January 27, 2026

Biannual report on Influenza A in Ontario Swine herds: July to December 2025

Background Information on Influenza A in Swine

The purpose of this update is to provide information on influenza A in Ontario swine herds based on laboratory submissions from July 2025 to December 2025. Under the authority of the *Animal Health Act*, Ontario Ministry of Agriculture, Food and Agribusiness (OMAFA) has a mandate to protect animal health and take appropriate action on animal diseases that may affect human health. Therefore, influenza in all animal species is designated as an immediately notifiable hazard which requires all veterinary laboratories in Ontario to notify OMAFA when the virus is identified by a laboratory test. This report was created from data that was directly reported to OMAFA under the authority of the *Animal Health Act*.

Influenza is a common virus that affects multiple animal species, including swine, birds, horses, dogs, and cattle. Additional information on influenza and animal health can be found at Animal health: Influenza | ontario.ca.

Influenza is a zoonotic disease and in rare cases influenza viruses from pigs can affect humans. There is no risk of contracting influenza from pork products that are properly handled and cooked. If a case of influenza virus from swine is identified in a person, OMAFA will assist the Ontario Ministry of Health and the Public Health Agency of Canada with an investigation. People can help prevent transmission of influenza between animals and themselves by wearing gloves and an N-95 respirator mask, and by washing their hands after working with or handling animals. If you have questions about your health, please contact your physician.

Human influenza viruses can also be transmitted to pigs. If you are sick with a cold or flu, stay home and ask someone else to look after your animals.

Influenza virus in swine has various subtypes, including H1N1, H3N2 and H1N2. The H1N1 subtype was the predominant subtype detected until 2004 when H3N2 influenza was identified in Canadian pigs and spread to swine herds throughout all provinces including Ontario. The H1N2 influenza subtype was first identified in Ontario pigs in February of 2015 and since October of 2016 has become more common in Ontario swine herds. At the time of this report publication, there have been no detections of Influenza A subtype H5N1 in Canadian or Ontario ruminants or swine to date. Some influenza strains can circulate and cause little or no signs of disease in pigs, while others cause coughing, fever, laboured

breathing, muscle stiffness and abortion. In most cases, pigs infected with influenza viruses quickly become ill and recover, although severe cases can result in death. The virus can also make infected pigs more susceptible to infection with other bacteria and viruses.

Influenza A in Ontario Swine, July to December 2025

The information presented in this report is limited to the information provided in the laboratory submission form. In cases where adequate information on herd production type was not available, disease data is displayed under the category titled “swine, not specified” (see Figure 2 below). Isolations from all investigation types or submission purposes (e.g., monitoring, elimination) and clinical contexts (e.g., uncomplicated infections, co-infection with other respiratory pathogens) are included in this report and should be considered when interpreting the data.

Detections of influenza appeared to fluctuate over the duration of this reporting period, with higher detections noted in the months of Oct, Nov and Dec (Figure 1).

