

A comparison between a yeast cell wall extract (Bio-Mos®) and palm kernel expeller as mannan-oligosaccharides sources on the performance and ileal microbial population of broiler chickens

ABSTRACT

The present study was conducted to determine the effect of a yeast cell wall extract (Bio-Mos) and palm kernel expeller (PKE) on the performance, nutrient digestibility, and ileal bacteria population of broiler chickens. A total of 60 1-d-old male broiler chicks (Cobb 500) were fed one of the 3 isonitrogenous and isocaloric diet including a control diet, or a control diet supplemented with 2 g/kg Bio-Mos (1-42 d), and for the third group, the control diet at 1-28 d following a diet containing 200 g/kg of an enzymatically-treated PKE at 29-42 d. The weight gains of birds fed the PKE containing diet (96.17 g/d) were less than other groups (109.10 and 104.42 g/d for the Bio-Mos and control diet, respectively) ($P < 0.05$), but the birds fed PKE or Bio-Mos containing diets had a lower population of *Escherichia coli* than the control group ($P < 0.05$). The results showed that PKE potentially has a prebiotic property for chicken; however, a 200 g/kg dietary inclusion rate of PKE is not commercially recommendable because of its negative effects on the nutrients digestibility.

Keyword: Bio-Mos; Broilers; Ileum bacteria; Palm kernel expeller; Performance