Swine Health Surveillance
4th Quarter 2024

Producer Report

This report is intended for swine producers in the western Canadian provinces.

CWSHIN serves western swine producers, swine herd practitioners and governments to improve swine health, production, and the economic prosperity of the sector.

Our surveillance objectives are to:

- Detect new emerging swine health issues,
- Detect unusual clinical presentation of known diseases,
- Provide information about endemic diseases, and
- For diseases absent in western Canada (such as Foot and Mouth Disease and African swine fever) the objective is to help provide evidence of absence of disease to support trade.

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FEBRUARY 13

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Canada West Swine Health Intelligence Network

Practical tip

- Diarrhea in young pigs may be a complex problem that needs careful investigation by the herd vet.
- Careful planning and consultation with the herd vet is critical for a successful PRRS elimination in herds.
- If you see sudden deaths, you should notify your herd vet.

Message

The one and only Porcine Epidemic Diarrhea (PED) case in 2024 emphasized that manure storage may be contaminated with the virus more than 1 year and 8 months after the last pig with PED had left the premises. Therefore, contaminated manure may be spread in this Spring's manure-spreading season. Extra caution should be applied in the area when spreading manure from previously PED infected barns.

Contents

Update on PED in MB

In 2024, Porcine Epidemic Diarrhea (PED) has been confirmed on one (1) premises in Manitoba.

PED was first detected on routine herd surveillance

- Routine sampling (environmental) 29 Nov.
- First clinical signs – The vet was not notified 1 Dec. (Saturday)
- The result of the environmental samples positive 2 Dec. (Sunday) and biocontainment started
- Resampling and test positive 3 Dec. – elimination plan started.

The premises had previously been infected with PED, but the last PED positive pigs left the premises more than 1 year and 8 months ago. The affected premises happen to be located in a pig dense area (many sites, many pigs) but the outbreak was contained to one of two barns on the premises through good on-farm biosecurity.

Contributing to the success in containing PED to one premises may have been that the source was determined to be on the same premises and not a general exposure of many premises in the area. The source was in fact contamination of yard between the two barns after repair-work had been done on the premises' manure lagoon.

PED in MB

Take home messages:

- **Surveillance was critical for early detection and limiting the spread of PED**
- **Good and early biosecurity can contain PED**
- **The source was on farm and there was no indication of other premises being exposed from the same source.**

The caution is that the lagoon was still positive more than 1 year and 8 months after the last PED positive pigs left the site!

Practical tip

Spring manure spreading season will be here soon and caution should be applied when spreading manure from previously PED infected barns.

Diarrhea in young pigs

The Digestive syndrome has consistently been the most frequent syndrome in the Surveys and in the laboratory data. Quarter 4 (2024) was no exception therefore, case stories of diarrhea in young pigs – specifically Rotavirus and Sapovirus- were presented and discussed.

Both Rotavirus and Sapovirus were contributing to diarrhea in young pigs either alone or in combination with other virus, bacteria or parasites. For example, coronavirus, E coli, Salmonella, coccidia etc.

Cases of *Clostridium difficile* in several herds was reported and compared to similar cases in the past. It was suggested that routine antibiotics may be a common factor:

- In a *C Difficile* case, joint problems were treated routinely but when they switched to another antibiotic the *C difficile* problem resolved.
- Cases with “angry gut” was seen with routine use of antibiotics

It is clear that diarrhea in young pigs can be a very complex problem where a range of organisms, feed, management etc. may be contributing. This type of health problems may need a careful investigation by the herd veterinarian to control.

Diarrhea

Rotavirus and Sapovirus in young pigs dominated the discussion with case stories from all 4 provinces.

Practical tip

Diarrhea in young pigs may be a complex problem that needs careful investigation by the herd vet.

The CWSHIN quarterly calls are a forum for herd vets to exchange experience and expand their tools to help producers control diseases such as diarrhea in young pigs.

PRRS

A vet reported a devastating break with Porcine Reproductive and Respiratory Syndrome (PRRS) happening at the end of the year.

It was in a new start-up (8 months in) with renovated old barns. The premises was located 6-8 km from a PRRS-positive farm in an area that is known to be heavily affected with PRRS. However, the area is working on PRRS eradication.

The case started in mid-December with 3-4 animals breathing heavy. Later other clinical signs of PRRS were seen.

PRRS is known to be spread in the local area around infected farms in Denmark, where the pig density is very high. Consider virus as a particle that can be transmitted with wind under conditions such as a slow steady wind, fog/overcast, no UV, temperature 0 to 5 degrees. Over flat geography or over water bodies the particles (virus) can travel further than over hilly terrain. Area spread has also been seen elsewhere with high pig density.

