

PROGRAM ACTIVITY REPORT (PAR)



A RETROSPECTIVE SEROLOGICAL SURVEY OF PCV2 EXPOSURE IN U.S. FERAL SWINE

Nearly all domestic swine herds are infected with Porcine Circovirus 2 (PCV2) worldwide. Although infection with the virus does not always cause disease, a suite of porcine circovirus associated syndromes and diseases (e.g., postweaning multisystemic wasting syndrome) may occur in domestic swine when co-infections with PCV2 exist or various environmental (husbandry) or genetic (sow) risk factors are present. Vertical and horizontal transmission of PCV2 have been documented, and fecal/oral transmission has been identified as the most important route of infection within domestic swine facilities. Limited geographic sampling of feral swine in the U.S. has shown that PCV2 exposure in feral swine may mirror exposure levels seen in domestic swine herds, although many questions remain unanswered. In some areas, the relatively high apparent prevalence of PCV2 antibodies in feral swine is suggestive of efficient transmission of the virus within populations, or among feral and domes-



Domestic pig exhibiting signs of postweaning multisystemic wasting syndrome

tic populations. In an effort to further elucidate the geographic distribution of PCV2 in feral swine and its association with domestic swine production, the NWDP initiated a

retrospective survey of feral swine populations from 72 counties in 18 states representing a range of domestic swine production levels. Over 2495 samples from the NWDP's feral swine serum archive are being tested by the Rollins Animal Disease Diagnostic Laboratory in North Carolina for antibodies to PCV2. Preliminary results suggest that statewide PCV2 prevalence in feral swine may exceed 50% and that the majority of the states contain PCV2 infected feral swine. Once testing is complete, the NWDP also will evaluate if PCV2 exposure is correlated with exposure to other endemic swine diseases. If so, exposure to PCV2 in feral swine may assist in evaluating risk of disease transmission to transitional or domestic swine herds. For additional information on this survey when it becomes available, please contact Brandon Schmit.

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The original artwork on this page was created by the National Wildlife Disease Program's Erika Kampe and Sarah Goff