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Field observations regarding the production of PRRSV-negative weaned piglets post-intervention.

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Introduction

In order to minimize the negative impact of PRRSV viremia on performance and health post-weaning, it is important to produce PRRSV negative piglets from a sow farm as quickly as possible after a new PRRSV infection. A previous study has shown that sow farms can produce negative pigs within 30 weeks following a herd closure program alone. There is also retrospective observational data stating the time to negative for wean pigs at 12-62 weeks with an average of 20.3 weeks when using serum inoculation. In this observational study, a comparison was done of four farms in a production system that had experienced external PRRSV introductions during the summer of 2009. The objective was to observe and document effects post-herd closure following either serum exposure or administration of modified live PRRSV vaccine.

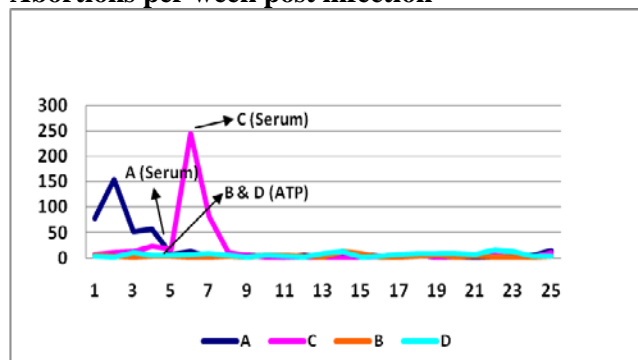
Materials and Methods

Four commercial farrow-to-wean sow units ranging in size from 3200 to 3400 sows in the Midwest participated in the observational study. Following infection, two sow herds received a single serum injection of the resident PRRSV strain and two sow herds were given Ingelvac[®] PRRS ATP (Boehringer Ingelheim Vetmedica, Inc., St Joseph, MO) twice 30 days apart. At 12 weeks post-intervention, blood samples were collected from 10 piglets in each farrowing room at weaning, pooled 5:1 and PCR tested. The time to negative program followed a “Load/Close/Homogenize” approach. Farms were closed to any new animals following introduction of a 200 day supply of gilts. In addition, employees were required to follow a protocol of no piglet movement in lactation for at least 12 weeks. Negative PRRSV status was defined as four consecutive weeks of PCR negative piglets along with sentinel testing.

Results

| Farm | New PRRS | Serum | 1st ATP | Add'l ATP | Wks to Neg |
|------|----------|-------|---------|----------------|------------|
| A | 5/19 | 6/15 | | 12/23, 1/21 | 28 |
| C | 6/3 | 7/10 | | 2/11 | 29 |
| B | 7/13 | | 8/18 | 9/16, 2/11 | 31 |
| D | 7/27 | | 8/27 | 2/4 | 26 |

Abortions per week post infection



Discussion

Under the conditions of this observational study, there was no conclusive evidence that either method of intervention expedited the production of non-infected weaned pig. All four sow farms intervened with additional mass vaccination of sows with ATP due to continued morbidity and mortality in nurseries. These farms used a more intensive serological monitoring program than has been typically done in the industry and therefore increased the probability of finding any viremic piglets.

In conclusion, further proactive studies need to be done to determine the best approach to producing PRRSV-negative piglets as quickly as possible following a new field virus exposure at a sow farm.

References

1. Dee SA. Approaches to prevention, control and eradication of PRRS. National Pork Board PRRS Compendium. 2nd Edition. 119-130.
2. Feder J. National Pork Board Project 04-194.