

Seneca Valley Virus Update

You will notice that the Seneca Valley virus chart is missing. The decline in cases has indicated that the epidemic has died out and there is no need to continue reporting zero cases. If it changes (next spring / summer?), we'll let you know. We appreciate the timely reports from Iowa State, South Dakota State, and University of Minnesota diagnostic labs. In conjunction with the SHMP case reporting, this proved to be a useful and important project. Thank you - Bob Morrison & Paul Sundberg (SHIC).

A case report describing recent outbreaks of PED virus and Porcine Delta Coronavirus:

Part 2 - Potential role of feed

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Since reporting this case 2 weeks ago, the remaining sow farm (of the six within this company) has remained uninfected. Samples collected after the outbreak began from feed, mill office, and trucks were positive for virus (primarily on vehicles). Three feed samples were collected from feed bins at one PDCoV positive farm the morning following the first clinical signs. One tested 'suspect' and 1 tested 'positive' for PDCoV.

Given the speed at which PED and PDCoV were detected (both sow and nursery grow finish), we suspect a point source. At the center of the social network of these farms is the feed mill. Of particular concern was a nursery base mix product that was being sourced from a manufacturing facility that had swine meat and bone meal (SMBM) on the premises. While these farms do not include any porcine products in their base mixes, there is risk of contamination of their product at that manufacturing location – either through accidental inclusion of the SMBM or through contamination of the equipment used to manufacture the base mixes.

SMBM in this region is sourced from multiple rendering plants across the upper Midwest. It is possible that PEDV or PDCoV positive mortalities could have arrived to any of these plants. While the process of rendering is believed to be sufficient to inactivate PEDV and PDCoV, there is always a risk of contamination of the final, rendered product. Contamination in some of these plants has been observed when the same equipment used to load the raw product into the first stage of rendering was used to load the final product into transport. Additionally, many of these facilities have shared driveways with inbound and outbound traffic, which may allow for contamination of transport.

The second part of the feed investigation was a review of the manufacturing at the mill that makes the feed for these farms. Concerns were apparent in the receiving areas where ingredients were being dropped into a pit before being transferred into storage. There was no cover over the pit to protect it from debris falling off the truck. Additionally, when ingredients overflow onto the driveway, they were swept into the pit.

Contaminated feed could not be proven to be the source of this outbreak. However, a review of feed ingredients, with particular attention to where base mixes are being sourced is advised. Ask your suppliers what ingredients are in the facility and where these are manufactured. Work with them to source your base mixes from facilities that do not handle SMBM. Additionally, work with your feed mills to ensure basic biosecurity practices are in place that would prevent major contamination of the mill at the receiving areas.

If you have any questions, comments or concerns, feel free to contact me.