



WELFARE & NUTRITION

AWN-007

ENZYME STRATEGY TO IMPROVE HEALTH AND GROWING CONDITIONS OF FATTENING PIGS

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The use of dietetic fiber in pig diets can reduce animal aggressiveness and improve gut health maintaining performance. However, pig's enzymatic capacity is limited to breakdown fibre. Moreover, NSP was found to change gene expression patterns and microbiotica composition in the hind gut, reflecting reduced gut health and its productivity. The objective of study was to evaluate the effects of Endofeed DC (multienzyme complex) on health and growing conditions of fattening pigs.

A total of 360 pigs were used (19.2 ± 3.09 kg BW) and allotted to 36 pens (10 pigs/pen) to evaluate the effect of Endofeed DC (125 ppm) on performance of pigs for fattening, based on nutrition and good health. Treatments were: T1-negative control, T2-Endofeed. Productive performance was recorded at 60, 74, 95, 116, 130, 144, and 165 days of age. Culls/mortality and animals requiring injectable antibiotics were registered every day. Statistical analysis of data was performed by GLM of SAS. Body weight was included in the model as covariate.

Pigs fed Endofeed DC improved FCR 7% (2.13 vs 2.28; $P=0.01$), and tended to reduce feed intake (1.46 vs 1.53 kg/d; $P=0.06$) compared with control. Endofeed DC pigs at 144 days showed higher BW 3% (72.7 vs 70.7 Kg; $P=0.02$), although this difference was not statistically significant at 165 days (91.2 vs 89.6 kg; $P=0.12$).

Supplementation of Endofeed DC improve the gut health status which was reflected in their consumption. Improvement 7% in FCR is a direct consequence of enzyme activity which improved NSP digestion, reduced nutrient losses and improve intestinal health and animal welfare (prebiotic response). Final body weight and BWG were also improved by Endofeed DC supplementation.

In conclusion, supplementation of Endofeed DC plays an important role in improve the nutrient digestibility of high viscosity ingredients in swine diets, improving gut health and performance.