

Swine Health Surveillance

2nd Quarter 2023

Producer Report

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.

www.cwshin.ca

AUGUST 25

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Messages

This quarter, the remarkable progress on Sapovirus diagnostics and control demonstrated that CWSHIN is an active network that encourages successful collaboration between swine herd practitioners and laboratories in the region.

Practical tips

- When you suspect that you have Sapovirus scours in your barns, ask your herd practitioner to forward samples to PDS.
- If you see increased mortality, increased abortions or sudden death in mature animals call your herd practitioner – it could be *Streptococcus zooepidemicus* or African swine fever (ASF).
- Look out for blisters and call your herd practitioner if you see any – it is critical for good surveillance for Foot and Mouth Disease (FMD) and Seneca Valley Virus (SVV).

Sapovirus follow-up

Previously, we have discussed Sapovirus at 2 quarterly calls (Q4/2022, Q1/2023).

Good collaboration between herd practitioners, Prairie Diagnostic Services (PDS) and CFIA has resulted in remarkable progress

1. Samples from herds with Sapovirus submitted to PDS have enabled the laboratory to develop a PCR test for Sapovirus
2. The first Sapovirus results were included in the laboratory data, and we expect Q3 will include more Sapovirus results
3. For the first time, CFIA has approved vaccination for Sapovirus in one case.

To get a better understanding of how Sapovirus may affect swine herds, more work on Sapovirus is essential. For example, we want to better understand how widespread the virus is and its role in scours.

Therefore, PDS is working with the province of Saskatchewan on more surveillance work. You can help when you ask your practitioner to submit samples if you see scours.

Sapovirus

Since last quarter, remarkable progress has been made through good collaboration between herd practitioners. PDS and CFIA.

- PDS offers a PCR for Sapovirus
- For the first time, CFIA has approved vaccination for Sapovirus.

Practical tips

When you suspect that you have Sapovirus scours in your barns, ask your herd practitioner to forward samples to PDS.

Follow-up *Streptococcus equi* *zooepidemicus*

History

A sow operation in Alberta was diagnosed with *Strep zooepidemicus* in September 2022.

Quarter 2

In the same production flow as the initial sow operation, the disease has now manifested in 2 finisher barns (to date) with mortality.

- Usually beyond 100 days on the finish floor.
- Crowding and hot weather may have contributed.

The system has decided on a new control strategy with:

- Depopulation of sows and nursery entirely.
- Finish floors depopulation

Follow-up PED in MB

With 2 infected and 1 transitional finisher remaining the PED monitoring results are back to what we expect in peace-time.

Strep zooepidemicus

Strep zooepidemicus is a threat to the swine sector. The typical sign is sudden death in mature animals.

Since 2019, it has been present on a few farms (in 2 production flows) in Canada with devastating effect to the affected producers.

Both production flows have now decided to pursue depopulation / repopulation to control the disease.

Practical tips

If you see sudden death in mature animals call your herd practitioner.

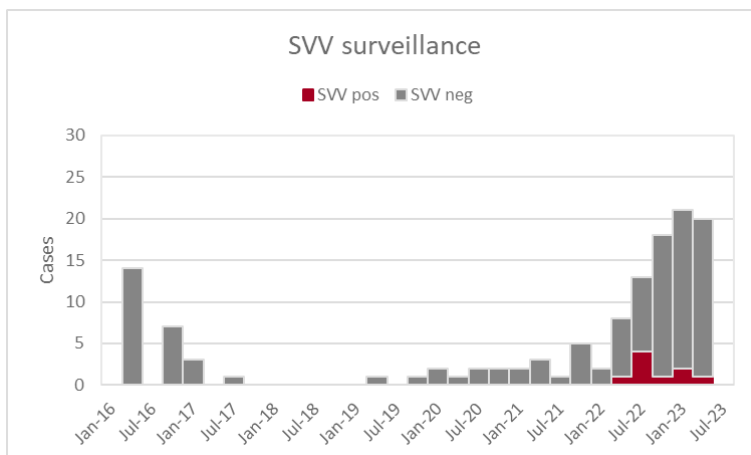
PED in MB

Back to peace-time monitoring

Seneca Valley Virus (SVV) and blister cases

The voluntary active Seneca Valley Virus (SVV) surveillance at assembly yards had close to 20 cases tested per quarter in 2023.

The surveillance is based on environmental samples and the data confirms that assembly yards are still contaminated with SVV (positive environmental samples).



Clinical inspection of sows at assembly yards has also been stepped up to further enhance surveillance for SVV. With trace-back to herds this has led to some herd investigation of blister cases in both Saskatchewan (SK) and Manitoba (MB).

Seneca Valley Virus

Assembly yards are still contaminated with Seneca Valley Virus (SVV)

For your information:

- PDS now offers an SVV test on environmental samples.
- A reminder that blisters in pigs are reportable to CFIA

Blister cases

Investigations of blister cases are complex but an important tool in surveillance and early detection of FMD and SVV.

Note that while blisters may be caused by FMD and SVV there are more benign reasons for blisters.

Practical tips

Look out for blisters and call your herd practitioner if you see any.

A Saskatchewan Blister-case

The CVO office in MB had alerted CVO office SK that sows at an assembly yard had presented with “healing blisters”.

Through traceback the sow herd was investigated with the result that:

- All vesicular tests negative
- CFIA ruled out FMD
- SVV negative
- The practitioner’s investigation was inconclusive
- At pathology, superficial lesions consistent with burns were found

A Manitoba Blister-case

A similar investigation concluded that at this point we know what it was NOT (not vesicular diseases such as FMD and SVV) but not what it WAS! Hydrated lime was suspected but not confirmed by laboratory tests.

In both cases FMD/SVV were ruled out but a definitive diagnosis was not reached. Which may often be the result of an investigation if the cause was environmental or bacterial rather than viral.

Investigations of blister cases are complex but an important tool in surveillance for FMD and SVV. Actually, good surveillance for FMD and SVV is impossible without producers calling their herd practitioner whenever they see blisters.

Producers can be the first to observe the blisters.

It is clear from the two cases above that:

While blisters can be caused by FMD and SVV not all blisters are caused by FMD or SVV.

CanSpotASF

At approved Laboratories the “rule-out testing” continued but the number of pathology cases submitted, and the percentage tested for ASF were lower expected.

There is room for improvement so call your herd practitioner when you see increased mortality, increased abortions, sudden deaths with or without skin discolouring.

At abattoirs the selection of cases for ASF testing has started at federally inspected plants (data not included). Provincially inspected abattoirs have also started in all 4 provinces in the west. There were no carcasses selected in BC in quarter 2. MB started selection only in July.

CanSpotASF - West	Apr-22	Jul-22	Oct-22	Jan-23	Apr-23	Total
Pathology (caseID)	100	113	113	130	92	548
Eligible disease cases	34	22	19	44	23	142
Cases ASF tested (caseID)	33	25	14	40	9	121
Cases ASF tested (caseID) in % of eligible	97%	114%	74%	91%	39%	na
Cases ASF tested (caseID) in % of pathology cases	33%	22%	12%	31%	10%	na
Provincial abattoirs (cases=tests)				35	49	