Abstract:

Background and Objective: The addition of different dietary sources of fat and/or oil have become an inherent practice in poultry production to improve fatty acid content of poultry meat, therefore evaluation of the effects of different dietary fat sources with two antioxidants on growth performance and carcass traits of Japanese quails was the major concern in this study. Methodology: A total of 189 one day old unsexed Japanese quail chicks were randomly distributed into 7 treatment groups each with 3 replicates of 9 chicks/replicate (n = 27). The dietary treatments consisted of the basal or control diet without supplementation and the basal diet supplemented with 3% of fish oil, sunflower oil and animal fat accompanied with either vitamin E and selenium mixture (5 g kg⁻¹ diet) in T1, T2 and T3 or with L-carnitine (50 mg kg⁻¹ diet) in T4, T5 and T6, respectively. Growth performance was evaluated weekly in terms of body weight, body weight gain, feed intake and feed conversion ratio for 42 day of age. At the end of the experiment, 4 birds from each group were randomly selected and sacrificed for determination of carcass traits, the relative weight of internal organs and meat and chemical composition. Results: Supplementation of fish oil followed by sunflower oil to quails diet significantly (p

Keywords:

Fat sources, antioxidants, performance, carcass traits, Japanese quails.

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