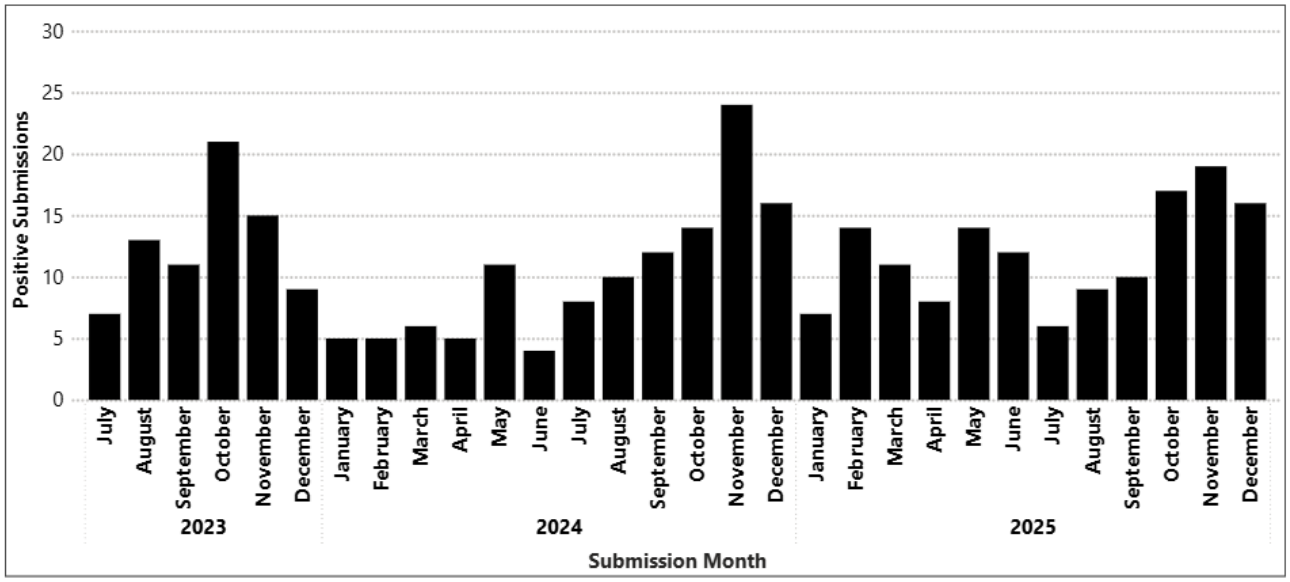

Figure 1. Submissions with positive tests (not including ELISA tests) for influenza in swine by submission month, Ontario, July 2023 to Dec 2025.

Most positive submissions during the reporting period were from grow-finish units or submissions where the production type of pigs wasn’t specified on the lab submission form (Figure 2). Positive submissions from sow herds and nursery herds were also observed in quarters (Qtr) 3 and 4 of 2025 (Figure 3). Additionally, in October and December of Q4 of 2025 most submissions that were influenza positive were sourced from nursery herds during this reporting period (Figure 3). There was also a large number of submissions where production type was not specified on the lab submission form.

