

Avian influenza small flocks

ONTARIO MINISTRY OF
AGRICULTURE, FOOD AND RURAL
AFFAIRS



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March 8, 2022

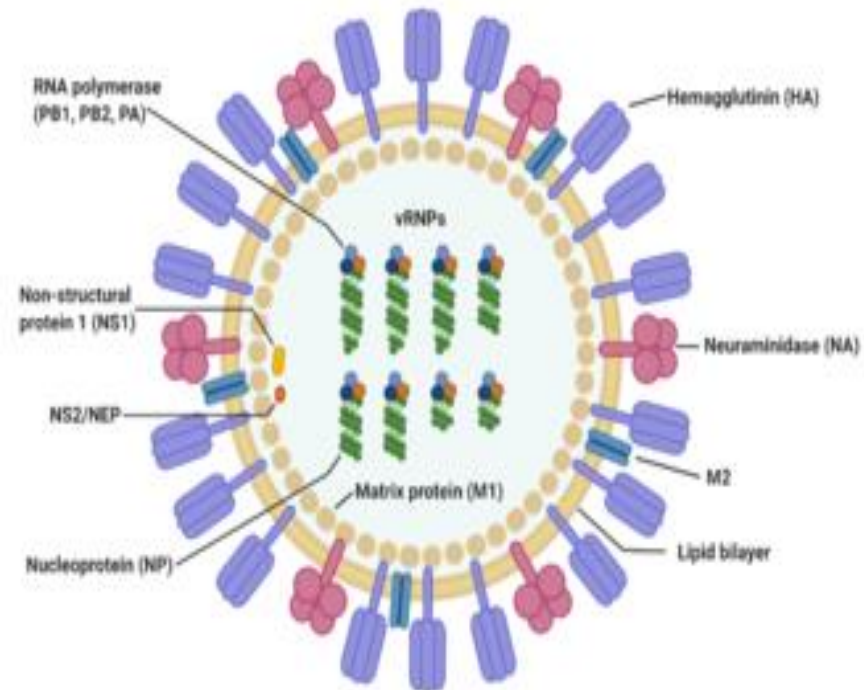
Avian influenza background

Avian influenza is a highly contagious viral disease which occurs primarily in poultry and wild birds and shore birds.

Categorizing AI viruses:

- Pathogenicity: ability to make birds sick: HPAI (severe disease and significant mortality) and LPAI (no or only mild clinical /mortality)
- Surface protein: Hemagglutinin (16-H5 and H7 with potential to be HPAI) and Neuraminidase (9 types)- different combinations of the H and N proteins create different subtypes
- Virus lineage based on geographic location of origin: Eurasian, North American lineages

Current HPAI: Eurasian lineage H5N1; first detection December 20- Newfoundland and Labrador and January 13- wild duck South Carolina



