Biacton™ is Effective in Improving Growth Performance of Weanling Pigs

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Background

Colonization of pathogenic microflora in the gastrointestinal tract of weanling pigs can result in gut mucosal hyperplasia, reduced feed intake, diarrhea, retarded growth, and increased mortality. To prevent these adverse effects, dietary supplementation of sub-therapeutic doses of anti-microbial agents is commonly used in nursery piglet diets. In recent years, there have been increasing public concerns over the use of antibiotics as feed additives and the risk of developing resistant pathogen strains and antibiotic residues in animal products. Thus, there is a need for the development of alternative growth promoters for weanling pigs.

Objectives: Biacton™ is a probiotic product containing live microbial culture of the beneficent bacterium *Lactobacillus farciminis MA67/4R* - L. *farciminis* has been approved as a non-antimicrobial growth-promoting feed supplement for swine diets. This study was conducted to examine the efficacy of dietary supplementation of 0.2% Biacton™ and a sub-therapeutical level of antibiotics (0.1% Lincomix 44™) for improving growth performance in weanling pigs.

Methods and Procedures: A total of 180 purebred Yorkshire pigs, with an average body weight of 5.6 kg weaned at 16 days of age, were used. The pigs were managed according to standard industry practices. Three diets were formulated including the control group - with no dietary antibiotics or Biacton™; the Biacton™ group containing 0.2% Biacton™; and the antibiotic group containing 0.1% Lincomix 44™.

Results:

- The mortality was highest for pigs fed the control diet (11 pigs, 18%), followed by pigs fed antibiotics (9 pigs, 15%) and pigs fed Biacton™ (6 pigs, 10%). The dietary treatments had no effects ($P > 0.15$) on the occurrence or severity of diarrhea.
- Average daily gain of weaning pigs fed Biacton™ from 6 to 10 kg body weight was improved ($P = 0.03$) by 28% (control, 122.6 vs. Biacton™ group 157.5 g gain/d, n = 10). Feed consumption of pigs fed Biacton™ was improved ($P < 0.01$) by 15% (control, 222.6 vs. Biacton™ group 256.6 g feed/d, n = 10). However, there were no differences ($P > 0.15$) in weight gain and feed consumption between the Biacton™ and the antibiotic groups.
- Growth rates of post-weaned pigs fed Biacton™ from 10 to 20 kg body weight were improved ($P < 0.05$) compared with pigs fed the control diet.

Take Home Messages

- Biacton™ is an effective growth promoter for improving growth performance in weaning (5-10 kg) and post-weaned (10 - 20 kg) nursery pigs.

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