

# IN THIS ISSUE

- African Swine Fever: What is being worked on...
- Do you have pigs with Erysipelas skin lesions on your farm? If so we need your help...
- A research study on Influenza A found a pig with 48 different virus variations

## African Swine Fever (ASF)- A review of what is being worked on ...

### What producers need to know...

The Canadian Food Inspection Agency (CFIA), the Ontario Ministry of Agriculture Food and Rural Affairs (OMAFRA) and Swine Health Ontario (SHO) have all partially activated their incident command structures to allow them to proceed with ASF planning and preparedness in an organized and collaborative fashion.

The Incident Command System (ICS) allows for organizations to embed personnel into the other organizational structures so that all are simultaneously in the "know" of what items are being worked on. For example the Canadian Pork Council (CPC) is embedded in the national CFIA incident command structure with Dr. Egan Brockhoff sitting in and participating on calls. Dr. Egan Brockhoff also participates on the SHO incident command structure updates to provide the link to activities being worked on nationally.

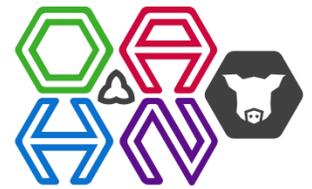
**It is important to note that this is the first time in history that both CFIA and OMAFRA have initiated ICS structure for preparedness for a pathogen before detection and confirmation. This demonstrates that government organizations are treating the potential ASF threat seriously.**

**CFIA meets weekly to discuss status updates and OMAFRA and SHO meet once every 2 weeks to discuss their status updates.**

ASF is a federally reportable disease, but it will be essential in response and planning activities to have a coordinated and collaborative response with the provinces and associated swine industry. CFIA has worked on communications over the past quarter hosting webex sessions for veterinarians, swine producers and industry members and swine industry update calls that occur every 2 weeks. SHO sends a few representatives to attend these calls.

The Canadian Border Services Agency (CBSA) is a participant in CFIA's incident command updates. CBSA officers understand the importance of prevention by detecting products being brought in illegally by travelers.

The CFIA is working with CBSA on posting communications on the importance of declaring meat and other products containing meat to CBSA officers in airports and at other ports of entry.



African Swine Fever (ASF) is still at the top of the “emerging” list of concerns for Ontario’s swine veterinarians.

ASF continues to spread throughout China. A total of 25 provinces in China have now confirmed detection. Lately, Chinese authorities have loosened movement restrictions, particularly for breeding stock replacements and piglets to facilitate repopulating herds affected by ASF.

On January 9, Mongolia reported its first case of ASF, making it now the second Asian county to report this disease. There has been no new outbreaks of ASF in other countries within Europe. However, several European countries are still being challenged with attempts to prevent further spread of the virus. Transmission through wild pigs has been documented as a major component in spreading this disease in these countries.

The Australian Department of Agriculture reported detecting ASF in products confiscated by authorities at points of entry. ASF was found in 5/152 samples analyzed. South Korea, Japan and Taiwan have also reported the identification of ASF in confiscated products at ports of entry since last August.

*Source: Swine Health Information Center: Swine Global Disease Surveillance Reports, 2019-02-06.*

**Everyone working with swine in Ontario needs to do what they can to help prevent this pathogen from entering into your farm and/or coming into contact with swine. Please reference the following OAHN infographics that demonstrate how you can help. Click on the following links:**

<https://oahn.ca/wp-content/uploads/2018/10/ASF-prevention-Backyard-FINAL.pdf>

<https://oahn.ca/wp-content/uploads/2018/10/ASF-prevention-Green-FINAL.pdf>

**If you see any of the below clinical signs in swine on your farm please contact your herd veterinarian and CFIA immediately and DO NOT SHIP any ill or sick pigs off of your farm.**

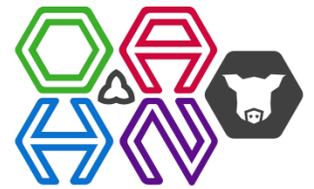


Marked redness of the skin on the limbs



Areas of bleeding and/or dead/ darkened coloured) skin spots

Sourced from the Center for Food Security and Public Health African Swine Fever lesions:  
[www.cfsph.iastate.edu/DiseaseInfo/disease.php?name=African-swine-fever&lang=en](http://www.cfsph.iastate.edu/DiseaseInfo/disease.php?name=African-swine-fever&lang=en)



# OAHN Erysipelas Project

## Announcing the OAHN Swine Network's Erysipelas Project

The OAHN Swine Network discussed the fact that Erysipelas continues to be reported at a higher observation frequency on the veterinary survey. This trend has been observed for the past 12 quarters. A project to support the isolation of Erysipelas from suspect cases will help us investigate and gather more information on why swine producers are seeing more cases of Erysipelas. This project has funding to conduct further genetic testing (genotyping of isolates). This way we will be able to compare past and current isolates to see if they are the same or different.

