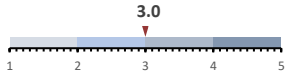
WEEKLY INTELLIGENCE REPORT

February 17th 2025 - February 23rd 2025

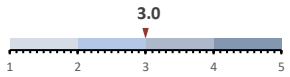
SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥ 3.0)

Highly Pathogenic Avian Influenza

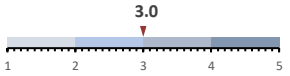
- Over the last week Canada has reported outbreaks of HPAI in non-commercial poultry in: **Ontario**(1) — Read More



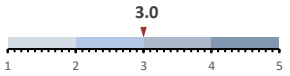
- As of February 24, 2025, the USDA has reported influenza A(H5N1) in 973 dairy herds across 17 states: **Arizona**(1), **Wyoming**(1), **North Carolina**(1), **Ohio**(1), **Oklahoma**(2), **Kansas**(4), **South Dakota**(7), **Nevada**(8), **Minnesota**(9), **New Mexico**(9), **Iowa**(13), **Utah**(13), **Texas**(27), **Michigan**(31), **Idaho**(35), **Colorado**(64), and **California**(747) — Read More
  - The recent outbreak was reported from **Nevada**(1)



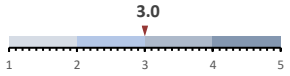
- The USDA has added a new species, the black rat, to its HPAI in mammals list; four HPAI H5 findings have been reported in black rats in **California** — Read More



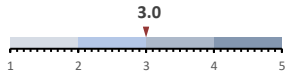
- **India** has submitted a WAHIS report with more details on the findings of HPAI H5N1 in cats in a market in **Chhindwara**; 99 cases were reported, along with 18 deaths – an HPAI outbreak was also reported in poultry in the same area — Read More



- Scientific finding: Neuraminidase reassortment and oseltamivir resistance in clade 2.3.4.4b A(H5N1) viruses circulating among **Canadian** poultry, 2024 — Read More
  - Isolates from 8 farms in **British Columbia** reveal a mutation in the neuraminidase protein (H275Y) that is exceptionally rare among clade 2.3.4.4b viruses (present in 0.045% of publicly available clade 2.3.4.4b isolates) and is a well-known marker of resistance to the neuraminidase inhibitor oseltamivir



- Scientific finding: Timing and molecular characterisation of the transmission to cattle of H5N1 influenza A virus genotype D1.1, clade 2.3.4.4b — Read More
  - Tentative approximations suggest the jump from wild birds to dairy cattle in **Nevada** may have happened around the first week of December (range from late October 2024 to early January 2025) suggesting that the origin of this cattle outbreak occurred more than a month before the first quarantines were imposed on two affected farms on January 24, 2024
  - Their findings suggest that the D1.1 outbreak in **Nevada** was caused by a single introduction of the D1.1 genotype viruses into cattle; however, the four available cattle D1.1 virus genomes appear to come from a single herd, and the extent of this outbreak or the amount of viral diversity currently among the cattle is not yet known



NEW EVENTS: (events rated > 2)

No new events to report this week

CONTINUED EVENTS: (events rated ≥ 2.4)

Highly Pathogenic Avian Influenza in North America **No. of Signals: 14** **No. of weeks in report: 156** **Avg. Rating: 1.5 - 3.0**

- Over the last week, Canada has reported outbreaks of HPAI in non-commercial poultry in: Ontario(1)
- Over the last week, the USDA has reported outbreaks of HPAI in commercial poultry in: Ohio(4), Indiana(2), Iowa(1); and in WOAH non-poultry in: Pennsylvania(2), Ohio(1), Nevada(1), Arizona(1), Maine(1), New York(1) and Florida(1)
- As of February 24, 2025, the USDA has reported influenza A (H5N1) in 973 dairy herds across 17 states; Arizona(1), Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), Nevada(8), Minnesota(9), New Mexico(9), Iowa(13), Utah(13), Texas(27), Michigan(31), Idaho(35), Colorado(64), and California(747); the recent outbreak was reported from Nevada(1)
- The USDA has added a new species, the black rat, to its HPAI in mammals list; four HPAI H5 findings have been reported in black rats in California
- A Massachusetts zoo has reported the death of a 21-year-old harbour seal due to HPAI, thought to have contracted the virus through contact with an infected wild bird
- Oregon and New Mexico have reported additional findings of HPAI in cats
- Mexico has reported HPAI H5N1 in a flock of 200 vultures in Durango, where 44 sick specimens were identified with nervous signs such as incoordination and muscle spams
- Wastewater surveillance dashboards for influenza can be found at the CDC and Stanford University's WastewaterSCAN

Highly Pathogenic Avian Influenza in Asia **No. of Signals: 06** **No. of weeks in report: 176** **Avg. Rating: 2.0 - 3.0**

