

## SWINE HEALTH

**Title:** Assessment of the infectivity of asymptomatic carriers, to understand the dynamics of *Mycoplasma hyopneumoniae* infection in reproductive herds- NPB #05-013

**Investigator:** Dr. Carlos Pijoan

**Institution:** University of Minnesota

### Abstract

Swine Enzootic Pneumonia continues to be one of the most important respiratory diseases for the industry. Although many eradication efforts have been attempted, yielding a high rate of success, the science behind them remains unclear. This study was designed to clarify a central issue with eradication, namely, duration of infectivity. It involved 54 experimentally infected pigs which were placed in direct contact with susceptible pigs, vaccinated as well as unvaccinated, in three different transmission experiments, performed at 80, 200 and 240 days post inoculation. Transmission from infected to susceptible pigs occurred at 80 and 200 post inoculation; however, after 240 days of infection, experimentally infected pigs were not positive to *Mycoplasma hyopneumoniae* and did not transmit the bacteria to sentinel pigs. The transmission rate, as evaluated by the number of infected pigs, was significantly lower at 200 than at 80 days post infection. Transmission rate among vaccinated and unvaccinated animals was not significantly different. These results indicate that transmission of *Mycoplasma hyopneumoniae* occurs for at least 200 days after initial infection, even though infected animals did not show clinical signs associated to the disease and most of them resulted negative when being evaluated for antibodies against *Mycoplasma hyopneumoniae*. However, transmission did not occur at 240 days infection, since inoculated animals appeared to cleared the infection by that time.

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### For more information contact:

**National Pork Board, P.O. Box 9114, Des Moines, Iowa USA**

800-456-7675, **Fax:** 515-223-2646, **E-Mail:** [porkboard@porkboard.org](mailto:porkboard@porkboard.org), **Web:** <http://www.porkboard.org/>