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TITLE

ECONOMIC IMPACT OF SWIAV OUTBREAK IN A 1000 SOW HERD

EVELYNE GAILLARD¹, PAUL CREACH², Philippe LENEVEU², SILKE WACHECK³, Agnès JARDIN²

CONTENT

Background and Objectives

Swine influenza (swIAV) is a highly contagious respiratory infection with substantial economic consequences due to medication costs, pigs' growth retardation and decrease of reproductive performance in affected sow herds.

The objective of this study was to evaluate the economic impact of a swine influenza outbreak in a breeding herd in France.

Material & Methods

From end of December 2017 to end of January 2018, a swIAV like infection occurred in a 1000 sow breeding herd in a low pig density area of Britany. This herd was vaccinated with an inactivated trivalent vaccine (Respiporc® FLU3) that provides clinical protection against H1N1, H3N2 and H1N2 swIAV but not against pdmH1N1(2009) swIAV.

Gilts and pregnant sows of first and second parity showed acute respiratory problems, fever, loss of appetite and lethargy. Subsequently they received individual and collective medical treatments.

Influenza A virus was detected by M-gene RT-qPCR on supernatants from two dead sow's lungs. Molecular subtyping on corresponding ARN extracts revealed the involvement of a pdmH1N1(2009) swIAV: N1pdm glycoprotein encoding-gene (associated with H1av and N1av encoding-genes) was identified.

Results

The technical breakdown due to the Influenza outbreak was as follows (n=number of considered batches): reduction of fertility rate from 90.7% (n=22) to 86.8% (n=2), increase of the life piglets losses (%) from 10.6% (n=14) to 11.9% (n=2), 4 dead gilts and sows, 6 abortions. This led to a reduction of farm productivity and represented a shortfall of 8,445€. As medical treatments cost was 10,383€, the total economic impact of this Influenza outbreak was 18.80€ per sow.

Discussion & Conclusion

This study demonstrates the high economic impact of an influenza outbreak in a sow herd. The involved pdmH1N1(2009) swIAV was probably introduced in the farm by staff members (some of them reported flu infection in their families).

¹ Cabinet vétérinaire de Pontrieux – Vetarmor, Rue de Briantel, 22 260 Ploëzal, France

² IDT Biologika, 17 Rue du Sabot, 22 440 Ploufragan, France

³ IDT Biologika, Am Pharmapark, 06861 Dessau-Roßlau, Germany