

# IN THIS ISSUE

- Disease Surveillance Discussion
- International Disease Surveillance Topics

## Disease Surveillance Discussion

### Porcine Reproductive and Respiratory Syndrome (PRRS)

Veterinarians reported that PRRS was quite active in both breeding and growing pigs in Q4. In many situations the exact source of introduction of the PRRS virus is unknown. Sometimes the source of introduction is known such as when introduction occurs via replacement breeding stock. Introduction via replacement breeding stock is a rare event that can occur when PRRS is introduced from the source barn after the most recent PRRS monitoring or during transport. Having an isolation or quarantine barn is a biosecurity procedure that can prevent introduction of PRRS into your facility. Having a quarantine barn is not always feasible in every situation. Timing gilt deliveries just after the latest monitoring tests are completed is one method to reduce risk. Talk to your herd veterinarian about steps that can be taken to reduce your PRRS risks associated with in-coming breeding stock.

### Porcine Epidemic Diarrhea (PEDV) / Porcine Deltacoronavirus (PDCoV)

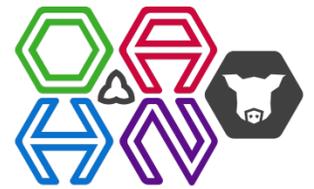
Swine Health Ontario reported that there were no cases in Q4:  
There have been 2 additional cases in Q1 2023 thus far.

Jan 18, 2023 Perth	PED	Nursery-to-finish
Jan 18, 2023 Oxford	PED	Farrow-to-wean

The PED and PDCoV Tracking map is available at the Swine Health Ontario website and shows current and annual cases by county. <http://www.swinehealthontario.ca/Disease-Information/PED-PDCoV-Tracking-Map>

### Erysipelas

The seasonal pattern with increased Erysipelas condemnations in Q4 and Q3 continues. Erysipelas accounted for 7.3 % of all carcass condemnations at federally inspected Ontario plants in Q4. Condemnations due to Erysipelas have reached the highest levels since Q1 2020 (10.3%)



## Disease Surveillance Discussion Continued ...

Quite often producers are not aware of clinical signs of Erysipelas in the finisher and only became aware of the problems when they review their condemnation reports or receive a call from their processor. It is frustrating to find that pigs are being condemned without clinical signs in the barn. Over half of pigs in a barn can have *E. rhusiopathiae* on their tonsils without causing disease. Erysipelas can then be shed in their feces or nasal secretions as a source of infection for other pigs. The organism can remain viable in manure for months. A common clinical sign of Erysipelas is “diamond” shaped skin lesions. However pigs affected with Erysipelas may die suddenly without diamond skin lesions or illness being observed. In these peracute deaths the skin can be red or purple. Clinical signs can include off feed, fever, lameness, swollen joints raised red bumps on skin or diamond-shaped red skin lesions. If you do have reports of pigs being condemned due to Erysipelas there may be other contributing factors in the barn. Your veterinarian can help to connect the dots and put a control plan in place.

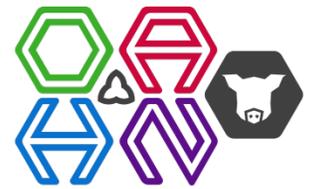
### Brachyspira Hampsonii

*Brachyspira hampsonii* clade 1 was detected at AHL by PCR in feces from 1 herd with diarrhea in sows. This is the second time that *B. hampsonii* has been confirmed in Ontario swine. The first case was in Q3 2020. The Canadian Swine Health Information Network (CSHIN) has previously reported that *B. hampsonii* is a relatively common pathogen in western Canada and is associated with bloody scours. Recently RAIZO has reported increased numbers of cases of *B. hampsonii* in Quebec. Some of these infections have been difficult to eliminate from the herd.

### Recent Isolations at the Animal Health Lab

Porcine sapovirus was identified by PCR in a group of nursing piglets with diarrhea. This is the first report of porcine sapovirus detection in Ontario swine. The virus is considered an emerging enteric pathogen in swine, although few published clinical reports are available. Pigs in the current case have microscopic lesions that are typical for what is seen in viral gut infections. However these pigs had none of the other commonly identified causes of piglet diarrhea. Mortality was low in this index case but this is a pathogen that will continued to be monitored.

Porcine astrovirus-4 was detected in lung from nursing piglets with microscopic lesions of pneumonia similar to influenza. Porcine Astrovirus-4 was identified as a cause of tracheitis and bronchitis in nursing and young weaned pigs. This is the first report of porcine astrovirus-4 detection in Ontario swine. Notably, the pigs in this case were negative for influenza A virus and other viral respiratory pathogens. Another pathogen the lab will be monitoring.



# International Disease Topics Of Interest Summary

Dr. Al Scorgie commented on some interesting international disease surveillance reports

## African Swine Fever

EU - The number of cases of ASF in wild boars in the EU dropped for the first time since ASF was first detected in the EU. In 2021 there were 12,076 cases and in 2022 there were 7,282 cases, a 40% reduction. The two countries with the most cases of ASF in wild boars were Poland, (2,152) and Germany, (1,628). For both of these countries this was a reduction of over 30% from the previous year. Some countries such as Latvia, Lithuania, Bulgaria, and Italy had an increase in the number of cases of ASF in wild boars but that was because the countries previously had a low number of cases of ASF. Italy had no cases of ASF in wild boars, except for in Sardinia, where ASF is endemic. In 2022, ASF was found in wild boars on the mainland. The Czech Republic had its first case of ASF in a wild boar in 4 years.

