HHM-PP-20

TITLE
EPIDEMIOLOGY OF PRRS IN THE FILTERED SOW FARM POPULATION

Carles Vilalta[1], Juan Sanhueza[1], Emily Geary[1], Paulo Fioravante[1], Cesar Corzo[1]

[1] *Veterinary Population Medicine Department, University of Minnesota, USA*

CONTENT
Background and Objectives
The Porcine Reproductive and Respiratory Syndrome virus (PRRSv) is one of the major diseases causing economic loses in the swine industry. Different routes of transmission between farms have been documented including incoming breeding-stock, semen and fomites. The airborne route has been implicated and currently air filtration is the only current option available to reduce the risk of airborne transmission between farms.
The Morrison Swine Health Monitoring Program (MSHMP) is a voluntary initiative, in which US producers and veterinarians share sow farm PRRSv status weekly to contribute to the understanding of PRRSv dynamics. Additionally, information on whether the farm filters the incoming air and date of filtration is recorded. The goal of this study was to characterize the breeding-herd filtered farm population and assess whether PRRS incidence decreased after air filtration started being used in farms within the MSHMP database.

Material & Methods
Data from the MSHMP was used for this study. A Poisson regression model was used to compare PRRS incidence rate in the same farm before and after filtration. A second analysis compared the incidence of PRRS in filtered farms.

Results
The percentage of filtered farms in the MSHMP increased from 7.44 % in 2009 to 16.65% in 2018. Filtered herds are located in nine states. In a cohort of 58 farms, PRRS incidence rate decreased by half after installing the filters and implementing other biosecurity measures.

Discussion & Conclusion
Throughout the different years of the project, unfiltered farms had a higher PRRS incidence from the season 2009/2010 to the season 2016/2017 compared to filtered farms. However, it is important to remember that filtered farms also modify their biosecurity procedures leading to a filter and compliance effect contributing to this success.