

CORRECTION: NEW EVENTS HPAI H7N3 & H7N9 IN AUSTRALIA

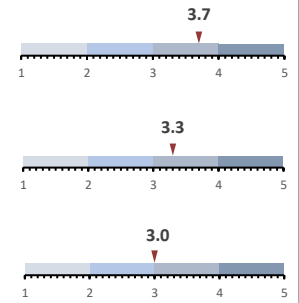
Australia has recently reported two outbreaks, **with different strains**, of HPAI in commercial poultry:

- ◆ **HPAI H7N3** was initially reported in an egg farm near **Meredith**, with 413,000 birds; **HPAI H7N3 has been previously reported in Australia in the early 1990's** [Read More](#)
- ◆ **HPAI H7N9** was then reported at a mixed free-ranged and caged commercial egg layer poultry farm in **Terang** with 160,000 birds; this is the **first report of HPAI H7N9 in Australia** [Read More](#)

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

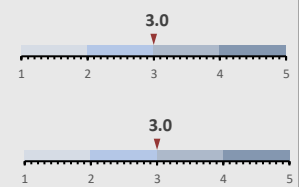
Influenza A

- ◆ **Michigan** has reported its first case of influenza A(H5N1) in a farmworker who had regular exposure to infected livestock; the virus was identified as clade 2.3.4.4b B3.13, with only minor changes identified compared to the sequence from cows, including a PB2 M631L mutation [Read More](#)
- ◆ **Australia** has reported an imported case of influenza A(H5N1) in a child who contracted the virus in **India**; the virus was identified as the South Asian 2.3.2.1a clade that has been known to circulate in birds/poultry in **India, Bangladesh, Cambodia and Vietnam** [Read More](#)
- ◆ More details have been released on the human infection with influenza A(H5N6) in **China**; the case was a 52-year-old female from Fujian Province who had direct contact with back yard poultry, symptom onset of April 13, 2024 and passed away on April 30, 2024 [Read More](#)



Highly Pathogenic Avian Influenza

- ◆ In the **USA**, a total of 63 dairy herds have reported cases of influenza A H5N1 across 9 states: **North Carolina(1), Ohio(1), South Dakota(4), Colorado(4), Kansas(4), Idaho(8), New Mexico(8), Texas(14), and Michigan(19)** [Read More](#)
- ◆ **Michigan** State University Extension has released a case report of an H5N1 affected dairy farm and farmer perspective [Read More](#)



NEW EVENTS: (events rated > 2)



Influenza A(H5N1) in Australia, imported from India

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

① Australia has reported an imported case of influenza A(H5N1) in a child (reportedly a 2-year-old girl) who contracted the virus somewhere in India. The child returned to Australia from India in March 2024 and experienced a severe infection but has made a full recovery. Contact tracing has not identified any further cases of avian influenza connected to this case. GISAID data has identified the virus as the South Asian 2.3.2.1a clade, known to circulate in birds/poultry in India, Bangladesh, Cambodia and Vietnam. [Read More](#)

Avg. Rating	2.7 - 3.3
No. of Signal	4
No. of Ratings	6 - 7

Highly Pathogenic Avian Influenza (H7N3 & H7N9) in Australia

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

① Australia has recently reported two outbreaks, with different strains, of HPAI in commercial poultry. HPAI H7N3 was initially reported in an egg farm near Meredith, with 413,000 birds. Movement controls, quarantine, safe disposal, and disinfection have been implemented. Contact tracing is underway to determine the source and spread of the infection. HPAI H7N3 has been previously reported in Australia, with outbreaks reported in the early 1990's. [Read More](#)

Avg. Rating	2.3 - 2.9
No. of Signal	6
No. of Ratings	4 - 7

HPAI H7N9 was then reported at a mixed free-ranged and caged commercial egg layer poultry farm in Terang with 160,000 birds. The Terang farm had a commercial link with the Meredith farm infected with HPAI H7N3, however, this was through management needs only. This is the first report of HPAI H7N9 in Australia. [Read More](#)