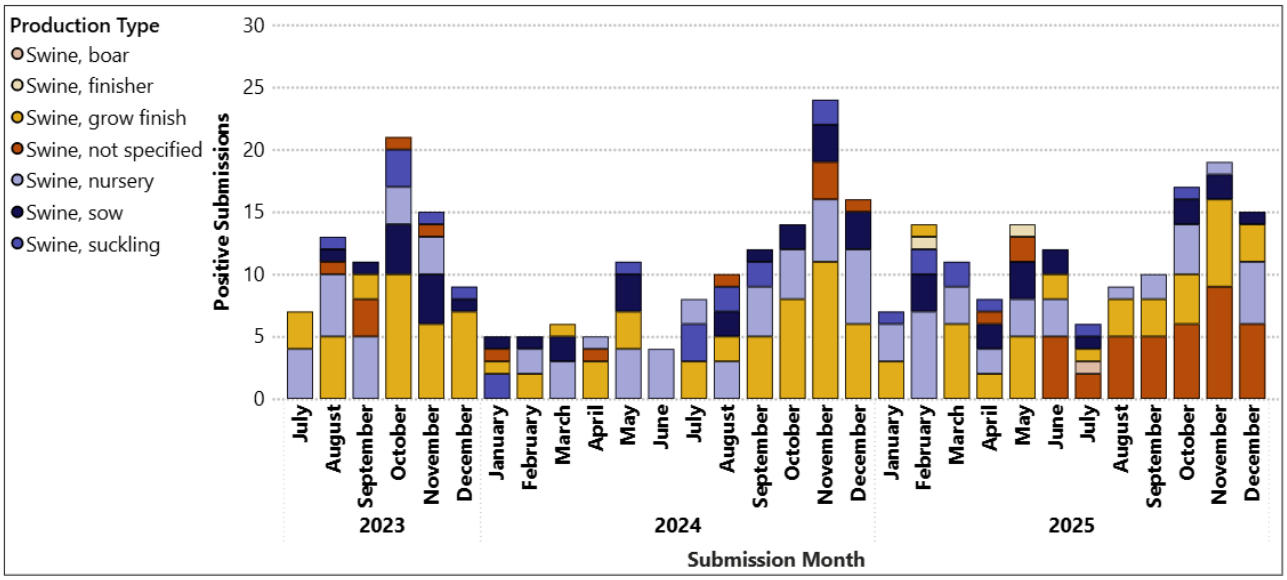

Figure 2. Number of submissions with positive tests (not including ELISA tests) for influenza in swine by production type and submission month, Ontario, July 2023 to Dec 2025.

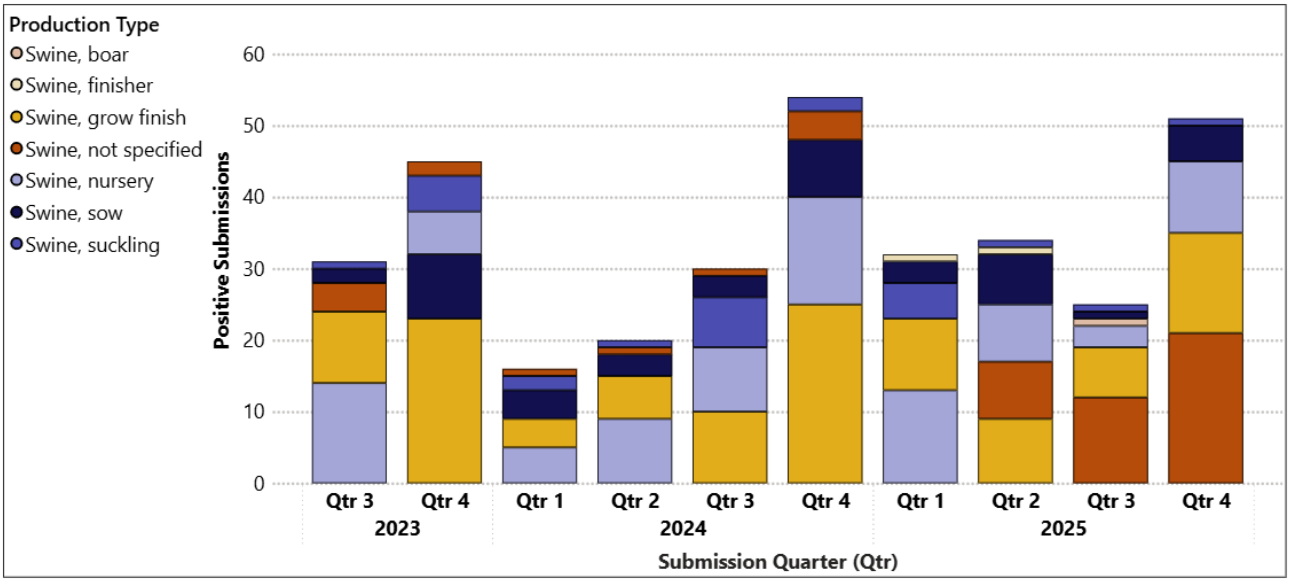

Figure 3. Number of submissions positive for influenza (excluding ELISA tests) in swine by production type and quarter, Ontario, July 2023 to Dec 2025. Quarter (Qtr) 3: July-Sept, Qtr 4: Oct-Dec, Qtr 1: Jan-Mar Qtr 2: Apr-Jun.

Figures 4 and 5 below display subtype information, including the main subtypes of H1N1, H1N2, H3N2 and counts of partial, mixed, and “inconclusive” subtypes isolated from Ontario swine herds from July 2023-Dec 2025. A mixed subtype refers to a submission

detecting a combination of more than one H and/or N subtype, while a partial subtype refers to submissions where only an H or N subtype is detected. Submissions where influenza was detected but subtyping could not be completed are captured in the “inconclusive” category. Inconclusive subtyping results were most common in September and October 2025 relative to the other months during the reporting period.

