Ontario

VETERINARY ADVISORY

Animal Health and Welfare Branch/
Office of the Chief Veterinarian
Ministry of Agriculture, Food and Rural Affairs

Veterinary advisory from the Office of the Chief Veterinarian for Ontario: Avian Influenza

Update and information about Avian Influenza in a commercial poultry flock. (Issued September 19, 2022)

On this page

Current situation

On September 17, 2022, the Canadian Food Inspection Agency (CFIA) confirmed the presence of highly pathogenic avian influenza (HPAI), strain H5N1, in a commercial flock located in the county of Oxford, Ontario. This is the first case of HPAI in a domestic flock in Ontario since May 18, 2022.

Avian influenza (AI) is a federally reportable disease under the Health of Animals Act. Attending veterinarians and owners are encouraged to report suspect cases of AI by contacting local district CFIA office.

Avian influenza (AI) is not a threat to food safety and Ontario poultry and eggs are safe to eat, when, proper handling and cooking takes place. The risk to human health is very low; on very rare occasions AI may infect people who have had consistent, close contact with infected birds.

People working with poultry are strongly encouraged to follow all public health guidelines and maintain strict biosecurity.

Domestic Flocks

Outbreaks of HPAI continue to be reported in commercial poultry flocks in Canada with the most recent detections reported in Alberta (two commercial flocks on September 12), British Columbia (one commercial flock on September 12), Manitoba (one commercial flock on September 14) and Saskatchewan (two commercial flocks on September 9 and 12). To date, nine provinces have reported cases of HPAI in domestic poultry affecting 128 premises and 2,364,500 domestic birds. For more information, please, visit Status of ongoing avian influenza response by province - Canadian Food Inspection Agency (canada.ca)

Between January 13 and September 14, the USA has reported a total of 445 outbreaks with 209 in commercial flocks and 236 in small flocks affecting 44.12 million birds. Details can be found at: USDA APHIS | 2022 Confirmations of Highly Pathogenic Avian Influenza in Commercial and Backyard Flocks)

Wild Birds

On September 18, 2022, Canada reported a total of 1,229 positive confirmed samples in wild birds. The status of wild birds confirmed positive can be found at: National Avian Influenza - Wild Positives (arcgis.com)

Individuals are encouraged to report findings of dead waterfowl and shorebirds to the Canadian Wildlife Health Cooperative at CWHC-RCSF : Canadian Wildlife Health Cooperative - Réseau canadien pour la santé de la faune.

Other Mammalian Infection

HPAI H5N1 has also been found in 83 individual mammals of 11 different species indicating some potential for inter-species spread.

Clinical signs

Avian influenza is caused by an influenza type A virus, which can infect poultry (such as chickens, turkeys, pheasants, quail, domestic ducks, geese, and guinea fowl), and is carried by free-flying waterfowl such as ducks, geese and shorebirds. AI viruses are divided into subtypes based on the combination of two proteins: hemagglutinin or "H" proteins (H1–H16), and

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neuraminidase or "N" proteins (N1–N9). AI viruses are either high or low pathogenicity (HPAI and low pathogenic avian influenza (LPAI), respectively), depending on the molecular characteristic of the virus and its ability to cause disease and mortality in domestic poultry.

While both HPAI and LPAI can spread quickly through flocks, LPAI viruses can mutate into highly pathogenic strains, which is why it is important to manage outbreaks promptly.

Birds become infected with AI when they have direct contact with diseased or carrier birds. Infected birds may shed the virus in their feces, contaminating the environment. The virus can survive for days in litter, feed, water, soil, dead birds, eggs and feathers. The disease spreads rapidly among birds in close confinement. AI can be brought into a poultry barn by breaches in biosecurity and is most often transmitted from one infected flock to another by movement of infected birds or contaminated equipment or people.

The incubation period of AI can range between 2 and 14 days.

Clinical signs of infected birds may include:

- decrease in feed and water consumption,
- extreme depression,
- drop in egg production (many of which are soft-shelled or shell-less)
- high and sudden morbidity and mortality rate, and
- signs of septicemia: hemorrhages on the hocks; severe edema of eyelids, wattle and combs; hemorrhagic enteritis.

Biosecurity and Prevention

Implementing and adhering to biosecurity best management practices is critical to preventing the introduction and spread of the disease. Producer and owner diligence is critical to selecting, implementing and maintaining specific, effective biosecurity measures.

To reduce the probability of HPAI virus transmission from wild birds to domestic poultry, strict biosecurity measures should be implemented for all types of poultry holdings.

Key steps to reduce the risk of infection in your flock include:

- Ensure adequate training of farm and company personnel in biosecurity and disease prevention.
- Require all people entering poultry barns, including farmers, employees and service providers to put on clean footwear and protective clothing and to follow all biosecurity protocols each time a barn is entered.

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- Minimize visits to other poultry production sites and **avoid any commingling of birds or contact with outside/wild birds.**
- Avoid exchanging and sharing equipment with other poultry production sites or farms.
- Ensure all vehicles and farm equipment that access the barn vicinity are properly washed, disinfected and thoroughly dried before use.
- Ensure that laneways are restricted and secured.
- Prevent wild bird and rodent entry to poultry barns and related facilities.
- Ensure that bedding is free of contaminants (feces from wild animals, etc.)
- If possible, "heat treat" the barn/litter ahead of chick or poult placement (to 38°C for at least 4 days).
- Keep all domestic poultry in doors during the high risk period of fall migration"
- Do not attend events where birds from different locations are brought together including shows, fairs, swaps, sales and events such as pigeon racing. Commingling birds from various locations increases the risk of disease spread, including diseases such as avian influenza.

Avian influenza is also an immediately notifiable disease by laboratories to OMAFRA under Ontario's Animal Health Act. Attending veterinarians with questions related to poultry health may contact an OMAFRA veterinarian through the Agricultural Information Contact Centre at 1-877-424-1300.

Avian influenza is not a food safety or significant public health concern for healthy people who are not in routine contact with infected birds. However, AI viruses can infect people who come into contact with the virus via eyes, nose or mouth, or if the virus is inhaled through aerosols. This is of concern for people who are in unprotected and routine contact with infected birds or contaminated surfaces. Questions or concerns about human health should be directed to the local public health unit or physician.

For additional information

Links for more information. Please include the source and what the link contains, example below.

CFIA

Fact Sheet - Avian Influenza - Canadian Food Inspection Agency (canada.ca)

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CWHC

CWHC-RCSF: Canadian Wildlife Health Cooperative - Réseau canadien pour la santé de la faune

WOAH

Avian Influenza - WOAH - World Organisation for Animal Health

National Wildlife Health Center

Current distribution of HPAI cases across North America

Bird Cast – United States

Live bird migration map

Ontario Ministry of Health:

Avian Influenza - Emergency Planning and Preparedness - Programs and Services - Health Care Professionals - MOH (gov.on.ca)

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