

The effect of different physical form feeds and stocking density on performance characteristics of carcass and immunity of broiler chickens

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ABSTRACT:

The effect of different physical form feeds (pellet and mash) and stocking density on the growth performance characteristics of carcass and immunity of Ross-308 broiler chicks were studied. A total of 1800 one day-old ross-308 mixed-sex broilers were used in a completely randomized design with six treatments and four replicates of 75 birds each. They were arranged in a 2x3 factorial design: two feed forms (mash and pellet) and three stocking density (10, 14 and 18 bird/m²). Live body Weight (LW), Weight Gain (WG), Feed Intake (FI) and Feed Conversion Ratio (FCR) were measured periodically (0-10, 11-24 and 25-42 days). Carcass components and litter quality were recorded at the end of the trial (day 45). Also antibody titer against SRBC, and heterophil to lymphocyte ratio were measured in 45 day of age. The highest body weight in grower period was observed in the pellet diet form (p<0.05). Also the highest Body Weight (BW) and Body Weight Gain (BWG) in the starter period was observed in the lowest stocking density treatment (10 bird/m²) (p<0.05). Physical form of diet had no significant effect on feed intake, BW and FCR throughout the periods. However the broiler feed intake was significantly influenced by stocking density and a decrease in the high stocking density group (18 bird/m²). Different types of feed and stocking density had no significant effect on carcass characteristics, antibody titer and H:L ratio. Use of pellet form diet and high stocking density treatment (18 bird/m²) significantly increased broiler litter moisture (P<0.05).

Keywords:

Broiler, Density, Mash, Pellet, Performance, Stocking.