From July to December 2025, the majority of positive submissions involved the H3N2 and H1N1 subtypes (Figure 4, 5). While the overall number of Influenza A detections in swine fluctuated month to month, numbers increased in the months of Q4 2025. July 2025 was the lowest month for influenza A detections in swine.
The most evident peak in Influenza A detections on this graph occurred in November 2024 even though Oct, Nov and Dec 2025 had a higher rate of detections than previous months. This is good news, in that this November Influenza peak seemed to be less than the previous year. This is being attributed to the use of updated regional Influenza A swine autogenous vaccines in Ontario.

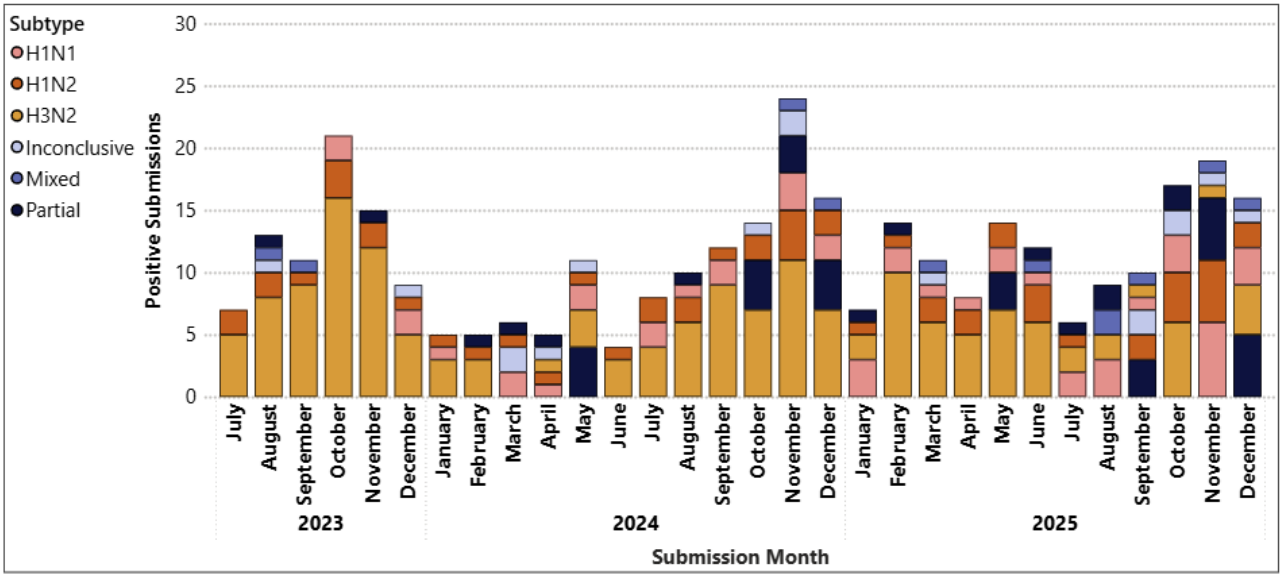

Figure 4. Submissions positive for influenza (not including ELISA tests) in swine by subtype and submission month, Ontario, July 2023 to Dec 2025.

