



Canadian Swine Health  
Intelligence Network

Réseau canadien de  
surveillance de la santé porcine

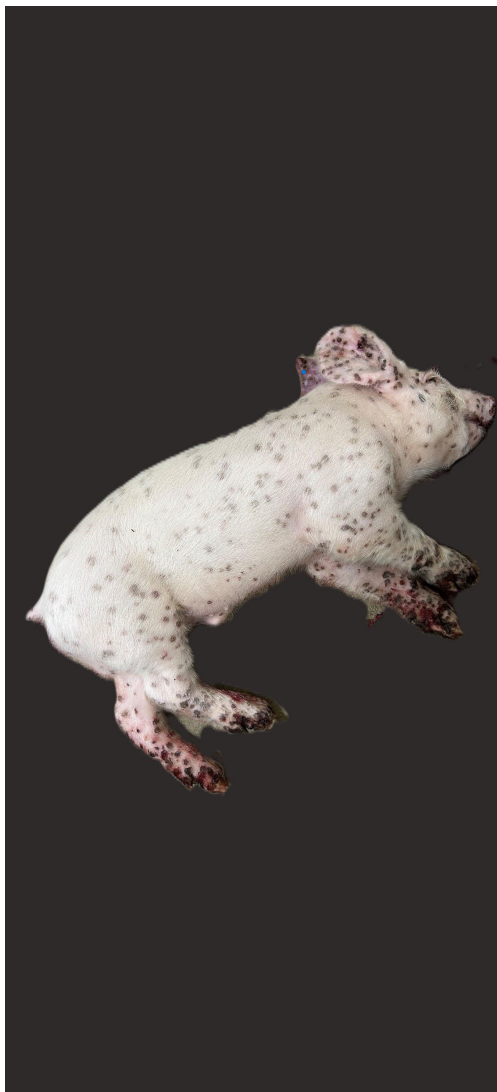
REPORT Q1 JAN-MAR 2024

## HIGHLIGHTS FOR SWINE PRODUCERS

### Swine Pox Virus and other diseases causing skin lesions

#### CWSHIN (Western Provinces)

Dr. Tony Nikkel a private practicing veterinarian from the western provinces reported on a case of Swine Pox Virus that occurred in a 1700 sow herd following a 4-week batch farrowing system. Small, circular, raised pox lesions were seen on the skin throughout the body of infected pigs including on the head, face, ears, torso, and extremities.



In the entire barn, 1-2 pigs in a single litter out of 325 litters in the batch were affected. No other clinical signs or abnormalities were seen in this herd. Clinical lesions were severe for the individual pigs affected. When the skin lesions healed these left noticeable scars on the affected pigs demonstrated in the image to the left.

Dr. Kurt Preugschaus reported having cases that presented similar to this in his practice in the past. He mentioned that it was quite easy to distinguish between greasy pig disease (the most common endemic cause of skin lesions seen in domestic swine in Canada) and Swine Pox Virus.

Dr. Jette Christensen, the Canadian West Swine Health Intelligence Network (CWSHIN) manager, mentioned that this discussion on the CWSHIN Q1 meeting led to a more in-depth discussion on skin lesions in general. Sometimes skin lesions associated with different pathogens can be subtle and difficult to visualize on initial inspection of the animals e.g. Senecavirus A (SVA) associated lesions including blisters, ulcers, and healing ulcers usually found on the feet, snout, and face of infected pigs. SVA lesions can not be differentiated upon visual inspection only from swine vesicular foreign animal disease and therefore the CFIA must be notified, and diagnostic testing must be initiated to rule out these diseases.

**Take Home Message:** This case serves as a reminder on the **importance for producers and veterinarians to take the time to inspect animals for skin lesions before shipping, especially if the animals are destined for export to the U.S.A and or to an abattoir for processing. Shipping pigs with unknown skin lesions, could lead to an abattoir being temporarily shut down and in the case of pigs being exported to the U.S.A could lead to a market disruption for future export certifications.**

Image courtesy of Dr. Tony Nikkel -  
Demonstrates a pig with Swine Pox Virus  
lesions and skin scars.

# Senecavirus A (SVA)

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## RAIZO (Quebec)

Dr. Roxann Hart provided an update to the CSHIN Q1 team on Senecavirus A (SVA) in Quebec. In the 2023 Q4 CSHIN reports, RAIZO provided a timeline of the events that have occurred in Quebec over the past two quarters with SVA detection. The first positive SVA PCR test was detected at a transportation wash bay in Quebec, followed by in a cull sow assembly yard, and in January 2024 SVA was detected in a sow herd. The affected assembly yard was emptied then thoroughly washed/disinfected/dried following the virus eradication protocol (explained in detail in the 2023 Q4 CSHIN report). The attending veterinarian saw compatible clinical signs for SVA including ulcer type lesions of the skin, in the affected sow herd. The CFIA was contacted, and PCR and ELISA diagnostic tests were submitted to rule out other foreign animal swine vesicular diseases and tests were initiated for SVA. All the PCR diagnostic tests came back negative and some of the diagnostic ELISA's (for SVA only) came back positive.

