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Porcine Epidemic Diarrhea (PEDV) / Porcine Deltacoronavirus (PDCoV)

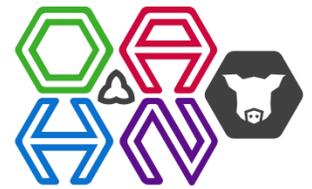
Jessica Fox, Manager at Swine Health Ontario reported the following cases in Q1:

Date	County Name	Disease Type	Farm Type
28-Mar-22	Perth	PED	Nursery-to-finish
28-Mar-22	Huron	PED	Farrow-to-wean
23-Mar-22	Huron	PDCoV	Finisher
16-Mar-22	Huron	PED	Farrow-to-wean
14-Feb-22	Huron	PDCoV	Nursery-to-finish
14-Feb-22	Huron	PED	Nursery-to-finish
10-Feb-22	Huron	PED	Finisher
04-Jan-22	Lambton	PED	Finisher

Jessica reported that there have been 7 additional cases reported in April 2022 with most cases in growing pigs. It is suspected that most of these cases are related to lapses in transport biosecurity:

Date	County Name	Disease Type	Farm Type
29-Apr-22	Huron	PED	Finisher
22-Apr-22	Huron	PDCoV	Finisher
22-Apr-22	Huron	PDCoV	Finisher
11-Apr-22	Haldimand	PDCoV	Finisher
11-Apr-22	Wellington	PED	Finisher
06-Apr-22	Huron	PED	Nursery
05-Apr-22	Niagara	PDCoV	Finisher

The PED and PDCoV tracking map shows current and annual cases by county at:
<http://www.swinehealthontario.ca/Disease-Information/PED-PDCoV-Tracking-Map>



Porcine Epidemic Diarrhea (PEDV) / Porcine Deltacoronavirus (PDCoV) Continued...

The number of PEDV detections in Ontario increased in March and have continued on this trend through April.

There has been an ongoing number of PDCoV detections throughout Q1 with a peak of cases in February.

Take Home Message: Porcine Coronaviruses were active in Q1 and into April of 2022.

Producers are encouraged to revisit their biosecurity protocols for both on-farm and off-farm activities (including transportation) and review the importance of biosecurity with their staff and family members working in swine facilities.

Influenza A (IAV)

Influenza virus continued to keep swine producers on their toes in 2022 Q1. All veterinarian's reporting rated influenza as very common (50%) or common (50%). Forty-five % of veterinarians indicated that IAV activity had increased in Q1 vs Q4. This was supported by increased lab submissions reported at Animal Health Laboratory and Gallant Labs. Syndromic surveillance also detected signals of increased influenza activity toward the end of Q4 that decreased over Q1 with a small increase in March.

Over the last year Influenza H1N2 remains the dominant subtype with an increase of influenza H1N1 which is now equal with influenza subtype H3N2.

Actinobacillus Pleuropneumoniae (APP)

The frequency of APP is rated by veterinarians as never (17%), rare (75%) and common (8%). One veterinarian indicated that APP activity had increased in Q1 vs Q4. AHL data indicated no significant change in the number of APP submissions in Q1 vs Q4. One veterinarian commented that they had observed a herd that identified APP serotype 8 even though the herd had been closed for 20 years. The herd had previously been diagnosed as positive for APP serotype 7. Dr Al Scorgie reported that the spread of APP serotype 15 in the USA was suspected to involve lateral spread, from one pig to another, from affected farms. Dr. Scorgie further reported that a previous outbreak of APP serotype 8 in the USA was suspected to involve lateral spread although this was not proven to be the means of spread.

Erysipelas

Erysipelas is ranked as common by 67% of veterinarians. This is an increase over previous quarters. Twenty-seven % of veterinarians indicated that Erysipelas activity was increased in Q1 vs Q4. Dr. DeLay reported that there were three cases in Q1 where they isolated *Erysipelas rhusiopathie*. Isolation of this organism has been somewhat sporadic. Dr. Pelland commented that there was an increase in whole carcass condemnations due to Erysipelas in Q1. All of these findings seem to support the apparent seasonal increase in Erysipelas in Q4 and Q1 vs Q2 and Q3 of 2021.



CanSpotASF Surveillance Update

Dr. Tim Pasma provided an update on CanSpotASF activity in Ontario. CanSpotASF is a risk-based early detection testing program that is available at approved Canadian Animal Health Surveillance Network (CAHSN) laboratories, which includes the Animal Health Lab (AHL) in Ontario. The CanSpotASF program is set up with the goal of early detection of ASF. It is to be used when ASF is not a main rule-out diagnosis and where early clinical signs of ASF could be masked by other routinely diagnosed swine endemic viruses in Canada. **If ASF is suspected on a farm/premise, the Canadian Food Inspection Agency (CFIA) must be notified immediately.**

Approved laboratories that are part of the CAHSN network can now test for ASF. Until the launch of this program these types of cases have not been tested. This program works on the premise that early detection if ASF arrives in Canada will in turn limit the spread of this virus, leading to a faster and more efficient outbreak response. Veterinarians and/or pathologists can initiate ASF rule-out testing for submissions that meet eligibility criteria. It is important to note that not all eligible cases will be tested for a variety of reasons including missing information e.g. PID and missing tissues.

CanSpotASF Testing Summary

OAHN (Ontario) Period	Number of eligible cases	Number of negative cases	Number of positive cases
2022 Quarter 1 (Jan 1- Mar 31)	26	14	0
Cumulative 2021-2022	202	60	0
Cumulative 2020-2021	82	17	0

International Disease Surveillance Topics of Interest

Intrauterine Vaccination- A Future Possibility?

The Western College of Veterinary Medicine and Vaccine and Infectious Disease Organization (VIDO) are researching intrauterine vaccination. The researchers are looking at adding the vaccine to the semen. The initial research has been done with PED vaccines. The vaccine would provide protection against PED to both the sow and piglets. They have been able to formulate a vaccine that does not affect semen quality. At this time, the researchers have not been able to develop a single dose vaccine which is not practical. Research is continuing.



How can you Participate in OAHN?

Share the information contained within this report with others involved in the swine industry and with other swine producers.

Help us spread the word!

Ask your veterinarian for more information about topics included in this report.

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