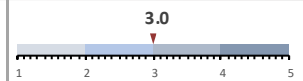


## SUMMARY: RELEVANT SIGNALS (includes all signals rated $\geq 3.0$ )

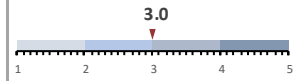
### Highly Pathogenic Avian Influenza

- ◆ **Oklahoma** has become the 13<sup>th</sup> state to confirm influenza A H5N1 in dairy cattle; the initial positive sample was collected in April 2024 and only recently submitted to the USDA for testing
- ◆ As of July 15, 2024, the USDA has reported influenza A H5N1 in a total of 158 dairy herds across 13 states: **Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(5), Minnesota(8), New Mexico(8), Iowa(13), Texas(22), Michigan(26), Idaho(30), and Colorado(37)**
- ◆ Journal Article: Experimental reproduction of viral replication and disease in dairy calves and lactating cows inoculated with highly pathogenic avian influenza H5N1 clade 2.3.4.4b
  - The heifers were inoculated with genotype B3.13 by an aerosol respiratory route and the cows by an intramammary route
  - Clinical disease was mild in the heifers, but infection was confirmed by virus detection, lesions, and seroconversion

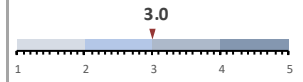
[Read More](#)



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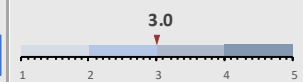
[Read More](#)



### Influenza A (H5)

- ◆ **Colorado** has reported a total of five human cases of avian influenza H5 in poultry farm workers involved in the depopulation of an H5N1 infected commercial egg layer operation; four of the five cases have been confirmed by the CDC, with the fifth awaiting confirmation
  - The workers exhibited mild symptoms, including conjunctivitis and eye tearing, as well as more typical influenza symptoms (fever, chills, coughing, sore throat, runny nose); none were hospitalized
  - It is not yet known if this is the same genotype (B3.13) that is affecting dairy cattle in the state; viral sequencing results should be available this week

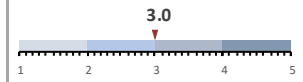
[Read More](#)



