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Effects of Different Levels of Medicinal Plant Powder Dill (*Anethum graveolens* L.) in Broiler Diets

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Abstract

An experiment was conducted to investigate the effects of different levels of medicinal plant powder Dill (*Anethum graveolens* L.) on growth performance, carcass characteristics and immune response of broiler chickens. This experiment was carried out based on a completely randomized design with 600 day-old Ross-308 broiler chicks with 5 treatments and 6 replicates (20 birds per replicate). Treatments include: basal diet (negative control), basal diet + Lincomycin at 5 mg/kg (positive control) and basal diets containing 1, 2 and 3% dill plant powder. The diet experiments were iso-caloric and iso-nitrogenous and chickens were fed a diet of early stage (1-21 days) and grower diet (22-42 days). The results indicated that, feed intake and feed conversion ratio in the starter, grower and total experimental periods were not affected by treatments ($P>0.05$). But body weight gain in treatments containing 1% and 2% of Dill powder at the total experimental period was increased compared with control ($P<0.05$). The relative weights of breast, thigh, liver and pancreas were not affected by treatments ($p>0.05$). In addition, mortality of chicks and blood serum antibody level showed no differences ($p>0.05$) between treatments. These results suggest that inclusion of 1 and 2 percent of Dill powder in broiler diets can improve average daily gain and increase the economical efficiency of the rearing period.

Key words: Broilers, Dill powder, performance and immune response.