

Performance and Economic Benefit of Broilers Fed Palm Kernel Cake-Based Diet Supplemented with Probiotic

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Abstract :

This study investigated the weight gain performance and economic benefit of probiotic (*Saccharomyces cerevisiae*) supplementation in PKC based broiler diet. The ideal level of inclusion for optimum broiler productivity was also determined. A total of 140 broiler chicks were randomly distributed into seven groups of 20 birds each. Each group was subdivided into four replicates of five birds each. Groups 1-5 were placed on experimental diet made of 70% basal diet and 30% PKC. Groups 1-4 had probiotic (yeast) supplement at levels of 0.4 gm yeast/kg, 0.8 gm yeast/kg, 1.2 gm yeast/kg and 1.6 gm yeast/kg of feed respectively. Group 5 had no yeast (control 1). Group 6 had no PKC but had yeast (1.2 gm yeast/kg diet). Group 7 had no PKC and no yeast (control 2). All the groups were fed ad libitum. Daily feed intake and weekly weight gain were determined. The duration of the study was 10 weeks. There was no significant difference in feed intake. All the supplemented groups (groups 1-4 and 6) had higher weight gain and higher feed efficiency than the controls (groups 5 and 7). Group 2 had mean weight gain of 2.695 ± 0.086 kg/bird which was significantly heavier ($p < 0.05$) than the rest. Group 2 performed significantly better than others in weight gain and efficiency of feed utilization. The cost of feed to produce 1 kg live weight gain was cheapest in group 2 (N87.62/kg) and most costly in group 7 (N138.83/kg). Probiotic inclusion level of 0.8 gm yeast/kg diet was therefore recommended for optimum broiler production and maximum economic gain.

Key Word :

Broiler, probiotic, weight gain, economic benefit

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