

SWINE HEALTH

Title: Determining the duration of PRRSV persistence in breeding age swine -**NPB # 01-123**

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Abstract:

The purpose of this study was to determine if PRRSV persists in a large population of breeding age female swine housed under commercial conditions for 120 to 180 days post-infection (pi) and to evaluate if experimentally infected animals shed virus to naïve sentinels beyond 90 days pi. One hundred and twenty PRRSV naïve gilts, 4 months of age, were infected by the intranasal route with 5-ml ($10^{2.4}$ TCID₅₀ total dose) of a field isolate of PRRSV. Following experimental infection, index animals were organized into 1 of 3 groups (A, B, and C), 40 animals per group. To assess the dynamics of the experimental infection, a monitoring group of 30 index pigs was blood-tested on days 1, 3, 14, 30, 60, 90, 120, 150, and 180 pi. To assess shedding, 30 PRRSV-naïve sentinels were commingled with index animals on day 90 pi, were tested every 14 days throughout the period of 90 to 180 days pi. To assess persistence, 40 index and 10 sentinel animals were slaughtered at 120 (group A), 150 (group B), and 180 (group C) days pi. Lymphoid tissues were collected, pooled, and tested for PRRSV by PCR and VI. Results indicated that PRRSV was not detected in any tissue pools from each of the 3 groups and all sentinels remained PRRSV-negative throughout the study.

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