Effect of Lactobacillus cultures and oxytetracycline on the growth performance and serum lipids of chickens

Abstract

A feeding experiment was carried out for 42 days to evaluate the effects of a mixture of 12 Lactobacillus cultures (LC) or oxytetracycline (OTC) on growth performance and serum lipids of broiler chicks (Hubbard). Two hundred and seventy 1-day-old chicks were assigned randomly to three dietary treatments. The treatments were (I) a basal diet (control) (ii) basal diet+1 g kg-1 LC and (iii) basal diet+50 mg kg-1 OTC. Each dietary treatment had six replicate cages with 15 chicks per cage. Body weights and feed to gain ratios of broilers were determined at 21 and 42 days of age while serum lipids were determined at 42 days of age. From 1 to 42 days of age, broilers fed LC or OTC had significantly (p < 0.05) better growth than the control broilers. The feed conversion ratios were improved significantly (p < 0.05) during the growing (1 to 21 days of age) and finishing (22 to 42 days of age) periods in broilers fed LC or OTC, but the best feed to gain ratio was obtained in the LC-fed broilers. Serum total cholesterol was significantly (p<0.05) reduced in broilers supplemented with LC as compared to broilers receiving OTC or control diet. Low density lipoprotein cholesterol and triglycerides were significantly (p<0.05) lower in broilers fed LC but significantly (p<0.05) higher in broilers fed OTC when compared to the control broilers. The results indicated that LC had a hypocholesterolaemic effect on broilers in contrast to OTC. © Asian Network for Scientific Information, 2008.