Porcine Epidemic Diarrhea Virus
Information Sheet

General information:

- Porcine Epidemic Diarrhea Virus (PED or PEDV) is caused by a coronavirus and only affects pigs.
- PED has been common in Europe and Asia for decades and was first found in the US in May, 2013.
- Since then several states have reported cases of PED. No cases have been confirmed in Canada.
- US scientists are working to determine exactly how the disease entered the US and how to control its spread.
- It may take only hours or up to a few days for animals to develop clinical signs after introduction of PED.
  Affected animals have a rapid onset of severe diarrhea and vomiting. Often, 100% of animals in the herd will become sick. For suckling and early weaned pigs, the death rate ranges from 30% to 100%. Affected animals can shed the virus for 7 to 10 days.
- Signs in animals from PED are similar to those from transmissible gastroenteritis virus (TGE) infection, but these viruses are unrelated. Vaccination for TGE does not protect against PED. Previous exposure to TGE or other respiratory coronavirus is not likely to protect against PED.
- Diagnosis of PED is from clinical signs, history, and laboratory tests to detect the virus in fecal material and from tissues of dead pigs. Veterinarians should contact a veterinary diagnostic laboratory to determine what samples are needed for diagnosis.
- PED spreads by ingestion of contaminated feces. The most common sources of infected feces are pigs, trucks, boots, clothing, or other inanimate objects such as vehicles, trailers, and equipment. Cleaning, disinfection and drying of contaminated surfaces are effective measures to prevent PED.
- Affected animals can be treated with supportive care to assist them in maintaining hydration.
- Exposed gilts and sows can develop immunity to PED and can pass short-term protection to suckling pigs that ingest colostrum. These young pigs are susceptible to developing the disease at weaning age.
- PED is not a foreign animal disease. There are no trade restrictions pertaining to PED in US swine.
- PED does not affect people and is not a food safety concern.

Guidance for prevention and elimination of PED, on and off the farm:

- Consult your veterinarian about using a protocol with a closed herd and 100% feedback exposure.
- Implement strict biosecurity measures, especially related to transportation. Initial studies suggest PED may be transmitted from transport vehicles or personnel at high risk areas such as livestock markets and slaughter facilities where people or trucks have been in contact with virus-shedding pigs or manure.
  o Establish a clean and a dirty zone for transport workers to follow during load-in and load-out.
  o Ensure that transport workers wear clean coveralls and boots when outside the truck’s cab, and then remove the dirty coveralls and boots before entering the truck’s cab again.
  o Change clothing, clean the vehicle cab, and allow 12 hours down time between pig exposures.
  o Clean and disinfect vehicles, trailers, boots and equipment, following these steps:
    ▪ Remove dirty shavings, manure and other debris.
    ▪ Rinse and apply detergent to clean surfaces.
    ▪ Apply disinfectant according to label directions. Allow complete drying.
  o Fumigate all supplies and equipment entering the farm.
  o PED is susceptible to some common disinfectants: Clorox, Virkon-S, 1 Stroke Environ, Tek-Trol. Also, an empty, sanitized trailer can be heated to >150°F. for > 10 min to inactivate the virus.

Sources:

- The Center for Food Security and Public Health at Iowa State - http://www.cfsph.iastate.edu/

-- August 9, 2013