- India has submitted a WAHIS report with more details on the findings of HPAI H5N1 in cats in a market in Chhindwara; 99 cases were reported, along with 18 deaths – an HPAI outbreak was also reported in poultry in the same area
- India has reported additional outbreaks of HPAI in domestic poultry across multiple regions
- Cambodia has reported HPAI in sick and dead wild birds along the shores of a lake in a bird sanctuary in Prey Veng
- Nepal has reported an outbreak of HPAI H5N1 in domestic commercial poultry in Koshi Province

New World Screwworm in Central/North America **No. of Signals: 01** **No. of weeks in report: 24** **Avg. Rating: 2.8**

- Mexico has reported cases of NWS in two new regions: Tabasco (12 cases in cattle and equine) and Quintana Roo (1 case in cattle)

Highly Pathogenic Avian Influenza in Antarctica **No. of Signals: 01** **No. of weeks in report: 12** **Avg. Rating: 2.8**

- In Antarctica, the presence of HPAI has been confirmed in all species detected on six islands in the Weddell Sea, with high viral loads observed in dead animals; furthermore, the presence of HPAI was also observed in apparently healthy Adélie and Gentoo penguin colonies suggesting that the infection may be spreading in colonies without causing significant mortality

Highly Pathogenic Avian Influenza in Australia **No. of Signals: 01** **No. of weeks in report: 10** **Avg. Rating: 2.8**

- Australia has reported its third and fourth outbreaks of HPAI H7N8 in poultry in northern Victoria; all infected properties are within the restricted area and under quarantine

Influenza A (H9N2) in China **No. of Signals: 01** **No. of weeks in report: 66** **Avg. Rating: 2.7**

- China has reported two additional human cases of influenza A(H9N2), this time in two adults both >50 years-old with onset dates in December 2024 and January 2025

Influenza A(H5N1) in Canada **No. of Signals: 01** **No. of weeks in report: 05** **Avg. Rating: 2.5**

- PHAC has secured an initial supply of 500,000 doses of GSK's human vaccine against avian influenza – ArepanrixTM H5N1 A/American wigeon clade 2.3.4.4b

Highly Pathogenic Avian Influenza in Europe **No. of Signals: 20** **No. of weeks in report: 212** **Avg. Rating: 2.0 - 2.3**

- The UK has reported HPAI H5N5 in two grey seals in Norfolk
- Türkiye, Belgium, Austria, Ireland, Poland, and England have reported outbreaks of HPAI H5N1 in domestic poultry
- Hungary, Poland, Scotland, England, Bosnia and Herzegovina, Greece, Switzerland, and Germany have 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: 02** **No. of weeks in report: 83** **Avg. Rating: 2.0**

- Argentina has reported an outbreak of HPAI H5 in backyard birds (chickens, ducks, and turkeys) in Tres Isletas

Highly Pathogenic Avian Influenza in Africa **No. of Signals: 03** **No. of weeks in report: 78** **Avg. Rating: 2.0**

- Nigeria has reported additional outbreaks of HPAI H5N1 in domestic poultry

SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

Coronavirus

- Bat-infecting merbecovirus HKU5-CoV lineage 2 can use human ACE2 as a cell entry receptor Read More

Influenza

- Timing and molecular characterization of the transmission to cattle of H5N1 influenza A virus genotype D1.1, clade 2.3.4.4b Read More
- Neuraminidase reassortment and oseltamivir resistance in clade 2.3.4.4b A(H5N1) viruses circulating among Canadian poultry, 2024 Read More
- Effect of Prior Influenza A(H1N1)pdm09 Virus Infection on Pathogenesis and Transmission of Human Influenza A(H5N1) Clade 2.3.4.4b Virus in Ferret Model Read More
- Influenza A(H5N1) Immune Response among Ferrets with Influenza A(H1N1)pdm09 Immunity Read More
- CDC MMWR - Highly Pathogenic Avian Influenza A(H5N1) Virus Infection of Indoor Domestic Cats Within Dairy Industry Worker Households — Michigan, May 2024 Read More
- PHAC - An Advisory Committee Statement (ACS) National Advisory Committee on Immunization (NACI) Read More
- Pre-print: Highly Pathogenic Avian Influenza A (H5N1) Clade 2.3.2.1a virus infection in domestic cats, India, 2025 Read More
- North American-Origin Influenza A (H10) viruses in Eurasian Wild Birds (2022–2024): Implications for the Emergence of Human H10N5 Virus Read More

Vectors and Vector Borne Diseases

- Genomic characterization and evolutionary analysis of a Getah virus variant from piglets in central China Read More

Other

- Phylogenetic analysis of *Mycobacterium bovis* reveals animal and zoonotic tuberculosis spread between Morocco and European countries Read More
- New York State - Global Health Update Report - 02/20/2025 Read More
- France - Weekly Bulletin for International Animal Health Surveillance 25/02/2025 Read More
- ECDC - Communicable disease threats report, 15 - 21 February 2025, week 8 Read More