
Sponsors

University of Minnesota

College of Veterinary Medicine

College of Food, Agricultural and Natural Resource Sciences

Extension Service

Swine Center

Thank you to **IDEXX Laboratories** for their financial support to reproduce conference proceedings

Production Assistants

Steven Claas

Michael Klatt

Layout and CD-ROM

David Brown

Logo Design

Ruth Cronje, and Jan Swanson;

based on the original design by Dr. Robert Dunlop

The University of Minnesota is committed to the policy that all persons shall have equal access to its programs, facilities, and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, or sexual orientation.

Impact of modified-live PRRS vaccine for control of PRRSV in nursery pigs
R Philips, JT Holck, G Anderson
Boehringer Ingelheim Vetmedica, Inc. St. Joseph, MO, USA

Introduction and Objectives

PRRS in growing pigs is estimated to cost \$5.60 - \$7.60 per pig sold.¹ An experimental study demonstrated that modified-live virus (MLV) PRRS vaccine stimulates a protective immune response against heterologous PRRSV challenge in growing pigs.² This study evaluated the impact of a modified-live virus PRRS vaccine (Ingelvac® PRRS ATP Boehringer Ingelheim Vetmedica), for control of heterologous PRRSV in nursery pigs.

Case Description

The study was conducted in a large North American commercial swine production system utilizing three-site production pig flow management. The breeding herds have a mixed PRRS status including negative/naïve, positive-stable, and positive-unstable breeding herds. Weaned pigs from PRRS positive (stable and unstable) breeding herds were flowed to PRRS positive nurseries. PRRS seroconversion predictably occurred in these nurseries in the mid-late nursery phase along with PRRS-associated disease and reduction in performance. Weaned pigs from PRRS naïve/negative breeding herds were flowed to separate PRRS negative nursery facilities. Performance at these sites met production targets. Vaccination with a 2 ml dose of Ingelvac® PRRS ATP was implemented Feb/Mar of 2005 in pigs at entry to PRRS positive nursery sites. No PRRS vaccination was used in piglets at the PRRS negative nursery sites. Performance of PRRS vaccinated/PRRS positive nursery sites was compared to historical pre-PRRS vaccination performance at these same sites and also compared to the performance of PRRS negative nursery sites to the end of the year 2005.

Results

Compared to historical pre-vaccination performance, vaccination for PRRS at entry to PRRS positive nurseries reduced nursery mortality from >9% to <3% (Figure 1). Vaccinated PRRS positive nursery sites

performed equally to PRRS negative nursery sites (Table 1).

Figure 1 – Impact of PRRS Vaccination in PRRS Positive Nurseries, Percent Mortality Pre- and Post-PRRS Vaccination; (2005 data)

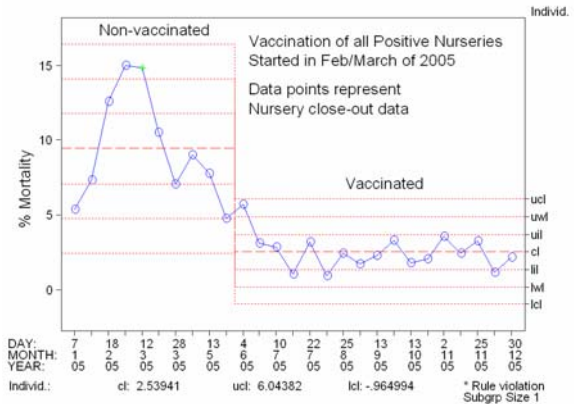


Table 1 – Performance of PRRS Positive Vaccinated Nurseries vs. PRRS Negative Nurseries; (annualized 2005 data)

	Total # out	% Mort.	Ave. In Wt.	Ave. Out Wt.	ADG	FE
PRRS Positive Vax	331,462	2.65%	13.73	54.94	0.89	1.56
PRRS Negative Non-vax	337,810	3.04%	13.61	54.01	0.88	1.62

Conclusions

Vaccination with a modified-live virus PRRS vaccine prior to field virus exposure can dramatically reduce mortality and improve performance of nursery pigs. In this study, vaccinated pigs in PRRSV positive nurseries performed equally to pigs reared in PRRS negative nurseries.

References

1. Neumann E et al. 2005 JAVMA 227(3):385-392.
2. Opriessnig T et al. 2005 JSHAP 13(5):246-253.