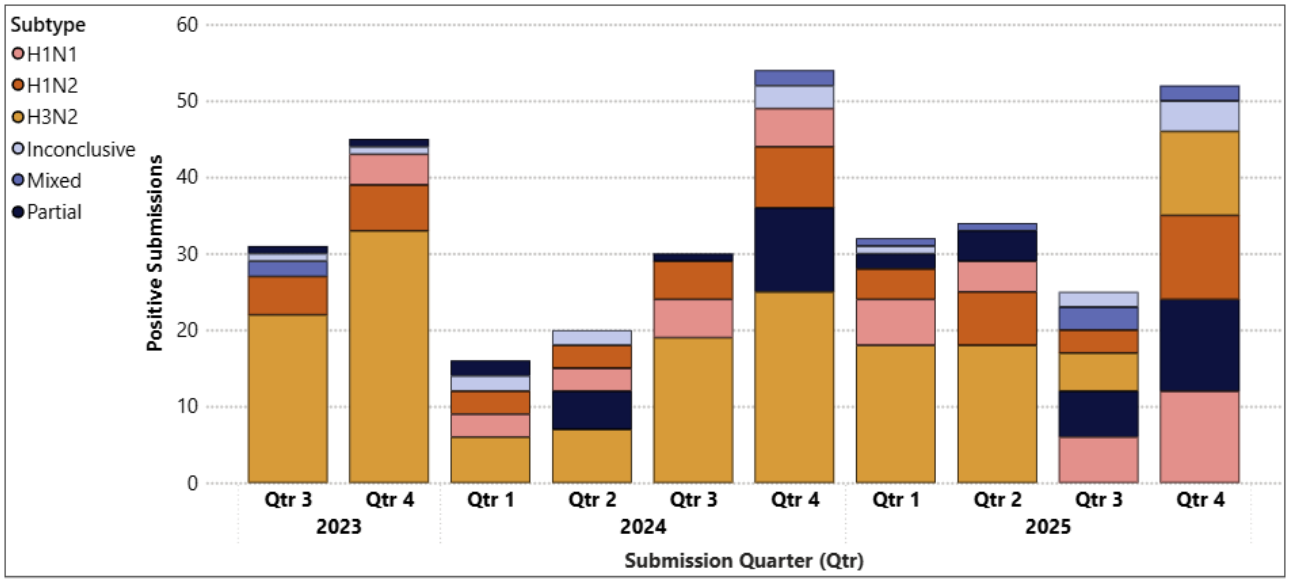

Figure 5. Submissions positive for influenza (not including ELISA tests) in swine by subtype and submission quarter (Qtr), Ontario July 2023 to Dec 2025: Qtr 1: Jan-Mar, Qtr 2: Apr-Jun, Qtr 3: Jul-Sep, Qtr 4: Oct-Dec.

Half of the influenza detections during this reporting period belong to the pandemic H1N1 subtype, followed by the 2010.1 clade of H3N2 sub-type (Figure 6), which was first isolated in Ontario swine in April 2023. In Sept 2025, approximately 40% of positive submissions were not sequenced (e.g. sample volumes submitted were not sufficient for sequencing) (Figure 6), limiting further subtype characterization for that month.