The timeline of events of SVA detections in Quebec was as follows:

In 2024, → 5 sites reported the presence of SVA:

- January 23, 2024: A sow herd and a nursery
- February 15, 2024: A second nursery
- March 8 and 14, 2024: Two finishing barns
- April 12, 2024: The sow herd and two nurseries regain a negative SVA health status.
- May 10, 2024: Message from the EQSP (Équipe québécoise de santé porcine) announced the last two finishing herds had regained a negative health status for SVA. **Quebec regained its negative SVA health status as of this date.**

A question arose from this case on what to do with SVA positive pigs in a finisher that are at market weights. After the positive tests were received it was determined there would be 8 weeks of presumptive SVA positive pigs to be shipped to the abattoir. The associated veterinarian worked with the CFIA to determine a plan detailing a protocol that would be in place with the attempt to avoid the shutdown of the abattoir if clinical signs of SVA were seen. The plan of action was for any farm with an epidemiological link to the positive SVA sow herd:

- If lesions were present on the farm → The CFIA was to be notified.
- If there were no lesions present on the farm → The pigs could be sent to the abattoir → If lesions were found to be present at the abattoir → No abattoir closure would occur (samples from pigs with lesions will be taken + isolation)

Today the following is still in place to monitor for SVA in Quebec:

- Preventive environmental SVA PCR testing to monitor for disease must continue at the abattoir loading docks, in the truck wash bay and in the cull sow assembly yard.
- Good biosecurity measures are the key to preventing new disease detections and this has been messaged to Quebec swine producers, veterinarians, and swine transporters.

# Actinobacillus Pleuropneumonia (APP) serotype 8

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## RAIZO (Quebec)

Dr. Laurie Pfeider provided a summary of several Actinobacillus Pleuropneumonia (APP) cases recently seen in Quebec to the CSHIN Q1 team. Since September of 2023, 3 cases of APP serotype 8 have been reported. The known details of each case are summarized below:

### Case One

- 500 head finishing barn in a low-density swine area of Quebec.
- Reported to have changed their source of piglets without consulting first with their veterinarian.
- The source sow herd of these piglets is a 1000 sow farrow-to-finish herd that is known to have had APP serotype 8. Piglets received an autogenous vaccine at weaning and booster dose given as well.
- Case mortality reported was twice the normal amount for this finishing barn.

### Case Two

- APP serotype 8 infection detected within an independent system affecting only the finishing sites. The first site broke in November 2023, the second site broke in February 2024. An all-in/all-out system is not followed on any of these sites.
- Same source of piglets that they have had for the last 25 years.
- The only possible connection to case one is that the transporter of case one is the neighbour of the farm.
- Further repeat outbreaks were seen in March of 2024 on both sites. Has proven to be very difficult to control on these farms.
- Water soluble treatments were attempted in this case but had questionable effectivity.

More cases arose in a finishing barn and at a neighbouring site all within 1-2 kms of each other and all involved the same people. Potential spread of the bacteria between sites was thought to be possible through potential biosecurity breaches, pig movements, wildlife vectors e.g. raccoons, possibly through aerosol transmission??, transporter neighbour, rendering and dead stock pig movements. So far, the producers have spent approximately \$100 K in treatments used and on the diagnostic testing for an upcoming autogenous vaccine trial with the attempt to increase herd immunity and to also reduce pathogen shedding. This farm has implemented 3 separate day shifts for staff to help control the associated mortalities through earlier treatments. The overall goal will be to attempt to eradicate this pathogen.

### Case Three

- Detected APP serotype 8 in an all-in/all-out sow herd with finishing sites with 3 barns located 6 kms from case 2.
- Mortality reported to the herd vet on Jan 10<sup>th</sup> at 9am was 12 pigs and by 1pm that afternoon this herd reported 25 pigs had died. Very fast moving! Pigs presented with fever, dyspnea, mouth, and nose frothing/ bleeding.
- This sow herd was closed and in the middle of an ongoing herd depopulation when this detection occurred.
- A total of 209 APP associated deaths were reported in 3 weeks duration from the 3 barns infected with APP serotype 8 on this site and many condemnations that occurred at the abattoirs due to postmortem findings. Barn mortality rates ranged from 8-20%.
- Sow herd is known to be positive on ELISA for APP serotypes 3,7, 8,15 with no cases seen in the last 20 years except for a few sporadic mild cases of serotype 7 in one case.
- There are no known links to cases 2 and 3 summarized above. Whole herd injectable medications were used in this case vs. water soluble medications due to the need to send as many pigs to the abattoir as possible to alleviate space constraints due to market weight sized pigs. Unfortunately, 6-7 days after the initial treatment, a second dose had to be given of injectable treatment targeting pigs that were relapsing with clinical signs of disease.

