

# CWSHIN

## swine health surveillance

### 4<sup>th</sup> quarter 2020

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

Our vision is to have a surveillance system imbedded in an intelligence network that monitors diseases both present and absent.

The surveillance system will be monitoring and assessing trends over time 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 FMD and ASF) the objective is to help provide evidence of the absence of disease to support trade.

In the intelligence network, we seek to exchange experience and knowledge on disease occurrence, treatment, control, and prevention.

<https://www.cwshin.ca/>

#### *Producer Report*

#### **Message**

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It is critical for the swine sector to have effective African Swine Fever (ASF) surveillance for preparedness, early detection, and control if ASF should be introduced.

Your contribution to the ASF surveillance is important:

- Please consider notifying the laboratories through your herd practitioner that ASF rule-out testing can go ahead when an eligible case presents (pre-emptive consent).
- Please remember to ask your herd practitioner to request an ASF rule-out testing for your own peace-of-mind and to contribute to ASF surveillance.

Actual suspicion of ASF must still be reported to CFIA.

#### **Caution**

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Illegal vaccination for ASF or any other disease is not a solution to health problems, but it can risk spreading a new strain of the disease.

#### **Follow-up**

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#### *PED*

The last finisher site (in MB) has achieved presumptive negative status for PED. So far, there are no new cases of PED reported in 2021 in the western region.

#### *Streptococcus equi zooepidemicus*

After depopulation of a sow barn the herd broke again 6 months after repopulation. We still have many questions about this particular *Strep equi zooepidemicus* strain (194): when and how it infects pigs, potential carrier animals, etc.

CWSHIN REPORT

Follow-up

**PED**

No new cases have been reported in 2021 in the western region.

***Streptococcus equi zooepidemicus***

A sow barn re-broke after depopulation, cleaning, and repopulation.

**Targeted Emerging Health Issue Investigations**

We hope to start the first two activities in March 2021.

**Practical tips**

If you see a sudden death or a flare up of *Strep suis* call your herd practitioner for an investigation and laboratory diagnosis.

This way you can contribute to Laboratory investigation on *Streptococcus*.

**Target Emerging Health Issue Investigation**

CWSHIN has re-allocated resources to a new activity “Targeted Emerging Issue Investigations”. When health issues are flagged as new or important to the swine sector, we can investigate further in small special projects. These projects will relate directly to the CWSHIN surveillance objectives.

This spring we expect the first two special project to start:

- 1) A regional ASF risk analysis will assess where ASF is more likely to be introduced - in commercial or smallholder operations or in wild pigs. The result is critical for ASF preparedness and surveillance planning.
- 2) A laboratory investigation on *Streptococcus suis*. *Strep suis* has always been a problem but since early 2019 we have seen an increase in positive cases. Therefore, the *Strep suis* issue is: “what can we do to improve control methods!”. We hope this special project will help provide some tools to the practitioners to control clinical problems with *Strep suis*.

**Clinical Impression Survey (CIS)**

*Clinical Impression Surveys are performed by swine herd practitioners each quarter.*

**Responses annual report**

The swine herd practitioners in the region were engaged in CWSHIN in 2020. We have 25 practices listed in CWSHIN as serving swine premises in the region. Nineteen (76%) of these contributed actively to CWSHIN in 2020; two mixed practices in AB and 4 in MB did not contribute to CWSHIN.

CQA, PigTrace, and StatCan report different a number of premises/farms because they define premises/farms slightly different (table).

Region	CQA	PigTrace	StatCan 2020	Premises served by practices in CWSHIN
W1 (BC/AB)	319	479	1,825	412
W2 (SK/MB)	775	932	1,200	988
<b>Totals</b>	<b>1,094</b>	<b>1,411</b>	<b>3,025</b>	<b>1,400</b>

We estimated that practices engaged in CWSHIN served about 1,400 premises with swine that is close to the number of premises registered in PigTrace; more than what was registered in CQA and less than recorded in StatCan data (January 2020).

CWSHIN REPORT

Clinical Impression Survey

Annual reporting on the CIS

In 2020, results from the CWSHIN Clinical Impression Surveys (CIS) were a good representation of swine health in the region.

76% of the practices in the region, known to serve swine premises, actively contributed to CIS.

We estimated that these practices served 1,400 premises with swine that is close to the number of premises registered in PigTrace; more than what was registered in CQA and less than recorded in StatCan data (January 2020).

CIS syndromes

For the first time we saw that Respiratory diseases were reported to be most frequent followed by Digestive and Systemic diseases.

