

## **BBD-PP-13**

### **TITLE**

ANALYSIS OF THE SUBMISSION FOR DIAGNOSTIC INVESTIGATION OF DIARRHOEA SAMPLES FROM SUCKLING PIGLETS IN THE NETHERLANDS IN THE PERIOD FROM SEPTEMBER 2015 TO OCTOBER 2018

Peter van der Wolf<sup>1</sup>, Verena Schüler<sup>2</sup>, Emile Libbrecht<sup>1</sup>, Marlies Olde Monnikhof<sup>1</sup>

<sup>1</sup> *IDT-Biologika Benelux*

<sup>2</sup> *IDT-Biologika GmbH*

### **CONTENT**

We present the analysis of diarrhoea samples from new born piglets gathered by veterinarians and analysed at IVD GmbH, Innovative Veterinary Diagnostics, Seelze, Germany. IDT-sampling kits containing 3 swabs and 3 sample tubes were used.

Analysis was done for Rotavirus type-A and from October 2017 also type-C, Coronaviruses ( PED, TGE) Escherichia (E.) coli, Clostridium perfringens type A (CpA) and C, Clostridium difficile and alpha-haemolytic Streptococci, differentiated by PCR to Enterococcus (E.) durans and E. hirae. Viruses and attachment factors and toxins of E. coli were detected by PCR, as were the toxin genes of Clostridium. Production of toxins of CpA was detected by immunoblot.

345 samples in a total of 114 submissions came from piglets aged less than 5 days old: 0 days: 0.9%, 1 day: 12%, 2 days: 26%, 3 days: 38%, 4 days: 18% and 0 – 7 days: 1.8%. No PED, nor TGE was found.

532 E. coli were isolated: 14.3% haemolytic and 85.7% non-haemolytic. 265 were typed and 50 were pathogenic E.coli (19%): 16 EPEC, 20 ETEC and 14 UPEC.

Rotavirus A was found in 12 (14%) out of 85 submissions. 28 submissions were tested for A and C and 22 (79%) were positive either for type A and/or type C: 5 A+/C-, 3 A-/C+, 14 A+/C+.

Out of 114 submissions, Cp was found in at least one sample in 103 submissions (90%). Of 322 samples tested 224 were positive (70%). 174 isolates were typed: 173 CpA and 1 CpC were found. 116 CpA were tested for alfa- and beta2-toxins: 21 alfa-/beta2-, 34 alfa-/beta2+, 20 alfa+/beta2- and 41 alfa+/beta2+.

74 submissions were tested for alpha-haemolytic Streptococci: in 24 samples of 23 submissions large numbers of E. hirae were found.

Often, more than one pathogenic organism can be found in diarrhoea samples from new borne piglets.