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Effect of Mfeed Growth Promoter on Growth Performance and Histopathology in Broilers

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Abstract

MFeed is a natural alternative to growth promoters having combination of amadeite^{TM} with other active ingredients (montmarillonite, diamaceous earth and yeast extracts, seaweed extracts and essential oils). A research trial was conducted at Raja Muhammad Akram Animal Nutrition Research Center, Institute of Animal and Dairy Sciences, University of Agriculture Faisalabad Pakistan to evaluate the effects of MFeed growth promoter on growth performance and histopathology in broiler chickens. One hundred and twenty day-old broiler chicks were randomly distributed to 4 treatment groups with 3 replicates per treatment (10 chicks per replicate) under completely randomised design. Iso-nitrogenous and iso-caloric diets were formulated as per nutrient requirements i.e., starter and finisher. These diets and water were offered ad libitum to the birds. MFeed growth promoter was supplemented at the rate of 0.0 (control), 1.5, 3, 4.5 g kg^{-1} of feed in treatment diets. Feed intake and body weight gain were recorded to check the feed efficiency on weekly basis. At the end of trial, two broilers from each replicate were randomly selected and slaughtered to determine carcass traits. Intestinal samples were taken from the respective replicates and stored at appropriate temperature for further analysis. Significant differences were observed for feed intake, weight gain and feed to gain ratio. Carcass characteristics and relative organs weight showed non-significant results for the treatments groups. However, data obtained on live body weight, abdominal fat pad and shank weight were significant among all dietary treatments. Histomorphological study of small intestine indicated the variable length and surface area with respective to supplementation of growth promoter. It is therefore concluded that supplementation of Mfeed growth promoter up to 4.5 g kg^{-1} of feed improved the performance and intestinal histopathology of broiler chickens.

Keywords: Broilers, carcass traits, growth promoter, histomorphology, performance

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