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.

- 1 new updated VDL case reported for week of 12/16/15
- Note that the reported cases between data sources may overlap

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

Bob Morrison

This case report describes a recent outbreak of Porcine Epidemic Diarrhea virus (PEDv) and Porcine Delta Coronavirus involving 5/6 sow farms in a participating SHMP system. On November 24 (2 days before Thanksgiving), Sow Farm #1 reported a “few” sows in gestation having diarrhea. The following day, approximately 10% of gilts and 3% of sows located throughout gestation had diarrhea. On November 26, widespread diarrhea was reported at Sow Farm #2, also located throughout gestation. Both PEDv and PDCoV were detected at both farms (Table 1). On December 1 and 2, the remaining uninfected sow farms started to receive feed from a different mill in the region. On December 1, Sow Farms 3 and 4 reported seeing diarrhea in sows in gestation and only PDCoV was detected. On December 11, Sow Farm #5 reported diarrhea in sows in gestation and 1 litter in lactation. PDCoV was diagnosed. Sow Farm #6 has remained uninfected.

<table>
<thead>
<tr>
<th>GDU</th>
<th>Comments</th>
<th>PED History</th>
<th>1st signs</th>
<th>Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm 1</td>
<td>on-site</td>
<td>Aug 1 closure PRRS</td>
<td>1-2 yrs ago</td>
<td>24-Nov PED &amp; PDCoV</td>
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<tr>
<td>Farm 2</td>
<td>on-site</td>
<td>none</td>
<td>26-Nov PED &amp; PDCoV</td>
<td></td>
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<tr>
<td>Farm 3</td>
<td>off-site shared</td>
<td>1-2 yrs ago</td>
<td>1-Dec PDCoV</td>
<td></td>
</tr>
<tr>
<td>Farm 4</td>
<td>on-site</td>
<td>none</td>
<td>1-Dec PDCoV</td>
<td></td>
</tr>
<tr>
<td>Farm 5</td>
<td>on-site</td>
<td>1-2 yrs ago</td>
<td>11-Dec PDCoV</td>
<td></td>
</tr>
<tr>
<td>Farm 6</td>
<td>off-site shared</td>
<td>Batch farrow</td>
<td>1-2 yrs ago</td>
<td>none</td>
</tr>
</tbody>
</table>

Possible sources of virus include:
- Gilt entries
- Feed
- Fomites
- People
  - Supervisor
  - Staff
  - Maintenance crew
- Transport including culls
- Garbage or other vehicles visiting sites
- Semen
- Manure hauling
- Air / wind
- Sabotage

Investigation:
- ruled out
- under investigation
- none known
- overnight downtime & schedule does not support
- none move between units
- only at Farm 3 during first week
- not dedicated to sow farms; washed & baked between
- under investigation
- no other sow farms affected from same stud
- ended in October
- no known PED in region
- unlikely

The mill provides feed exclusively for all this system’s sites. No animal products except choice white grease are used in sow herd or nursery diets. The feed truck is washed on Fridays. More details, including diagnostic work-up, will be provided in a second report.

If you have a case that you would like to submit, please contact Bob Morrison (BobM@umn.edu).