

# ONTARIO SWINE ANIMAL HEALTH NETWORK (OAHN) UPDATE- BIG BUG DAY

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# OBJECTIVES

Provide a brief overview on the following:

- ▶ OAHN swine network- what we do and who we are
- ▶ How Ontario swine surveillance feeds into National Swine Surveillance in Canada
- ▶ OAHN Swine Network Projects- Highlights for Producers:
  - ▶ Porcine Circovirus Type 2 Testing and Typing Project
  - ▶ Porcine Sapovirus Testing, Relevance and Knowledge Project
  - ▶ Parasitology Testing Project- begins in Spring 2026
    - ▶ Communications plan -how results from these projects will be shared
    - ▶ Preliminary, ongoing project results

# OAHN SWINE NETWORK MEMBERS



## AHL

Dr. Josepha DeLay  
Dr. Tim Pasma  
Dr. Rebecca Egan

## OMAHA

Dr. Christa Arsenault  
(Network Co-Lead)  
Dr. Bukunmi Odebunmi  
Drs Jaydee Smith & Maggie Henry

## OVC

Dr. Zvonimir Polijak

## Veterinary Practitioners

Dr. Christine Pelland  
(Network Co-Lead)  
Dr. Conor Voth

## CEVA (Gallant Custom Labs)

Anna Pietruszkiewicz

## Veterinary Practitioners

Dr. Jordan Buchan  
(CSHIN rep)  
Dr. Andrea Patterson  
Dr. Sue Burlatschenko

## Industry Members

Julie Kuiack (OP)  
Brett Leslie (OP)  
Jessica Fox (SHO)

