

Swine at County Fair: PEDV

Considerations for CYC's, swine committees and fair boards

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This document is to provide awareness and encourage action planning prior to your county fair.

The Porcine Epidemic Diarrhea Virus (PEDV) continues to be important to our local pork producers and our pork industry. PEDV has infected a majority of Iowa's sow units, yet many operations remain free of the disease. The virus does not survive as long in hot, dry conditions (remains active longer in cold, damp conditions). PEDV does not affect other livestock species or people and pork is safe for consumption.

The county fair is a gathering or collection point of pigs, similar to a buying station. All exhibitors' pigs coming from different growing sites may have different health statuses or disease history. To establish perspective, we suggest **viewing the fairgrounds as being PEDV positive**. Should the swine show be canceled? **NO!** Disease presence is not limited to PEDV; diseases such as swine influenza, erysipelas, PRRS (porcine respiratory and reproduction syndrome) and others may enter the fairgrounds as well.

The exhibitor, parent, swine producer or any individual who attends a fair must take responsibility to not transfer disease(s) from the fair to a swine production site. This becomes the educational opportunity to highlight importance of a farm's biosecurity plan. While a county fair can attempt to minimize the entry of sick pigs, it cannot eliminate the potential of a swine disease entering the fairgrounds.

What if PEDV is present at a county fair?

Please acknowledge: market weight swine infected with PEDV may show a slight to projectile diarrhea. Duration may be one to three days, pending infectious dose and rate of spread. Pigs will reduce feed consumption and run a fever as they fight the virus. Given diarrhea and low feed intake, pigs may lose or have no weight gain for 4 to 10 days. PEDV caused death loss is very unlikely with market weight swine.

If a pig has diarrhea and suspected of PEDV, the pig should immediately be isolated or removed from the fair grounds. Pigs which have diarrhea and a fever should not be shown. This is an animal welfare point and the fair veterinarian should make final determination. If animals are extremely sick (high fever): they should not go directly to market – they should be allowed time to recover (which they will) before being scheduled for market. Antibiotic, if used to treat sick animals, must follow the label and packer's withdrawal periods.

How could PEDV spread at a county fair?

Transmission is oral contact/consumption of PEDV contaminated feces (fecal-oral). If infected feces are washed with water, the contaminated water may spread PEDV ... in a wash pen – move to next pen or remain on wet surface when next pig enters wash bay ... in common alley, if washed with water – water may enter other pig pens. Infected particles on hands, clothing, feed/water troughs, show equipment may also be a spread vector if they moved from pen to pen.

Each County is unique and must decide what their standard operating procedures (SOPs) are for:

A. Before the fair

- Limit time pigs are congregated and co-mingled
 - Shorten time pigs are on fairgrounds: **ideally no more than 72 hours** (influenza & PEDV short incubation)
 - If both terminal pig and breeding shows: schedule breeding show first, break, then terminal show
- Inform exhibitors: **Sick pigs (fever, nasal discharge, cough or diarrhea) and pigs infected with PEDV within 6 weeks of fair entry should NOT be brought to the fairgrounds.**
- Establish relationship with veterinarian(s) who will be present or on call ... discuss **the fair SOP's**
- Establish protocol to immediately remove sick pigs
- Establish methods to rapidly communicate procedural change with exhibitors
- **File "Swine Registration Application" with IDALS at least 30 days prior to the exhibit (fair show date)**

- If exhibitor's pig does not come to the fair (due to sickness) or the pig does not show (sick at fair), can the exhibitor participate in the Auction/Premium Auction? Note: We encourage something to be established as keeping the pig home or not showing has protected other exhibitors/pork industry.

B. At the fair

1. Pig Entry

- Fair veterinarian(s) observe/approve the unloading of pigs off the trailer.
 - **Sick pigs** (fever, nasal discharge, cough or diarrhea) **and pigs known to have been infected with PEDV within 6 weeks** of fair entry **should not be unloaded.**
 - Exhibit officials should avoid entry into trailers. If officials enter the trailer to examine pigs, use disposable coveralls and boots and dispose after single use.
 - Use barriers to prevent straw, wood chips, fecal material from leaving trailers. Line of Separation.
 - Use hand washing or hand sanitizer or wipes between loads.
- Inform exhibitors how and to whom they should report sick pigs.

2. During the Fair

- Observe swine daily for signs of illness: no appetite, fever, nasal discharge, cough/"thump" or diarrhea.
- Provide easy access to hand washing stations, hand sanitizers or wipes for exhibitors and public.
- Ban eating and sleeping in pens next to the animals. (influenza).
- Keep alley or common areas clean and dry.

Note: While scraping/washing/disinfecting/drying would be the most desirable. For many alley ways, it may be better to just scrape/disperse barn lime/sweep clean, thus removing the potential of pushing wash-water fecal material into other penning, whereas barn lime will help dry alleyway surfaces.
- Clean, wash and disinfect pens often, including sorting boards, canes, other handling equipment.
- Fair veterinarian(s) make final determination for each pig 1) isolation or removal from fairgrounds, 2) health status to show and 3) health status for transport to market or leave fairgrounds.
- **Submit completed form to IDALS within 5 business days of the show**

3. Cleaning

- Select disinfectants with label claim for Coronaviruses (Synergize, Tek-Trol®, DC&R® and Virkon®-S and others).
- Barn lime will inactivate PEDV with contact (fine lime particle size to increase contact – not coarse).
- Following the fair: pens, alleys and common areas should be scraped of organic material/washed with soap/disinfected / and allowed to dry. Spread lime on areas that are hard to clean.

4. Pig Release

- Upon release from fair, record where each pig is being transported to (IDALS form)
- If pigs are going home (non-terminal shows), remind exhibitors that pigs should be isolated from other pigs at the farm. They should work with their veterinarian for an isolation plan.

Given PEDV, the isolation period should be at least 60 days. This is because a pig that becomes infected with PEDV can shed the virus for 42 days and virus can survive outside of the pig, in environment, several additional weeks.

Porcine Epidemic Diarrhea Virus (PEDV)

The virus (a coronavirus) only infects pigs (not humans or other livestock). The virus infects and destroys the intestinal lining which limits nutrient uptake and causes the "epidemic diarrhea". Mortality is almost 100% in piglets less than 14 days. Adult and growing pigs are affected, but have enough body reserves to withstand the virus challenge until the intestinal lining is regenerated. PEDV does not affect pork or food safety, it is safe for consumption.

- **Transmission:** Oral contact with contaminated feces (fecal-oral)
- **Common source of infected feces:** Pigs, trucks, boot, clothing or other fomites
- **Incubation period (time from exposure to clinical signs):** Only 12 to 36 hours
- **Shedding (amount of time pigs can infect other pigs):** Up to 42 days but virus will remain in pig's environment 2-3 weeks.
- **Amount of virus needed to infect a pig:** Microscopic/trace amounts of infected fecal particles

Why is this important? Protect our local pork producers and pork industry (to the best of our ability). Be aware of the factors and create a plan. This cannot eliminate the risk, but reduces the risk. Enjoy the fair!