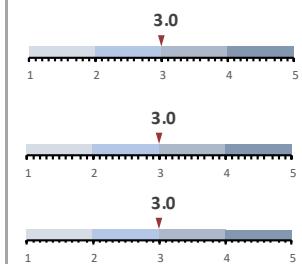


June 10th 2024 – June 16th 2024

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

Highly Pathogenic Avian Influenza

- ❖ As of June 17, 2024, the USDA has reported influenza A H5N1 in a total of 102 dairy herds across 12 states: **Wyoming(1), North Carolina(1), Ohio(1), Iowa(3), Minnesota(3), Kansas(4), South Dakota(5), New Mexico(8), Colorado(10), Texas(18), Idaho(23), and Michigan(25)** [Read More](#)
- ❖ **Iowa** has reported a total of seven infected dairy herds, with the most recent outbreak affecting a herd of 10,000 in **Sioux County**; not all are currently on the USDA website [Read More](#)
- ❖ The USDA has added 36 more HPAI infected mice to their HPAI in mammals list bringing the total number of mice to 47 (all in **New Mexico**), and the total number of infected mammals to 299 [Read More](#)



NEW EVENTS: (events rated > 2)



Influenza A(H9N2) in India

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

- ❖ India has reported a case of human infection with avian influenza A(H9N2) in a 4-year-old child from West Bengal, with symptom onset in late January 2024, and exposure to poultry at home and in the surroundings. The child has since recovered and was discharged from the hospital. No known contacts have reported any symptoms of respiratory illness. This is the second human infection of avian influenza A(H9N2) notified to WHO from India, with the first in 2019. The WHO risk assessment states that given the continued detection of the virus in poultry populations, sporadic human cases can be expected. [Read More](#)

Avg. Rating	2.5 - 2.7
No. of Signal	2
No. of Ratings	2 - 6

CONTINUED EVENTS: (events rated ≥ 2.4)

<u>Highly Pathogenic Avian Influenza in North America</u>	<u>No. of Signals: 14</u>	<u>No. of weeks in report: 120</u>	<u>Avg. Rating: 2.0 - 3.0</u>
• Canada has not reported any outbreaks of HPAI in domestic poultry over the last week			
• Over the last week, the USA has reported outbreaks of HPAI in commercial poultry in: Minnesota(2); and in WOAH Non-poultry in: Idaho(1)			
• As of June 17, 2024, the USDA has reported influenza A H5N1 in a total of 102 dairy herds across 12 states: Wyoming(1), North Carolina(1), Ohio(1), Iowa(3) Minnesota(3), Kansas(4), South Dakota(5), New Mexico(8), Colorado(10), Texas(18), Idaho(23), and Michigan (25)			
• Iowa has reported a total of seven infected dairy herds, with the most recent outbreak affecting a herd of 10,000 in Sioux County; not all are currently on the USDA website			
• Minnesota and Wisconsin have announced new testing requirement for lactating dairy cattle before being moved to fairs and exhibitions			
• The USDA has added 36 more HPAI infected mice to their HPAI in mammals list bringing the total number of mice to 47 (all in New Mexico), and the total number of infected mammals to 299			
• The CDC serology study suggests that there is extremely low to no population immunity to clade 2.3.4.4b A(H5N1) viruses in the United States			
• The CDC has released an additional week of Influenza A (not strain specific) wastewater surveillance data on its dashboard			
<u>Highly Pathogenic Avian Influenza in Australia</u>	<u>No. of Signals: 02</u>	<u>No. of weeks in report: 04</u>	<u>Avg. Rating: 2.7 - 2.8</u>
• Australia has reported HPAI at two additional poultry farms, bringing the total number of affected farms to seven; HPAI H7N3 has been confirmed in six infected properties near Meredith, and HPAI H7N9 in one infected property near Terang			
<u>Influenza A(H9N2) in China</u>	<u>No. of Signals: 01</u>	<u>No. of weeks in report: 58</u>	<u>Avg. Rating: 2.7</u>
• China has reported a human case of avian influenza A(H9N2) in a 3-year-old boy from Guangxi Zhuang Autonomous Region, with symptom onset on May 2, 2024			
<u>Oropouche virus in Cuba</u>	<u>No. of Signals: 02</u>	<u>No. of weeks in report: 02</u>	<u>Avg. Rating: 2.3 - 2.8</u>
• The WHO has released additional information on the Oropouche virus situation in Cuba , reporting (as of May 27, 2024) a total of 74 confirmed cases in the country (54 from Santiago de Cuba and 20 from Cienfuegos); their risk assessment concludes that the population is likely highly susceptible and there is a significant risk of additional case detection			
• The province of Villa Clara has also recently reported its first cases of Oropouche virus in the region; the province of Mayabeque reported its initial cases last week			
<u>African Swine Fever in Europe</u>	<u>No. of Signals: 12</u>	<u>No. of weeks in report: 156</u>	<u>Avg. Rating: 2.0 - 2.4</u>
• Germany has reported ASF in a wild boar in Hesse, this is the first time the virus has been reported in a wild boar in western Germany			
• Poland , Greece , Ukraine , Moldova , and Bosnia and Herzegovina have reported outbreaks of ASF in domestic swine			
• Poland , Italy , and Hungary have reported cases of ASF in wild boar			
<u>Influenza A(H5N2) in Mexico</u>	<u>No. of Signals: 01</u>	<u>No. of weeks in report: 02</u>	<u>Avg. Rating: 2.0</u>
• Viral sequencing of samples from the human case of influenza A(H5N2) in Mexico has shown a 99% similarity with a strain of LPAI obtained during 2024 in birds in Texcoco, Mexico			
<u>Highly Pathogenic Avian Influenza in Europe</u>	<u>No. of Signals: 01</u>	<u>No. of weeks in report: 180</u>	<u>Avg. Rating: 2.0</u>
• France has reported HPAI H5N1 in herring gulls			
• A summary of the overall HPAI situation in Europe is available here			
<u>Highly Pathogenic Avian Influenza in Asia</u>	<u>No. of Signals: 05</u>	<u>No. of weeks in report: 145</u>	<u>Avg. Rating: 2.0</u>
• Japan has reported HPAI H5N5 in two large billed crows in April 2024			
• Japan has also reported HPAI H5N1 in wild birds			

SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

African Swine Fever

- ❖ Structural insights into the DNA topoisomerase II of the African swine fever virus [Read More](#)

Influenza

- ❖ USDA - Highly Pathogenic Avian Influenza H5N1 Genotype B3.13 in Dairy Cattle: National Epidemiologic Brief [Read More](#)
- ❖ USDA - 2024 Highly Pathogenic Avian Influenza (H5N1) - Michigan Dairy Herd and Poultry Flock Summary [Read More](#)
- ❖ Sialic Acid Receptor Specificity in Mammary Gland of Dairy Cattle Infected with Highly Pathogenic Avian Influenza A(H5N1) Virus [Read More](#)
- ❖ Fatal Infection in Ferrets after Ocular Inoculation with Highly Pathogenic Avian Influenza A(H5N1) [Read More](#)
- ❖ Natural Infection with Highly Pathogenic Avian Influenza A/H5N1 Virus in Pet Ferrets [Read More](#)
- ❖ Inactivation of Avian Influenza A(H5N1) Virus in Raw Milk at 63°C and 72°C [Read More](#)
- ❖ Multicountry Spread of Influenza A(H1N1)pdm09 Viruses with Reduced Oseltamivir Inhibition, May 2023 –February 2024 [Read More](#)
- ❖ Public Health Ontario – Rapid Review - Survivability of Influenza A (H5N1) in Milk [Read More](#)
- ❖ Public Health Ontario – Rapid Review - Thermal Inactivation of Influenza A (H5N1) in Meat [Read More](#)
- ❖ Pre-print: Longitudinal Influenza A Virus Screening of Retail Milk from Canadian Provinces (Rolling Updates) [Read More](#)
- ❖ Pre-print: Red knots in Europe - a dead end host species or a new niche for highly pathogenic avian influenza? [Read More](#)
- ❖ Whole genome sequencing of low pathogenicity avian influenza virus (H6N2) detected from a Brazilian teal (*Amazonetta brasiliensis*) in Brazil, 2023 [Read More](#)
- ❖ Highly pathogenic avian influenza H5N8 and H5N1 outbreaks in Algerian avian livestock production [Read More](#)
- ❖ Potential pandemic risk of circulating swine H1N2 influenza viruses [Read More](#)

Vectors and Vector-borne Diseases

- ❖ Detection of encephalitis-causing viruses reveals predominance of chikungunya virus in the state of Bahia, Brazil [Read More](#)
- ❖ Potential drivers of vector-borne pathogens in urban environments: European hedgehogs (*Erinaceus europaeus*) in the spotlight [Read More](#)
- ❖ T(r)icky Environments: Higher Prevalence of Tick-Borne Zoonotic Pathogens in Rodents from Natural Areas Compared with Urban Areas [Read More](#)

Other

- ❖ CDC - *Notes from the Field*: Toxigenic *Corynebacterium ulcerans* in Humans and Household Pets — Utah and Colorado, 2022–2023 [Read More](#)
- ❖ Older urban rats are infected with the zoonotic nematode *Angiostrongylus cantonensis* [Read More](#)
- ❖ *Wuchereria bancrofti* Lymphatic Filariasis, Barrancabermeja, Colombia, 2023 [Read More](#)
- ❖ France - Weekly Bulletin for International Animal Health Surveillance 18/06/2024 [Read More](#)
- ❖ ECDC - Communicable disease threats report, 8 - 14 June 2024, week 24 [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.