

## SWINE HEALTH

**Title:** The prevalence of PCV2 viremia in conventional piglets born to PCV2- vaccinated and non-vaccinated sows and effect of PCV2 viremia on pig performance – **NPB #10-030**

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### Scientific Abstract

The objectives of this study were to further confirm vertical transmission of porcine circovirus type 2 (PCV2) and determine the effect of dam vaccination on PCV2 viremia in newborn piglets. Seventy randomly selected sows from each of two breeding herds were designated as non-vaccinated or vaccinated groups. A commercial inactivated PCV2 vaccine was administered at weaning and 18 days later to half of the sows on each farm. At parturition, colostrum was collected from the dams and pre-suckle blood was collected from five randomly selected piglets from each litter. Colostrum samples had an anti-PCV2 antibody prevalence of 98.5% (135/137) with significantly higher concentrations in vaccinated dams. Among piglets, 43.9% (301/685) were seropositive for PCV2 and 11.7% (80/686) were PCV2 DNA positive with a significantly higher prevalence in pigs from non-vaccinated dams (14.9%, 51/342) compared to vaccinated dams (8.4%; 29/344). Twenty-eight were identified as PCV2a, 28 PCV2b, and 5 were mixed PCV2a and PCV2b infection. The prevalence of PCV2 DNA in piglets was found to be lower (0.7% to 22.8%) compared to previous studies (44.8% to 90%) indicating a change in PCV2 ecology due to wide use of vaccination. Under the study conditions, dam vaccination reduced PCV2 viremia in offspring.

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