

Effets de l'acide benzoïque et du rapport Ca:P dans l'aliment sur les performances zootechniques et la solidité osseuse du porcelet sevré

Andreas GUTZWILLER, Patrick SCHLEGEL, Dominik GUGGISBERG, Peter STOLL

Agroscope Liebefeld-Posieux, CH-1725 Posieux, Suisse

andreas.gutzwiller@alp.admin.ch

Avec la collaboration technique de Guy MAÏKOFF et de Stéphane DAUL

Effects of benzoic acid and of the dietary Ca:P ratio on growth performance and bone breaking strength of weaned piglets

The effects of benzoic acid (BA) and of two diets containing either 7.7 g Ca and 4.0 g P (Ca:P 1.9:1) or 5.6 g Ca and 4.0 g P (Ca:P 1.4:1) per kg on growth performance and bone strength of 68 weaned Large White piglets were studied in a two-factorial experiment lasting five weeks. The intake of 5 g BA per kg diet increased feed intake ($P = 0.01$) and growth rate ($P = 0.05$) but did not influence feed conversion. Although BA tended ($P = 0.06$) to decrease urinary pH (a sign of a slight metabolic acidosis), it did not affect bone breaking strength. The high Ca:P ratio negatively affected feed intake ($P = 0.03$), growth rate ($P = 0.007$), final body weight ($P = 0.002$) and feed conversion ($P = 0.03$). The bone breaking strength of the piglets fed the diets with the high Ca:P ratio tended ($P = 0.06$) to be increased when expressed per kg carcass weight. This seemingly positive effect of the high Ca:P ratio on bone strength may be at least partly attributed to the impaired feed conversion and consequently the higher P intake per kg body weight gain.