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**TITLE**
A FARM CLASSIFICATION TOOL TAKING INTO ACCOUNT THE LUNG LESIONS AND THEIR EVOLUTION WITH CEVA LUNG PROGRAM

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**CONTENT**
Background and Objectives
Enzootic pneumonia (EP) caused by Mycoplasma hyopneumoniae (M.hyo) remains one of the most important respiratory infections in current swine production. Ceva Lung program (CLP) is a useful tool to assess the presence, incidence and impact of EP thanks to lung lesions controls in the slaughterhouse. In France, CLP is a powerful database with more than 1.6 million of lung scored. The aim of the study was to classify farms according to their lung scores and its evolution.

Materials and methods
The analysis was carried out in 703 farms, including 164 368 lungs scored between September 2016 and September 2018. Each selected farm had at least 3 lung controls and at least one result on the first quarter of 2018.

Each farm has been placed on a 2-size graph taking into account 2 criteria:
On the horizontal axis: the average of its lung score compared to a threshold score of 2 (position above or below this threshold)
On the vertical axis: the evolution of the average score of the 2 latest controls and its position according to a deterioration or an improvement of its lung score of +/- 0.4 points.

Results
Four classes of farms have been identified according to their respiratory health status:
• 34% of farms for which the level of control is insufficient with a tendency to degradation
• 2% of farms for which the level of control is good but with a tendency to degradation
• 2% of farms for which the level of control is insufficient with an improvement tendency
• 63% of farms for which the level of control is long-term good.

Conclusion
Through the analysis of lung scores, classifying the level of control of the respiratory health status of farms provides valuable information for veterinarians in monitoring the health.