

Dietary Tryptophan Effects on Growth Performance and Blood Parameters in Broiler Chicks

ABSTRACT

In order to study the effect of Tryptophan (Trp) on growth performance and blood parameters of broiler chickens, an in vivo experiment was conducted. A corn-soybean meal based diet containing different levels of Trp (0, 0.10 and 0.20) for the starter, (0, 0.07 and 0.15) for the grower and (0, 0.05 and 0.13) for the finisher was used. In a completely randomized design with three treatments of five replicates each and 10 chickens per replicate, 150 Cobb500 male broiler chickens from 0-49 days of age were subjected to Trp diet. Growth performance (body weight gain, feed intake and feed, gain ratio) and blood serum (albumin, total protein, glucose, cholesterol, triglyceride, urea, uric acid, aspartate amino-transferase, alanine amino-transferase, alkaline phosphatase, lactic dehydrogenase and creatine. e kinase) parameters were measured at 27 and 49 days of age. As the result showed the increase of dietary Trp elevated ($p < 0.05$) body weight gain, feed intake, albumin, total protein, glucose, urea and uric acid and decreased ($p > 0.05$) feed gain ratio, aspartate amino-transferase, lactic dehydrogenase, triglyceride and cholesterol. Therefore, we conclude that dietary Trp might have positive effects on health status of the broiler chickens.

Keyword: Tryptophan, growth performance, blood parameter, broiler chicken, body weight, feed intake