

Effect of parsley (*Petroselinum crispum*) on performance, blood biochemistry, and immune response of broiler chickens

Abstract:

This study was conducted to study the effect of adding different levels of parsley to diets on performance, blood biochemical and immune response of broiler chickens. In this experiment, 160 one-day old broiler chicks were divided in a completely randomized design with 4 treatments and 4 replicates and 10 birds per replicate. Parsley levels used in this research consists of 0, 1, 2, and 3% in the diet of birds. The results showed that there was no significant differences among treatments in terms of growth, feed intake and feed conversion ratio ($P>0.05$). Result of immune system efficiency showed that challenge with SRBC had no significant effect ($P<0.05$), but challenge with DNCB and NDV caused significant differences ($P<0.05$). Using parsley in diet did not significantly affect hematological parameters ($P>0.05$), except for cholesterol and LDL. The lowest chloroforms bacteria were found in chicken fed diet containing 1% parsley ($P<0.05$). Effect of parsley was significant on relative heart and liver weights and the lowest amount was observed in control group ($P<0.05$). Parsley levels in diet had increasing trend on weight of Bursa of Fabricius. According to the results of this experiment, adding parsley to the level of 3% has no positive effect on production characteristics of chickens, but shows lower LDL and cholesterol when compare with control group ($P<0.05$).

Keywords: Broiler, *Petroselinum crispum*, Performance, Immune, Blood biochemistry, Microbial population



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