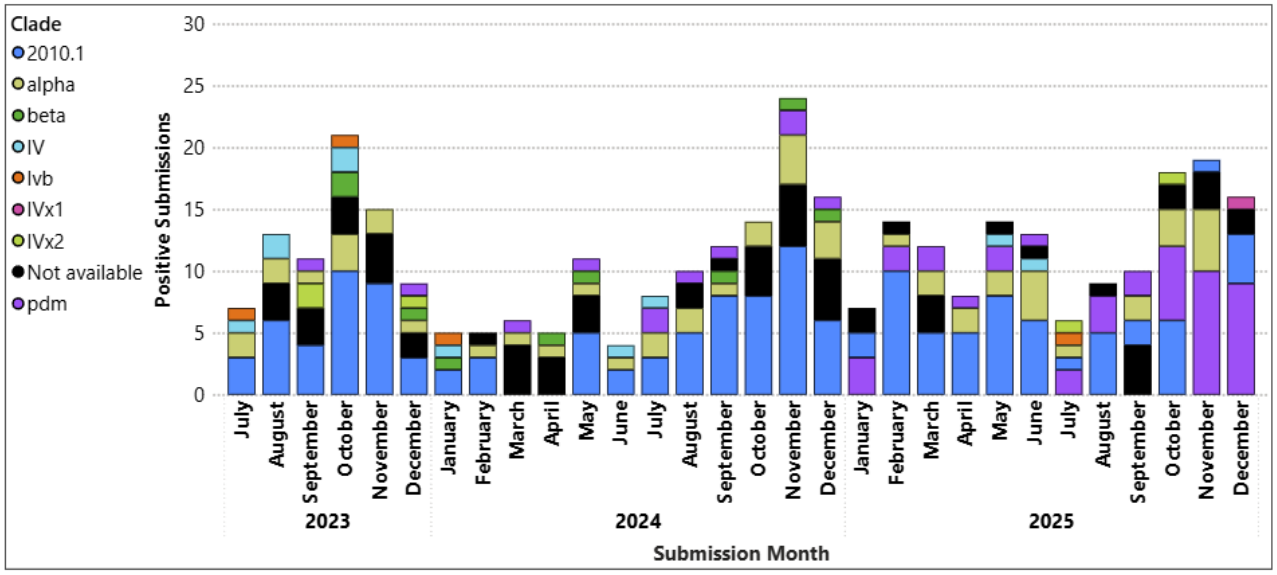

Figure 6. Submissions positive for influenza (not including ELISA tests) in swine by clade and submission month, Ontario, July 2023 to Dec 2025.

Most influenza detections in swine continue to come from the swine dense counties of Perth, Huron, Oxford and Middlesex followed by Bruce, Wellington and Elgin (Figure 7). In this report period, any positive submissions that did not include county level location information are not included in the figure below.

