

Swine Health Producer Guide



Positive Diagnosis of PEDV in a Breeding Herd: What Next?

*Infection with Porcine Epidemic Diarrhea Virus (PEDV) can create tremendous financial losses to a pork producer. PEDV transfers via feces and survives in manure for extended periods of time. Any object that is contaminated with pig manure can be a source of infection for pigs. **There are a number of important actions to take once the diagnosis of PEDV has been confirmed on your site.***

Good neighbor policy, **COMMUNICATE**

Farm/Production System

- At the production level, review all biosecurity protocols for potential enhancement. In a production system, it's proper to notify the main office so that biosecurity protocols can be reviewed.
- If applicable, make sure all supervisors are notified immediately.

Semen Delivery

- Contact the Boar Stud to make sure the route of semen delivery to the site is not compromising biosecurity.
 - It is best to have a designated drop box location and avoid having the semen delivery person going to the infected farm premise.

Neighbors

- Contact your neighbors that have pigs in your area. Tell them that you have had a positive diagnosis and that you are working to control the infection on your site.
 - As a general rule, notify farms located within 1-2 miles of your site.

Feedmill

- Contact the feedmill if you are purchasing feed.
 - Let them know that your herd is positive so they can adjust the delivery schedules to your site.

- Let them know that you will be communicating with them about the break as it progresses.

Transporters

- Assign dedicated equipment to the site, especially to move weaned pigs and culled animals.
- Communicate with the sites that just received your weaned pigs to make them aware of the positive diagnosis.
- Ensure transport equipment is properly cleaned, disinfected and dried.

Mortality Pickup

- If using a commercial mortality pickup, make them aware so if they have flexibility in their routes they can make adjustments.

Part-time Workers, Contractors, Electricians, Maintenance Staff

- Inform everyone who has been on the site or helped with load out, chores or repairs so they can take precautions and measures to prevent spread to their own or somebody else's pigs.
- Check to be sure that there is adequate on-farm equipment for repairs and maintenance of the farm facilities to avoid transporting equipment on or off the farm.

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Veterinarians

- ❑ Ask your veterinarian to contact the veterinarian of the site where, within the last 2 weeks, any pigs were purchased and brought onto your site or shipped off of your site and received.
- ❑ Ask your veterinarian to contact the veterinarians of neighboring herds.
- ❑ Ask your veterinarian to contact the veterinarian of multiplication herd(s) that may be the source of replacement breeding stock for your operation.

Contain the virus to your site and avoid further spread of the virus

Ensure that the Line of Separation, which marks the separation from outside the facility to the inside area with your people and pigs, is strictly enforced.

Refer to the Pork Checkoff fact sheet titled *Establish a Line of Separation: Help Control the Spread of PEDV and Other Swine Diseases* for more detailed information.

Site stabilization

The objective should be to establish herd immunity quickly by assuring all animals are exposed and infected as soon as possible.

Following the outbreak, exposure or feedback, mark each sow card when a sow has shown at least one of the PED clinical signs.

Natural infection is rapid (incubation=1 day) but may need to be augmented by intentional exposure.

The sooner ALL pigs are infected, the sooner the shedding of PEDV will be limited (herd immunity established) thereby minimizing the chances of PEDV becoming endemic.

- ❑ Rapid herd exposure and induction of immunity allows a more rapid return to normal production.

Herd closure

- ❑ Work with your breeding stock replacement supplier to develop a strategy to manage replacement gilts.
- ❑ Determine the number of replacement animals that you can inventory for the site.
 - For PEDV elimination as the goal, you may need to make sure the herd is closed for at least 120 days.

- » Additional sites may be needed to do this. Check the biosecurity capabilities of these sites taking into account the local swine density since your replacement animals will need to be exposed.

- ❑ Develop a timeline with your genetic supplier for animal delivery, preferably with staged ages and weights. If delivery must be delayed, gilts will need to be exposed as soon as possible.

Feedback

- ❑ Feedback can be used to ensure uniform exposure of the herd (gilts and sows) leading to immunity:
 - Contact your herd veterinarian to develop a specific strategy for your herd, based on its unique attributes.
 - » Procedures and number of times to feedback will vary with sites. Work with your veterinarian to track the initial outbreak so you won't be doing multiple feedback procedures unnecessarily.
 - Ensure all animals get exposed.
 - » Mark each sow card when feedback occurs and when clinical signs (diarrhea, off feed, lethargy) are observed. Identify animals that do not show clinical signs or have questionable exposure so that these animals may be blood tested to ensure seroconversion.
 - Wait a minimum of 3 weeks following exposure to collect blood samples to be tested.
 - » Work with your herd veterinarian and diagnostic lab to determine the appropriate tests to run.

Approximately 3 weeks after acute infection or feedback exposure, piglet condition will improve but expect that they may still be PEDV positive. Production of PEDV negative pigs may take up to 120 days after the initial outbreak and will depend on the success of your exposure, cleanup and biosecurity procedures.

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Lactation management

Expect the severity of diarrhea to be worse in piglets consuming milk.

If adequate space is available and your nursery staff can manage it, consider weaning all piglets at 10 days of age in the early stages of the outbreak and in particular those piglets not yet exhibiting clinical signs. Early weaning can save piglets during the initial outbreak by removing them before they are exposed to PEDV.

Once exposure is completed and clinical signs have subsided.

- Implement strict McREBEL (Management Changes to Reduce Exposures to Bacteria to Eliminate Losses) procedures. McREBEL is a management protocol that involves:
 - Only move piglets to balance litter numbers during the first 24 hours of their life
 - » Allow no pigs held back at any stage in the facility.
- In herds that have already been infected with PEDV and it has spread through the farrowing house, maximize weaning age to allow for as big a pig as possible in the nursery. Bigger pigs can handle infection better than smaller, younger pigs.

Pathogen load reduction - Cleanup

Once the herd has been completely exposed to PEDV and severity of diarrhea begins to subside, it is important to reduce the environmental load of virus on the site.

- Don't risk the virus load in the environment overpowering the immunity that the sows are trying to pass on to the piglets in the milk.
- Do not do multiple feedback procedures unless directed to by your veterinarian.
- Completely wash and disinfect alley ways, hallways and load outs after animal movements have occurred. Inspect the facilities to ensure complete washing and disinfecting has been carried out.

Once there are no more clinical signs in gestation wash down the entire facility.

- The goal is to further reduce the virus load in the environment in pursuit of elimination.

Continue to wash and disinfect complete farrowing rooms and, when possible, allow to dry overnight. Disinfect the facility using products according to label directions.

Biosecurity

- Follow biosecurity guidelines as published in www.pork.org/PEDV

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Example of a PEDV Management Timeline Post-Infection

Infection with PEDV can create tremendous financial losses to the producer. The timeline below highlights key post-infection management steps that will assist producers in getting back to PEDV-negative health status. Work with your veterinarian to develop a herd-specific management timeline for your herd.

