



Allen D. Leman Swine Conference



Volume 39
2012

Published by: Veterinary Continuing Education

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A METHODOICAL APPROACH TO PRRS MANAGEMENT, A SUCCESS STORY OF PRODUCTION IMPROVEMENTS

Arturo Oropeza-Munoz, MVZ, M Sc.¹, John Kolb DVM, M Sc.ABVP¹
Boehringer Ingelheim Vetmedica Incorporation Swine division, Saint Joseph MO, United States¹

Introduction

A 26,000 sow system had been affected by outbreaks of PRRSv infections throughout several years, and traditional strategies of gilt isolation, virus inoculations and herd closures achieved unacceptable levels of success for managing disease and production performance. The objective of this project was to improve the reproductive and growing pig performance, through strategic use of PRRS modified live vaccine (MLV), herd closure, and flow management. The duration of this project was from January 2009 through May of 2011 in two phases.

Materials and Methods

Animals:

The system had 26,000 sows housed in 12 sow farms, 70,000 nursery pigs, 64,000 finishing pigs; 16,000 pigs in two wean to finish farms, gilt development and isolation. The rest of the pigs were finished at another location. In addition, these animals were positive to Mycoplasma, PRRS and SIV. Phase 1 occurred the first 18 months post-vaccination and Phase 2 was the following 10 months. The project protocols were:

Interventions:

1] Sow herd closure (170 days); 2] Whole herd vaccination with Ingelvac® PRRS MLV (Boehringer Ingelheim Vetmedica, Inc, St. Joseph, MO) 4 weeks after closures, and again 30 days later, followed by quarterly sow herd vaccinations; 3] Vaccination of suckling pigs at ~15 days of age followed by a second dose of vaccine 3 weeks later during the nursery stage; 4] Flow management: managing rooms all in/all out, and when possible entire barns emptied, washed and disinfected; 5] Cessation of intentional exposure to wild-type PRRS viruses.

Production performance was monitored using Statistical Process Control methodology (SPC).

Results

Significant improvements were achieved in reproductive and post-weaning performance (Tables 1-3).

Table 1. Sow performance, significant change in process behavior

SOW FARMS	Baseline	Phase I	Achieved difference	Phase II	Achieved difference
Pigs Wn/sow farrowed, all sow farms	9.2	9.66	+0.44 *	10.03	+0.83*
SPC*					

Table 2. Nursery performance, significant change in process behavior

NURSERIES	Baseline	Phase I	Achieved difference	Phase II	Achieved difference
Average Daily Gain(Lb/d)	0.763	0.93	0.1703*	0.988	0.225*
Mortality (%)	5.62	3.393	-2.226*	2.124	-3.5*
SPC*					

Table 3. Finisher performance, significant change in process behavior

COMMERCIAL FINISHERS	Baseline	Phase I	Achieved difference	Phase II	Achieved difference
Average Daily Gain (Lb/d)	1.64	1.7	+0.06*	1.74	+0.10*
Mortality (%)	2.96	2.21	-0.75*	2.22	-0.74*
SPC*					

Conclusions and Discussion

1. A significant improvement in reproductive and growing pig performance was achieved by a well defined process that included the strategic use of Ingelvac PRRS MLV.