

Detecting *Actinobacillus pleuropneumoniae* (APP) with AeroCollect® – non-invasive, quick and accurate

- **Easy sampling** – with AeroCollect® there is no need to rely on a few samples from individuals. The whole herd is represented by a single air sample.
- **Non-invasive testing** – no need to perform blood samples and stress the pigs. With an air sample the pigs remain completely unaffected by the sampling.
- **Quick test results** – the air sample from AeroCollect® can be processed within as little as 1-2 hours in a lab.
- **Improved timing and efficiency of treatment** – with improved monitoring and detection it is possible to optimize the timing of vaccines and to optimize treatment on the infected pigs.

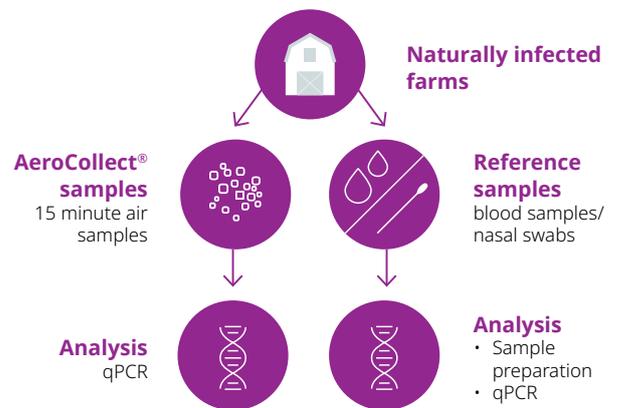
Detection of *Actinobacillus pleuropneumoniae* with AeroCollect® compared to traditional testing

The AeroCollect® system is validated for the detection of *Actinobacillus Pleuropneumoniae* (APP) in air samples from pig production in accordance with the guidelines described in EN ISO 16140-02:2016. The study was carried out in naturally infected herds using blood samples or nasal swab samples as reference samples. The study demonstrated a sensitivity, specificity, and accuracy of 96.1, 100, and 97.3 %, respectively. The measure of agreement between the two methods, Cohen's kappa, was found to be 0.94 which constitutes a "Near perfect" agreement according to the ISO-standard.

Note, since the AeroCollect® method is also capable of detecting vaccine strains in the air samples the method can be used to verify a successful vaccination procedure by following the development of vaccine present in the air samples over time.

Compared to traditional tests

Sensitivity	SE	96.1 %
Specificity	SP	100 %
Accuracy	AC	97.3 %
Cohen's Kappa	κ	0.94 (Near perfect agreement)



Multiple pathogen testing

An additional benefit that are generic to the AeroCollect® system is that each sample contain enough material for several analysis. Therefore, it is possible to screen for the most common production related pathogens in your region (i.e. Swine influenza virus, *Mycoplasma hyopneumoniae* and PRRSV) in the same sample. The non-invasive nature and the simplicity of the sample collection allows for frequent testing so that emerging diseases are detected and treated at an early stage. Or the eluted samples may be stored centrally as a sample library for future referencing should further analysis be required. Note that the AeroCollect® samples contains both respiratory and intestinal pathogens and may be analysed for both bacteria and virus.

The process from sample collection to result



When should testing with AeroCollect® take place?

As testing with AeroCollect® is simple, non-invasive and not stressful for the pigs it can be done often and easy.

Frequent testing and quick results allow for increased monitoring of *APP* in herds. This is the best foundation for timely detection of outbreaks, and it increases the chances

of successfully dealing with an outbreak with minimal consequence to the production and welfare of the herd.

The optimal timing and frequency of testing can be decided based on whether breeding stock, nursery pigs or finisher pigs are being tested and the history of *APP* in the herd.

Would you like to learn more about what AeroCollect® can do for you and your company?

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