

Apiterapi ve Doğa Dergisi Journal of Apitherapy and Nature www.dergipark.gov.tr/jan



The Effects of Propolis on Growth Performance of Broiler Chickens

Ivana KLARIC^{1*}, Matija DOMACINOVIC¹, Berislav PRAKATUR², Ivan MISKULIN³, Bozica LACHNER², Dalida GALOVIC¹, Danijela SAMAC¹

¹ Faculty of Agriculture in Osijek, Josip Juraj Strossmayer University of Osijek, Osijek, Croatia
² The Valpovka Fodder Factory, Valpovo, Croatia
³ Faculty of Medicine Osijek, Josip Juraj Strossmayer University of Osijek, Osijek, Croatia
*ivana.klaric@pfos.hr

Received/Geliş Tarihi: 08/10/2018, Accepted/ Kabul Tarihi: 19/10/2018 *Corresponding author /Yazışılan yazar

Abstract

Propolis is a resinous and balsamic substance that is collected from buds, leaves and similar parts of trees and plants by honeybees (Apis mellifera) and mixed with wax¹. The two main targets in modern poultry production are high growth rate and feed efficiency². The aim of this study was to determine the effect of diet supplementation with propolis on the growth performance of broiler chickens. This experimental study was conducted on 120 Ross 308 broiler chickens of equally distributed sex, which were randomly divided into three groups: control group (C) and two experimental groups of chickens (P1 and P2). Throughout the whole study (for 42 days) the control group of chickens was fed feed mixture while feed mixture that was fed to the experimental groups of chickens contained propolis in amount of 0,5 g/kg (P1 group) and 1,0 g/kg of feed mixture (P2 group). The average values of body weight of chickens were significantly higher on 14^{th} (p=0.008), 21^{st} (p<0.001), 28^{th} (p=0.001) and 35^{th} (p=0.019) day of fattening in the experimental groups of chickens compared to the control group. The average values of weight gain of chickens were significantly higher on 1st (p=0.017), 3rd (p=0.003) and 4th (p=0.044) week of fattening in the experimental groups of chickens compared to the control group. This study has shown that propolis has significant positive effect on performance parameters in broiler chickens. The administration level of investigated supplement should be further evaluated in order to maximize its efficacy in commercial chicken production.

References:

1. Chegini S, Kiani A, Rokni H (2018) Alleviation of thermal and overcrowding stress in finishing broilers by dietary propolis supplementation. Italian Journal of Animal Science 17: 377-385.² Sugiharto S (2016) Role of nutraceuticals in gut health and growth performance of poultry. Journal of the Saudi Society of Agricultural Sciences 15: 99-111.