## OAHN (Ontario)

Dr. Jordan Buchan reported that several comments were received from veterinarians that filled out the clinical impressions survey for Q1 2024 in Ontario on APP. One practitioner commented that an increase in APP was seen with an outbreak reported of APP serotype 7. A separate practitioner reported 3 distinct APP-positive cases in Q1 of 2024. This increase in cases is supported by the clinical impression survey results, where 20% of respondents perceived an overall increase in APP this quarter.

## Porcine Epidemic Diarrhea (PED) and Porcine Deltacoronavirus (PDCoV)

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### OAHN (Ontario)

Jessica Fox from Swine Health Ontario (SHO) provided an update to the OAHN swine network in Q1 on the concerning increase in Porcine Epidemic Diarrhea (PED) and Porcine Deltacoronavirus (PDCoV) cases throughout Ontario. In Q1 of 2024, 19 new PDCoV cases were reported, as well as 7 new PED cases. The majority of these cases were found to be a result of contamination due to transport and/or people movements. 80% of Ontario based veterinarians participating in the Q1 2024 clinical impressions survey reported that PDCoV cases had increased compared to the previous quarter, and 53% reported an increase in PED cases this quarter.

**Swine Health Ontario (SHO) sent out a notice to all Ontario swine producers and industry members that encouraged the industry to be vigilant in the face of this outbreak and to continue to support virus elimination strategy, as this remains the best approach for disease control. Veterinarians were encouraged to continue testing for coronaviruses in all gastrointestinal cases, as PDCoV in particular can present with extremely mild clinical signs. Timely diagnosis of these cases can help limit widespread contamination and potential spread to other sites.** Veterinarians were also encouraged to promote the use of the Swine Health Area Regional Control (SHARC) program by producers to stay aware of current positive sites in their proximity. The PED and PDCoV tracking map are available on the Swine Health Ontario website and shows current and annual cases by county. <http://www.swinehealthontario.ca/Disease-Information/PED-PDCoV-Tracking-Map>

### RAIZO (Quebec)

Dr. Roxann Hart reported that Quebec remained free from PED and PDCoV cases in 2024 Q1.

### CWSHIN (Western Provinces)

Dr. Tony Nikkel reported that the province of Manitoba had a new case of PDCoV detected in a finishing barn in April 2024. This is the first case of PDCoV being detected in Manitoba since 2019. The clinical signs in this case looked identical to what would be expected with a PED infection and demonstrated rapid spread of clinical signs throughout the herd. This site is located within 1.6 miles of the cull sow assembly site in Manitoba that is known to have circulating PDCoV, however there are no known connections between these two sites. To date the sequences of these two viruses have not been compared.

# H5N1 Highly Pathogenic Avian Influenza Detection in dairy cattle in the U.S.A- Update for Swine Veterinarians

The Canadian Animal Health Surveillance System (CAHSS), CSHIN, the Canadian Pork Council (CPC) and the Canadian Association of Swine Veterinarians (CASV) hosted a webinar on May 30, 2024, entitled “The Potential for H5N1 in swine: Lesson learned from the dairy industry so far” (see webinar bulletin below):

## The potential for H5N1 influenza in swine: Lessons learned from the dairy industry so far

*The webinar covers an update on HPAI in dairy cattle in the US, brief summary on the national collaborative approach amongst government and swine industry, applied biosecurity concepts towards the potential of HPAI in swine, and an overview of the current Canadian grassroots approach for non-HPAI influenza in swine.*

**Online Webinar:** Available upon registration  
**Date:** May 30, 2024 (Thursday)  
**Time:** 12:00 to 2:00pm EST (1.5 hour webinar, Q and A after)  
**Cost:** FREE  
**Registration Link:** Click [HERE](#)





For those interested, we would encourage you to view/listen to the recording via the following [link](#).

*This information is a professional communication for swine producers. This information is not validated and may not reflect the entire clinical situation. Your judgment is required in the interpretation and use of it. It is the intent of CSHIN to improve the health of the national swine herd. CSHIN is funded by the Canadian Association of Swine Veterinarians (CASV), The Canadian Pork Council (CPC) and The Canadian Animal Health Surveillance System (CAHSS).*

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