



CanSpot ASF Surveillance Q4 Update: What producers need to know...

The regional swine surveillance network leads, Dr. Claudia Gagné-Fortin (RAIZO), Dr. Jette Christensen (CWSHIN), Dr. Dan Hurnik (Maritimes) and Dr. Christa Arsenault (OAHN) provided an update on the CanSpot ASF surveillance pilot project. A new, bilingual report has been created to share testing numbers broken down per region for this pilot project.

Maritimes	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
Period / Période 2020 Quarter 4 (Oct 1 to Dec 31) / 2020 T4 (1 ^{er} octobre - 31 décembre)	6	1	0
Cumulative / Cumulatif	6	4	0
RAIZO (Quebec)	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
Period / Période 2020 Quarter 4 (Oct 1 to Dec 31) / 2020 T4 (1 ^{er} octobre - 31 décembre)	143	15	0
Cumulative / Cumulatif	185	23	0
OAHN (Ontario)	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
Period / Période 2020 Quarter 4 (Oct 1 to Dec 31) / 2020 T4 (1 ^{er} octobre - 31 décembre)	18	2	0
Cumulative / Cumulatif	18	8	0
CWSHIN (Western Provinces)	Number of eligible cases / Nombre de cas admissibles	Number of negative cases / Nombre de cas négatifs	Number of positive cases / Nombre de cas positifs
Period / Période 2020 Quarter 4 (Oct 1 to Dec 31) / 2020 T4 (1 ^{er} octobre - 31 décembre)	52	36	0
Cumulative / Cumulatif	90	45	0

CanSpot ASF Surveillance Update Continued...

It is important to note that all testing conducted to date has yielded **negative ASF results.**

Some expected “speed bumps” have been encountered throughout the launch of this pilot project and vary regionally.

- In the Maritimes there are several provincial laboratories that can potentially submit samples for testing through CanSpotASF. Dr. Dan Hurnik is working with each lab on communication protocols that work moving forward.
- In Quebec, the submitted case numbers are a bit below expected, so they are working on increasing the total number of cases tested.
- In Ontario, the number of cases submitted for testing is **much lower** than targets. During Q4 2020, 86 % of swine veterinarians submitted tissue samples to the Animal Health Lab in Ontario versus full carcasses to the lab for post-mortem. When cases are being submitted for respiratory workups, veterinarians were not submitting the spleen or tonsil (compatible tissues for ASF testing). Ontario has worked on messaging **the importance of submitting spleen or tonsil tissue with all laboratory submissions so that they can be included in CanSpotASF.**
- The western provinces reported that ASF rule-out testing is going well in 2/4 of the provinces. The western provinces are working on consistency, attempting to get all 4 provinces included in the CanSpotASF surveillance testing.

It is important to continue to communicate the importance of Canada’s ability to increase enhanced passive surveillance for ASF especially to producers. **We have asked veterinarians to ensure that producers are aware if samples are to be included in CanSpotASF. This pilot project is a positive step in granting provincial labs the ability to perform ASF testing in low-risk cases. It is very important that veterinarians and producers support this initiative.**

Streptococcus equi zooepidemicus (Strep. Zoo) *First detection of this pathogen in an Ontario swine herd)

OAHN (Ontario)

Dr. George Charbonneau reported that in Q4 Ontario detected for the first time *Streptococcus equi zooepidemicus (Strep. zoo)* in a swine herd. This bacterium was isolated from a case that clinically presented as a septicemia with elevated sow mortality and was submitted to Animal Health Lab. *Strep. zoo* is known to cause infections in several species (commonly in equine) and can be a normal commensal or sometimes a more severe pathogen. It is important to note that the affected sow herd in Ontario was **showing mild clinical signs with some sow mortality.** The source of the Ontario sow herd infection is still unknown.

CWSHIN has shared with the CSHIN team that *Strep. zoo* was identified in a sow operation in Manitoba in 2019. This case was associated with extreme sow mortality rates, up to 40% mortality seen in sows and gilts. At the same time the Manitoba sow herd was affected, the USDA reported that a sow processing plant in Tennessee had experienced an outbreak of 40% sow mortalities in lairage. Subsequently, it was learned that there was a connection between the infected Canadian herd and the processing plant in the U.S.A.