**The OAHN Swine Network is encouraging veterinarians and producers to submit fresh or frozen tissue samples of the spleen and liver from suspect Erysipelas cases (swine exhibiting diamond shaped skin lesions) to the Animal Health Laboratory (AHL). Testing and courier fees will be covered by this project.** Samples will also be solicited through swine processing plants. For more detailed information on this project please contact Dr. Tim Pasma [tim.pasma@ontario.ca](mailto:tim.pasma@ontario.ca)

# Influenza A Virus (IAV)

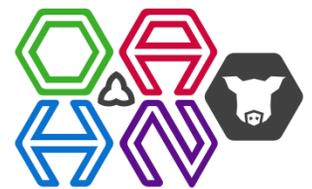
## Some interesting facts for producers

The OAHN Swine Network discussed the fact that Influenza A virus in swine continues to be reported at a higher observation frequency on the veterinary survey. This trend has been observed for the past 7 consecutive quarters. In the fourth quarter there were 37 submissions for Influenza A in swine to the Animal Health Laboratory (AHL) in Guelph. Swine producers must understand that humans, pigs and birds can share Influenza A viruses back and forth and that all could act as a vessel for the virus to change its genetic composition through reassortment, ultimately creating new Influenza A viruses.

Dr. Sue Burlatschenko commented on a research study that she recently came across. The study focused on the reassortment of influenza A viruses (IAV) of avian and swine origin. This study took a pig that was infected with an avian Influenza A strain H1N1 and a pig that was infected with a swine Influenza A strain H3N2. Both infected pigs were then introduced into a group of pigs known to be negative and not previously exposed to IAV. All pigs were euthanized 7 days after being mixed with the known 2 pigs infected with Influenza A. The majority of virus recovered (86%) was swine H3N2. Only about 1.8% was avian H1N1. The remainder were reassortment viruses, and **one pig did have 48 different genotypes isolated**. Viruses recovered from the lower respiratory tract had greater diversity.

**This study is a great reminder on the importance of making sure that all people exposed to swine are vaccinated yearly with the Influenza A vaccine. Also, this study serves as a good reminder that if anyone working with swine is experiencing a cough, congestion, runny nose, fever or chills that they should stay at home until recovered to prevent the possibility of exposing swine to Influenza A virus.**

Source: Zhang, X., Sun, H., et al. Tissue tropisms opt for transmissible reassortments during avian and swine influenza A virus co-infection in swine. PLoS Pathog 14 (12) e1007417.



## How can producers engage in OAHN?

Read our quarterly producer reports and let us know what you think!

Discuss the material included in these reports with you herd veterinarian and other swine producers. Help us spread the word!

## Contact Us!

Website: [www.oahn.ca](http://www.oahn.ca)  
Email: [oahn@uoguelph.ca](mailto:oahn@uoguelph.ca)  
Twitter: @OntAnHealthNet  
Facebook: @OntarioAnimalHealthNetwork

## Do you Enjoy Podcasts?

Check out all the current OAHN podcasts at [oahn.podbean.com](http://oahn.podbean.com).

Have an idea for a podcast you'd like to hear? [Let us know!](#)

## Meet your OAHN Swine Network Team:

### Practice Veterinarians

Dr. Christine Pelland (network co-lead)  
Dr. Allister Scorgie  
Dr. Sue Burlatschenko

### Ontario Veterinary College

Dr. Robert Friendship  
Dr. Zvonimir Poljak

### Animal Health Lab

Dr. Josepha DeLay  
Dr. Jim Fairles

### OMAFRA

Dr. Christa Arsenault (network co-lead)  
Dr. Tim Blackwell  
Dr. Tim Pasma  
Dr. Jaydee Smith  
Dr. Laura Eastwood  
Dr. Andrew Vince

### Gallant Custom Labs

Kalena Statutiak

### Industry

Janette Svehla SHO  
Stacey Ash OP  
Dr. Doug MacDougald & Marty Misener  
SHO Science & Tech

### CSHIN Rep

Dr. George Charbonneau

### OAHN coordinator

Dr. Kate Todd