https://en.wikipedia.org/wiki/Influenza_A_virus

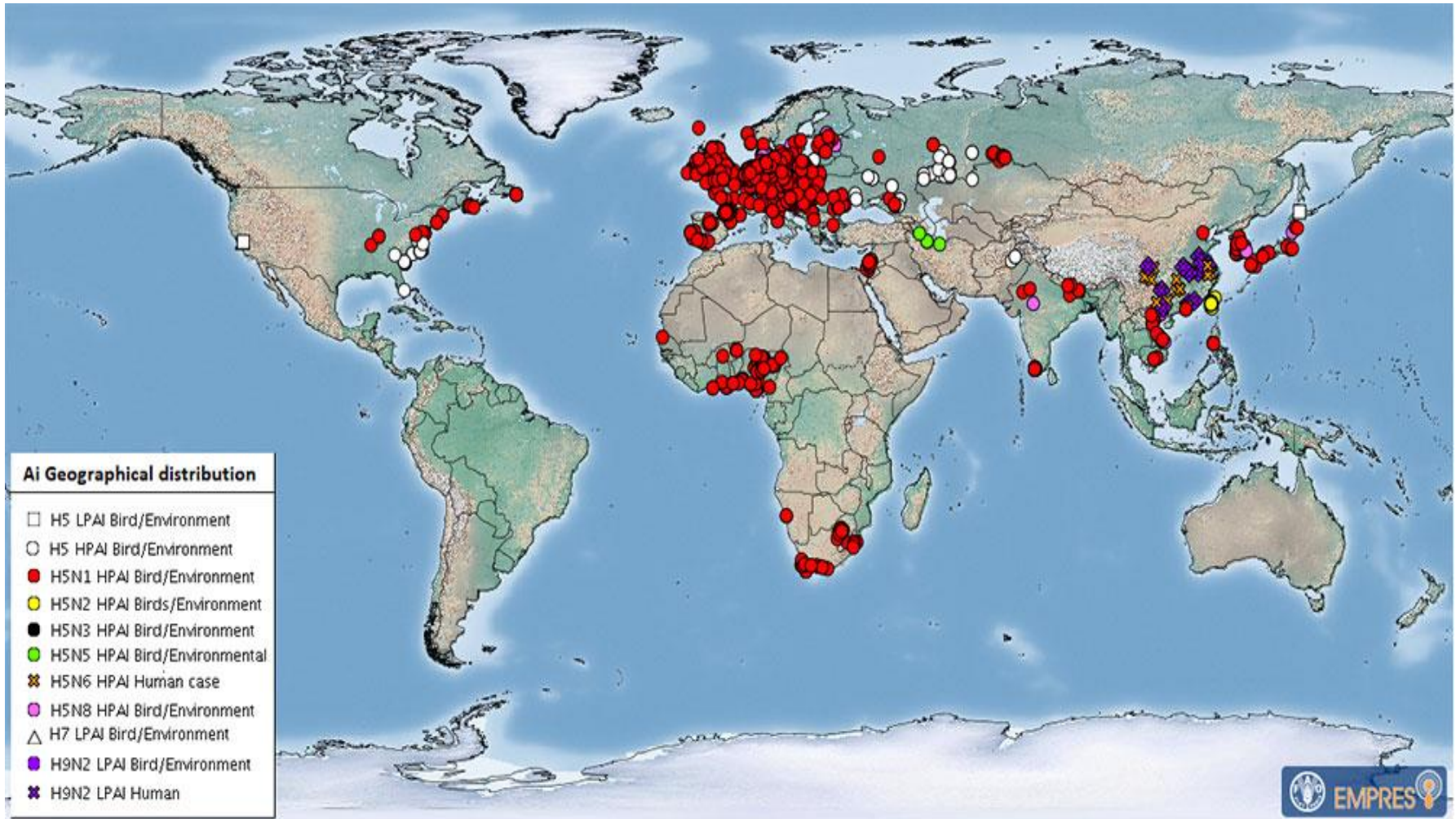
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The incubation period of AI varies between 2 and 14 days.

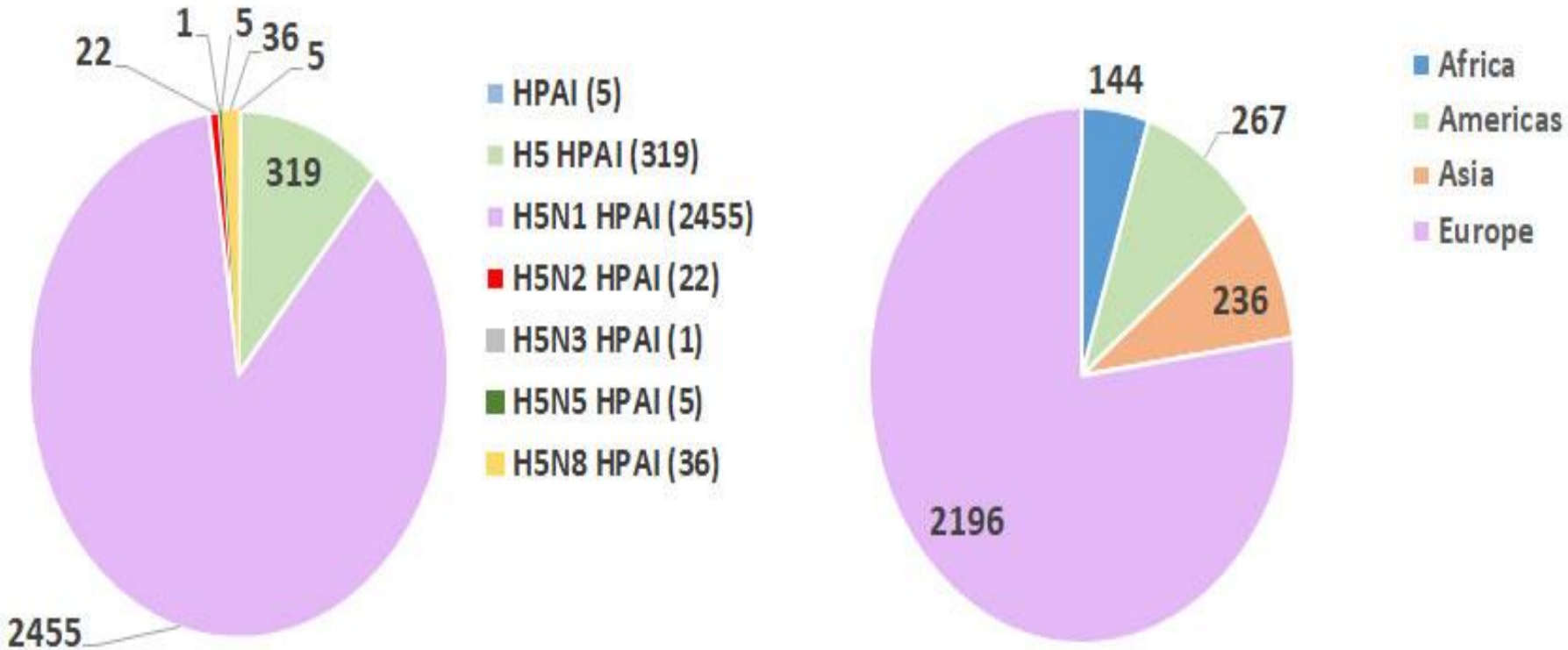
Clinical signs of infected birds may include:

