

EFFECT OF INSOLUBLE FIBRE ON GROWTH PERFORMANCE AND MEAT QUALITY ON BROILER CHICKENS

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Insoluble fibre (IF) content in the broiler diet is one of the critical factors that affect boiler performance and litter quality. Therefore, the present study was conducted to determine the effects of IF on growth performances and meat quality parameters of broiler chicken and litter quality. The experimental diets were prepared by incorporating IF at different levels with commercial broiler ration. Ninety, Hubbard Flex day-old broiler chicks were randomly assigned into three treatments; T₁ (basal feed + 8 kg IF /1000 kg diet), T₂ (basal feed + 12 kg IF /1000 kg diet), T₃ (basal feed) in Completely Randomized Design with three replicates of ten birds per each replicate. Body weight and feed intake were recorded at weekly intervals and body weight gain, and feed conversion ratio (FCR) were calculated. On day 34, birds were slaughtered, and meat quality parameters were measured. Litter moisture was measured weekly. Meat quality parameters (meat colour, meat pH, and water holding capacity) were not significantly different among the treatments. Birds fed with T₂ had a higher ($p < 0.05$) final body weight gain (2071.67 ± 31.21 g) compared to T₃ (1936.67 ± 31.21 g) and T₁ (1955 ± 31.21). However, there were no significant differences ($p > 0.05$) in feed intake and FCR among the treatments. The litter moisture content in T₁ (31.22 ± 0.93) and T₂ (30.96 ± 0.93) were significantly lower ($p < 0.05$) than T₃ (40.34 ± 0.93). In conclusion, Treatment 2, which included basal feed + 12 kg IF/1000 kg diet, can be selected as the best level based on growth performances and the effect on litter moisture.

Keywords: Body weight gain, Commercial broiler ration, Litter moisture content