



Canadian Swine Health
Intelligence Network

Réseau canadien de
surveillance de la santé porcine

REPORT Q1 JANUARY-MARCH 2019

Veterinary Survey Participation: 54 veterinarians (15 Québec, 12 Ontario and 27 Western Canada). Provincial networks also contribute laboratory data.

Overview of the African Swine Fever Forum- Drs. Andrea Ellis and Amy Snow, CFIA

The CSHIN Q1 call invited guest speakers Dr. Andrea Ellis and Dr. Amy Snow from the Canadian Food Inspection Agency (CFIA) to provide the network with an overview of the International ASF Forum that was co-hosted by the Chief Veterinarian Officer's (CVO'S) from Canada and the USA on April 30-May 1, 2019 in Ottawa.

There were 160 people in attendance at the forum from 15 different countries including the European Union and China. Participants consisted of both industry and government and included the World Animal Health Organization (OIE) and Food and Agriculture Organization of United Nations (FAO).

The objective of the ASF Forum was to advance regional cooperation in the prevention and mitigation of the impact of ASF in the Americas. Discussions provided participants with an enhanced understanding of the important issues. This allowed decision makers to focus their attention on regional collaborations to strengthen efforts to prevent and respond to an outbreak of ASF in the Americas.

Key Messages

- 1) In the Americas, countries are currently free of ASF, we have a window of opportunity to act decisively in coordinated manner.
- 2) We need to leverage existing partnerships and governance to advance work on ASF at every level – national, regional and global.
- 3) The spread of this disease is human driven, therefore, engagement and increased awareness among all stakeholders is required. This includes tailored approaches for small scale producers, pet owners and hunters.
- 4) The epidemiology of this disease is complex and unique: the virus is capable of persisting in pork products and surviving in the environment. This requires rigorous approaches to border security, biosecurity and environmental decontamination.
- 5) Consistent and thorough implementation of biosecurity measures is required throughout the production continuum from feed and other service providers, producers, transporters, renderers, and processors.
- 6) A better understanding of the wild pig populations in each country and the Americas region is needed to characterize their epidemiological role in disease risk and establish effective population/ disease control strategies.
- 7) Zoning and compartmentalization are key tools to minimize trade disruptions and implementation depends on a strong partnership between industry and veterinary services, ideally agreed to in peace time.
- 8) The response elements of destruction, disposal, and decontamination require critical focus as part of preparedness planning.

- 9) The real game changer for control and eradication would be a vaccine. Partnerships are needed to support research to complete the development of an effective and safe vaccine for ASF.
- 10) Consistent, co-ordinated, (pre-determined where possible) messaging from trusted sources is critical during a disease event.

Next Steps

- Countries should develop a national action plan for ASF prevention and control.
- Establish a Standing Group of Experts on ASF for the Americas to build closer cooperation among countries.
- Promote a regional partnership to share reference material, laboratory services, transfer diagnostic capacity to facilitate early detection of ASF in the Americas, and to advance the development of new rapid diagnostics.
- Conduct exercises to test country preparedness plans for ASF and share lessons learned.
- Request the OIE to develop specific guidance on the implementation of zoning and compartmentalization for ASF and how to adapt these measures to different production systems.
- Support and invest in the Global ASF Research Alliance to continue to coordinate international research efforts to address gaps, in particular for the development a vaccine for ASF virus.

ASF Situation in Asia- August 2018- May 2019



Source: http://www.fao.org/ag/againfo/programmes/en/empres/ASF/img/2019/map1_2019_05_16.jpg

Porcine Epidemic Diarrhea (PED) & Porcine Deltacoronavirus (PDCoV)

OAHN (Ontario)

OAHN reported that in Q1 there were 5 new sites that detected PED, 4 new sites that reported PDCoV and 1 new site that reported both PED and PDCoV. Some of these sites were connected by either transport or assembly site contact

and were not conducting proper cleaning and disinfecting procedures. The OAHN network highlighted a session that they put together for the London Swine Conference in March, 2019 entitled “Biosecurity Beyond the Barn”. This session provided a transporter’s perspective on how to make biosecurity easy for drivers. The details of this session were outlined in the OAHN Swine network reports that can be accessed by following this link: <http://bit.ly/OAHN-Swine-Industry-Report-Q1-2019>

CWSHIN (Western Provinces)

CWSHIN reported 6 new PED cases during Q1, 4 in Alberta and 2 in Manitoba. Another 6 new cases of PED have been detected in Manitoba in May. Unfortunately, the number of new PED cases have really ramped up in the second week of May 2019.