## OAHN Coordinator

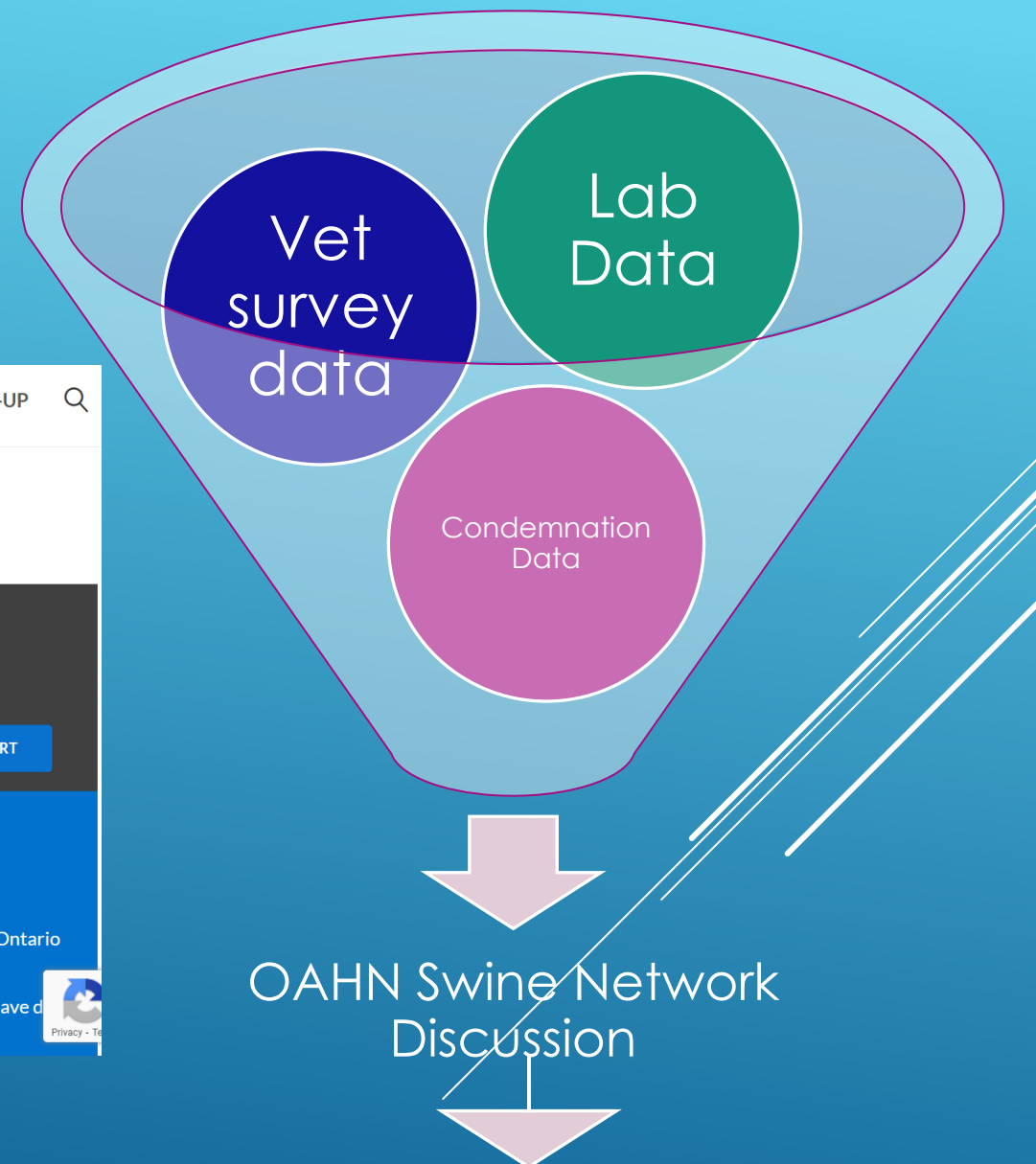
Dr. Tanya Rossi


## OAHN Communications

Mike Deane



# INFORMATION, DATA SOURCES, REPORTING



**ONTARIO ANIMAL  
HEALTH NETWORK**

ABOUT US NEWS PROJECTS SPECIES NETWORKS ▾ LOGIN / SIGN-UP 🔍

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## Swine Industry Report – Q2 2025

### Ontario Animal Health Network (OAHN) Swine Network Quarterly Industry Report

#### Senecavirus A (SVA) Ontario Update

Starting in 2015, Senecavirus A (SVA) has caused intermittent complications with respect to the export of Canadian cull animals to the United States. This disease resembles reportable swine vesicular diseases. This is a national issue and since June 2025 has impacted Ontario cull sow movements.

In July 2025, the APHIS and the USDA removed the export eligibility status for a cull sow assembly in Ontario due to SVA lesions being seen in cull sows sent to a USDA processing facility. These lesions initiated foreign animal disease investigations at this US processing plant. The suspect animal(s) were initially quarantined for individual inspection and further testing. Since the initial site, another 2 Ontario cull sow assembly sites have also had their export eligibility status revoked by APHIS and the USDA for similar reasons. The affected assembly sites accept cull sows from Quebec, the Maritimes and Ontario. Each affected assembly site must action the USDA requirements including emptying each assembly site so that it can be thoroughly cleaned and disinfected before each affected site could regain their export status. The assembly site operators are working closely with veterinarians

Report 44  
APR-JUN  
2025  
[DOWNLOAD REPORT](#)

### IN THIS ISSUE

- Senecavirus A (SVA) Ontario update
- PED/ PDCoV Cases have d

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OAHN Swine Network Producer/Industry Quarterly Reports

# CONTRIBUTING PARTNERS FOR NATIONAL SWINE SURVEILLANCE

- ▶ The Canadian Swine Health Intelligence Network (CSHIN) is the national organization for swine health surveillance in Canada.
- ▶ CSHIN is made up of 4 swine regional networks including RAIZO (Quebec), OAHN (Ontario), CWSHIN (Western Provinces) and the Atlantic Provinces.
- ▶ Each regional network sends data/information and representation to CSHIN quarterly meetings. This allows for national discussions on swine surveillance and disease related topics.
- ▶ CSHIN is funded by the Canadian Pork Council (CPC), the Canadian Animal Health Surveillance System (CAHSS) and the Canadian Association of Swine Veterinarians (CASV).