- decrease in feed and water consumption, extreme depression, egg drop production with soft-shelled or shell-less.
- signs of septicemia: hemorrhages on the hocks; severe edema of eyelids, wattles and comb; hemorrhagic enteritis
- high and sudden morbidity and mortality rate- for the H5N1 strain, the mortality is reported to be very high, in some cases exceeding 90% within 2-3 days of first clinical signs.

Global distribution of AIV



Distributions of HPAI events by subtype and by region



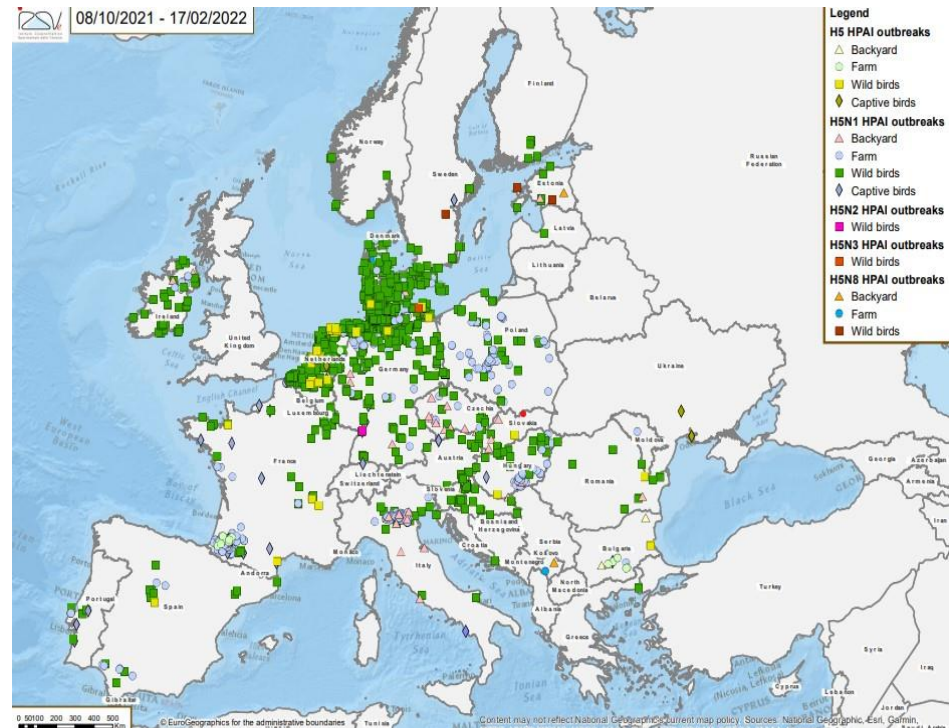
Avian influenza small flock

Highly Pathogenic Avian influenza(HPAI) Europe

Since October 2021 Europe has experienced 993 HPAI outbreaks in poultry and captive flocks and 1971 wild birds HPAI detection

