World Academy of Science, Engineering and Technology
International Journal of Animal and Veterinary Sciences
Vol:9, No:12, 2015

Essential Oil Blend Containing Capsaicin, Carvacrol, and Cinnamaldehyde in Broiler Production Performance and Intestinal Morphometrics

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Abstract : The aim of this study is to evaluate the effect of supplementing broiler starter diet with different levels of an essential oil blend (EOB) containing capsaicin, carvacrol and cinnamaldehyde on the performance of broilers. A total of 300 day-old straight-run Cobb broiler chicks were randomly assigned to three treatments after 7-day group brooding following a completely randomized design (CRD). Birds assigned in treatment 1 were given starter basal diet while those in treatments 2 and 3 were given starter basal diet with 400 mg/kg antibiotic growth promoter (AGP) and 150 mg/kg EOB, respectively, until the 28th day. Basal finisher feed were given for all the treatments until harvest. Following 37 d feeding, body weight gain, feed consumption, feed efficiency, dressing percentage, livability and jejunal villi height were determined. Results showed no significant differences (P>0.05) in growth performance. However, villi height and crypt depth was significantly lower for birds fed EOB.

Keywords : broiler, capsaicin, carvacrol, cinnamaldehyde, essential oil
Conference Title : ICASVM 2015 : International Conference on Animal Science and Veterinary Medicine
Conference Location : Bangkok, Thailand
Conference Dates : December 17-18, 2015

Open Science Index, Animal and Veterinary Sciences Vol:9, No:12, 2015 publications.waset.org/abstracts/32336.pdf