# PORCINE CIRCOVIRUS TYPE-2 (PCV-2) TESTING AND TYPING PROJECT



# PORCINE CIRCOVIRUS- DISEASE OVERVIEW

## Porcine Circovirus Disease Overview

- Porcine Circovirus is a virus that can cause a wide range of diseases in pigs including respiratory, reproductive, and systemic illness. There are several different types of this virus including PCV-2, PCV-3 and several different sub-types of PCV-2 e.g. types a, b, d. PCV-2 can also cause asymptomatic infections.

## Clinical disease

- Often requires co-infection with another pathogen and can worsen the clinical symptoms seen with other pathogens.
  - Post-weaning multi-systemic wasting syndrome (PMWS): Causes progressive weight loss, lethargy, jaundice, respiratory disease, diarrhea, and inflammation of the lymph nodes.
  - Porcine dermatitis and nephropathy syndrome (PDNS): Can cause skin rashes and abrasions on pigs.
  - Reproductive failure: Virus is found in stillborn fetuses and is associated with reproductive issues.
  - Immune Suppression: Virus can weaken the pig's immune system, making pigs more susceptible to other infections.

## Prevention and Control

- Commercial PCV-2 vaccines are the primary tool for preventing disease.

## Biosecurity

- Strict biosecurity measures can help control the spread of the virus.



# PORCINE CIRCOVIRUS TYPE-2 (PCV-2) TESTING AND TYPING PROJECT

## Surveillance Gaps Identified by OAHN:

- ▶ Perceived increase in PCV-2 cases over 2024. It is unknown if PCV-2 type d or other types of this virus are playing a role in this increase.
- ▶ PCV-2 is detected in herds that are vaccinated. Since PCV-2 vaccines were made available in 2008, they have been very effective in controlling clinical disease of PCV-2. The OAHN Swine Network discussed the possibility that something may have changed with this virus to cause the perceived increase in detections.

## Project Eligibility Requirements

- ▶ To be deemed eligible, submitting cases will need to have a PCR positive for PCV-2 at the AHL paid for by the producer.
- ▶ All swine veterinary practices in Ontario have provided a signed clinic consent. This allows the Animal Health Lab (AHL) to redirect PCR PCV-2 positive samples for sequencing under this project.
- ▶ All participating farms will need to provide a premises identification number (PID).
- ▶ A short information survey is required by your herd veterinarian and can be accessed via this [Link to survey](#).



# PORCINE CIRCOVIRUS TYPE-2 (PCV-2) TESTING AND TYPING PROJECT

## AHL Testing Included with this Project

- ▶ PCV-2 gene sequence analysis x 150 samples
- ▶ Project runs from June 1, 2025- June 30, 2026

## Communication Plan

- ▶ All results from this project will be communicated back through the OAHN Swine Network and to veterinarians through the Ontario Association of Swine Veterinarians (OASV).
- ▶ All results from this project will be communicated back to swine producers/industry members through your veterinarian and through the OAHN swine network reports, Swine Health Ontario and Ontario Pork newsletter communication and website postings.
- ▶ Results will remain anonymous in all public communications.

# PORCINE CIRCOVIRUS TYPE-2 (PCV-2) TESTING AND TYPING PROJECT

## OAHN Swine PCV-2 Gene Sequencing Project

Clinic provides signed **blanket consent form** allowing the AHL to sequence any PCV2 PCR-positive samples and release of sequencing results to project leads



Diagnostic samples from **Ontario pigs** submitted to AHL for PCV2 PCR as per usual, as part of routine diagnostic testing (clinic is invoiced for the PCR test- estimated cost \$70) – use routine AHL submission form




All PCV2 PCR-positive diagnostic samples are automatically sequenced (1 sample per case / strongest signal)– results released to submitting vet and project leads (OAHN Swine is invoiced for this test –estimated cost \$185)



Submitting veterinarian completes the brief survey via the links provided in this presentation completion required for testing compensation

# PORCINE CIRCOVIRUS TYPE-2 (PCV-2) TESTING AND TYPING PROJECT

## **Preliminary and Ongoing Project Stats (as of Nov 27, 2025)**

- ▶ 22 cases tested thus far
  - ▶ PCV2a: 3 cases (14%)
  - ▶ PCV2d: 12 cases (54%)
  - ▶ Untypable: 7 cases (32%)
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# PORCINE SAPOVIRUS TESTING, RELEVANCE, AND KNOWLEDGE PROJECT



# PORCINE SAPOVIRUS DISEASE OVERVIEW

## Sapovirus Disease Overview

- ▶ Sapovirus is a virus that infects the gastro-intestinal system of the pig and causes diarrhea. Transmission is through a fecal-oral route. This virus is widespread in swine populations globally, can be found in sick and healthy pigs.

