

Effect of fermented fruits on the growth performance, shedding of Enterobacteriaceae and Lactobacilli in post-weaning pigs

ABSTRACT

The aim of this study was to investigate the effect of fermented fruits (FF) on the growth performance, Enterobacteriaceae and Lactobacillus counts in faeces of the post-weaning piglets. A total of twenty-four 4 weeks old Landrace x Large White x Duroc with initial body weight of 6 kg were used in this study. The piglets were housed individually in metabolic cage and randomly assigned to four groups with six piglets per group. The piglets were fed on basal diet without antibiotic (AF), basal diets with antibiotic (Ab), basal diet with 10% (w/w) fermented fruit (10% FF) and basal diet with 20% (w/w) fermented fruit (20% FF). Faecal samples were taken directly from the rectum of each piglet and cultured for Enterobacteriaceae and Lactobacillus counts. In the growth performance, the piglets of Ab and 10%FF had significantly higher ($p < 0.05$) average daily gain than those of 20%FF. However, no differences ($p > 0.05$) were observed between AF, Ab and 10%FF. Studies showed that the use of fermented fruits (FF) could significantly ($p < 0.05$) reduce Enterobacteriaceae population in piglets' faeces compared to the use of normal feed (AF) and antibiotic (Ab). However, the Lactobacillus population in the faeces was increased in those piglets fed with diets added with FF.

Keyword: Enterobacteriaceae; Fermented fruits; Lactobacillus; Piglets