

## **BBD-OP-03**

### **TITLE**

PREVALENCE OF POST-WEANING DIARRHOEA IN DANISH HERDS NOT USING MEDICINAL ZINC AND ANTIMICROBIAL BATCH TREATMENT AT WEANING

Malene Kjelin Morsing<sup>1</sup>, Ken Steen Pedersen<sup>2</sup>, Inge Larsen<sup>1</sup>, Nicolai Rosager Weber<sup>3</sup>, Jens Peter Nielsen<sup>1</sup>

<sup>1</sup> *Department of Veterinary and Animal Sciences, University of Copenhagen, Grønnegårdsvej 2, 1870 Frederiksberg C, Denmark*

<sup>2</sup> *Ø-vet A/S, Køberupvej 33, 4700 Næstved, Denmark*

<sup>3</sup> *SEGES livestock Innovation, Axeltorv 3, 1609 Copenhagen V, Denmark*

### **CONTENT**

Post-weaning diarrhoea (PWD) is a complex and common disease caused by enterotoxigenic *E. coli* (ETEC). In most Danish herds, PWD is prevented by addition of 2500 ppm medicinal zinc to the feed for the first two weeks post weaning. Because of the upcoming EU wide ban on medicinal zinc in 2022, it is likely that an increase in PWD will occur, which may result in an increased usage of antibiotics for treating and controlling PWD. The objective of this study was to estimate the prevalence of ETEC-related PWD in the few Danish herds, which have voluntarily stopped the use of medical zinc.

Seven herds not using medicinal zinc and antimicrobial batch treatment at weaning were included and the number of pigs with faecal soiling of the perineum were recorded in a batch of newly weaned pigs. 10 diarrhoeic pigs from each herd were then randomly selected and subjected to clinical examination and faecal sampling. The samples were subjected to laboratory analysis for dry matter content and bacterial culture. Isolates of haemolytic *E. coli* were characterised by PCR for fimbriae (F4, F18) and toxins (ST1, ST2, LT, Vt2e).

The herds were different with regard to health status, production system, weaning and disease management, feeding strategy and size. The prevalence of faecal soiling varied between 4 and 32 % and pigs from three of the herds were positive for ETEC (F18+LT, F18+ST2+LT and F18+ST1/F4+ST1+ST2). The sampled pigs from the remaining herds were negative for ETEC, however pigs from one herd was positive for F18 and Vt2e (oedema disease), without clinical signs of this disease.

The study showed that several of the Danish herds, which has voluntarily stopped the use of medical zinc, does not experience diarrhoea outbreaks post weaning. Further, clinical diarrhoea in the first weeks post weaning, is not always ETEC-related.