OIE, November 19, 2021: various subtypes of HPAI avian influenza have been reported by more than 40 countries over the last 6 months. During this high-risk period, October to April, countries need to scale up surveillance efforts, implement strict biosecurity measures and ensure a timely reporting of outbreaks to curb its spread

EU outbreaks map



HPAI H5N1 North America status

Canada

- 11,800 bird commercial turkey flock, Nova Scotia (February 3)
- 960 bird commercial mixed poultry, Nova Scotia (February 11)
- 55 bird back yard flock ,Nova Scotia (February 3)
- Two small flocks (438 birds), Newfoundland
- To date, there are no outbreaks in Ontario

- CWHC identified 16 H5N1 infected birds in NFL, NS, PEI, NB and BC with all 4 flyways (Bald eagle- Vancouver March2)

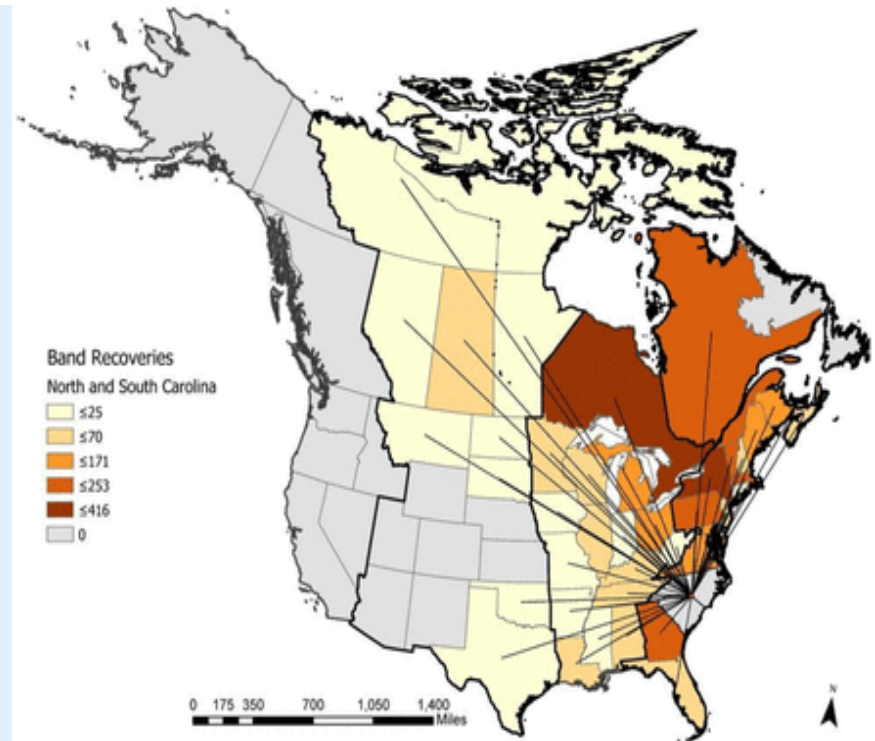
United States

- March 6, South Dakota- commercial mixed species
- March 5, Maryland- commercial layer
- March 4, Missouri- commercial broilers
- March 2, Indiana- commercial turkey
- February 24- Michigan- back yard flock
- February 23, Indiana- commercial turkey
- February 23, Indiana- two commercial turkey
- February 22, Delaware-commercial poultry
- February 19, NY- back yard pet chicken
- February 19, Maine-backyard mixed species birds
- February 16, Indiana-commercial turkey
- February 15, Kentucky-commercial turkey
- February 12, Virginia-back yard mixed species birds
- February 12, Kentucky- commercial broiler chickens
- February 8, Indiana-commercial turkey
- US has reported 307 wild birds detected to be infected with HPAI H5N1 in 21 states.

Migratory flyway- how the virus got here

Dabbling duck movements from Carolina states to North

North America flyways



Why Avian influenza outbreaks are of concern

Increasing disease outbreaks = Increasing risk for Ontario



Food

- Not a food safety risk



Human

- Zoonotic disease: low risk to general public but can spread to humans in direct contact with live birds
- Low pathogenic H5 and H7 viruses can evolve into highly pathogenic viruses.



