



II -154

Assessment of lateral transmission rate of *Mycoplasma hyopneumoniae* in negative weaned pigs in the US midwest commercial finishing

Paul Emil Yeske*¹, Jana Morgan², Eduardo Fano²

¹ Swine Vet Center, St. Peter MN, USA

² Boehringer Ingelheim Vetmedica Inc., Ingelheim, Germany

*Corresponding Author: pyeske@swinevetcenter.com

Introduction

Mycoplasma hyopneumoniae (Mhp) continue to be a significant pathogen for swine industry. The economics of this disease had been the primary driver for producers to look at elimination. One limitation of herds choosing to do an elimination program is the concern of re infection, and still not being able to receive the benefits of the program. To estimate the lateral transmission rate in the finishing phase and to identify risk factors that result in lateral transmission of Mhp.

Materials and Methods

In total 50 finishing or wean to finish sites located in pig dense areas and operated on an all in all out by site basis were included in the study. All 50 sites were investigated in 2 seasons (summer/fall and winter/spring). The 5 sow herds that source these sites have been confirmed Mhp negative by serology, keeping this status for at least 2 years. In each site and season, 30 pigs were tested by Mhp ELISA at the time of marketing and in the case of more than 10% positive, laryngeal swabs of 50 pigs were tested (Laryngeal sampling) with PCR to confirm status. This was necessary because all pigs had been vaccinated for Mhp to confirm infection and rule out vaccine induced antibodies. A questionnaire was used to try to identify the potential risk factors for herds that turn positive.

Conclusion

Under the conditions of this study, lateral transmission rate was low, 6% in total; 8% in the summer/fall season and 4% in the winter/spring season. When negative pigs are placed in pig dense areas, the risk of lateral transmission was confirmed at a lower rate than expected. All positive sites did show clinical signs of cough at the time of testing. The information generated in this pilot study can be used in models to help evaluate economic risk of elimination.

References:

Yeske P. Mycoplasma eradication strategies. Proc AASV. Orlando, Florida. 2007;367-370.

Yeske P. Economic impact of *mycoplasma hyopneumoniae* eliminations. Proc 23rd IPVS Mexico 2014: 336

Keywords: *Mycoplasma hyopneumoniae*, transmission, finishing, positive sites

