Abstract

An experiment was conducted in order to evaluate the addition of phytase (750 units FYT) from Peniophora lycii to sorghum-soy-bean meal diets deficient in inorganic phosphorus (Pi) for starting broilers and its effect on performance, apparent metabolizable energy (AME) and apparent ileal digestibility of protein (PC) and amino acids (AA). One hundred and sixty broilers (80 males and 80 females), mixed Ross breed, from 1 to 19 days old were employed. The experiment had 4 treatments with 4 replicates each. The normal levels of Ca and Pi in the diet were 1.0% and 0.50%, respectively; for the deficient diet they were 0.9% Ca and 0.40% Pi. The addition of phytase in the diet was 0.0 and 750 FYT/kg. The results, on weight gain from 1 to 19 days, were lower (P < 0.01) with Pi deficiency and improved with the addition of phytase. A beneficial effect was also found in feed conversion (P < 0.05) and AME (P < 0.051) with the addition of phytase. The ileal apparent digestibility coefficient of PC, essential and non essential AA, ash content as well as calcium in the tibia, were not different (P > 0.05) among factors. Data obtained showed that the addition of 750 FYT/kg of phytase on starting broiler diets allows a reduction of Pi content (0.1%), while improving weight gain, feed conversion and AME.

Keywords

PHYTASE, ILEAL APPARENT DIGESTIBILITY, PROTEIN, AMINO ACIDS, ENERGY, BROILERS, PERFORMANCE