Exhibitor Awareness: PEDV Biosecurity

consideration for county fair swine weigh-in

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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 of age. 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).

PEDV can cause significant economic losses for pork producers. The greatest loss will be incurred by operations with sows. If a sow operation breaks with PEDV, there is usually 3-5 weeks period with few or no piglets to wean off the sow. Nursery or older pigs generally survive the virus challenge and have a seven to ten day period of limited or no weight gain.

COMMUNICATION, COMMUNICATION, COMMUNICATION

The purpose of this document is to increase awareness and stress the need for everyone to communicate openly as the actions or inactions of one person can impact everyone.

Extension Staff: Week(s) before weigh-in: (Important for scheduling at weigh-in)

1. Establish potential PEDV status on each exhibitor
   Confirmed Positive (lab test), **Potential Positive** (diarrhea within 5 weeks of weigh-in), **Assumed Negative**
2. Review volunteer personnel that help with weigh-in. Discourage producers with sow or farrow-finish operations. Consider requesting active pork producers to help with beef weigh-in and active beef producers to help with swine weigh-in … reduces biosecurity issues with PEDV.

Exhibitor – Prior to weigh-in:

1. If possible, house selected pigs for 3 days (prefer 7 days) in an isolation pen for observation.
2. Watch for and report signs of illness to the Swine Weigh-in Committee. Signs may include:
   a. Loss of appetite (off feed or complete feed refusal) – while uncommon, report
   b. Loose stools (diarrhea) or vomiting
   c. Cough or hard time breathing ("thumping")
   d. Nasal discharge
   e. Skin discoloration
3. Focus on proper cleaning of all equipment.
   a. All transport vehicles, trailers and other pig-handling equipment (sort boards, paddles, etc.) should be free of manure and bedding, cleaned and disinfected prior to adding new bedding and loading the animals.

Select a disinfectant with a label claim for Coronaviruses (Synergize, Tek-Trol®, DC&R® and Virkon®-S and others)

PEDV likes to hitch a ride … separate yourself from cross contamination.

PEDV within infected feces can survive on different materials and survive longer in cool, damp conditions. Organic matter (shavings, manure) or water, mud or snow can carry diseases on boots, clothing, tires, undercarriages, trailers, shovels, winter panels, sorting panels and people can infect healthy pigs. Other activities, such as walking into a contaminated barn or packing plant can increase risk for disease spread because boots and trailers can become contaminated with diseases you are trying to keep out. Assume every site you touch is a risk.

Extension Staff: Prioritize and Schedule weigh-in times or order of exhibitors based upon PEDV status

1. Prioritize operation type and PEDV status on each exhibitor
   Assumed Negative with sows (farrowing)
   Assumed Negative with only growing pigs
   then **Confirmed Positive** (lab test), **Potential Positive** (diarrhea within 5 weeks of weigh-in)

Exhibitor: At the weigh-in …. ASSUME THERE IS PEDV RISK!

Exhibitor, parent and pig handlers should wear clean clothes and footwear … no obvious fecal material.

1. Bring at least two people for process (1 in trailer, 1 holder to transfer pigs to/from scale)
2. Remain in truck until it is your turn to weigh-in
3. As exiting truck cab, each person puts on plastic boots
   a. Trailer person – put on 2nd layer of plastic boots as enters trailer, remain in trailer until all pigs processed, will remove 2nd layer as exiting trailer and finally remove 1st layer as re-entering truck cab.
   b. Pig Holder person – do not enter trailer. Remove plastic boots as re-entering truck cab to leave.
4. If farm boots are worn, they should arrive clean (no fecal/organic material); (slip disposable boots over these is the best way to protect the weigh-in area and the home farm) once they hit ground/cement of weigh-in site – ASSUME DIRTY. These boots or plastic covers need to be removed as re-entering truck cab and boots placed in garbage bag/container to be washed or disposed before returning to the farm.
5. Have a garbage bag for disposing used plastic boots. Carry another for clothes that may be dirty. Dispose of disposable coverings before leaving weigh-in site.
6. Keep the health papers in a zip-lock bag (just in case you drop them on the ground).
7. Limit the exposure of your pigs to the facility and equipment as much as possible.
8. If an animal is suspect to be ill at the time of handling, manage that animal last.
9. Processing pigs. Weighing and Tagging:
   a. Have exhibitor/holder transfer pig to/from scale.
   b. Scale operator and tagger should wear disposable gloves.
   c. Thoroughly wash and disinfect the scale, tagger, support equipment and area around it at the end of weigh-in before next exhibitor/pig source.

Exhibitor: Arriving home after weigh-in

1. Pigs should be placed in isolation
   a. Work with your veterinarian for an isolation plan. The isolation/observation period should be at least 7 days before returning to contact with other pigs in order to detect an illness.
   b. Isolation daily care –use different clothing, footwear and equipment than rest of swine operation.
   c. Isolation daily care –care for these pigs at the end of the day and shower before going back to the other pigs during the same day.
   d. Keep dogs, cats, birds and wildlife away from the isolation pens. Maintain effective rodent control.
   e. Consult a veterinarian if your pigs become ill.
2. Wash and dry all clothes, hats or gloves. Wash, disinfect and fully dry all transport vehicles, trailers and all equipment that was used at the weigh-in.

This document is to identify equipment management, people's actions and pig handling that may help reduce the chance of spreading PEDV. This cannot eliminate the risk, but reduces the risk. Details make the difference.