

Porcine Epidemic Diarrhea Virus

General disease facts:

- The presence of Porcine epidemic diarrhea virus (PEDV) was confirmed in the United States on May 17, 2013.
- Porcine epidemic diarrhea (PED) is caused by a porcine coronavirus and results in vomiting and occasionally diarrhea in sows and gilts and severe diarrhea and vomiting in nursing and recently weaned pigs.
- Clinical signs of PED are indistinguishable from the epidemic form of the disease caused by a different porcine coronavirus, Transmissible Gastroenteritis Virus (TGE).
- There is no cross-protection between these two coronaviruses.
- PED is a pig-only disease which does not affect other species or humans and is not a food safety concern.
- PED has been present in Europe and Asia since 1971 but has never previously been reported in the US.
- Within our naïve pig populations morbidity will likely near 100% and mortality may range anywhere from 50-100% in nursing pigs, but is reported to be 1-3% in fattening pigs and negligible in adults.
- Incubation time is typically less than 36 hours and virus is shed in feces for up to 11 days.
- Laboratory diagnosis is required for definitive confirmation.
- Producers should work closely with their veterinarian for sample submission and diagnosis.

Control & prevention:

- Stringent biosecurity and disinfection procedures are the most effective for prevention and control.
- PEDV is susceptible to Clorox, Virkon S, Tek-Trol, and 1 Stroke Environ. Thorough cleaning followed by disinfection and drying is recommended.
- Infection is mainly via the fecal-oral route, but short distance aerosol transmission is possible.
- The virus can remain stable in the environment and travel easily on boots, tires, vehicles, and other fomites.

Diagnostic testing:

- KSVDL is performing Virus Isolation (\$28.00) and/or PCR (\$31.00) testing on feces and fresh intestinal samples. However, to date all laboratories are reporting that virus isolation is difficult and often yields false negative results, so PCR is recommended for initial diagnosis.
- IFA for PEDV is also available on serum for \$15.00.

Confirmed cases:

- An updated spreadsheet of cases can be found on the AASV website at the following link:
 - http://www.aasv.org/aasv%20website/Resources/Diseases/PED/LABSUMTOT_WK_STA_TE.pdf