Eastern Equine Encephalitis in Ecuador

Pathogen: virus; **Transmission:** vector - mosquito; **Species affected in event:** equine

① Ecuador has reported a recurrence of EEE. A positive case of EEE was detected in a racehorse at a racetrack in the province of Guayas. The animal showed very significant neurological signs, with 41°C fever, ataxia, weakness and nystagmus. Due to the severity of the signs, the horse was euthanized. The premises is currently under quarantine and epidemiological surveillance will continue in surrounding areas. [Read More](#)

Avg. Rating	2.2
No. of Signal	1
No. of Ratings	6

CONTINUED EVENTS: (events rated ≥ 2.4)

Influenza A (H5N1) in USA

No. of Signals: 07

No. of weeks in report: 14

Avg. Rating: 2.8 - 3.7

- [Michigan](#) has reported its first case of influenza A(H5N1) in a farmworker who had regular exposure to infected livestock; the virus was identified as clade 2.3.4.4b B3.13, with only minor changes identified compared to the sequence from cows, including a PB2 M631L mutation

Highly Pathogenic Avian Influenza in North America

No. of Signals: 16

No. of weeks in report: 117

Avg. Rating: 1.7 - 3.0

- [Canada](#) has not reported any outbreaks of HPAI in domestic poultry over the last week
- As of May 16, 2024, lab testing of 303 retail milk samples from across [Canada](#) has not detected HPAI fragments in any samples (all have tested negative)
- Over the last week, the [USA](#) has reported outbreaks of HPAI in commercial poultry in: Minnesota(5); and in WOAHP poultry in: Idaho(1)
- In the [USA](#), a total of 63 dairy herds have reported cases of influenza A H5N1 across 9 states: North Carolina(1), Ohio(1), South Dakota(4), Colorado(4), Kansas(4), Idaho(8), New Mexico(8), Texas(14), and Michigan(19)
- [Michigan](#) has reported 3 additional influenza A affected dairy farms on their state website, bringing the Michigan total to 22
- In the [USA](#), four more cats have died due to HPAI H5N1, including two pets in South Dakota with no links to poultry or dairy cows, and two barn cats from Michigan both from affected dairy farm premises
- The [USDA](#) has released an update on their beef safety studies, identifying HPAI H5N1 viral particles in tissue samples (diaphragm muscle) from 1 out of 96 cull dairy cows; as of May 24,2024, testing has been completed on 96 out of 109 muscle samples that were collected
- The [USDA](#) is expanding its support for producers, including those whose herds have not tested positive for H5N1, by addressing pre-movement sampling and testing as well as biosecurity planning
- The [FDA](#) has released additional data on its' retail milk sampling providing results by state and product type
- The [CDC](#) has released an additional week of Influenza A (not strain specific) wastewater surveillance data on its dashboard; of the states not having reported influenza A in dairy cattle, Illinois, California, Oregon, Florida, and New York have displayed above average to high detections of influenza A
- Michigan State University Extension has released a [case report](#) of an H5N1 affected dairy farm and farmer perspective

Influenza A (H5N6) in China

No. of Signals: 01

No. of weeks in report: 56

Avg. Rating: 3.0

- More details have been released on the human infection with influenza A(H5N6) in [China](#); the case was a 52-year-old female from Fujian Province who had direct contact with back yard poultry, symptom onset of April 13, 2024 and passed away on April 30, 2024
- Since 2014, [91 laboratory-confirmed cases](#), including 36 deaths of human infection with influenza A(H5N6) virus have been reported to WHO

Highly Pathogenic Avian Influenza in Asia

No. of Signals: 10

No. of weeks in report: 142

Avg. Rating: 2.0 - 2.4

- [China](#) has reported HPAI H5N1 in 275 dead wild birds (Palla's gulls and others) across two counties in Qinghai province
- [South Korea](#) has reported HPAI H5N1 in a commercial duck farm in Gyeongsangbuk-do
- [Iraq](#) has reported HPAI H5N1 in dead wild birds (seagulls) in Sulaymaniyah province
- India has reported additional outbreaks of HPAI in [Kerala](#) and [Jharkhand](#)

