Effets comparatifs de deux types de phytases sur les performances et la digestibilité des minéraux chez le porcelet sevré ingérant un régime à teneur réduite en nutriments et en énergie

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Comparative effects of two types of phytase added to a diet with reduced nutrient and energy content on the performance and digestibility of minerals in the weaned piglet.

Sixty-two weaned piglets (7.01 ± 0.54 kg) were divided into 4 equal groups and fed for 42 days either a standard diet (Std) or a matrix diet (Mat) with reduced content of nutrients including P and energy or Mat supplemented either with Ronozyme® NP (CT) at a concentration of 1500 U/kg (Ron) or with Phyzyme® XP4000TPT at a concentration of 500 U/kg (Phz). Compared to Std, the daily weight gain and feed conversion ratio of the piglets from other groups were unchanged. The concentration of faecal P was significantly reduced with diets containing phytase. The digestibility of P was significantly increased by Ron and Phz and significantly reduced with Mat. Faecal excretion of P was significantly reduced in the Mat and phytase diets while P apparent absorption was significantly lower with Mat, Ron and Phz compared to Std. The faecal concentration and faecal excretion of Ca were significantly reduced in piglets that ingested Mat and the phytases while the digestibility of Ca was significantly increased. The absorption of Ca was significantly reduced with Mat and Ron, and similar to Std with Phz. The reduction of nutrients and energy in Mat was not important enough to alter the performance of the piglets but did affect digestibility, absorption and excretion of P and Ca. Both phytases have presented a compensatory effect on the excretion, absorption and digestibility of P and Ca compared to Mat.