





# PREVENTION OF PRRSV HORIZONTAL TRANSMISSION BY THE HYCARE BIOSECURITY SYSTEM IN NURSERY PIGS

# **Background and Objectives**

The aim of this study was to evaluate the effect of the HyCare biosecurity system compared to a traditional system – on PRRSv transmission in nursery pigs.

### **Material and Methods**

Five batches of 2500 pigs were followed from birth to 25 KG bodyweight. At weaning around 4 weeks of age batch 1 to 3 (no PRRSv vaccination) were housed in a traditional nursery barn. Batch 4 was placed in a HyCare nursery barn. Batch 5 (PRRSv vaccinated with Ingelvac PRRSFLEX® at 3 weeks of age) was partially placed in HyCare- (5a) and partially in the conventional nursery barn (5b). The diagnostic evaluation consisted off: processing fluids (PF), 30 blood samples at 3 weeks of age (group 1 – 4), two weeks after placement in nursery (all groups) and at 25 KG body weight (all groups). Serum samples were pooled 1:5 (PSS) and tested by PRRSv PCR.

## Results

Batch 1 and 2 showed PRRSv PCR negative results in PF and PSS until two weeks after weaning but both groups had positive PRRSv PCR PSS at 25 KG bodyweight. Group 3 showed positive PRRSv PCR in PF and PSS until 25 KG bodyweight. Group 4 showed negative PRRSv PCR PF and PSS until 25 KG bodyweight. Group 5 showed negative PRRSv PCR PFs, two weeks after weaning 1/12 PRRSv PCR PSS positive in group 5b (vaccine strain). At 25 kg both group 5a and 5b showed 6:6 PSS PRRSv PCR positive. Vaccine strain was detected in both group 5a (2/6) and 5b (1/6).

### **Discussion and Conclusion**

The main biosecurity characteristics in the HyCare system are: separate hygiene entry, floor coating, water treatment, work flow, control visits with clean coverall, separate shoes and gloves per room and every injection with a new needle. The results indicate a potential positive effect of the HyCare system in limiting transmission of PRRSv after weaning in group 4 as compared to groups 1-3. However in group 5, the HyCare system showed no benefit.