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TITLE
EMPTINESS BETWEEN FARROWING BATCHES AND SHEDDING OF ROTAVIRUS AND ISOSPORA SUIS IN PIGLETS

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CONTENT
Background and Objective
Rotavirus and Isospora suis are associated with diarrhoea during the suckling and post weaning periods. We aimed to document the incidence of these pathogens in piglets, in relation to empty time between farrowing batches.

Material and Methods
Management routines were documented, and faecal samples collected in 81 sow herds. A total of 791 faecal samples were collected as the piglets were two, four and six weeks of age. Rotavirus was detected using a sandwich-ELISA demonstrating virus antigen and Isospora suis was diagnosed using sedimentation and detection of coccidian oocysts by microscopy.

Results
All selected herds but one effectuated age segregated production from birth, thus emptying and cleaning each unit before entrance of new animals.
The overall prevalence of rotavirus was 11.4±17.7% at 2 weeks, 56,8%±30.7% at 4 weeks and 71,1±29.1% at 6 weeks of age. At two weeks of age, the incidence was lowest in herds with an empty period between farrowing batches of 8 to 14 days (1.4±3.5%), which differed from herds with an empty period of 5 to 7 days (7.4±13.4%; $p<0.05$), 3 to 4 days (17.4±21.1%; $p<0.01$), and less than 3 days (17.1±19.9%;$p<0.01$). However, at the age of four and six weeks, no difference in incidence of litters shedding rotavirus was observed.
The overall prevalence of Isospora suis was 11.9±15.1% at 2 weeks of age, 10.7±16.7% at 4 weeks and 8.7±15.3% at 6 weeks of age. No difference in incidence of positive litters was correlated to the number of days between consecutive farrowing batches.

Discussion and Conclusion
An empty period of more than eight days between farrowing batches reduced the incidence of rotavirus in piglets under four weeks of age. Neonatal piglets ought to benefit from this reduced pathogen load since they will be older when exposed to rotavirus.