## Clinical disease

- Often associated as part of a mixed infection with other pathogens
  - Diarrhea: Causes pasty diarrhea that is gray, yellow, or yellowish-brown in colour.
  - Reduced weight gain: The virus can cause malabsorptive diarrhea, which hinders the pig's ability to convert nutrition into body weight.
  - Mortality: Usually causes more illness (morbidity) than death (mortality), severe cases can lead to low mortality, especially in young pigs.
  - Other signs: Affected pigs may appear gaunt or weak.

## Prevention and Control

- There is no commercially available vaccine to prevent or control Sapovirus infections

## Biosecurity

- Strict biosecurity measures can help control the spread of the virus.

\*Zoonotic potential currently is unknown. More research is needed into the relationship between animal and human Sapoviruses\*



# PORCINE SAPOVIRUS TESTING, RELEVANCE AND KNOWLEDGE PROJECT

## Surveillance Gaps Identified by OAHN:

- ▶ The OAHN Swine Network often receives comments from swine veterinarians that they detected Sapovirus in a clinical case of neonatal piglet diarrhea, but the significance of this is unknown.
- ▶ Sapovirus is recognized as a new and emerging pathogen and is associated with a lot of unknown information. Minimal papers published.
- ▶ The OAHN Swine Network recommended this project to provide more information on cases where this virus is detected along with information on other pathogens detected from these cases that are involved in the neonatal diarrhea complex.
- ▶ Project goal is to yield valuable information that will contribute to filling the current knowledge gaps.

## Project Eligibility Requirements

- ▶ To be deemed eligible, samples submitted to the AHL from Ontario pigs, from live or euthanized piglets less than 20 days of age that have clinical diarrhea.
- ▶ A special AHL submission form is needed for samples being submitted for this OAHN project. Form can be found on the OAHN swine [website here](#).
- ▶ A short information survey will also need to be filled out by your veterinarians before testing cost compensation will be processed. The survey can be accessed via this link: [Link to survey](#). If the eligibility criteria is met, and the right samples are submitted, testing costs as outline will be covered by this project.

# PORCINE SAPOVIRUS PROJECT

## Samples Required for the Project

- ▶ 3 fecal samples per piglet- individual samples, NOT POOLED
- ▶ Euthanized piglets, also include formalin-fixed samples for histopathology: Stomach, duodenum x2, jejunum x2, ileum x2, cecum, colon- plus other organs at the veterinarian's discretion.
- ▶ Can include samples from up to 6 piglets per premises

## AHL Testing Included with this Project

- ▶ Rotoavirus A/B/C PCR
- ▶ Porcine bacteriology enteric panel 1 (culture, ETEC PCR)
- ▶ Porcine Sapovirus PCR
- ▶ Porcine Coronavirus (PEDV, TGEV, PDCoV) triplex PCR
- ▶ Fecal flotation
- ▶ Histopathology (for euthanized piglets)
- ▶ 25 x porcine Sapovirus PCR positive samples will also be sent to Iowa State University for ISH testing on fixed tissues
- ▶ Project runs from June 2, 2025- June 30, 2026, and will include samples from 100 euthanized pigs (tissues) and 100 live pigs (blood and fecals)
- ▶ Sampling supplies will be replaced e.g. whirlpack bags, vials, and fecal containers

### Diagnostic Case Testing Costs

Covered under this project:  
estimated at \$300.00-\$410.00 per pig. Plus, project covers 25 samples at estimated cost \$260.00 per sample for ISH for Sapovirus testing at Iowa State.