PRRS

A PRRS break might suggest that under certain condition the virus may be transmitted in the local area - especially when the farm density is high.

Partial elimination on-farm can be successful in particular in summertime.

Practical tip

Careful planning and consultation with the herd vet is critical for a successful PRRS elimination in herds.

A vet reported success with partial elimination strategies. For example, on a 5-barn finisher-site. However, the time of year important – best result should be expected in summer.

Systemic disease

A vet reported Circovirus 3 (PCV3) meningitis in a nursery with:

- The pigs showed uncoordinated front legs
- 10-15% sudden deaths per batch. The clinical presentation looked like *Strep suis*
- A laboratory diagnosis of PCV3 was necessary
- Antibiotics had no effect

The sows are now vaccinated but it is too early to assess the effect.

This case story added to the list of differential diagnosis that may be considered by the herd vet in investigations of problems of sudden deaths.

Systemic disease

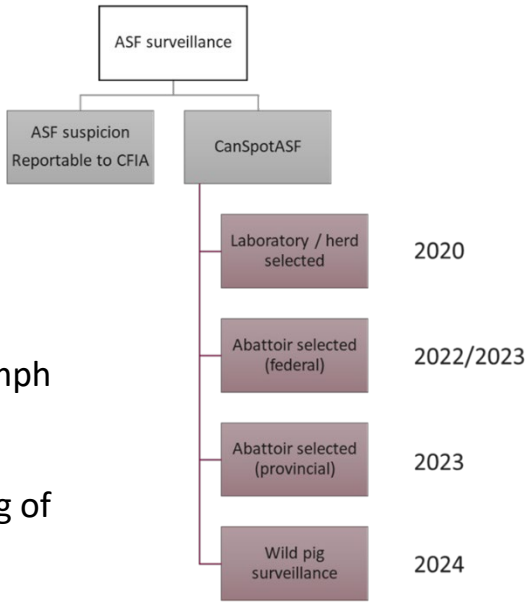
Circovirus 3 (PCV3) may be a differential diagnosis to *Strep suis* in cases of sudden deaths.

Practical tip

If you see sudden deaths, you should always notify your herd vet.

CanSpotASF

Any ASF suspicion is reportable to CFIA. In addition, there was rule-out testing in herds



- Selected by pathologists at laboratories
- Selected by a herd veterinarian
    - Remember to submit spleen, lymph nodes, Premises ID

Rule-out testing at abattoirs with sampling of condemned carcasses at

- Federally inspected plants
- Provincially inspected plants

The wild pig surveillance started in July 2024.

Rule out testing - NO suspect cases					
Quarter	Laboratories			Provincial Abattoir	Wild pigs
	Pathology Lab-cases (VDS/PDS/BC)	Lab-cases tested for ASF	Tested in % of pathology Lab-cases	Carcass-cases tested	Animal-cases tested
Jan-23	138	40	29%	35	
Apr-23	97	7	7%	47	
Jul-23	110	19	17%	14	
Oct-23	105	11	10%	10	
Jan-24	158	46	29%	14	
Apr-24	113	45	40%	17	29
Jul-24	73	17	23%	15	5
Oct-24	88	15	17%	4	33
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HPAI H5N1 in Dairy: A New Genotype D1.1

A single spillover of HPAI H5N1, clade 2.3.4.4b, genotype B3.13 from wild birds into dairy cattle likely occurred between October 2023 and January 2024 (in the USA).

In January 2025, the first detection of a genotype other than B3.13 in U.S. dairy cattle and the second known spillover from wild birds into lactating dairy cattle was reported by USDA:

- The D1.1 genotype has been predominant in migrating wild birds (winter 2024/2025)
- The D1.1 strain was first detected on silos and then confirmed on bulk milk samples
- The cows apparently had no clinical signs at detection but developed fever, reduced feed consumption, reduced milk production, and mild respiratory signs (coughing, sneezing, runny nose)
- Seemingly more severe symptoms in people have been reported
- Nevada has movement restrictions in place

Otherwise HPAI in dairy in the USA is slowing down except in California and now of course Nevada.

HPAI in dairy: a new genotype

Take home messages:

Risk in Canada should be reassessed with new pathways from migrating birds

The risk for swine uncertain

Surveillance in Canada has been funded since September 2024. The surveillance includes:

- Active surveillance on different types of farms
- Testing milk bulk trucks at arrival at processing (raw milk)
- Testing retail milk

Acknowledgement

- CWSHIN would not exist without
  - The participation and support of swine practitioners, laboratories, governments and swine health experts
  - Funding from pork boards and governments

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