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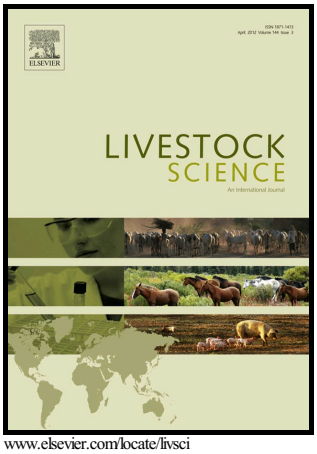

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Effect of swine based probiotic on performance, diarrhoea scores, intestinal microbiota and gut health of grower-finisher crossbred pigs

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ABSTRACT

The present study was carried out to evaluate the efficacy of host specific probiotic on growth performance, diarrhoea scores, intestinal microbiota and gut health of grower-finisher pigs. A feeding trial (180 days) was carried out with 36 early weaned piglets (28 days) divided into three dietary groups (4 replicates of 3 each) *viz*., T0 (basal diet alone, control), T1 (basal diet + probiotic of dairy origin, *Lactobacillus acidophilus* NCDC-15) and T2 (basal diet + probiotic of swine origin, *Pediococcus acidilactici* strain FT28). The probiotics were fed as fermented feed @ 200 g/pig/day. At the end of the trial, six pigs from each group were sacrificed to determine the intestinal morphology. Daily feeding of probiotics from weaning to market age showed positive ($P<0.05$) impact on average daily gain (ADG), average dry matter intake (ADMI) and gain: feed ratio (G: F). The fecal count of lactic acid bacteria (LAB) and bifidobacteria were increased ($P<0.001$), whereas, *E. coli* and clostridia population decreased ($P<0.001$) in both probiotics fed groups compared to control. The lactic acid concentration in feces was highest ($P=0.003$) in T2 group; whereas, ammonia nitrogen