

## SWINE HEALTH

**Title:** RespPRRS<sup>R</sup> vaccinated and nonvaccinated gilts challenged in late-gestation with a neurovirulent strain of porcine reproductive and respiratory syndrome virus. – **NPB #97-1985**

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### Abstract:

Despite the use of modified-live porcine reproductive and respiratory syndrome virus (PRRSV) vaccines, PRRSV isolates have been recovered from vaccinated animals experiencing clinical disease. A PRRSV isolate from a vaccinated swine herd experiencing unusually severe PRRSV-induced neurologic disease was used to challenge PRRSV vaccinated gilts. Five gilts from a PRRSV seronegative and naïve farm were vaccinated twice prebreeding (30 days apart) with RespPRRS<sup>R</sup>, synchronized 3 weeks later and artificially inseminated. The vaccinated gilts were infected intranasally with a neurovirulent strain of PRRSV at 90 days of gestation. Fetal survival in vaccinated gilts was compared to fetal survival in a group of 5 nonvaccinated, PRRSV naïve gilts.

Two prebreeding vaccinations with RespPRRS<sup>R</sup> vaccine virus did not prevent fetal infection and death in gilts challenged with a neurovirulent strain of PRRSV. The number of fetal deaths in the RespPRRS<sup>R</sup> vaccinated gilts was similar to the number of fetal deaths in the PRRSV nonvaccinated, naïve challenged gilts. These findings demonstrate that PRRSV strains existing in or introduced into PRRSV vaccinated herds are capable of causing reproductive loss.

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