



BACTERIAL DISEASES

BBD-068

COMPARING POST-WEANING MORTALITY IN PIGS BORN FROM SOWS VACCINATED WITH TWO DIFFERENT COLI-CLOSTRIDIA COMBINATION VACCINES

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Introduction

Among the most common causes for mortality and antibiotics used post-weaning are E.coli-associated diseases like post-weaning diarrhea (PWD) and edema disease. Recently a novel Coli-Clostridia combination vaccine containing F4 and F18 E. coli fimbrial antigen, is registered in the EU. The objective of this field observation was to evaluate the efficacy of two commercial Coli-Clostridia sow vaccines in reducing PWD-associated mortality in their offspring.

Material & Methods

On a commercial 425 head sow farm, piglets suffered from E.coli F4 PWD (weaning age 26 days). Control piglets (CP; n=1908) were born from sows vaccinated with a commercial Coli-Clostridium vaccine previously used on the farm and weaned between February and April 2017 (13 batches). Piglets born out from the novel Coli-Clostridia combination -vaccinated sows (EP; n=2220) were weaned between May and June 2017 (12 batches). Date and presumed cause of mortality (by judgement of the animal caretaker) from weaning to 45 days post-weaning were recorded per batch.

Results

Total mortality after weaning was lower for EP compared to CP (1,7% vs 2,2%). PWD-associated mortality was reduced significantly from 16 (0,8%) in CP to 3 (0,1%) in EP (OR 0,16; p<0,005). The average age of mortality due to PWD increased from 9 days (CP) to 29 days post-weaning (EP).

Discussion & Conclusion

In this field observation, mortality due to diarrhea after weaning was significantly reduced using the novel Coli-Clostridia combination vaccine, compared to the previous farm protocol. Mortality was postponed to a later age in EP pigs, which might be explained by a longer lasting maternal immunity. With the expected ban on using high concentrations of zinc oxide in diets of weaned piglet in the EU, alternative methods to prevent PWD have increasing relevance. Coli-Clostridia sow vaccines can play an important role in this, especially vaccines that provide longer lasting protection.