

PEDV no surprise, diagnostic tool developed

The detection of porcine endemic diarrhea virus (PEDV) in Ontario might not have been as much of a shock to the pork industry as it was to the media, a chronological review of events over the past 10 months would reveal.

The real surprise was in April 2013 when the first case ever in North America ? or possibly in the Western Hemisphere ? was identified in the Midwest of the United States.

Back then, there was no easy means to detecting the presence of the virus. But, but July, the University of Minnesota had developed a diagnostic test that, apparently, has only recently been publicly announced. As yet, however, there is no vaccine against the virus.

Because there had never been an instance of PEDV on this continent in the annals of history, there was no such thing as immunity. Not surprisingly, the virus spread to 23 States in a matter of weeks after April. But how did it spread?

?This virus spreads primarily through feces so any bit of manure that's on a transportation vehicle, on a pair of boots, on clothing can certainly infect a herd of pigs so the main means of mitigation is to wash and make sure that when their vehicle is washed that it's washed in a facility that does not recycle the water,? says Harvey Wagner of Saskatchewan Pork Development Board in Farmscape.ca

?The PED virus, it doesn't take a lot of the virus to infect the pig; it's actually quite extraordinary in that respect. If you have a little bit of virus on one truck it can infect all the wash water in the truck wash that uses recycled water so make sure the truck washes are using fresh water.?

The Farmscape report was in December. But, in about June 2013 the Canadian Swine Health Board (CSHB) advised producers to be vigilant.

?As this is a new virus to North America, there is no immunity in any Canadian swine herd. This disease is similar to TGE (Transmissible Gastroenteritis). This appears to be a virulent strain, which causes widespread diarrhea with up to 100% mortality in nursing pigs.

?Good biosecurity is the most important step to keep this disease from spreading to Canada. Producers should ensure that incoming trucks are free of contamination,? CSHB said in late May 2013.

Technically, other sites have pointed out that PEDV is among the coronaviridae family, so-called because of its similar appearance to the corona of the sun. That is the similarity as noted by the Board with TGE (transmissible gastroenteritis coronavirus).

Although TGEV might be transmissible to humans, PEDV is not; nor, for now at least, is it transmissible to other animals, according to the scientists.

But if one pig is infected, even if showing no signs, all pigs around it are at risk.

So the University of Minnesota College of Veterinary Medicine has developed a second diagnostic test -- the first PEDV swine herd surveillance test announced in the U.S. ? and has brought PEDV diagnostic testing up to swine industry disease monitoring standards.

?The new test will allow the swine industry to identify which pigs have been exposed to PEDV and act accordingly, even if animals have not shown symptoms of the disease,? says a news release.

The latest figures put pig mortality from PEDV at an estimated 3 million pigs nationwide in the U.S. There is no known effective vaccine or treatment for the virus at this time.

To help combat the economic and animal welfare losses caused by PEDV diagnosis and spread, the University of Minnesota is making the newly developed diagnostic herd surveillance test available to the swine industry immediately at its Veterinary Diagnostic Laboratory for less than \$15 per serum sample submitted.

By Wes keller