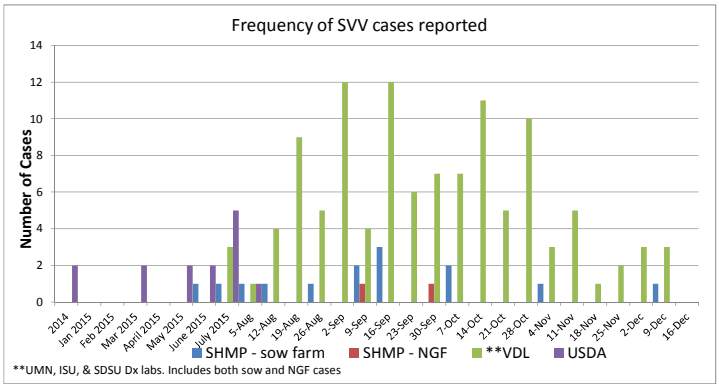
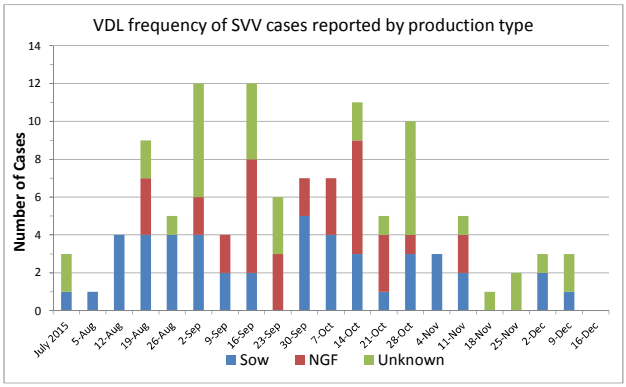
Seneca Valley Virus Update

We requested SHMP participants and UMN, ISU, and SDSU diagnostic labs to report frequency of Seneca Valley virus cases each week.

- 2 new updated VDL cases reported from last week.
- Note that the reported cases between data sources may overlap.





Justification for PRRSv sampling at farrowing beginning 8 weeks post-detection

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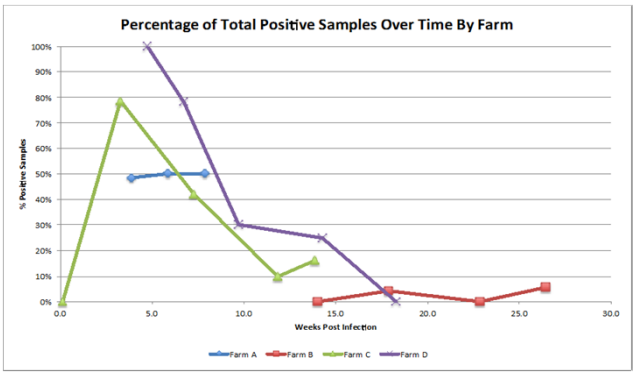
Key Points

- PRRSv prevalence at farrowing varied among farms.
- Litters sampled after 8 weeks post detection are less likely to have been transplacentally infected with PRRSv.

We conducted a pilot study on PRRSv in recently infected sow farms to compare sampling methods for virus detection at birth. Four farms were sampled approximately every two weeks for 3-5 consecutive visits. At each visit, samples were collected from all available litters that were less than 24 hours old.



There was substantial variability in PRRSv prevalence at farrowing among farms and this variation could result in variable TTS at weaning. **We are currently inviting all SHMP participants to enroll in the next phase of this study.** The objectives of this study are to determine the TTS at farrowing and compare the time between different sow herd management strategies, such as live virus inoculation or modified-live virus vaccine. Our goal is to provide a better understanding of how long it takes a sow farm to farrowing PRRSv-negative pigs, and to provide information that may guide PRRSv control and elimination strategies in the future.

Testing will begin 8 weeks after the date of detection of new infection and will continue every other week until 4 consecutive negative tests have been achieved. We selected 8 weeks as the starting date for sample collection for several reasons. First, our preliminary findings indicate that prevalence is variable among farms, and in order to be able to see prevalence decrease on a farm, we want to begin sampling early enough to obtain positive samples initially.

Second, by waiting until 8 weeks after PRRSv is detected on the farm, litters will have been exposed to virus at less than 60 days gestation and will have been less vulnerable to trans-placental infection. We know that sows infected with PRRSv late in gestation are more likely to transmit the virus transplacentally and therefore the reproductive effects of PRRSv are expected in litters immediately after the new infection is detected.

For this study, blood samples (tail swab, jugular venipuncture) from the smallest piglet of the litter from 30 litters total will be collected and pooled in groups of 5 swabs for PRRSv RNA RT-PCR. Alternatively, PUC samples from 6 litters may be used for testing. We have partial funding available through Boehringer Ingelheim to support the diagnostic testing. By being enrolled, we will keep you informed of findings as they develop and you will assist us in developing more effective, less costly control strategies for PRRS virus.

If you are interesting in enrolling, please contact Bob Morrison (BobM@umn.edu) or Hunter Baldry (baldr023@umn.edu).