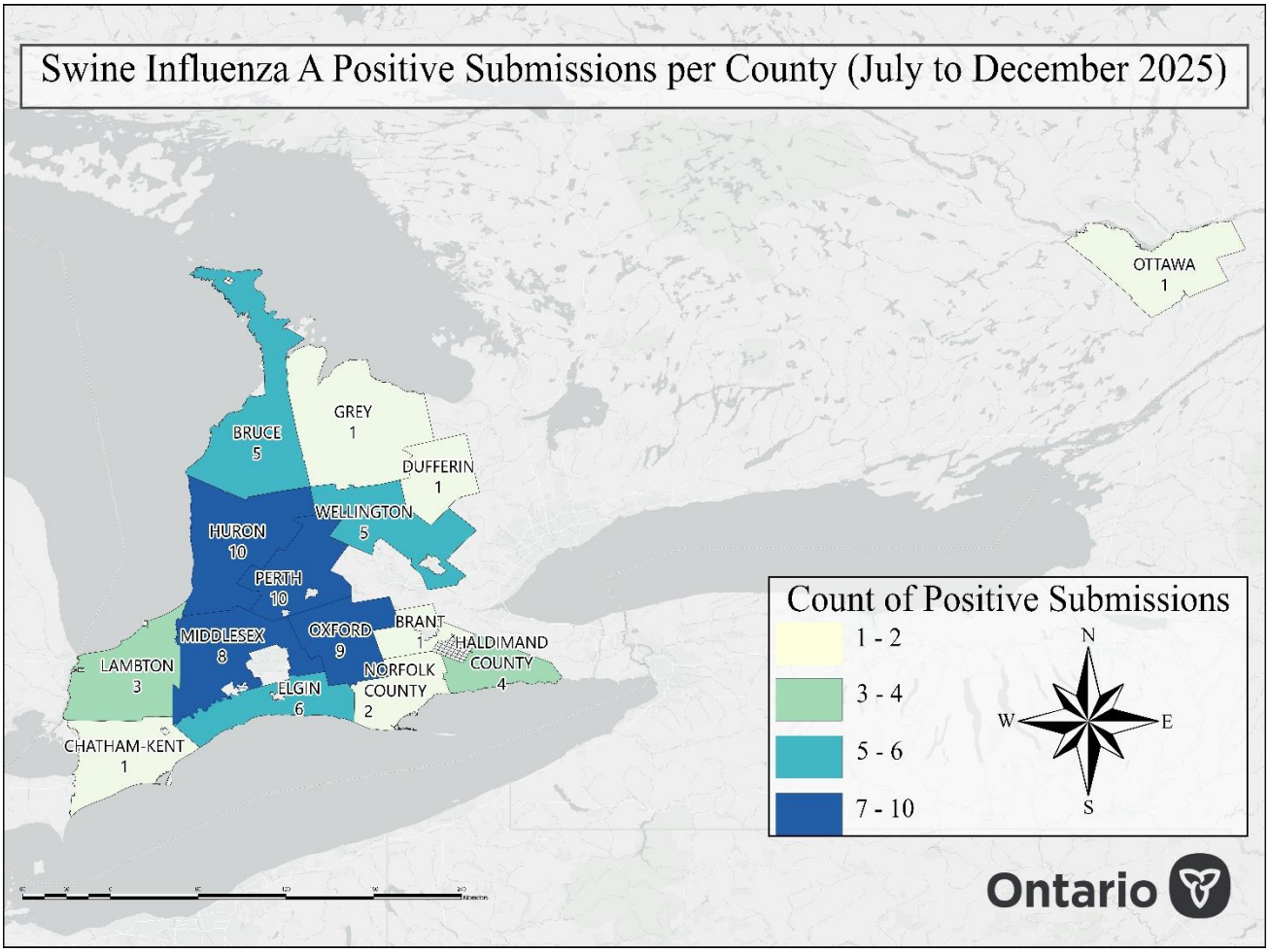

Figure 7. Submissions positive for influenza (not including ELISA tests) in swine by county, Ontario, July 2025 to December 2025.

Take Home Messages

A notable finding of this report was that pandemic H1N1 subtype was a dominant strain of influenza detections followed by the 2010.1 clade H3N2 subtype during quarter 3 and quarter 4 of 2025 (Figure 5). In April 2023, the Animal Health Laboratory (AHL) in Guelph identified a “new” clade of subtype H3N2 known as 2010.1 in Ontario pigs. Clade 2010.1 of subtype H3N2 strain was added into regional autogenous vaccines in

Ontario as early as January 1, 2024. Quarters 3 and 4 of 2025 were reported to also have high influenza detections in humans. It is highly likely that people who were sick and working with pigs transmitted influenza back and forth to the pigs. Both pandemic H1N1 subtype and clade 2010.1 H3N2 subtype are included in the regional autogenous vaccine being administered to many pigs in Ontario, although it is important to note that this vaccine needs to be continuously updated to keep up with influenza genetic drifts that naturally occur. A good news story is that the total number of overall influenza detections in Nov 2025 is less than the number detected in Nov 2024, which is good for the Ontario swine industry.

In October 2024, Quebec announced the detection of clade 2010.1 of subtype H3N2 Influenza in a swine herd in eastern Quebec. This herd had no epidemiological connections to Ontario. To date, there have been no other detections of this clade in other provinces, and all are conducting Influenza A in swine surveillance activities and are on the lookout for it.

We would like to remind all readers of the importance of **following good biosecurity practices, using personal protective equipment when working with sick pigs, and swine farm workers staying home if they may be sick with respiratory illness** and/or are experiencing a fever. The goal is to prevent further virus transmission and the potential to infect other species. Your veterinarian can provide advice on how to prevent and manage influenza infections in your herd, including vaccination strategies, isolation procedures for incoming animals, and effective biosecurity measures.

During quarters 3 and 4 of 2025, there were more influenza detections where the production type of the pigs affected was “not specified” (see Figure 3 above). This stresses the importance for veterinarians to include this information on the lab submission forms so that this can further be known, analyzed and included in these reports.

Disease surveillance activities that include subtyping and genotyping of detections of Influenza A in swine are funded through the Ontario Agri-Food Innovation Alliance. This report showcases the importance of this funding which allows for the monitoring of genetic reassortments and mutations of this virus.