



# How to Verify PEDV-Negative Status After the Virus Is Eliminated on a Farm

Porcine epidemic diarrhea virus (PEDV) is a highly contagious enteric pathogen causing severe diarrhea and piglet mortality when introduced into a sow farm. To control disease caused by PEDV, some farms may attempt to eliminate the virus from the farm. However, herd reinfection with PEDV is possible so biosecurity precautions need to remain in place. This process is complicated by variations in PEDV virulence (its ability to cause disease) as well as the recent introduction of yet another likely disease-causing enteric virus, porcine deltacoronavirus (PDCoV).

## Appropriate testing methods to determine if PEDV is still present on the farm:

Testing needs to include both replacement animals after entry and commingling with resident sows, and piglets.

### Testing of replacement animals:

- Introduction of PEDV-negative, unexposed replacement animals will be required to ensure that a herd achieves or maintains PEDV-negative status.
- Testing replacement animals after they have been commingled with the sow farm adult animals for at least 30 days is indicated:
  - PCR testing of feces from introduced animals over a 30-day period (expected negative).
    - » Testing is performed on feces from gilts with loose feces or pooled feces from gilts one and three weeks post-placement.
    - » If gilts are in pens, oral fluids can also be used as the sample on the PCR test (one rope/pen).
  - Bleed 30 gilts each month for serological testing (antibody detection) for four consecutive months – (expected negative).

### Testing of suckling piglets:

- Select piglets most likely to be shedding (i.e. those with diarrhea or ill-thrift).
- Collect and pool the fecal samples by litter.
- If no piglets are showing diarrhea then collect four Swiffer or 4x4 gauze samples (one Swiffer or 4x4 gauze can be used to sample up to 12 farrowing stalls) from piglet feces in farrowing stalls.
- PCR test at least 12 pooled specimens per month (or three per week).

If all testing remains negative at all test times, for a minimum of four months, consider the PEDV eliminated. Work with your veterinarian to develop a comprehensive PEDV monitoring program. Always work with the diagnostic laboratory for a complete interpretation of all testing results.



## Procedures for Swiffer or 4x4 Gauze Environmental Sampling

1. Place 10 to 20 ml of phosphate buffered saline (PBS) in a bag with a Swiffer or 4x4 gauze.
2. Massage the bag so that the Swiffer or 4x4 gauze will absorb the PBS.
3. With gloved hands, carefully remove Swiffer or 4x4 gauze from inside the bag.
4. Wipe/sample a 1-square-foot area (or the designated number of farrowing stalls).
  - If sampling on a substrate that is relatively clean and dry, then enlarge the sampling area to increase the chances of finding any virus present.
5. Put the Swiffer or 4x4 gauze back into the bag.
6. Squeeze PBS from Swiffer or 4x4 gauze inside the bag and then pour PBS into a tube for submission, in a cooler on ice, to the diagnostic laboratory.
7. Discard used Swiffer/4x4 gauze.



## Diseases like to “Hitch a Ride” so separate yourself from cross contamination. Control the accidental spread of disease!

The organisms that cause disease in pigs (bacteria, viruses and parasites) can survive in different types of materials. 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’s clothes 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 the farms you serve are trying to keep out. Assume every site you touch is a risk. Do not be responsible for transferring this disease.