Porcine Deltacoronavirus (PDCoV) is not considered a reportable disease in Manitoba, but Dr. Brad Lage reported on the first case of PDCoV to occur in a sow herd in Manitoba in January 2019. Severe clinical signs of vomiting and diarrhea were seen in sows initially followed by diarrhea in piglets in the following weeks. The barn was being converted to gestation crate free at the time of the break and therefore full herd exposure to the virus could not be completed due to some of the sow herd being temporarily housed at an off-site location. Although the severity of the disease was much less than that observed in a PED break, there was still a significant amount of piglet diarrhea and pre-weaning mortality. Levels hovered around 40% for a few weeks before returning to normal. Nursery mortality was increased by 2-3% for several weeks following the break.

RAIZO

In Q1 RAIZO reported the first case of PED in Quebec since 2015. The origin of this virus is still unknown and negative PED test results have been confirmed in all pig flows connected to this site. Piglets in this nursery started to show clinical signs of diarrhea within 1 week of placement. The virus was sent to the National Centre Foreign Animal Disease (NCFAD) laboratory in Winnipeg, but they were unable to isolate the virus for further genetic sequencing. Pigs from this nursery have since been transferred to a finishing barn making this another positive PED site.

On April 12, 2019 (Q2) RAIZO reported the first case of PDCoV in Quebec. Clinical signs of diarrhea were reported in a nursery barn after 2 batches of pigs were transferred from the farrowing unit. The farrowing unit tested positive for PDCoV, but clinically only saw mild signs at first on sows (loss of appetite) with a slight increase in piglet wasting, diarrhea and mortality afterwards. A total of 2 nursery sites in Quebec receive pigs from this farrowing unit every week.

Take home message: It is important to remember that clinical signs differ between PED and PDCoV with often more mild clinical signs being associated with PDCoV reported in sows and piglets. It is important for producers seeing any unusual signs in sows (loss of appetite, diarrhea) and/or increase in wasting, diarrhea and mortality in piglets to rule in or out both viruses early to prevent spread of disease.

Porcine Circovirus Type 3 (PCV3)

CWSHIN (Western Provinces)

Dr. Dr. Yanyan Huang is a pathologist and reported that the PDS laboratory and Western College of Veterinary Medicine (WCVM) have detected PCV3 on several farms. Veterinarians are requesting for PCV3 testing in the western provinces. Herds that tested positive for PCV3 reported an increase in suckling and/or nursery pig mortalities and reproductive

losses. **Take Home Message:** It is important to note that not every swine herd is thought to be exposed to PCV3. It is suspected that when a naïve herd is exposed to this virus that associated clinical signs may be seen.

RAIZO (Quebec)

Dr. Claudia Gagne-Fortin reported that **In Q1 2019 the first case of PCV3, as reported in literature of cases in the USA, was detected through post-mortem in Quebec.**

Changes to CSHIN Disease Reporting

Dr. Christa Arsenault highlighted that moving forward CSHIN has decided to report PED and PDCoV cases as a national report on an as needed basis. This is a change from previous reporting that focussed on reporting the disease information that was shared from a provincial standpoint. The Community for Emerging and Zoonotic Disease (CEZD) group publishes a cross-sector weekly intelligence report, and an ASF intelligence report that are available to non-members. CEZD members receive these reports as well as take part in meetings, weekly national “ping” polls, and webinars that engage across sectors and disciplines. If you are interested in either receiving the intelligence reports, or would like to join CEZD as a member, please contact the CEZD team at cfia.cezdcmez.acia@canada.ca.

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 Q1 NETWORK TEAM

Quebec RAIZO Representation

Dr. Claudia Gagne-Fortin
Dr. Jean-Francois Doyon

Western Provinces CWSHIN Representation

Dr. Jette Christensen
Dr. Yanyan Huang
Dr. Susan Detmer
Dr. Brad Lage
Dr. Josh Waddington
Dr. Jessica Law
Dr. John Harding

Ontario OAHN Representation

Dr. George Charbonneau
Dr. Christine Pelland
Dr. Jim Fairles

Maritimes Representation

Dr. Dan Hurnik
Dr. Ryan Tenbergen

Canadian Pork Council (CPC)

Gabriela Guigou
Dr. Egan Brockhoff

CSHIN Manager

Dr. Christa Arsenault

Christa.Arsenault@outlook.com

Canadian Association of Swine Veterinarians (CASV)

Dr. Christian Klopfenstein

Canadian Food Inspection Agency (CFIA)

Dr. Rajiv Arora
Dr. Andrea Osborn
Dr. Amy Snow
Dr. Andrea Ellis
Dr. Sonja Laurendeau

Agriculture and Food Canada (AAFC)

Francois Bedard