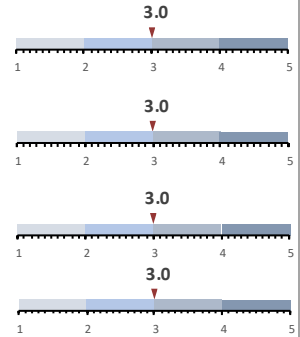


SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥ 3.0)

Highly Pathogenic Avian Influenza

- ◆ As of July 8, 2024, the USDA has reported influenza A H5N1 in a total of 140 dairy herds across 12 states: **Wyoming(1), North Carolina(1), Ohio(1), Kansas(4), South Dakota(5), Minnesota(7), New Mexico(8), Iowa(12), Texas(21), Michigan(25), Colorado(27) and Idaho(28)**
- ◆ **Colorado** has reported the majority of new outbreaks of influenza A H5N1 in dairy cattle, with 23 outbreaks reported over the last 30 days in the northeastern part of the state
- ◆ **Germany** has reported HPAI H7N5 on a layer farm in the western part of the country, near its border with the Netherlands; the outbreak killed 6,000/90,879 birds in the town of **Bad Bentheim** in **Lower Saxony**
- ◆ Journal Article: Pathogenicity and transmissibility of bovine H5N1 influenza virus
 - Bovine HPAI H5N1 virus spread systemically, including to the mammary glands of both mice and ferrets
 - Bovine HPAI H5N1 virus bound to sialic acids expressed in human upper airways and inefficiently transmitted to exposed ferrets (1/4 exposed ferrets seroconverted without virus detection)

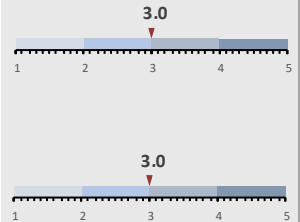
[Read More](#)



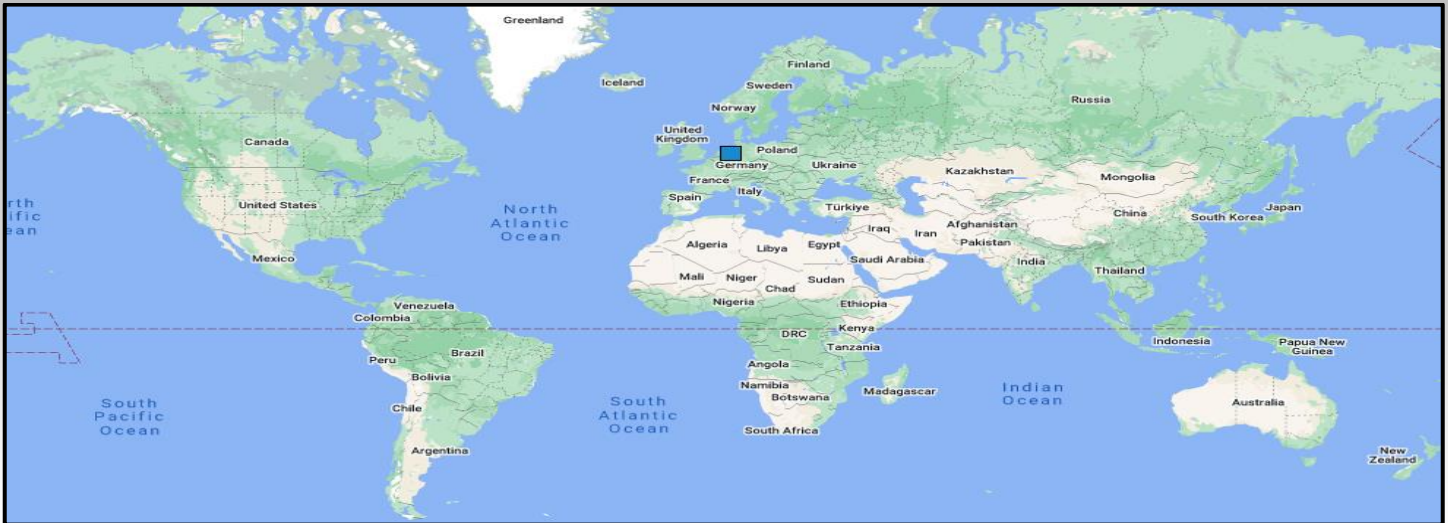
Influenza A

- ◆ **Colorado** has reported the fourth human case of influenza A H5, associated with the ongoing outbreak of H5N1 in dairy cattle in the USA; the person is a dairy farm worker from a farm where cows tested positive for H5N1, they reported conjunctivitis, received oseltamivir treatment, and have recovered
- ◆ **Cambodia** has reported two additional human cases of influenza A H5N1 (the 6th and 7th cases for 2024); the cases involve a 3-year-old boy and 5-year-old girl (cousins) who live together in the same household in **Po village, Takeo province** and both had direct contact with a dead chicken – the clade is not yet known, but likely to be the older 2.3.2.1c clade which circulates in poultry in the region

[Read More](#)



NEW EVENTS: (events rated > 2)



Highly pathogenic avian influenza H7N5 in Germany

Pathogen: virus; **Transmission:** direct contact, fomite, aerosol; **Species affected in event:** poultry

① Germany has reported an outbreak of HPAI H7N5 on a layer farm in the western part of the country, near its border with the Netherlands. The outbreak was detected on June 29 and confirmed on July 2, it has killed 6,000 out of a flock of 90,879 birds in the town of Bad Bentheim in Lower Saxony. HPAI H7N5 has not previously been reported in Europe and it is hypothesized that a low pathogenic variant of the H7 may have led to infection of poultry on the farm, where it subsequently mutated into a highly pathogenic variant.

