



## IMMUNOLOGY & VACCINOLOGY

IMM-O40

### **FIELD EXPERIENCE WITH AN INTRANASAL MUCOSAL PORCINE REPRODUCTIVE AND RESPIRATORY SYNDROME VIRUS VACCINE DURING AN ACTIVE PRRSV BREAK**

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#### **Introduction**

Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) remains to be one of the major pathogens in the swine industry worldwide. Recently an intranasal (IN) mucosal autogenous PRRSV vaccine, Barricade® PRRS has been made available. The objective of this study was to evaluate the efficacy of Barricade® PRRS during an active PRRSV break in growing pigs via comparison of mortality and morbidity.

#### **Materials & Methods**

In May 2017, a 2400 head sow farm located in the midwestern part of the United States was confirmed PRRSV positive with a 1-7-2 lateral challenge. Piglets were confirmed positive with weekly monitoring of the sow herd using PRRSV PCR detection. At 10 weeks post PRRSV break pigs in the Barricade® PRRS group were vaccinated IN at processing (5 days of age) with 1 mls Barricade® PRRS 1-7-2 strain and again at weaning (21 days of age) with 2 mls. The Barricade® vaccinated pigs (n=9929) averaging 21 days of age were weaned into a hotel style nursery site. The 1-7-2 Barricade® PRRS strain utilized was found to be 97% homologous to the 1-7-2 outbreak strain. Piglets were followed for an eight-week period with the objective of nursery mortality improvement. Secondary objective was reduction of antibiotic treatments.

#### **Results**

The Barricade® PRRS group had significantly lower mortality (0.5%) compared to average nursery mortality (5%). Farm protocol includes a controlled antibiotic program for prevention of secondary bacterial pathogens given at processing and weaning. Barricade® PRRS piglets did not require the antibiotic program.

#### **Discussion & Conclusion**

In this study, Barricade® PRRS pigs demonstrated more effective protection against PRRSV challenge than previous non-vaccinates as evidenced by significant reduction in mortality and morbidity. Resulting in more higher value pigs at the end of the nursery phase and elimination of antibiotic programs. Heterologous protection of Barricade® PRRS pigs was evident as well.