

## Effect of actigen prebiotic on growth performance of broiler chicken

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Actigen is one of the prebiotics used to enhance body weight and increase the feed intake in broiler chicken. This study investigated the effect of prebiotic actigen on broiler performance in a tropical environment. The experiment was conducted in a completely randomized design with two treatments in six replicates. The experiment was designed using T1 (feed with Actigen) and T2 (only feed) groups. The study was conducted on 120 day-old chicks over a period of 34 days. The corn and soybean meal-based base diet is formulated to meet the recommendation of the Lohman Indian River birds. The T1 group was fed with the base diet and supplemented with the actigen (0.05%) for the pre-starter, starter, and finisher phases. For the statistical analysis, the growth performance of body weight, feed intake, and feed conversion ratio was analyzed by One-way ANOVA by using a statistical analytical tool (SPSS) with a significant difference ( $P < 0.05$ ). The initial average body weight of both treatment groups was 45.83g, and the body weight showed a positively rising trend with significant differences over the study period. In the 5<sup>th</sup> week, the body weight of chicks in T1 and T2 were  $1876.70 \pm 18.61$ g and  $1613.30 \pm 39.32$ g, respectively. Feed intake of both groups significantly differed and had a gradual increase up to the 4<sup>th</sup> week and remained unchanged (T1:  $852 \pm 33$  g and T2:  $842 \pm 89.12$  g). The feed conversion ratio of the actigen-supplemented group in the 5<sup>th</sup> week was  $1.55 \pm 0.04$  and it was significantly different from that of T2 ( $1.74 \pm 0.07$ ). This study showed that the supplementation of prebiotics Actigen increases broiler growth performance.

**Keywords:** Actigen, Broiler, Feed conversion ratio, Prebiotics

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