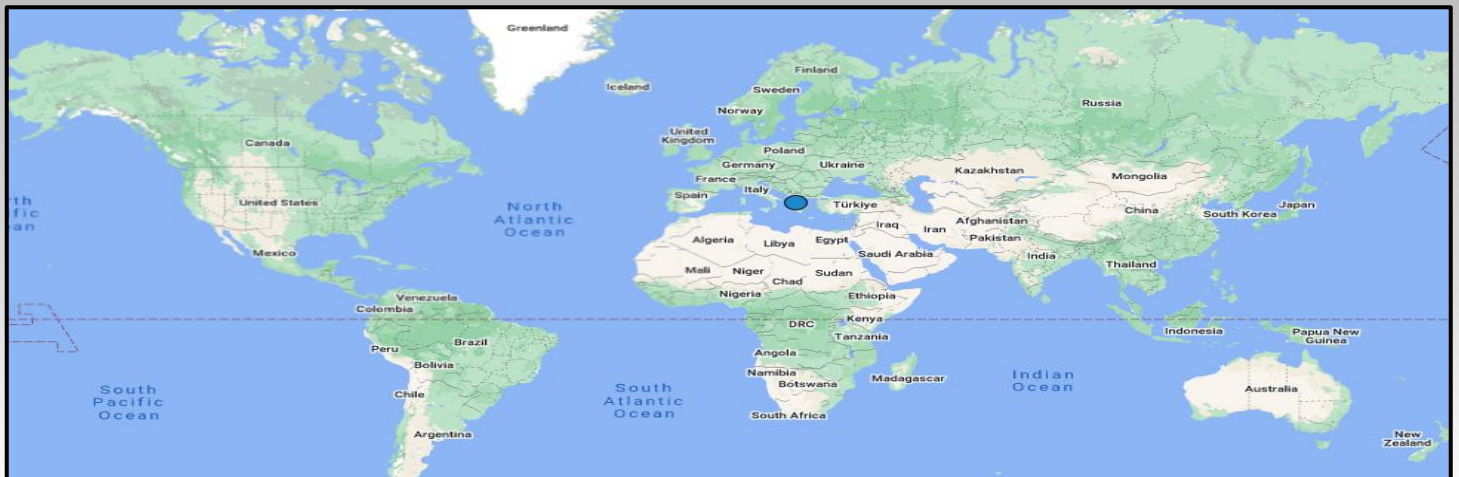
### White-nose Syndrome

- ◆ WNS has been confirmed in **Alberta** bats for the first time, in tissue samples from little brown bats in two sites along the **Red Deer River**; the fungus that causes the disease was initially identified in **Alberta** in 2022, and in bat droppings in 2023 along the same river

[Read More](#)



## NEW EVENTS: (events rated > 2)



### ● Peste des petits ruminants in Greece

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

① Greece has reported its first outbreaks of PPR. Three outbreaks were reported in Thessaly over the last week, with 150 total cases, and 1254 susceptible animals. Prior to this occurrence, Bulgaria was the only European country to have reported outbreaks of PPR (in 2018).

[Read More](#)

Avg. Rating	2.2
No. of Signal	1
No. of Ratings	5

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

### Influenza A(H5) in the United States **No. of Signals: 01** **No. of weeks in report: 15** **Avg. Rating: 3.0**

- [Colorado](#) has reported a total of five human cases of avian influenza H5 in poultry farm workers involved in the depopulation an H5N1 infected commercial egg layer operation; four of the five cases have been confirmed by the CDC, with the fifth awaiting confirmation
  - The workers exhibited mild symptoms, including conjunctivitis and eye tearing, as well as more typical influenza symptoms (fever, chills, coughing, sore throat, runny nose); none were hospitalized
  - It is not yet known if this is the same genotype (B3.13) that is affecting dairy cattle in the state, viral sequencing results should be available this week

### White-nose Syndrome in Canada **No. of Signals: 01** **No. of weeks in report: 07** **Avg. Rating: 3.0**

- WNS has been confirmed in [Alberta](#) bats for the first time, in tissue samples from little brown bats in two sites along the Red Deer River; the fungus that causes the disease was initially identified in Alberta in 2022, and in bat droppings in 2023 along the same river

### Highly Pathogenic Avian Influenza in North America **No. of Signals: 17** **No. of weeks in report: 124** **Avg. Rating: 1.6 - 3.0**

- [Canada](#) has not reported any outbreaks of HPAI in domestic poultry over the last week
- Over the last week, the [USDA](#) has reported outbreaks of HPAI in commercial poultry in: Minnesota(3) and Colorado(1); and in WOA Non-poultry in: Idaho(1)
- [Oklahoma](#) has become the 13th state to confirm influenza A H5N1 in dairy cattle; the initial positive sample was collected in April 2024 and only recently submitted to the USDA for testing
- As of July 15, 2024, the [USDA](#) has reported influenza A H5N1 in a total of 158 dairy herds across 13 states: Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(5), [Minnesota](#)(8), New Mexico(8), Iowa(13), Texas(22), [Michigan](#)(26), Idaho(30), and [Colorado](#)(37)
- The [Colorado](#) state website lists a few additional outbreaks (numbering is currently inconsistent, total may be 39 or 43), with the original four from late April/early May released from quarantine
- An [article](#) was recently released by the LA Times regarding a delayed USDA response to a tip (from May) about an infected raw milk dairy herd from which people had probably consumed contaminated milk
- The [USDA](#) has added three additional domestic cats, two from Minnesota and one from Michigan (from April), to its H5N1 in mammals list, bringing the total cases in domestic cats to 33
- [Illinois](#) has announced new guidance and testing requirements for lactating dairy cattle before being moved to fairs and exhibitions
- [Wyoming](#) has issued animal health requirements for all livestock entering the Wyoming State Fair
- 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

