

## SWINE INFLUENZA A VIRUS DETECTION IN SOW HERDS, A NEW APPROACH

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### Background and Objectives

Due to concerns in public health and its negative impact on herd health and performance, the interest in surveillance of swine influenza A virus (swIAV) is rising. The gold standard procedure for detecting swIAV is to sample only acute diseased pigs. However, endemic infections with unspecific clinical signs need new approaches to detect the virus. This investigation aimed to evaluate a standardized sampling procedure for the detection of swIAV in sow herds.

### Material and Methods

Samples were collected from farms with either an acute outbreak of Influenza-like symptoms or the suspicion of an endemic course of disease. The study is multicentric, consisting of farms from 13 European countries. The sampling procedure included 2 pools/5 nasal swabs taken in suckling piglets, weaners, and middle of nursery. Samples were analyzed for Influenza A by real-time PCR and subtyping of samples with a Ct-value below 30 was done by multiplex real-time PCR. Additionally, clinical signs of sampled animals were recorded.

### Results

Data from 180 farms were evaluated. 75% (135) of these farms were positive for swIAV in at least one sample, and out of those 72% could be fully subtyped. In the nurseries of most farms (80%) animals sampled showed swIAV like clinical signs, but only 51% of these diseased pigs were positive for swIAV. Whereas in 70% of the farms, the sampled suckling piglets showed no clinical signs despite being positive for swIAV by 29%.

### Discussion and Conclusion

To obtain a complete overview of swIAV on-farm circulation, it is crucial not only to focus on the sampling of acutely diseased pigs but also to include suckling piglets and weaners. Those age groups can already be positive for swIAV without showing clinical signs, particularly in endemic and vaccinated herds, as maternally derived antibodies can prevent suckling piglets from clinical signs, but not from an infection (Deblanc et al. 2018).