

SWINE HEALTH

Title: Evaluation of risk factors and control programs related to the production of PRRSV-free offspring from infected herds – **NPB #98-240**

Investigator: Brad Thacker

Institution: Department of Diagnostic and Production Animal Medicine, Iowa State University

Co-Investigators: Elizabeth Wagstrom, Derald Holtkamp, Jeffrey Kurt, Patrick Halbur, Eileen Thacker, Doug Weaver

Date Received: 6/1/2000

Abstract

Several studies were conducted to identify risk factors and control measures that influence the production of PRRSV-free pigs from infected breeding herds and to attempt eradication via intensive vaccination with a killed virus vaccine. A serological survey was conducted in 35 herds to determine if infected herds were producing PRRSV-free pigs. The cooperating veterinarian predicted the status of the herd correctly in 70% of the herds and the status of herds changed over time. Surveys of these 35 herds and a mail survey of 91 herds were done to determine the association of various disease control, risk factors and management practices with the production of PRRSV-free pigs. Factors that were significantly associated included distance to nearest herd, the time from purchase to actual entry into the breeding herd (isolation, acclimatization, “cool down”), and the PRRSV status of the herd of origin for purchased animals.

Intensive vaccination with killed vaccine was attempted in three, relatively small farrow-to-finish operations with an initial goal of producing PRRSV-free nursery pigs and eventually entire herd eradication. All sows were vaccinated twice followed by quarterly boosters and pigs were vaccinated at weaning and one month later. All herds noted improved overall herd health and achieved the goal of producing PRRSV-free nursery pigs. One herd successfully eradicated PRRSV from the finisher. The repeated vaccination with the killed vaccine appeared to maintain antibody titers in the sows at a higher level than no vaccination or repeated vaccination with modified live products. This strategy shows promise but needs further research to demonstrate its effectiveness and value, especially in larger herds.

These research results were submitted in fulfillment of checkoff funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer reviewed

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, Web: <http://www.porkboard.org/>