Effects of dietary acidifier administration in conjunction or not with an antimicrobial growth promoter on broiler performance and nutrient digestibility

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The aim of this work was to assess the effect of dietary acidifier (Biotronic Top3, Biomin GmbH) administration on broiler performance and nutrient digestibility. An experiment with 544 one-d-old male Cobb broilers randomly arranged in 4 treatments each having 8 replicates for 6 wks was designed. Based on the type of addition(s) in maize-soybean meal basal diets experimental treatments were: C: control (no additions); B: acidifier (1g/kg); A: avilamycin (2.5 mg/kg) and BA: combination of B+A.

Broiler performance parameters, nutrient total tract apparent digestibility (TTAD) and AMEn were analyzed by ANOVA and significant effects (P≤0.05) were further compared using Duncan’s multiple range test.

Significant improvements in the overall Body Weight Gain (P=0.003), FCR (P=0.002), the European Production Efficiency Factor index (P=0.002), AMEn (P=0.039) and TTAD of Dry Matter (P=0.024), and Organic Matter (P=0.019) were shown in treatments BA, A and B compared to C. In conclusion, dietary acidifier administration in combination or not with avilamycin significantly improved broiler performance, AMEn and nutrient digestibility.