Effective microorganisms, Growth performances