

“Super diet” beats antibiotic treatments

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Background and objectives

Diarrhoea in weaners is commonly treated with antibiotics. It is desirable to lower antibiotic use to reduce the risk of antibiotic resistance. Feed composition has been shown to reduce diarrhoea but can a cost-competitive “super diet” compete with antibiotic treatments in a commercial herd controlling diarrhoea?

Material and methods

The test period started two weeks post-weaning when the pigs switched from a diet with 2500 ppm zinc to a weaner diet. The test comprised 540 pigs from 9 to 33 kg and 36 pens in each of the two groups: 1. Standard diet and group treatment for diarrhoea with deoxycycline when an outbreak was observed. 2. Feeding the pigs a specially designed diet (super diet) for 10 days combined with pen-wise treatment initiated when 25% of the pigs within a pen showed symptoms of diarrhoea.

The super diet was composed of ingredients known to positively affect gut health: 1.0% calcium formate and 0.5% benzoic acid; 2% fish meal; 4.5% blood plasma; 17% milk products and heat-treated grain. The standard diet consisted of: 47% wheat; 27% barley; 6% fish meal; 17% soybean meal and 2% fat. All diets were meal feed and optimized according to the Danish nutritional standards.

Results

There was no difference in daily gain (596 vs 590 g/day) and mortality (3.1 vs 3.5%). However, the number of treatments per pig and number of treatments per pig and number of pen-wise treatments was lower in the pens fed the Super diet compared to batch treatment of all pigs 0.88 vs 1.17 treatment days per pig ($p < 0.001$).

Conclusion and discussion

In conclusion, feeding the super diet lowered the number of diarrhoea treatments compared to the batch treatment with deoxycycline and this did not have a negative effect on daily weight gain and mortality.