



ABSTRACT EXAMPLE

Effect of iron-binding polypeptides and non-starch polysaccharides supplementation on growth performance and fecal scores of weaning pigs

Efecto de la suplementación con polipéptidos ligantes de hierro y polisacáridos no amiláceos sobre el crecimiento y diarrea en cerdos al destete

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Background: Weaning is the most stressful event in pig's life, resulting in postweaning diarrhea and growth retardation. The supplementation of Advanced Digestion Enhancing Protein Plus Technology (ADEPPTTM), which contains iron-binding polypeptides and non-starch polysaccharides, to nursery diets may reduce the occurrence of diarrhea and enhance growth performance of weaning pigs. Objective: To evaluate the effect of ADEPPTTM supplementation on growth performance and fecal score in weaning pigs. **Methods:** At weaning, a total of 54 weaning pigs (initial body weight: 7.42 ± 0.52 kg) were assigned to 3 treatments in 3 replicates with 6 pigs per pen based on sex, breed, and body weight for a 28-d feeding trial. The pigs were fed cornsoybean meal-based diets containing 0.0, 0.5, and 1.0% of the ADEPPTTM product in 2 phases (d 0-14 and d 15-28 postweaning, respectively). In the first week (d 3-5 postweaning) of the trial, a pig was removed from each pen when diarrhea was observed, housed in a separate pen within treatment, and then treated for 3 days with a 100-ml solution of electrolytes and ADEPPTTM by drenching. Growth performance and fecal score (1=normal to 4=watery diarrhea) were measured. Results: In the feeding trial, there were no significant differences in body weight, average daily gain, and average daily feed intake throughout the overall period. However, a quadratic trend was observed in gain to feed ratio (p=0.09) for d 0-7 postweaning and overall period with increasing ADEPPTTM supplementation levels in which the greatest value was observed in the 0.5% ADEPPTTM level. The fecal score tended to decrease linearly with increasing ADEPPTTM levels during d 0-7 (p=0.11) and 0-14 (p=0.12) postweaning. There was no significant difference on fecal score of diarrheic pigs and average daily gain tended to increase linearly in d 21-28 postweaning (p=0.08) with increasing ADEPPTTM levels. **Conclusion:** These results indicate that 0.5% ADEPPT[™] supplementation has a potential to enhance growth performance of weaning pigs and might be effective to prevent and control postweaning diarrhea. Keywords: ADEPPT; diarrhea; fecal score; feed efficiency; growth rate; iron-binding polypeptides; nonstarch polysaccharides; nursery diet; piglets; weaning.

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