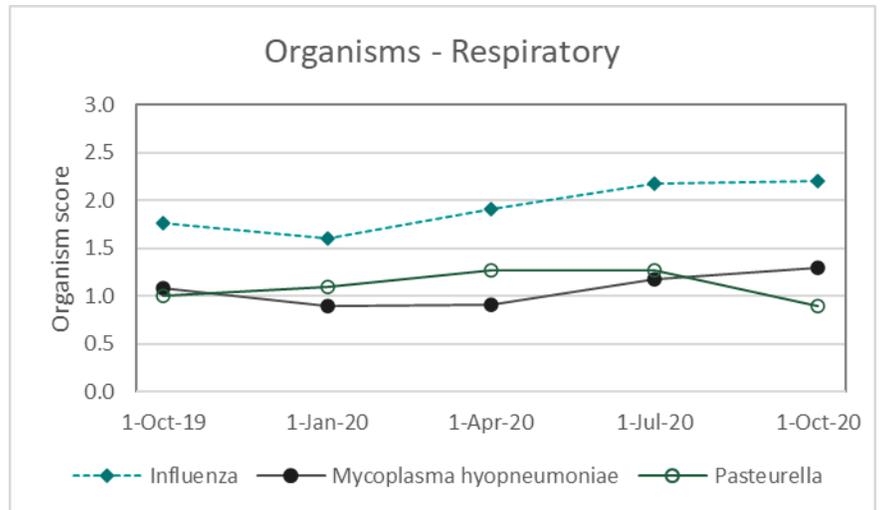
Pneumonia and Influenza were highest ranking clinical disease and respiratory organism recorded.

A slight up-tick in Mycoplasma hypopneumoniae was recorded.

CIS Syndromes

The top-3 highest ranking syndromes in the 4<sup>th</sup> quarter were Respiratory followed by Digestive and Systemic syndromes. That was a new pattern. In the previous 5 quarters, the Digestive syndrome had ranked highest.

Pneumonia and pleuritis were the two clinical diseases ranking highest with Influenza listed as the most frequent organism.

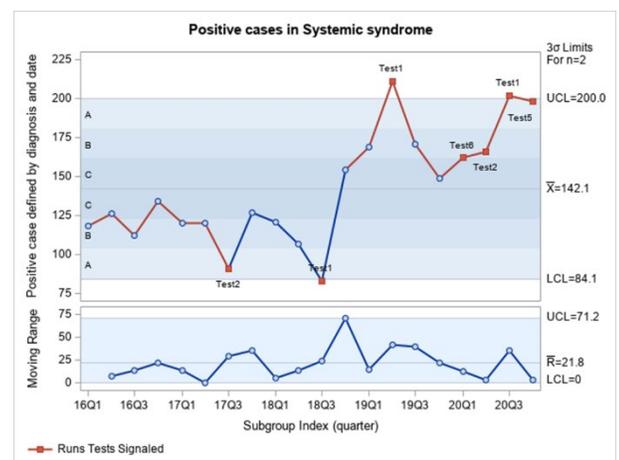


Laboratory data

Each quarter, four laboratories provide routine diagnostic data to CWSHIN.

Positive Systemic cases (average 142) were not as frequent as Respiratory or Digestive cases BUT there has been a shift at the beginning of 2019.

The same pattern was seen for septicemia (deaths) and *Streptococcus suis*.



New charts

A noticeably big milestone was that we can present CIS and laboratory results on the same chart.

**New charts: Clinical Impression and positive cases**

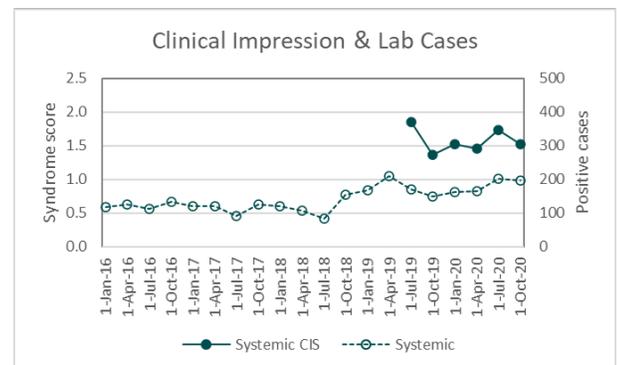
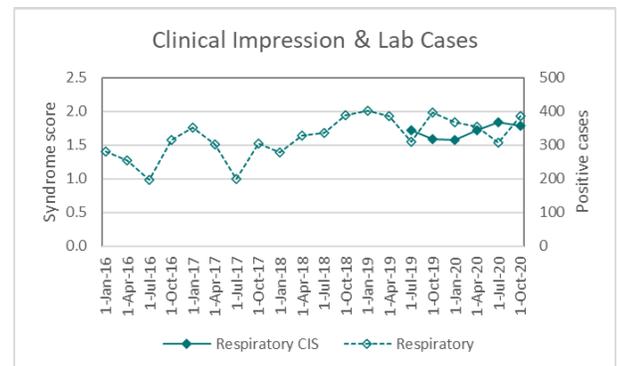
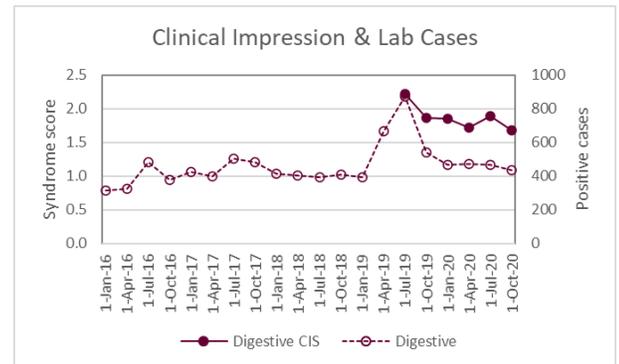
*A noticeably big milestone!*

