

**TITLE**

**ELIMINATION OF M. HYOPNEUMONIAE IN A 1700 AN SOW NUCLEUS/MULTIPLIER FEEDER PIG FARM AND GILT FINISHING UNIT**

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**CONTENT**

**Background and Objectives** - Older M. hyopneumoniae (Mhyo) elimination programs close the breeding herd until the breeding population is 10 months of age or older. Newer programs use gilt exposure with a 240 day herd closure period. The objective of this report was to assess if a 140 day herd closure period would allow the production of Mhyo-negative gilts.

**Materials & Methods** - A 1700 sow nucleus/multiplier herd with an on-site nursery, on-site gilt replacement barns, and an off-site gilt farm was selected. Gilt replacements were stopped on week 0. All breeding stock was at least 10 months of age on week 16. Tilmicosin-medication feed with concentrations of 363 g/ton and 181 g/ton in breeding and gestation or farrowing, respectively, was provided from week 18 to week 21. Phased weekly piglet lincomycin injections at 100 mg/piglet were given from week 16 to week 21. The on-site and off-site gilt replacement barns were depopulated by week 16 and week 25, respectively. Clinical examinations, serological tests (Idexx and Dako ELISA), and necropsies to collect broncho-alveolar lavage fluids (BALF) for Mhyo PCR were performed.

**Results** - No Mhyo clinical signs (i.e. a dry non-productive cough) were observed in the off-site gilt farm through week 88. At week 41, the detection of serologically positives pigs for both ELISA tests (double positives) necessitated further investigations. Because of Mhyo vaccination at weaning, collection of BALF for Mhyo PCR on all double positive pigs was initiated until non-vaccinated sentinels were available. Six collections of BALF consisting of sixteen pigs in total were PCR negative over six months. Six monthly non-vaccinated sentinel pig tests of various aged pigs detected no double positives.

**Discussion & Conclusion** - The Mhyo elimination was successful to date. These Mhyo negative gilts are currently supplying Mhyo negative breeding herds without clinical signs.