A notice was sent to swine veterinarians in Ontario asking them to **be on the lookout for sudden deaths in breeding stock, lethargy, fever, and decreased appetite. To avoid border disruptions, it is important that if you are seeing clinical signs consistent with a *Strep. zoo* outbreak that you do not to ship cull sows as all go south of the border.** It is also appropriate to note that *Strep. zoo* does have the potential to infect humans. In all the cases mentioned in this report there has been no evidence of human infection. Although this risk is quite low there are rare cases where this has occurred. Appropriate precautions should be taken to prevent transmission to humans.

Sequencing of this Ontario *Strep. zoo* isolate has revealed that this strain is similar to one that originated in China in 1976 and was similar to the isolates that caused the most recent outbreaks of septicemia in pigs in Manitoba, Pennsylvania, Ohio and Tennessee.

CWSHIN (Western Provinces)

Dr. Brad Lage shared that he is dealing with a re-break of *Strep. zoo* in a sow herd in the western provinces. This herd is being treated intensively with antibiotics and they are still seeing a 6% mortality rate. This is not as bad as was seen with previous outbreaks, but from lessons learned they are treating it more aggressively.

Dr. Glen Duizer reminded the CSHIN team that mortality should be expected to increase when this pathogen is detected in high stress circumstances such as at assembly yards and in processing facilities due to mixing of pigs with different health status. He stressed the importance of preventing the spread of this pathogen to this premises.

Porcine Reproductive and Respiratory Syndrome (PRRS)

RAIZO (Quebec)

Quebec reported that the **year 2020-2021 (July-June) is shaping up to be one of the worst PRRS years for new virus breaks in sow herds in Quebec since 2015-2016** as is demonstrated by viewing the graph via this link: [University of Montreal PRRS Graph Link](#)

From the Q4 2020 veterinary clinical impression survey, practitioners commented that they have seen an increase in PRRS cases and that they are **no longer seeing a decrease in PRRS cases during the summer months** as was previously normal. A practitioner reported 10 PRRS break with the same strain for an area of 15 kilometers in 3 months. Quebec is not seeing new strains of PRRS virus spreading quickly, but rather are seeing familiar and known PRRS virus strains spreading from one area to another. Many strains have been involved: there were strains in 5 different clusters and within one specific cluster, there were strains from 8 different subgroups identified this quarter in sow herds.

Dr. Simon Vaillancourt stated, "This has been a troubling year for PRRS virus in Quebec".

OAHN (Ontario)

Dr. Christine Pelland reported that **Ontario has been challenged throughout the last year with frequent PRRS virus outbreaks**. These outbreaks are occurring all year long and occur even during the summer months. The strains encountered have been particularly tough. The severity of clinical signs is dependent on the PRRS serostatus of the affected herd. A herd that is seropositive due to previous exposure to a field or vaccine strain of PRRS virus (MLV) may not have experience as severe of a clinical impact as a PRRS virus seronegative herd.

The 1-8-4 and 1-4-2 "genotypical families" of PRRS viruses have been extremely challenging with devastating affects seen in the sow barn with increased abortions and pre-weaning mortality (PWM). In addition, there has been some high mortalities in nursery and finishers. In Ontario, there has been more discussion with producers on PRRS virus stabilization versus depopulation or elimination depending heavily on demographics, animal flow and overall risks.

CSHIN Manager Update

The CSHIN team is excited to have recently launched our website! If you haven't already done so please visit our website through this link: [CSHIN website](#). I am excited to share that 150 people downloaded the Q3 reports from the website! From this statistic we know that people are interested in the information that we are reporting, but welcome others!

From Q3 2020 and onwards, the CSHIN veterinarian and producer/ swine industry reports will be housed on this website and no longer disseminated in pdf format. The producer/swine industry reports will be posted under the public domain of this website.

I would like to put a special thank-you out to Dr. Christian Klopfenstein for volunteering his time to create the CSHIN website and for ensuring that it is maintained. Our goal was to create a simple and easy to maintain website and Christian accomplished this for us. Also thank-you to Susan Fitzgerald for helping with the posting of CSHIN reports to the website and for communicating this messaging with all of you! There are a lot of people that volunteer their time behind the scenes to make CSHIN a success and these efforts need to be acknowledged!

Christa Arsenault, CSHIN Manager

This information is a professional communication for swine producers. The information was obtained from a survey of the clinical impressions of participating practising veterinarians with input from other swine health professionals. 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 jointly by the Canadian Association of Swine Veterinarians (CASV) and Canadian Pork Council (CPC).

MEET YOUR CSHIN Q4 NETWORK TEAM

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