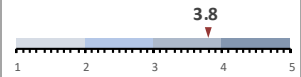


## SUMMARY: RELEVANT SIGNALS (includes all signals rated $\geq 3.0$ )

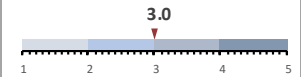
### Influenza A

- ◆ **Michigan** has reported a second case of influenza A(H5) in a farmworker who had exposure to H5N1 infected livestock; this patient reported upper respiratory tract symptoms (cough without fever) in addition to eye discomfort with watery discharge
  - This is the third human case associated with the outbreak of H5N1 in dairy cows; none of the three cases are associated with the others
- ◆ **China** has reported a human case of avian influenza A(H5N1) in a 33-year-old female in **Guangxi Zhuang Autonomous Region**; the case was reported on May 11, 2024 and involved a port cargo delivery worker from **Vietnam**, who had no local movement in **Mainland China**, and has since recovered

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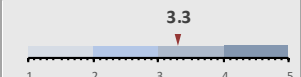
[Read More](#)



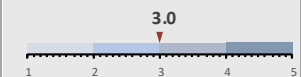
### Highly Pathogenic Avian Influenza

- ◆ On May 28, 2024, the **USDA** completed its testing of 109 beef muscle samples that were collected from cull dairy cows; as stated previously, HPAI H5N1 viral particles were detected in tissue samples (including diaphragm muscle) from one cow
- ◆ In the **USA**, a total of 80 dairy herds have reported cases of influenza A H5N1 across 9 states: **North Carolina**(1), **Ohio**(1), **Colorado**(4), **Kansas**(4), **South Dakota**(5), **New Mexico**(8), **Texas**(15), **Idaho**(18) and **Michigan**(24)
- ◆ In the **USA**, HPAI H5N1 has been reported for the first time in alpacas, in **Idaho** (detected in nasal swabs and milk from adult females, and brain tissue from an aborted alpaca fetus), from a premises where HPAI-affected poultry were depopulated in May 2024; viral genome sequencing has confirmed genotype B3.13, the same sequence which is currently circulating in dairy cattle
- ◆ **Iowa** reported HPAI in a commercial layer farm in Sioux County with 4.2 million birds; this is **Iowa's** first outbreak of HPAI this year
- ◆ Pre-print: Massive outbreak of Influenza A H5N1 in elephant seals at **Peninsula Valdes, Argentina**: increased evidence for mammal-to-mammal transmission
  - Genomic characterizations showed viruses from pinnipeds and terns in **Argentina** form a distinct clade with marine mammal viruses from **Peru, Chile, and Brazil**
  - These mammal-clade viruses share an identical set of mammalian adaptation mutations which are notably also found in the terns
  - Ecological and phylogenetic data support mammal-to-mammal transmission and occasional mammal-to-bird spillover

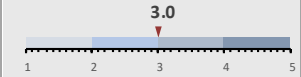
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## NEW EVENTS: (events rated $> 2$ )

No new events to report this week

## CONTINUED EVENTS: (events rated $\geq 2.4$ )

### **Influenza A (H5N1) in USA**

**No. of Signals: 03**

**No. of weeks in report: 15**

**Avg. Rating: 3.0 - 3.8**

- [Michigan](#) has reported a second case of influenza A(H5) in a farmworker who had regular exposure to H5N1 infected livestock; this patient reported upper respiratory tract symptoms (cough without fever) in addition to eye discomfort with watery discharge
- This is the third human case associated with the outbreak of H5N1 in dairy cows; none of the three cases are associated with the others

### **Highly Pathogenic Avian Influenza in North America**

**No. of Signals: 13**

**No. of weeks in report: 118**

**Avg. Rating: 2.0 - 3.3**

- [Canada](#) has not reported any outbreaks of HPAI in domestic poultry over the last week
- [Iowa](#) has reported HPAI H5N1 in a commercial layer farm in Sioux County with 4.2 million birds; this is Iowa's first outbreak of HPAI this year
- In the [USA](#), a total of 80 dairy herds have reported cases of influenza A H5N1 across 9 states: North Carolina(1), Ohio(1), Colorado(4), Kansas(4), South Dakota(5), New Mexico(8), Texas(15), Idaho(18) and Michigan(24)
- On May 28, 2024, the [USDA](#) completed its testing of 109 beef muscle samples that were collected from cull dairy cows; as stated previously, HPAI H5N1 viral particles were detected in tissue samples (including diaphragm muscle) from one cow
- In the USA, HPAI H5N1 has been reported for the first time in alpacas, in [Idaho](#) (detected in nasal swabs and milk from adult females, and brain tissue from an aborted alpaca fetus), from a premises where HPAI-affected poultry were depopulated in May 2024; viral genome sequencing has confirmed genotype B3.13, the same sequence which is currently circulating in dairy cattle
- The [USDA](#) has proposed allowing bulk milk tank testing for HPAI before cattle transport
- The [USDA HPAI H5N1 in mammals map](#) now includes domestic cat species, with 16 total entries from March 2024 to present day
- 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, Oregon and Illinois have displayed above average detections of influenza A