Economic

- High mortality in domestic poultry, especially turkeys and chickens
- Rapid spread between farms/flocks if strict biosecurity is not in place
- Serious production, economic and trade losses



Other

- Migratory birds are reservoirs for AI viruses but are often asymptomatic; risk increases with spring/fall global migrations
- Pigs are susceptible to AI viruses. AI infection in pigs can result in new strains of AI

Change of OIE terrestrial Code's chapter 10.4 on avian influenza, May 2021

What that means for small flocks

Poultry definition

All birds reared or kept in captivity to **produce any commercial animal products or for breeding for this purpose**, fighting cocks used for any purpose, and all birds used for restocking supplies of game or for breeding for this purpose, until they are released from captivity.

Non-poultry definition

- Birds that are kept in a single household, the **products of which are used within the same household exclusively**, are not considered poultry, provided that they have no direct or indirect contact with poultry or poultry facilities.
- Birds that are kept in captivity for other reasons, including those that are kept for shows, racing, exhibitions, zoological collections and competitions, and for breeding or selling for these purposes, as well as pet birds, are not considered poultry, provided that they have no direct or indirect contact with poultry or poultry facilities.

ROLES AND RESPONSIBILITIES

| | | |
|--|--|--|
| OMAFRA | <ul style="list-style-type: none"> • Animal health – healthy farmed animals • Food inspection at provincially licensed slaughter plants • Support off-farm carcass disposal • Support CFIA-led disease control and response efforts and surveillance | <ul style="list-style-type: none"> • Animal Health Act, 2009 • Food Safety & Quality Act, 2000 • Nutrient Management Act, 2002 (Disposal of Dead Farm Animals Regulation) |
| Canadian Food Inspection Agency (CFIA) | <ul style="list-style-type: none"> • Diseased farmed animals • Disease control, surveillance, zoning, compartmentalization, and international reporting for federally reportable diseases • Confirm detection, response, containment and eradication of disease • Establish disease-free status and lead communication with international trading partners • Order destruction and disposal of infected animals and provide associated compensation • Provide international disease response updates | <ul style="list-style-type: none"> • Health of Animals Act |
| Agriculture and Agri-Food Canada (AAFC) | <ul style="list-style-type: none"> • Leads national market interruption and recovery response | |
| Ministry of the Environment, Conservation and Parks (MECP) | <ul style="list-style-type: none"> • Recommendations relating to animal disposal | <ul style="list-style-type: none"> • Environmental Protection Act |
| Ministry of Natural Resources and Forestry (MNRF) | <ul style="list-style-type: none"> • Policy, recommendations and assistance to prevent the spread of the disease to wildlife | <ul style="list-style-type: none"> • Invasive Species Act |
| Solicitor General (OPP and OFMEM) | <ul style="list-style-type: none"> • Animal welfare • OPP – law enforcement support (security, road closures) • OFMEM – support for emergency response | <ul style="list-style-type: none"> • PAWS Act |
| Feather Board Command Centre (FBCC) and Ontario Association of Poultry Veterinarians (OAPV) | <ul style="list-style-type: none"> • Provide knowledge and technical guidance to government and producers • Communicate to producers and Ontario poultry industry members | |

General response to Influenza A in domestic animals

Animal Health Act Reporting requirements

- Samples positive for influenza A in any species are reported to OMAFRA

Influenza A cases in swine, equine and dogs are monitored

Influenza A in poultry

- H5 and H7 strains – federally reportable disease
- CFIA takes response actions to contain and eliminate infection
- H5 and H7 strains have an increased potential to cause disease in people
- Non H5 and H7 strains – OMAFRA and MOH respond

Who to call if suspect Avian influenza in your flock

If you think your birds are infected

Bird owners are legally responsible to notify their veterinarian or the nearest Canadian Food Inspection Agency (CFIA) Animal Health district if there is a suspicion of Avian influenza.

Encouraging to call your local veterinary clinic to establish contact and see if they offer small flock veterinary services

If you spot a sick or dead wild bird

Anyone who finds a sick or dead wild bird is encouraged to contact the [Canadian Wildlife Health Cooperative \(CWHC\)](#).

Be prepared to submit details like where you found the bird or discuss options for carcass submission to allow them to gather information about the health of wild populations.