### African Swine Fever in Europe **No. of Signals: 11** **No. of weeks in report: 157** **Avg. Rating: 2.0 - 2.5**

- Germany has reported ASF in [domestic swine](#) and additional [wild boar](#) in Hessen; this has led [France](#) to issue precautionary measures (aimed at travellers) due to the close proximity of the recent German cases to the French border
- [Poland](#), [Hungary](#), and [Italy](#) have reported cases of ASF in wild boar
- [Poland](#) and [Russia](#) have reported outbreaks of ASF in domestic swine

### New World Screwworm in Central America **No. of Signals: 03** **No. of weeks in report: 09** **Avg. Rating: 2.0 - 2.4**

- As of July 12, 2024, [Costa Rica](#) has reported 3,529 cases of New World Screwworm
- As of July 7, 2024, [Panama](#) has reported 11,212 cases of New World Screwworm; meanwhile Nicaragua has reported 751 cases

### Tularemia in the United States **No. of Signals: 03** **No. of weeks in report: 02** **Avg. Rating: 2.0 - 2.4**

- [Colorado](#) has reported its first human case of Tularemia for 2024 in a resident of Jefferson County

### Highly Pathogenic Avian Influenza in Asia **No. of Signals: 02** **No. of weeks in report: 148** **Avg. Rating: 2.0 - 2.2**

- [Cambodia](#) has reported an outbreak of HPAI H5N1 in backyard poultry in Por village in Takeo province (the same area where the two human cases were reported last week)

## SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

### Influenza

- ◆ Pre-print: Experimental reproduction of viral replication and disease in dairy calves and lactating cows inoculated with highly pathogenic avian influenza H5N1 clade 2.3.4.4b [Read More](#)
- ◆ Does pasteurization inactivate bird flu virus in milk? [Read More](#)
- ◆ PAHO - Public Health Risk Assessment associated with the spread of zoonotic avian influenza A(H5N1) clade 2.3.4.4b in the Region of the Americas [Read More](#)
- ◆ Mortality in sea lions is associated with the introduction of the H5N1 clade 2.3.4.4b virus in Brazil October 2023: whole genome sequencing and phylogenetic analysis [Read More](#)
- ◆ Novel Genotypes of Highly Pathogenic Avian Influenza H5N1 Clade 2.3.4.4b Viruses, Germany, November 2023 [Read More](#)
- ◆ Outbreaks of H5N1 High Pathogenicity Avian Influenza in South Africa in 2023 Were Caused by Two Distinct Sub-Genotypes of Clade 2.3.4.4b Viruses [Read More](#)
- ◆ Migratory connectivity of Blue-winged Teal: risk implications for avian influenza virus introduction to Cuba [Read More](#)
- ◆ Changing epidemiological patterns in human avian influenza virus infections [Read More](#)
- ◆ Phylogenetic and mutational analysis of H10N3 avian influenza A virus in China: potential threats to human health [Read More](#)
- ◆ Identification of sialic acid receptors for influenza A virus in snakes [Read More](#)
- ◆ Increase of Synergistic Secondary Antiviral Mutations in the Evolution of A(H1N1)pdm09 Influenza Virus Neuraminidases [Read More](#)
- ◆ Amino acid mutations PB1-V719M and PA-N444D combined with PB2-627K contribute to the pathogenicity of H7N9 in mice [Read More](#)

### Vectors and Vector borne Diseases

- ◆ Haemaphysalis longicornis (Acari: Ixodidae) does not transmit Babesia bovis, a causative agent of cattle fever [Read More](#)

### Other

- ◆ France - Weekly Bulletin for International Animal Health Surveillance 16/07/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 6 - 12 July 2024, week 28 [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.