### **Influenza A (H5N1) in China**

**No. of Signals: 01**

**No. of weeks in report: 57**

**Avg. Rating: 3.0**

- [China](#) has reported a human case of avian influenza A (H5N1) in a 33-year-old female in Guangxi Zhuang Autonomous Region; the case was reported on May 11, 2024 and involved a port cargo delivery worker from Vietnam, who had no local movement in Mainland China, and has since recovered

### **Highly Pathogenic Avian Influenza in Australia**

**No. of Signals: 01**

**No. of weeks in report: 02**

**Avg. Rating: 2.8**

- [Australia](#) has reported HPAI at a third poultry farm near Melbourne; this third farm is within a few kilometres of the first to report infection and both have the same H7N3 strain of the virus

### **Turkey Rhinotracheitis in Canada**

**No. of Signals: 01**

**No. of weeks in report: 02**

**Avg. Rating: 2.8**

- In [Canada](#), 12 additional outbreaks of turkey rhinotracheitis (avian metapneumovirus) have been reported in commercial poultry farms across Ontario (aMPV-b), as well as a first detection in Manitoba (aMPV-a)

### **Lyme Disease in Canada**

**No. of Signals: 01**

**No. of weeks in report: 04**

**Avg. Rating: 2.8**

- [Ontario](#) has confirmed 60 human cases of Lyme disease in the province so far this year

### **Highly Pathogenic Avian Influenza in Asia**

**No. of Signals: 04**

**No. of weeks in report: 143**

**Avg. Rating: 2.0**

- [Iraq](#) has reported HPAI H5N1 in Sulaymaniyah province – it is unclear if this refers to a new outbreak in poultry or the previously reported cases in gulls
- [India](#) has reported additional outbreaks of HPAI in Kerala

### **Highly Pathogenic Avian Influenza in Africa**

**No. of Signals: 02**

**No. of weeks in report: 70**

**Avg. Rating: 2.0**

- [South Africa](#) has reported HPAI H5 in a swift tern in Western Cape in April 2024

### **Highly Pathogenic Avian Influenza in South America**

**No. of Signals: 01**

**No. of weeks in report: 69**

**Avg. Rating: 2.0**

- [Brazil](#) has reported HPAI H5N1 in a Cabot's tern in Espirito Santo, in early May 2024

### **Highly Pathogenic Avian Influenza in Europe**

**No. of Signals: 01**

**No. of weeks in report: 179**

**Avg. Rating: 2.0**

- The [UK](#) has declared freedom from HPAI
- A summary of the overall HPAI situation in Europe is available [here](#)

## SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

### African Swine Fever

- ◆ Survival of African swine fever virus in feed, bedding materials and mechanical vectors and their potential role in virus transmission [Read More](#)

### Influenza

- ◆ Pre-print: Pasteurisation temperatures effectively inactivate influenza A viruses in milk [Read More](#)
- ◆ Pre-print: Characterization of highly pathogenic avian influenza virus in retail dairy products in the US [Read More](#)
- ◆ Pre-print: Longitudinal Influenza A Virus Screening of Retail Milk from Canadian Provinces (Rolling Updates) [Read More](#)
- ◆ Pre-print: Detection of a reassortant swine- and human-origin H3N2 influenza A virus in farmed mink in British Columbia, Canada [Read More](#)
- ◆ Pre-print: Massive outbreak of Influenza A H5N1 in elephant seals at Península Valdés, Argentina: increased evidence for mammal-to-mammal transmission [Read More](#)
- ◆ Assessment of Survival Kinetics for Emergent Highly Pathogenic Clade 2.3.4.4 H5Nx Avian Influenza Viruses [Read More](#)
- ◆ Severe Avian Influenza A H5N1 Clade 2.3.4.4b Virus Infection in a Human with Continuation of SARS-CoV-2 Viral RNAs [Read More](#)
- ◆ Detection of Novel Influenza Viruses Through Community and Healthcare Testing: Implications for Surveillance Efforts in the United States [Read More](#)
- ◆ UK HAIRS risk statement: Avian influenza A(H5N1) in livestock [Read More](#)

### Mpox

- ◆ WHO - Strategic framework for enhancing prevention and control of mpox- 2024-2027 [Read More](#)

### Vectors and Vector-borne Diseases

- ◆ Newly Recognized Spotted Fever Group *Rickettsia* as Cause of Severe Rocky Mountain Spotted Fever–Like Illness, Northern California, USA [Read More](#)
- ◆ *Yersinia pestis* can infect the Pawlowsky glands of human body lice and be transmitted by louse bite [Read More](#)

### Other

- ◆ *Pasteurella bettyae* Infections in Men Who Have Sex with Men, France [Read More](#)
- ◆ First identification and isolation of equine herpesvirus type 1 in aborted fetal lung tissues of donkeys [Read More](#)
- ◆ France - Weekly Bulletin for International Animal Health Surveillance 04/06/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 25-31 May 2024, week 22 [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.