عنوان مقاله:

Effects of Lipotropic Products on Productive Performance, Liver Lipid and Enzymes Activity in Broiler Chickens

محل انتشار:

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خلاصه مقاله:

In a 42-d experiment, 576 one-day-old Vencobb 308 broiler chicks were used to investigate the effects of lecithin extract (0.5 g/kg), choline chloride 60% (1 g/kg) and Bio choline (1 g/kg) in diets of moderate and high energy in a 4 × 2 factorial arrangement on performance and certain physiological traits in broiler chickens. The inclusion of Bio choline and lecithin extract in the diet significantly increased average daily gain and improved feed conversion ratio in overall (1 to 42 d) period ($P < 0.05$). Performance efficiency index was improved in the birds fed with Bio choline compared to those fed control diet. Broilers fed diets containing Bio choline and lecithin extract had less abdominal fat percentage than those fed choline chloride or control diet. Regardless of dietary energy level, supplementation of diet with Bio choline, choline chloride and lecithin extract significantly decreased liver lipid concentration ($P < 0.05$). Aspartate aminotransferase activity increased in the serum of broilers fed high energy diets while it was decreased in the birds received diets containing choline chloride. Lipotropic compounds decreased serum aspartate aminotransferase activity in the birds fed on high energy diets. The addition of Bio choline and lecithin extract to diet significantly decreased serum γ–glutamyltransferase activity ($P < 0.05$). Results of the present study revealed that dietary supplementation of commercial lipotropic compounds could remove potential detrimental effects from high energy diets through reducing liver fat and maintaining liver health.

کلمات کلیدی:

Broiler, Choline, Liver lipids, enzyme activity, Lipotropic compounds