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## Effect of a Phytogetic on Diarrhea and Growth Performance in Weaning Piglets

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Antimicrobial growth promoters (AGP) are widely used as feed additives in the swine industry to decrease porcine diarrhea and enhance growth performance. However, use of AGP is known to induce antibiotic resistance in pathogens and bacteria, which not only renders the treatment ineffective, but also raises public health-related issues. The use of AGP in animals has been banned in the European Union since 2006. Breeders are mandated to comply with the drug withdrawal period and must not use AGP. Phytogetic (PG) feed additives are a possible option to replace AGP. Development of PGs is attractive as they could not only be used during the drug withdrawal period, but are also expected to be natural growth promoters (NGP). In this study, we investigated the use of a PG, which is an edible Asteraceae plant found worldwide that has traditionally been used as a food and also an herbal folk medicine in humans and animals without observable side effects. Weaning piglets were fed a chow diet containing an antibiotic or the PG as feed additives for 28 days. Body weight, food intake, occurrence of diarrhea, body shape score, feces score, gut pathology and gut microbiota were analyzed. Animals treated with an antibiotic, PG or both all showed reduction in diarrhea. However, 80% of piglets in the PG-treated group showed protection, whereas only 60% of the animals in the antibiotic-treated group were protected. In addition, animals treated with PG had a better growth rate and body shape score than the control and antibiotic groups and the fecal IgA and pathogens that cause diarrhea also decreased. In conclusion, PG may reduce diarrhea and enhance growth performance in weaning piglets, which suggests that PG can potentially be used as a feed additive to replace AGP in the swine industry.

### Biography

Dr. Wen-Yuh Lin, was born in 1977, Taiwan. She completed Ph.D. in Animal Science and Master of Animal Science from National Chung Hsing University, Taiwan. She is a Post-doctoral Research Associate at Agricultural Biotechnology Research Center in Academic Sinica, Associate Researcher of R&D in Lactozyme Biotechnology Co., Ltd, Product Manager in DR. Chip Biotechnology Incorporation, Taiwan and an Associate Researcher in Taiwan Agricultural Research Institute and Council of Agriculture, Executive Yuan.

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