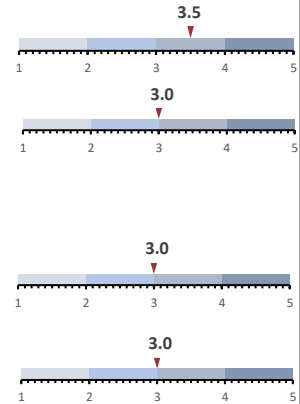


## SUMMARY: RELEVANT SIGNALS (includes all signals rated ≥ 3.0)

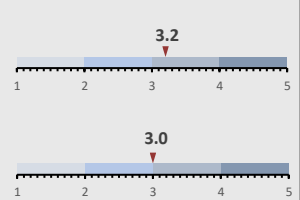
### Highly Pathogenic Avian Influenza

- ◆ On October 21, 2024, **Canada** reported three outbreaks of avian influenza in commercial poultry in **British Columbia** [Read More](#)
- ◆ As of October 21, 2024, the USDA has reported influenza A(H5N1) in a total of 333 dairy herds across 14 states: **Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), Minnesota(9), New Mexico(9), Iowa(13), Texas(26), Michigan(29), Idaho(34), Colorado(64), and California(133)** [Read More](#)
  - All of the recent outbreaks have been reported from **California(33)**
- ◆ **Michigan** has reported an outbreak of HPAI in a dairy herd in **Clinton County**, bringing the total number of affected dairy herds in **Michigan** to 30; samples have been sent to the USDA for confirmatory testing [Read More](#)
- ◆ The USDA has also reported outbreaks of HPAI H5N1 in commercial poultry in: **Washington(1)** and **California(1)**; and in WOA non-poultry in: **Washington(1)** [Read More](#)



### Influenza A (H5)

- ◆ **California** has now confirmed 13 human cases of influenza A(H5) with mild symptoms and conjunctivitis; all were dairy farm workers [Read More](#)
- ◆ **Washington** has reported preliminary positive results for influenza A(H5N1) in four workers at an HPAI affected commercial egg farm in **Franklin County**; according to the state veterinarian, the current strain circulating in **Washington** is a poultry strain and not the dairy cow strain [Read More](#)



