

SWINE HEALTH

Title: Relationship of Distributions of Serological Responses to Occurrence of Respiratory Disease in Finisher Pigs - **NPB #00-084**

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Abstract:

Twenty pigs from each of 24 groups of pigs from a total of 13 farms were included in the study. On each farm blood samples were collected from 20 pigs at weaning and entry into the grower/finisher. The serological response to four etiologic agents were assayed by the following tests: *M. hyopneumoniae* ELISA, PRRSV ELISA, H1N1 SIV and H3N2 SIV HI test; and *A. pleuropneumoniae* HNT. Parameters of performance during the finisher phase of production for each group of pigs were recorded. The specific parameters considered during analysis were average daily gain, feed conversion, and whether or not the groups of pigs had respiratory disease severe enough to require mass medication.

The analyses suggested that the groups of pigs which were treated for respiratory disease in the finisher had higher mean PRRSV ELISA values in prefinisher samples. As might be expected, the groups treated for respiratory disease had a higher proportion of pigs with positive PRRSV ELISA results at the time prefinisher samples were taken. Interestingly, the mean PRRSV ELISA values as well as the proportion of PRRSV ELISA positive pigs from preweaning samples were nearly equal for groups that were later treated for respiratory disease in the finisher phase and those groups that were not treated. This may suggest that groups with sufficient passive immunity acquired from the sows were protected in comparison to groups that had active PRRSV outbreaks during the nursery phase. The study demonstrated the application of serological profiles to further delineate the roles of different etiological agents in the development of respiratory disease in the finishing phase.

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