We can show both the clinical scores (recorded by herd practitioners) and the positive cases (at laboratories) in one chart which provides a better starting point for a discussion on health problems in the region.

Here, we present the new charts. For the laboratory data we have number of positive cases (right axis) across all laboratories. For the CIS data we have clinical scores (left axis). Charts for all syndromes were produced but here we present only the three syndrome charts with highest syndrome score.

**NOTE!**

Further exploration of clinical diseases or organisms would still be performed based on CIS or laboratory data separately.



	Syndrome score	Interpretation
The scores are means of the clinical impression in the survey recorded occurrence. These were coded: never=0, rare=1; common=2 and very frequent=3 before the mean was calculated.	0	Never
	0.5	Very rare
	1	Rare
	1.5	Occasional
	2	Common
	3	Very frequent

## African Swine Fever (ASF)

MB and BC are doing well in terms of ASF rule-out testing but there seems to be a lack of ASF rule-out testing in AB and SK.

### Practical tips

- Please consider notifying the laboratories through your herd practitioner that ASF rule-out testing can go ahead when an eligible case presents (pre-emptive consent).
- Please remember to ask your herd practitioner to request an ASF rule-out testing for your own peace-of-mind and to contribute to ASF surveillance.

Actual suspicion of ASF must still be reported to CFIA.

### Caution!

Illegal vaccination for ASF or any other disease is not a solution.

## African Swine Fever

### *CanSpotASF - Risk based early detection testing at approved laboratories.*

*The Canadian ASF surveillance based on rule-out testing.*

In the 4<sup>th</sup> quarter of 2020, 36 cases (of 52 eligible cases) were tested for ASF. No positive test results were found. MB and BC are doing well in terms of ASF rule-out testing but there seems to be a hurdle to the testing in AB and SK (tables next page).

The problem with ASF is that in the early stages it moves slowly through a herd it is not until later the mortality will be massive and the disease evident.

Therefore, the way this surveillance works is that cases diagnosed with a disease that can mask ASF in the early stages can have an ASF rule-out test performed. CanSpotASF made a list of eligible conditions to help detect ASF early. In the western region, we have about 35-40 cases with these conditions per quarter. However, in the 4<sup>th</sup> quarter the number was up to 52 cases.

It is critical for the swine sector to have an effective ASF surveillance for preparedness, early detection, and control if ASF should be introduced. Therefore, the goal is to perform the ASF rule-out test on a large proportion of these eligible cases and have testing performed in all provinces.

Your contribution to the ASF surveillance is important:

- Please consider notifying the laboratories through your herd practitioner that ASF rule-out testing can go ahead when an eligible case presents (pre-emptive consent).
- Please remember to ask your herd practitioner to request an ASF rule-out testing for your own peace-of-mind and to contribute to ASF surveillance.
- Actual suspicion of ASF must still be reported to CFIA.

*CanSpotASF tables*

Quarter	Eligible diseases (VDS & PDS)								Subtotal
	Abortion	Heart	PRRS	Polyserositis	Proliferative enteritis	Salmonella	Septicemia	Torsion/bloat	
Jan-20	16	0	1	4	0	0	13	1	35
Apr-20	7	1	1	6	1	1	22	0	39
Jul-20*	8	3	4	5	0	1	17	0	38
Oct-20	7	2	5	8	1	0	27	2	52

\*CanSpotASF started in August 2020.

Quarter	ASF cases tested					ASF samples tested				
	VDS	PDS	AB	BC	Subtotal	VDS	PDS	AB	BC	Subtotal
Jan-20	not applicable					not applicable				
Apr-20	not applicable					not applicable				
Jul-20*	9	0	0		9	19	0			19
Oct-20	32	1	0	3	36	69	4		7	80

*ASF in native wild boars in Europe*

The European Commission (EC) has a procedure to declare countries free from ASF also when detected in native wild boars. These procedures include regulated zones and surveillance in the native wild boars. Belgium is the second country (after Czech Republic) to declare freedom from ASF in native wild boars based on these EU Commission guidelines.

*ASF China*

New ASF strains circulating in China point to unlicensed vaccines causing clinical disease.

Source: [Link to Reuters](#)

*This is a reminder that illegal vaccination for ASF or any other disease is not a solution to health problems, but it can risk spreading a new strain of the disease.*

