



## Mitchell Veterinary Services

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### Pauly Veterinary Clinic

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### ***Swine Newsletter***

#### ***July 1, 2013***

#### ***Porcine Epidemic Diarrhea Virus***

No doubt that by now you have all heard that there is an outbreak of Porcine Epidemic Diarrhea (PED) in the United State. PED is a viral disease causing vomiting, diarrhea, and high death loss in pigs.

Porcine epidemic diarrhea (PED) is caused by a corona virus, just like, but distinct from Transmissible Gastro Enterius Virus (TGE). This virus has been widespread in Europe and Asia and very active in China since 2010. Like TGE, the virus damages the villi in the gut thus reducing the absorptive surface, with loss of fluid and dehydration.

After introduction of the virus into a naïve breeding herd there are acute outbreaks of diarrhea with up to 100% of sows affected, showing mild to very watery diarrhea. In nursing piglets the disease can be mild or severe with mortalities up to 40%. In growing pigs there is widespread diarrhea with low mortality.

Strong herd immunity develops over two to three weeks. In large breeding herds, particularly, herds with separate populations, not all the females may become infected first time round. There may be reappearance in piglets suckling from sows with no material antibodies and new clinical signs may become sporadic.

Two clinical pictures are recognized: 1) where only growing pigs are affected: this will likely occur in herds where there is some maternal immunity (which isn't the case here in Ontario); and 2) the acute form that affects all ages including nursing pigs and mature sows: this likely to occur during an outbreak in a naïve population.

Diagnostically this disease must be differentiated from TGE.

Like the TGE virus, PED virus survives well in cold weather. It can be spread through infected pigs, manure contaminated trucks and equipment, and by birds or wildlife. Particular care should be given to cleaning vehicles returning from affected areas, as well as feed ingredients and other potential fomites.

As I write this, we know that it has been diagnosed in 13 states (mostly in the mid-west, but as far east as Pennsylvania) affecting more than 200 farms. To date PED has not been diagnosed in Canada.

PED is not a threat to people. And it is not one of the foreign animal diseases (like Foot and Mouth disease) that CFIA is concerned about. Of course, there has been a lot of communication among the Ontario Association of Swine Veterinarians, our sister associations in Western Canada and Quebec, and our umbrella group, the Canadian Association of Swine Veterinarians about the PED development and how to keep it out of Canada. Fortunately, most of you recently took the National Biosecurity course for pork producers and know how to tighten up security at your own locations.

The biggest threat is transportation. Paying the price to only have washed pig hauling trucks come onto your place may well be worth it if that already isn't the case.

Of course, we think the movement of trucks back and forth across the border is a major concern.

The CASV has had discussions with CFIA. There has been a document alerting transport companies to wash, disinfect and dry trucks returning from delivering pigs to the US before coming home. There are some rules already in place but at this point in time we really need to insure that they are being enforced, and possibly enhanced!

Locally, the OASV has developed a position statement to present to OMAF with recommendations on actions to be taken if PED enters Ontario.

It will be a huge accomplishment to keep this bug out of Ontario now it is in North America. The reality is that sooner or later it probably will arrive. Then the emphasis will be on farm to farm biosecurity.

Yours truly,

R.G. Reed

RR/cp