In domestic pigs, the number of cases of ASF also fell. In 2021 there were 1,826 cases of ASF in domestic pigs in the EU. In 2022 there were 379 cases, a drop of over 80%. In 2021 the number of cases of ASF in domestic pigs had increased over 50% from 2020 and in 2020 the number of cases in domestic pigs was down 35% from 2019. Romania had 329 cases in domestic pigs in 2022 but this was still down 80% from the previous year. Poland had 14 down from 124 cases in 2021. Other countries had from 2 to 6 cases.

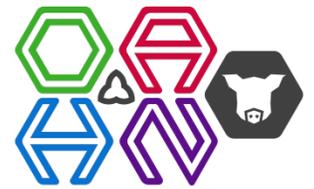
## Artificial Insemination as a Transmission Route for ASF

Researchers in Germany and the US have shown ASF can be transmitted through artificial insemination. Boars were given a strain of ASF intramuscularly. ASF was found in the blood 1 d.p.i. and in the semen 2 d.p.i. There was no effect on semen quality. 14 gilts were inseminated. 7 gilts were positive by 7 days post-insemination and all gilts were positive by 35 days post-insemination. 13 of the 14 gilts became pregnant and 12 of the 13 aborted or resorbed their pregnancies. A high proportion of the aborted fetuses had abnormalities and ASFV could be detected in fetal tissue. If a boar stud was infected with ASF, the virus could be rapidly disseminated.

(Virginia Friedrichs et. al December 14th 2022)

## Seneca Valley Virus (SVV)

The UK has confirmed 5 cases of SVV. All 5 cases were on farms in the Norfolk area. The cases were between June and September 2022. This is the first report of SVV in Europe. PCR testing of the feeds and boars were negative and none of the farms had brought any pigs in. In the UK SVV is not a notifiable or reportable disease. The concern with SVV is how the clinical signs resemble other vesicular diseases such as FMD. (pig 333.com 20/01/23)



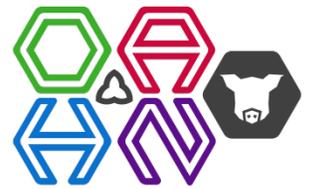
## Animal Health Laboratory Diagnostic Reports Continued ...

### Porcine Reproduction and Respiratory Syndrome (PRRS)

Researchers (Joaquim Alvarez-Norambuena et al) used PCR testing to look for field and/or vaccine PRRS strains in the same samples. The researchers found that whichever PRRS strain (field or vaccine) was in the higher concentration was the only strain identified while the other strain in the sample went undetected. The researchers' findings are important. The findings should be considered when diagnosing reproductive or respiratory disease in a PRRS vaccinated herd or when there is a PRRS vaccinated herd undergoing a virus elimination. (Bob Morrison's Swine Health Monitoring Project, December 30th 2022).

### APP Serotype 15

APP serotype 15 outbreaks have occurred in finisher barns in the US mid-west. Pigs coming into these sites were sourced from APP serotype 15 negative sow herds. The source of APP infection was suspected to be area spread although one barn tentatively linked their outbreak to contaminated sorting boards. The Swine Health Information Center (SHIC) supported a study to follow 67 finisher pigs on a site that had broken with APP Serotype 15. The goal of the study was to understand how APP is shed and to identify the best methods to detect it. There were 67 pigs that had tonsillar scrapings and nasal swabs done regularly. Oral fluids (OF) were also collected. 50% of the nasal swabs were APP positive. 50% of the tonsillar scrapings were positive. More of the nasal swabs were positive immediately after infection while the number of positive tonsillar scrapings increased over time. OF samples were positive half the time. App was regularly found on the rendering box, on door handles, on the floor in front of the feeders and once on the floor by the entrance. One of the key take home messages from the App serotype 15 investigation is that there is significant room for improvement in US nursery and finisher biosecurity. (National Hog Farmer 16/01/23).



## How can you Participate in OAHN?

Share the information contained within this report with others involved in the swine industry and with other swine producers. Help us spread the word! Ask your veterinarian for more information about topics included in this report.

## Contact Us!

Website: [www.oahn.ca](http://www.oahn.ca)  
Email: [oahn@uoguelph.ca](mailto:oahn@uoguelph.ca)  
Twitter: @OntAnHealthNet  
Facebook: @OntarioAnimalHealthNetwork

## Do you Enjoy Podcasts?

Check out all the current OAHN podcasts at [oahn.podbean.com](http://oahn.podbean.com).

Have an idea for a podcast you'd like to hear? [Let us know!](#)

## Meet your OAHN Swine Network Team:

### Practice Veterinarians

Dr. Christine Pelland  
(network co-lead)  
Dr. Allister Scorgie  
Dr. Sue Burlatschenko

### OMAFRA

Dr. Christa Arsenault  
(network co-lead)  
Dr. Tim Blackwell  
Dr. Tim Pasma  
Dr. Laura Eastwood  
Dr. Jaydee Smith  
Dr. Andrew Vince

### CSHIN Rep

Dr. George Charbonneau

### OAHN coordinator

Dr. Tanya Rossi

### Ontario Veterinary College

Dr. Robert Friendship

### Animal Health Lab

Dr. Josepha DeLay  
Dr. Jim Fairles

### Gallant Custom Labs

Kalena Statutiak  
Anna Pietruszkiewicz

### Industry

Stacey Ash OP  
Jessica Fox SHO

