

TITLE

USING A COUGH MONITOR FOR THE DIAGNOSTIC INVESTIGATION OF THE RESPIRATORY DISEASE COMPLEX (PRDC) IN A PIG FARM

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CONTENT

Introduction:

Respiratory diseases (PRDC) includes bacterial and viral pathogens and are responsible for important economic losses. In addition, lung lesion scoring at slaughter is a common tool for assessing the lung health.

The objective of this study is to evaluate the relationship between respiratory clinical signs, measured with an automatic longitudinal monitoring, with performance data and lung lesions and to compare the efficacy of 2 *Mycoplasma hyopneumoniae* (Mhp) vaccination programs.

Material and Methods:

Two batches (B1, B2 ; 250 piglets/batch) were included and divided into 2 groups (A, B) each. At 5 weeks of age, group A was vaccinated with a one dose Mhp vaccine and group B with MycoFLEX®.

Cough was monitored by a continuously cough monitoring device (Pig Cough monitor, FANCOM) during all the fattening period, and lung lesions were scored (out of 24) at slaughter.

Serological follow-up was performed.

Results:

In Batch 1 :

- Groups remained below 4000 coughs/day/room, equivalent to a 2,5 cough index, with the same patterns.
- Seroconversion profile, ADG and lung scoring were similar between the 2 groups.

In Batch 2 :

- Group B passed the 4000 coughs/day/room threshold shortly before slaughter, 3 weeks later than group A.
- Infection dynamics were different between A and B for Mhp and influenza with a delayed circulation of influenza in group B.
- The mean pneumonia score was higher for B. However, ADG was comparable between groups.

Discussion & Conclusion:

The cough monitor enabled an objective monitoring and quantification of cough over time. Results highlight that clinical symptoms, pig performance and lung lesion scores at slaughter are not perfectly linked, which questions the interpretation of lung scoring at slaughter.

In order to have a complete evaluation of PRDC or vaccine efficacy, we demonstrate the need to associate clinical observations, lab investigations and performances.