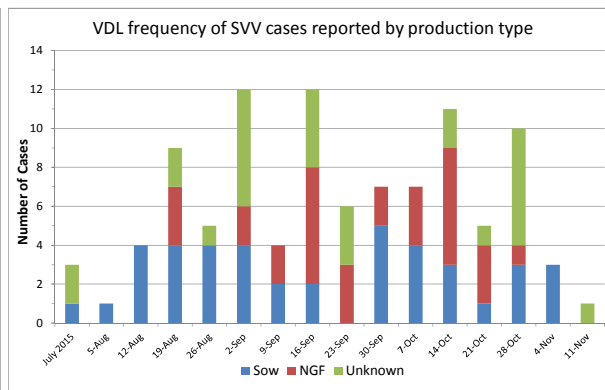
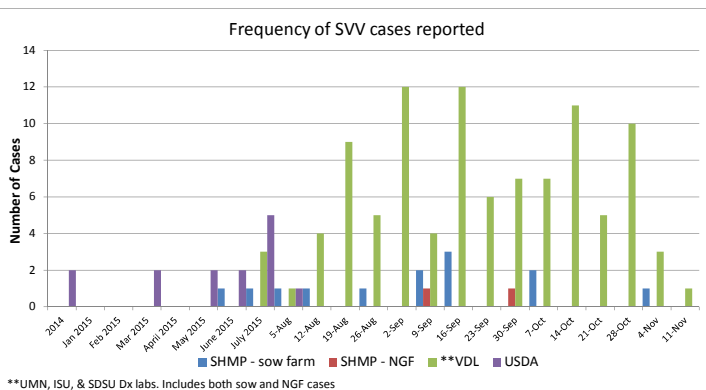


## Seneca Valley Virus Update

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

- This week diagnostic labs report 1 new case and 3 updated cases from last week.
- Note that the reported cases between data sources may overlap.

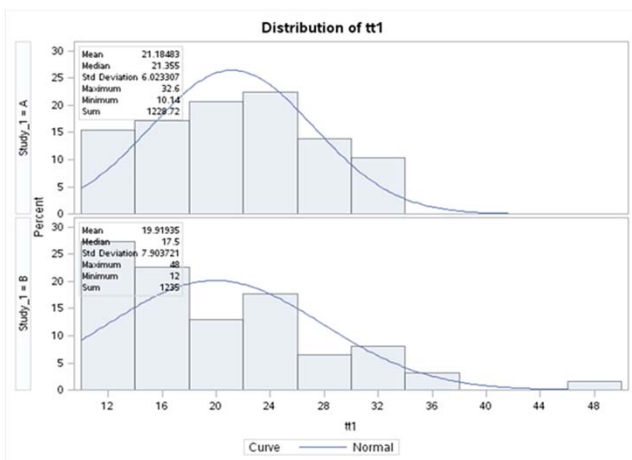


## PRRS 174 TTS and TTBP study - TT1 and TTS update

Carl Betlach, Daniel Linhares, Bob Morrison

Every few years a new virulent PRRSv strain emerges in the US that appears to take a significantly higher toll on the industry than those previous identified. PRRS 1-7-4, which began infecting herds mid-last year, is one such strain many veterinarians and producers have claimed to generate greater performance losses and increased mortality in growing pigs. This past March, SHMP participants were invited to partake in a study with its purpose to determine time to stability (TTS), time to baseline production (TTBP) and associated risk factors in sow herds infected with PRRS 1-7-4; a total of 8 participants and 149 sow herds enrolled. Herd inclusion criteria was as followed: farrow-to-wean herd enrolled in SHMP, diagnostic evidence of PRRS 1-7-4 infection, no diagnostic evidence that herd was infected with another strain of PRRS from time of first detection to time of stability, and herd should begin sampling at least monthly of at least 30 pigs starting less than 13 weeks after last known virus exposure.

This past September, we shared preliminary results at the Allen D. Leman Swine Conference. A subset of herds (n=62) were analyzed to determine time to first negative test (TT1), or what many would call low prevalence (TTL), and its implications on herd stability. Stability was defined as the date of the last negative test of at least four consecutive tests for a minimum of 90 days post PRRSv detection. An earlier study of 61 herds infected with PRRSv (Linhares et al., 2014) demonstrated that TT1 and TTS were significantly correlated +0.49 (p=0.002). TT1 in the subset of 1-7-4 herds was determined to have a median of 17.5 weeks, 3.9 weeks shorter than that noted in the earlier study (p=0.11) (Figure 1). These results demonstrated that, although TT1 was a good predictor of TTS, it was not significantly different from historical data.



To date, 26 of 149 participating 1-7-4 herds have reached stability. For these 26, the frequency distribution of TTS was positively skewed with a median of 30.5 weeks or 17.5 weeks when assessed from date of first negative test followed by three consecutive negative tests. When compared to the previous study of 61 herds, which defined stability at the date of first negative test, the cohort of 1-7-4 herds attained stability 9 weeks sooner. One important point to note is that this is an overview of the herds that have reached stability thus far, continued data collection and analysis is necessary to further support this finding.

In the coming months, we will continue collecting diagnostic results to increase the sample size of stable herds, as well as assess potential risk factors for TTS. Phase II of the study will be an analysis of production data to determine time to baseline production, which will commence before the end of the year.