Highly Pathogenic Avian Influenza in Europe

No. of Signals: 03

No. of weeks in report: 178

Avg. Rating: 2.0 - 2.3

- [Hungary](#) has reported seven outbreaks of HPAI H5N1 in domestic poultry from April 2024
- [Spain](#) has reported HPAI H5N1 in wild birds
- [European member states](#) have not reported any cases of HPAI H5N1 in cows or influenza A(H5N1) in humans
- A summary of the overall HPAI situation in Europe is available [here](#)

SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

African Swine Fever

- ◆ Modelling African swine fever introduction in diverse Australian feral pig populations [Read More](#)
- ◆ Semiquantitative Risk Evaluation Reveals Drivers of African Swine Fever Virus Transmission in Smallholder Pig Farms and Gaps in Biosecurity, Tanzania [Read More](#)

Influenza

- ◆ Detection of Hemagglutinin H5 Influenza A Virus Sequence in Municipal Wastewater Solids at Wastewater Treatment Plants with Increases in Influenza A in Spring, 2024 [Read More](#)
- ◆ Cow's Milk Containing Avian Influenza A(H5N1) Virus — Heat Inactivation and Infectivity in Mice [Read More](#)
- ◆ Pre-print: Influenza H5N1 and H1N1 viruses remain infectious in unpasteurized milk on milking machinery surfaces [Read More](#)
- ◆ Pre-print: From birds to mammals: spillover of highly pathogenic avian influenza H5N1 virus to dairy cattle led to efficient intra- and interspecies transmission [Read More](#)
- ◆ Pre-print: Seabird and sea duck mortalities were lower during the second breeding season in eastern Canada following the introduction of Highly Pathogenic Avian Influenza A H5Nx viruses [Read More](#)
- ◆ Proactive surveillance for avian influenza H5N1 and other priority pathogens at mass gathering events [Read More](#)
- ◆ WHO - Genetic and antigenic characteristics of clade 2.3.4.4b A(H5N1) viruses identified in dairy cattle in the United States of America May 2024 [Read More](#)
- ◆ Rapid Risk Assessment: Risk to UK consumers from Highly Pathogenic Avian Influenza (HPAI) H5N1 B3.13 in US dairy products [Read More](#)
- ◆ Development of a nucleoside-modified mRNA vaccine against clade 2.3.4.4b H5 highly pathogenic avian influenza virus [Read More](#)

Mpox

- ◆ Serological Evidence of Mpox Virus Infection During Peak Mpox Transmission in New York City, July to August 2022 [Read More](#)

Vectors and Vector-borne Diseases

- ◆ Future malaria environmental suitability in Africa is sensitive to hydrology [Read More](#)
- ◆ One health approach to study human health risks associated with *Dermanyssus gallinae* mites [Read More](#)

Other

- ◆ *Coxiella burnetii* in domestic doe goats in the United States, 2019-2020 [Read More](#)
- ◆ Outbreak of Human Trichinellosis — Arizona, Minnesota, and South Dakota, 2022 [Read More](#)
- ◆ Potential landscape connectivity for invasive wild pigs (*Sus scrofa*) across the northern prairies of North America [Read More](#)
- ◆ Reemergence of a Big Brown Bat *Lyssavirus rabies* Variant in Striped Skunks in Flagstaff, Arizona, USA, 2021-2023 [Read More](#)
- ◆ Identification of equine mares as reservoir hosts for pathogenic species of *Leptospira* [Read More](#)
- ◆ WHO - Research prioritization for pandemic and epidemic intelligence: technical brief [Read More](#)
- ◆ France - Weekly Bulletin for International Animal Health Surveillance 28/05/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 19-25 May 2024, week 21 [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.