# PORCINE SAPOVIRUS PROJECT

## Sampling Assistance Required:

- ▶ Collect samples directly by producers or by vets while on farms for other reasons- project cannot cover mileage and professional fees for vets or technicians to do the sampling.
- ▶ Note: Coordination with ongoing CEVA coccidiosis testing for veterinarians. The AHL will send in fecal samples after AHL testing is complete and CEVA will run Coccidiosis PCR testing at Iowa State University (ISU). Testing results will be reported back to submitting vets through the AHL reports.

## Communications Plan

- ▶ All results from this project will be communicated back to the submitting vets and through the OAHN Swine Network and to swine veterinarians through the Ontario Association of Swine Veterinarians (OASV).
- ▶ All results from this project will be communicated to swine producers/industry members through OAHN swine network reports, and through Swine Health Ontario and Ontario Pork newsletter communication and website postings.
- ▶ Results will remain anonymous in all public communications.

# PORCINE SAPOVIRUS PROJECT

## Preliminary and Ongoing Sapovirus Project Stats

- ▶ 5 cases tested to date
- ▶ 2 field necropsy cases
  - ▶ 1) Atrophic enteritis due to mixed infection with porcine Sapovirus and rotavirus A, +/- bacterial colitis (possible salmonellosis)
    - ▶ Porcine Sapovirus ISH pending (Iowa)
  - ▶ 2) Results pending
- ▶ 1 AHL necropsy case
  - ▶ Atrophic enteritis due to rotavirus C, porcine sapovirus PCR negative
- ▶ 1 live pig case
  - ▶ Enteritis due to rotavirus A, porcine sapovirus PCR negative or inconclusive



# PARASITOLOGY PROJECT





# PARASITOLOGY PROJECT- DELAYED START

## APRIL 2026

### Surveillance Gaps Identified by OAHN:

- ▶ The OAHN Swine Network trends and discusses swine provincial and federal aggregate condemnation data each quarter. The number one cause of partial condemnations at abattoirs (according to collected partial condemnation reasons) is due to parasitic livers.
- ▶ Swine deworming products are available and used in commercial swine production. Swine deworming is considered a routine practice and an effective control measure by most swine veterinarians.
- ▶ This project will gather information on what preventative deworming products are routinely used on swine farms in Ontario and administration and usage of these products.
  - ▶ Are products being used by swine producers as per label directions?
  - ▶ Potentially has resistance developed overtime to routinely used medications?

### Project Eligibility Requirements

- ▶ Submission to the AHL of pen-based environmental fecal samples collected from finishing aged pigs and/or sows.
- ▶ A special OAHN project AHL submission form labelled Parasitology OAHN project will be used for these submissions. Form to be circulated when project launches to swine veterinarians and clinics.
- ▶ A short information survey will also need to be filled out before reimbursement can be provided for testing completed as part of this project. [Link to survey](#)

# PARASITOLOGY PROJECT

## AHL Testing Included

- ▶ Fecal flotation, includes parasite counts
- ▶ Project runs from April 1, 2026- July 1, 2027 (delayed start) and will include 300x samples.

## Assistance with Sampling is Requested:

- ▶ Collect samples (pen-based environmental fecals from finishing pigs and sows) by producers or by veterinarians while on farms for other reasons. \*Project cannot cover mileage and professional fees for vets or technicians to do the sampling\*

## Communications Plan

- ▶ All results from this project will be communicated to the submitting swine veterinarians, and to swine producers/industry members through OAHN swine network reports, and through Swine Health Ontario and Ontario Pork newsletter communication and website postings.
- ▶ Results will remain anonymous in all public communications.

# Take Home Messages

If you have diarrhea issues in piglets under 20 days of age on your farm and or see pigs gaunt or weak pigs routinely that could be associated with Porcine Circovirus:

- **Remind your veterinarian about ongoing OAHN swine network projects and ask them if samples could be submitted.**
  - Producers may be able to help take the appropriate samples and/or assist your vet with completing the required OAHN Swine Network surveys.
- **Don't miss out on this diagnostic testing that will be completed FREE to you as a participating producer!**





THANK-YOU  
DISCUSSION