The effects of citrus peel oil supplementations on some blood parameters in broilers

Ş Canan Bölükbaşı¹ and M Kuddusi Erhan²
¹Atatürk University, Turkey
²Ağrı İbrahim Çeçen University, Turkey

The present study was conducted to determine dietary supplemental citrus peel oils (orange, lemon, bergamot) in different levels (1, 2 and 3 ml/kg) on some blood parameters in broilers. The trial consisted of 1-day-old male and female (250 male and 250 female) Ross 308 chicks. The study consisted of 10 groups in total and each group had 5 subgroups. Experimental diets were prepared by adding orange, lemon and bergamot peel oil levels (1, 2 and 3 ml/kg) to basal diet. It was observed that supplementation of citrus peel oils to their diets significantly changed HDL-Cholesterol. Especially, the highest HDL-Cholesterol value was obtained from broilers fed with 1 ml/kg orange peel oil. However, LDL-Cholesterol value was not affected by supplementing citrus peel oils. It was found that the lowest total cholesterol level was in the groups which had 2 ml/kg of orange peel oil in the ration and the highest cholesterol level was in the groups which had 1 ml/kg of orange peel oil in the ration. Citrus peel oils except for levels of 1 ml significantly increased glucose values. The lowest glucose value was obtained from broilers fed with 1 ml/kg lemon peel oil. Highest TG concentration was in the groups added 1 ml/kg of lemon peel oil but the lowest was in the groups added 3 ml/kg of orange peel oil to the ration. In this study, it was observed that with 2 ml/kg lemon and 3 ml/kg orange additions triglycerides values decreased significantly, but 1 ml/kg lemon peel addition increased the value of triglyceride. As a result, because HDL cholesterol increased and decreased TG value and LDL cholesterol (numerically), 2 ml/kg lemon peel oil and 3 ml/kg orange peel oil addition to the ration may be suggested.

Biography

Ş Canan Bölükbaşı has completed his PhD from Ataturk University in Turkey. He has been working as an Associate Professor in Agricultural Faculty, the Department of Animal Sciences at Ataturk University.

canan@atauni.edu.tr

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