[Read More](#)

Avg. Rating	3.0
No. of Signal	2
No. of Ratings	4

CONTINUED EVENTS: (events rated ≥ 2.4)

Influenza A(H5N1) in the United States

No. of Signals: 03 **No. of weeks in report: 14** **Avg. Rating: 3.0**

- [Colorado](#) has reported the fourth human case of influenza A H5, associated with the ongoing outbreak of H5N1 in dairy cattle in the USA; the person is a dairy farm worker from a farm where cows tested positive for H5N1, who reported conjunctivitis, received oseltamivir treatment, and has recovered

Influenza A(H5N1) in Cambodia

No. of Signals: 01 **No. of weeks in report: 11** **Avg. Rating: 3.0**

- [Cambodia](#) has reported two additional human cases of influenza A H5N1 (the 6th and 7th cases for 2024); the cases involve a 3-year-old boy and 5-year-old girl (cousins) who live together in the same household in Po village, Takeo province and both had direct contact with a dead chicken – the clade is not yet known, but likely to be the older 2.3.2.1c which circulates in poultry in the region

Highly Pathogenic Avian Influenza in North America

No. of Signals: 05 **No. of weeks in report: 123** **Avg. Rating: 2.0 - 3.0**

- [Canada](#) has not reported any outbreaks of HPAI in domestic poultry over the last week
- [Colorado](#) has reported an outbreak of HPAI on a commercial poultry farm in Weld County with ~1.8 million chickens
- As of July 2, 2024, the [USDA](#) has reported influenza A H5N1 in a total of 140 dairy herds across 12 states: Wyoming(1), North Carolina(1), Ohio(1), Kansas(4), South Dakota(5), [Minnesota](#)(7), New Mexico(8), Iowa(12), Texas(21), [Michigan](#)(25), [Colorado](#)(27), and Idaho(28)
- [Minnesota](#) state website lists a total of 8 infected dairy herds; 1 farm, where goats were found to be infected with H5N1, was released from quarantine
- [Iowa](#) has announced 13 detections of HPAI within dairy herds in the state
- In [California](#), in late June, H5 was detected at three wastewater sites in the San Francisco Bay Area, however the source is unclear and may be from bird/animal waste in stormwater
- The [CDC](#) has released an additional week of Influenza A (not strain specific) wastewater surveillance data on its dashboard
- Stanford University's [WastewaterSCAN](#) dashboard has additional information on H5 wastewater sampling

Highly Pathogenic Avian Influenza in Europe

No. of Signals: 01 **No. of weeks in report: 183** **Avg. Rating: 2.0**

- [France](#) has reported cases of HPAI H5N1 in wild birds
- A summary of the overall HPAI situation in Europe is available [here](#)

Highly Pathogenic Avian Influenza in South America

No. of Signals: 01 **No. of weeks in report: 71** **Avg. Rating: 2.0**

- Peru has recently reported an outbreak of HPAI H5 in [commercial layers](#) in Arequipa as well as seven outbreaks in [backyard poultry](#) from April-July 2024

Highly Pathogenic Avian Influenza in Australia

No. of Signals: 01 **No. of weeks in report: 07** **Avg. Rating: 2.0**

- [Australia](#) has reported an additional outbreak of HPAI H7N8 in the Australian Capital Region; the virus was detected in backyard chickens at a residential property in the quarantine control area around the original infected property
- [No additional outbreaks](#) of HPAI H7N3 or HPAI H7N9 have been reported in the last week

SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

Coronavirus

- ◊ Circulation of Non-Middle East Respiratory Syndrome (MERS) Coronaviruses in Imported Camels in Saudi Arabia [Read More](#)

Influenza

- ◊ Pathogenicity and transmissibility of bovine H5N1 influenza virus [Read More](#)
- ◊ ECDC - Avian influenza overview March–June 2024 [Read More](#)
- ◊ Pre-print: An emerging PB2-627 polymorphism increases the pandemic potential of avian influenza virus by breaking through ANP32 host restriction in mammalian and avian hosts [Read More](#)
- ◊ Pre-print: Detection of A(H5N1) influenza virus nucleic acid in retail pasteurized milk [Read More](#)
- ◊ Pre-print: Longitudinal Influenza A Virus Screening of Retail Milk from Canadian Provinces (Rolling Updates) [Read More](#)
- ◊ WHO - Examining influenza cases reported in the past two months [Read More](#)

Mpox

- ◊ The Re-Emergence of Mpox: Old Illness, Modern Challenges [Read More](#)

Other

- ◊ France - Weekly Bulletin for International Animal Health Surveillance 09/07/2024 [Read More](#)
- ◊ ECDC - Communicable disease threats report, 29 June - 5 July 2024, week 27 [Read More](#)
- ◊ SHIC Domestic Disease Monitoring Report - July 2024 [Read More](#)
- ◊ SHIC Global Disease Monitoring Report - July 2024 [Read More](#)

Disclaimer

This intelligence report is intended to provide information to risk managers about emerging and zoonotic disease events that could pose a threat to Canada. It is based on information signals acquired and selected from twenty-one distinct disease surveillance sources via the Knowledge Integration using Web-based Intelligence (KIWI) tool hosted on the Canadian Network for Public Health Intelligence (CNPHI) informatics platform. The report is based on the activities of the CEZD Community of Practice and subject to change based on evolving user needs.