

Effect of using feed additives on performance, carcass traits, immune organs and tibia characteristics of broiler chickens reared in high stocking density

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Abstract

The aim of present study was to evaluate the effect of feed additives on performance, carcass traits, immune organs and tibia characteristics of broiler chickens reared in high stocking density. Two hundred and eighty, one-d old broiler chicks (Ross 308) of both sex were used in a completely randomized design with five treatments and four replicates for 42 days. Dietary treatments included; 1- positive control (PC) (10 chicks/m²), 2- negative control (NC) (15 chicks/m²), 3-NC + 500 ppm Purslane extract (PE), 4- NC + 200 ppm probiotic (P) and 5- NC + 500 ppm PE +200ppm P. The results of this experiment showed that feed intake was not affected by stocking density (between PC and NC), however, chicks in NC+PE, NC+P and NC+PE+P groups consumed significantly less than PC in growing and total period ($P < 0.05$). Body weight gain did not differ among treatments. In grower and overall periods, birds in NC+PE, NC+P and NC+PE+P groups had lower feed conversion ratio rather than PC ($P < 0.05$). Distal epiphysis diameter of birds in NC+PE+P treatment was significantly higher than NC and PC ($P < 0.05$). In conclusion, rearing broiler in high stocking density (15 chicks/m², until 2kg for final body weight) had not adverse effect on performance and use of purslane extract and probiotic can improved feed conversion ratio by reducing feed intake in grower and overall periods.

Key words: Stoking density, Broiler, Purslane extract, Probiotics

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