IOWA STATE UNIVERSITY

Extension and Outreach

Iowa Pork Industry Center Swine at County Fair

Considerations for CYC's, swine committees and fair boards, Updated 2/03/2025

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

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 potentially positive for swine diseases. Should the swine show be cancelled? No! Diseases such as PEDV (porcine epidemic diarrhea virus), swine influenza, erysipelas, PRRS (porcine respiratory and reproduction syndrome), Senecavirus A (Seneca Valley Virus) and others may enter the fairgrounds.

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.

Swine diseases can have different routes of transmission, different incubation periods (time from exposure to clinical signs), different shedding periods (amount of time pigs can infect other pigs) and susceptibilities to specific disinfectants. This is why exhibitors and fair boards should establish a Vet-Client Patient Relationship (VCPR) with a veterinarian. Knowledge of exhibitor operation, intent, disease sensitivity can be important when planning pig movements and pig isolation following the fair. The segment "Swine Diseases of Concern" highlight disease characteristics.

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

Before the fair

- 1. Limit time pigs are congregated and co-mingled.
 - a. Shorten time pigs are on fairgrounds: ideally no more than 72 hours (influenza & PEDV short incubation).
 - b. If both terminal pig and breeding shows: schedule breeding show first, break, then terminal show.
- Inform exhibitors: Sick pigs (fever >104° F, nasal discharge, cough, diarrhea or vesicles) and pigs infected with Senecavirus A or PEDV within 6 weeks of fair entry should NOT be brought to the fairgrounds.
- 3. Establish relationship with veterinarian(s) who will be present or on call and discuss the fair SOP's.
- 4. Establish protocol to immediately remove sick pigs or pigs with vesicles.
- 5. Establish methods to rapidly communicate procedural change with exhibitors.
- 6. File "Swine Registration Application" with IDALS at least 30 days prior to the exhibit (fair show date).
- 7. 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.

At the fair

1. Pig Entry

 Fair veterinarian(s) observe/approve the unloading of pigs off the trailer.

- Sick pigs (fever >104° F, nasal discharge, cough, diarrhea or vesicles) and pigs known to have been infected with Senecavirus A or 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 coverall 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

- a. Observe swine daily for signs of illness: no appetite, fever, nasal discharge, cough/"thump", diarrhea or vesicles.
- Provide easy access to hand washing stations, hand sanitizers or wipes for exhibitors and public.
- c. Ban eating and sleeping in pens next to the animals.
- d. 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 scape/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.
- e. Clean, wash and disinfect pens often, including sorting boards, canes, other handling equipment.
- f. 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.
- g. Submit completed form to IDALS within 5 business days of the show.

3. Cleaning (wash/disinfect/dry)

- Select disinfectants with label claim for Coronaviruses (Synergize, Tek-Trol®, DC&R®, Accel®, Virkon®-S and others).
- b. Barn lime will inactivate PEDV with contact (fine lime particle size to increase contact – not course).
- c. 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).
- b. 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. Example: 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. A veterinarian may be able to utilize testing to confirm or shorten the isolation.

Swine Diseases of Concern: Endemic diseases in the U.S.

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 both 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.

Porcine Reproductive and Respiratory Syndrome (PRRS)

Single stranded RNA virus that infects pigs (not humans or other livestock). This is a highly contagious disease. Many different strains exist. Most strains impact both reproduction and respiratory health, some specifically impact reproduction or respiratory health of pigs. Virus survives longer periods in cold, damp environments. PRRS does not affect pork or food safety, it is safe for consumption.

- Transmission: Direct contact with infected pigs, semen or contaminated clothing, equipment and vehicles.
 Aerosol is possible.
- Incubation period (time from exposure to clinical signs): Five to 21 days after direct contact.
- Shedding (amount of time pigs can infect other pigs): Saliva up to 42 days, semen upto 92 days, fecal upto 42 days.
- Amount of virus needed to infect a pig: Minute amounts intranasal, higher doses for oral, vaginal or eye.
- Vaccine: Commercially available.
- **Disinfectants:** Most common brands are effective.

Senecavirus A (Seneca Valley Virus)

A non-enveloped single-stranded RNA virus that infects pigs (not humans or other livestock). Clinical signs are blisters (vesicles) around the snout and above the hoof wall, may or may not be associated with lameness in pigs.

The ultimate concern is that clinical signs are clinically indistinguishable from other vesicular diseases which are foreign animal diseases (i.e. foot-and-mouth disease (FMD), vesicular stomatitis, swine vesicular disease and vesicular exanthema of swine). Due to similarity of clinical signs, a foreign animal disease (FAD) investigation will be initiated to confirm it is not a foreign animal vesicular disease.

Individual pigs need to be monitored to ensure pigs with active clinical signs are not shipped to the packing plant. If clinical signs are observed at a packing plant, an FAD investigation will be initiated at the packing plant. Animal agriculture is very concerned if FMD is confirmed in the US as it would impact swine, beef, dairy and sheep industries. The disease poses no threat to humans via contact or consumption of pork. The virus only causes disease in pigs.

- Transmission vectors: Unconfirmed. Potentials include rodents, insects, pigs, trucks, boots, clothing, other fomites.
- Incubation period (time from exposure to clinical signs): Unpublished studies, 3-4 days in experimental studies from infection to the discovery of lesions.
- Shedding (amount of time pigs can infect other pigs): Preliminary data, up to 14 to 21 days in individual pigs, 5-6 weeks at the population level.
- Amount of virus needed to infect a pig:
 Unconfirmed. Most likely small amounts are needed to infect pigs.
- Disinfectants: An ISU study found 5% household bleach at 1:20 dilution (6.5 ounces per gallon) and 10-15 minute contact time and Synergize at manufacture label (1:256 dilution) at 60 min contact time was effective at two temperatures and on a variety of surfaces.
- Expected outcome of infected animals: Most animals will spontaneously recover on their own within 7-10 days.

Swine Diseases of Concern: Foreign Animal Disease - not in the U.S.

African Swine Fever (ASF)

Double stranded DNA Virus only infects members of pig family (wild boar, warthog, pygmy and domestic). Highly contagious hemorrhagic disease. High Morbidity and Mortality (nearly 100%). ASF does not affect pork or food safety.

ASF is not in the United States. If found and confirmed in the US, pork exports could be halted by countries refusing to import our pork. Our industry is working hard to increase our biosecurity at the boarders and on farm. If confirmed in the U.S., USDA will enact a minimum of a 72 hour standstill of all pig movement to identify where the disease is or has potential moved from. Positive sites will be depopulated to minimize the potential to spread the virus.

Given clinical signs for ASF look similar to other endemic swine diseases, producers/caretakers/ exhibitors need to be mindful of clinical signs, changes in the herd and be prompt to involve veterinarian expertise.

- Transmission: Direct contact with infected pigs, body fluids, semen, manure, or contaminated clothing, equipment, trucks, feed ingredients and food waste (pork sausage/pork), some ticks.
- Incubation period (time from exposure to clinical signs): 5 to 21 days after direct contact. Acute disease appears in 3 to 7 days.
- Shedding (amount of time pigs can infect other pigs): Pigs that survive and recover can continue to shed the virus.
- Amount of virus needed to infect a pig: Small amounts.
- Vaccine: Not available and no direct treatment.
- Disinfectants: Limited number of products are approved, check product label.

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!