

Highly Pathogenic Avian Influenza (HPAI) – Mammals

Infections in Mammalian Species

In Canada, beyond poultry species, HPAI has been reported in 178 individual mammals of 12 different species. There have been no detections in cattle or other livestock species in Ontario or Canada as of April 4, 2024. The Canadian Food Inspection Agency (CFIA) has updated its website to reflect the range of animals susceptible to HPAI, including cautions not to feed raw animal products to pets or livestock.

In the United States (US), HPAI has been reported in 232 mammals across 21 species. The United States Department of Agriculture (USDA) and state authorities continue to investigate reports of HPAI in US cattle. Details regarding the source and method of transmission are yet to be confirmed. OMAFRA, in collaboration with the Canadian Food Inspection Agency (CFIA), are monitoring the recent cases in dairy cattle in the US, which continue to evolve.

- CFIA is updating their website frequently to keep stakeholders apprised of the situation.
 - [Highly pathogenic avian influenza \(HPAI\) in livestock - Canadian Food Inspection Agency \(canada.ca\)](https://www.inspection.gc.ca/food-safety/food-safety/avian-influenza/avian-influenza-in-livestock/20240404)

HPAI in US Dairy Cattle

As of April 4, 2024, the USDA has confirmed the recent detection of HPAI in samples collected from cattle in Texas, Kansas, Michigan, New Mexico, Idaho and Ohio. This follows investigation into an illness among primarily older dairy cows causing decreased lactation and reduced feed intake.

Initial testing by the National Veterinary Services Laboratories (located in the US) has not identified changes to the virus that would make it more transmissible to humans, which would indicate that the risk to the public remains low.

Officials have provided assurance that milk from animals in impacted herds is being diverted or destroyed and has not and will not enter the food supply chain. In addition, pasteurization has proven to inactivate bacteria and viruses such as influenza in milk.

HPAI in a US Goat Herd

The Minnesota Board of Animal Health confirmed a juvenile goat tested positive for HPAI on March 20, 2024. The goat kid shared pasture and water sources with a poultry flock that was quarantined from previous HPAI detection.

USDA Press release: [USDA APHIS | Federal and State Veterinary, Public Health Agencies Share Update on HPAI Detection in Kansas, Texas Dairy Herds](#)

Minnesota Board of Animal Health: [Stevens County goat tests positive for same influenza virus affecting poultry | Minnesota Board of Animal Health \(state.mn.us\)](#)

Additional information on detections in wildlife can be found at:

- [National Avian Influenza - Wild Positives \(arcgis.com\)](#)

Clinical signs

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

Clinical signs in dairy cattle may include:

- sudden reduced milk production (especially in older cows)
- thickened or colostrum-like milk
- decrease in feed consumption and/or drop in rumen motility
- dry manure or constipation, rarely diarrhea
- low grade fever

What to do if you observe cattle with abnormal signs:

- Producers should report clinical signs or suspected illness in their herds to their veterinarian immediately.
- **Veterinarians are encouraged to contact their local CFIA animal health office if there is a high degree of suspicion of HPAI.**

What to do if you find sick or dead birds or other wildlife on your property:

- Report these findings to the [Canadian Wildlife Health Cooperative](#) (CWHC) [Phone: 866.673.4781, Email: on-nu@cwhc-rcsf.ca] who may arrange for submission of wildlife for HPAI testing at the University of Guelph's Animal Health Lab (AHL)
 - The recommendation to the public and pet owners continues to be to avoid direct contact with sick or dead wildlife, stray animals, or wild birds. If you must handle wildlife, follow the guidance on [protecting yourself when handling sick, injured or orphaned wildlife](#)

Risk to human health:

It is uncommon for HPAI to impact human health. To date, no sustained human-to-human transmission has been reported anywhere in the world. However, those who work directly with poultry and livestock should take additional precautions and follow all public health guidelines.

Avian influenza is not a food safety or significant public health concern for people who are not in routine and repeated 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 aerosol suspension. This is of concern for people who are unprotected and in routine contact with infected birds or contaminated surfaces. **Questions or concerns about human health should be directed to the local public health unit or a physician.**

Consumption of undercooked meat or unpasteurized milk products from infected animals is not recommended.

Based on the studies of patients with the HPAI H5N1 virus, signs in humans can range from very mild to severe. The most common signs include,

- fever
- cough
- sore throat

- runny or stuffy nose
- muscle and/or body aches
- headaches
- fatigue or tiredness
- conjunctivitis (red eyes)
- shortness of breath or difficulty breathing
- less commonly, diarrhea, nausea, vomiting or seizures can occur. Diarrhea is more common with avian influenza than with influenza due to human viruses.

While the annual human influenza vaccine does not protect against HPAI, it will help prevent you from getting seasonal influenza, which could weaken your immune system or resistance to other infections. There is no specific vaccine available for the H5N1 strain in people.

It is important to tell your healthcare provider or [local public health unit](#) if you have any of these signs and/or if you have been around sick or dead animals in the past 10 days which were suspected or confirmed to have had HPAI. Anti-viral therapy may be recommended and prescribed to you. If you are showing signs, [specific tests to detect avian influenza in people](#) are available.

If you do not have access to a healthcare provider, please contact Health811 by calling 811, or [using the live chat feature](#)

Current situation – Birds

[Ontario.ca: Avian Influenza in Poultry](#)

[National Avian Influenza - Wild Positives \(arcgis.com\)](#)

[Investigations and orders of avian influenza in domestic birds by province - Canadian Food Inspection Agency \(canada.ca\)](#)

Biosecurity

Canadian Animal Health Surveillance System (CAHSS): [US Detections of H5N1 in Dairy Cattle: Biosecurity Recommendations for Canadian Dairy Herds](#)

A reminder – cost share funding for producers to enhance biosecurity on farms is still available:
[Biosecurity Enhancement Initiative Guidelines | ontario.ca](#)

Additional information

Canadian Food Inspection Agency

[Avian Influenza - Canadian Food Inspection Agency](#)
[Highly pathogenic avian influenza in livestock](#)

Canadian Wildlife Health Cooperative

Avian Influenza - [Canadian Wildlife Health Cooperative](#)

World Organization for Animal Health

[Avian Influenza - World Organization for Animal Health](#)

United States

[USDA APHIS | 2022-2023 Confirmations of Highly Pathogenic Avian Influenza in Commercial and Backyard Flocks](#)

<https://www.aphis.usda.gov/livestock-poultry-disease/avian/avian-influenza/hpai-detections/livestock>

Bird Cast – United States

[Live bird migration map](#)

European Union

[EURL Avian Flu Data Portal](#)

Health Canada

Public Health Agency of Canada - [Guidance on human health issues related to avian influenza in Canada](#)