## NEW EVENTS: (events rated > 2)

No new events to report this week

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

<p><b>Highly Pathogenic Avian Influenza in North America</b></p> <ul style="list-style-type: none"> <li>On October 21, 2024, <a href="#">Canada</a> reported three outbreaks of avian influenza in commercial poultry in British Columbia</li> <li>Over the last week, the <a href="#">USDA</a> has reported outbreaks of HPAI in commercial poultry in: Washington(1) and California(1); and in WOA non-poultry in: Washington(1)</li> <li>As of October 21, 2024, the <a href="#">USDA</a> has reported influenza A (H5N1) in a total of 333 dairy herds across 14 states: Wyoming(1), North Carolina(1), Ohio(1), Oklahoma(2), Kansas(4), South Dakota(7), <a href="#">Minnesota</a>(9), New Mexico(9), Iowa(13), Texas(26), <a href="#">Michigan</a>(29), Idaho(34), <a href="#">Colorado</a>(64), and California(133); all recent outbreaks were reported from California(33)</li> <li><a href="#">Michigan</a> has reported an outbreak of HPAI in a dairy herd in Clinton County, bringing the total number of affected dairy herds in Michigan to 30; samples have been sent to the USDA for confirmatory testing</li> <li><a href="#">Massachusetts</a> has reported 100% negative results after testing all of its dairy herds for influenza A</li> <li><a href="#">Unconfirmed media reports</a> (images and a video) of dead cows in California suggest that the influenza A virus is more lethal than previously reported and is overwhelming standard carcass disposal processes, resulting in animal carcasses being left to decompose in the open</li> <li><a href="#">Florida</a> has recently reported additional findings of HPAI in bottlenose dolphins dating from late 2023 and early 2024</li> <li>Wastewater surveillance dashboards for influenza can be found at the <a href="#">CDC</a> and Stanford University's <a href="#">WastewaterSCAN</a></li> </ul>	<p><b>No. of Signals: 07</b></p>	<p><b>No. of weeks in report: 138</b></p>	<p><b>Avg. Rating: 2.0 - 3.5</b></p>
<p><b>Influenza A (H5) in the USA</b></p> <ul style="list-style-type: none"> <li><a href="#">California</a> has now confirmed 13 human cases of influenza A(H5) with mild symptoms and conjunctivitis; all were dairy farm workers</li> <li><a href="#">Washington</a> has reported preliminary positive results for influenza A(H5N1) in four workers at an HPAI affected commercial egg farm in Franklin County; according to the state veterinarian, the current strain circulating in Washington is a poultry strain and not the dairy cow strain</li> </ul>	<p><b>No. of Signals: 08</b></p>	<p><b>No. of weeks in report: 26</b></p>	<p><b>Avg. Rating: 2.0 - 3.2</b></p>
<p><b>Mpox Worldwide</b></p> <ul style="list-style-type: none"> <li><a href="#">Africa's</a> surge of mpox cases continues, with the number of fatal cases now &gt;1000 for the year</li> <li><a href="#">Kenya</a> has recorded its first mpox fatality, with a total of 13 confirmed cases since the first detection in July</li> <li><a href="#">Uganda</a> continues to report cases of mpox (clade Ib), bringing the total number of confirmed cases to 104</li> <li><a href="#">Zambia</a> has reported its first case of mpox (clade unspecified) in the country</li> <li><a href="#">Australia</a> has reported an increase in mpox cases, with the 2024 outbreak now much larger than the initial 2022 outbreak</li> </ul>	<p><b>No. of Signals: 06</b></p>	<p><b>No. of weeks in report: 31</b></p>	<p><b>Avg. Rating: 2.0 - 2.7</b></p>
<p><b>Highly Pathogenic Avian Influenza in Europe</b></p> <ul style="list-style-type: none"> <li>Over the last ~3 weeks the <a href="#">UK</a> has reported increasing detections (~30 different reports) of HPAI H5N5 in wild birds</li> <li><a href="#">Britain</a> and <a href="#">France</a> have both increased their risk level for avian influenza to medium and moderate respectively</li> <li><a href="#">France</a>, <a href="#">Hungary</a>, <a href="#">Poland</a>, <a href="#">Moldova</a>, <a href="#">Bulgaria</a>, and <a href="#">Italy</a> have reported outbreaks of HPAI H5N1 in domestic poultry</li> <li><a href="#">Germany</a> and <a href="#">Italy</a> have reported cases of HPAI H5N1 in wild birds</li> <li><a href="#">Belgium</a> has reported HPAI H5 in wild birds</li> <li>A summary of the overall HPAI situation in Europe is available <a href="#">here</a></li> </ul>	<p><b>No. of Signals: 19</b></p>	<p><b>No. of weeks in report: 195</b></p>	<p><b>Avg. Rating: 1.8 - 2.5</b></p>
<p><b>Highly Pathogenic Avian Influenza in Asia</b></p> <ul style="list-style-type: none"> <li>After raising its avian influenza risk level due to findings in wild birds, <a href="#">Japan</a> has reported its first outbreak of HPAI in domestic poultry for the season, in a chicken farm in Hokkaido</li> </ul>	<p><b>No. of Signals: 02</b></p>	<p><b>No. of weeks in report: 159</b></p>	<p><b>Avg. Rating: 2.4</b></p>
<p><b>Highly Pathogenic Avian Influenza in South America</b></p> <ul style="list-style-type: none"> <li>The <a href="#">Falkland Islands</a> have confirmed HPAI in samples taken from dead penguins at Volunteer Point</li> </ul>	<p><b>No. of Signals: 01</b></p>	<p><b>No. of weeks in report: 77</b></p>	<p><b>Avg. Rating: 2.0</b></p>

## SCIENTIFIC FINDINGS, REPORTS, AND GUIDANCE:

### Coronavirus

- ◆ Identification and genetic characterization of five novel bat coronaviruses from Yunnan, China [Read More](#)

### Influenza

- ◆ Influenza A(H5N1) Virus Resilience in Milk after Thermal Inactivation [Read More](#)
- ◆ Pre-print: Effects of Oral Exposure to HPAI H5N1 Pasteurized in Milk on Immune Response and Mortality in Mice [Read More](#)
- ◆ Serological analysis in humans in Malaysian Borneo suggests prior exposure to H5 avian influenza near migratory shorebird habitats [Read More](#)
- ◆ Unexpected Delayed Incursion of Highly Pathogenic Avian Influenza H5N1 (Clade 2.3.4.4b) Into the Antarctic Region [Read More](#)
- ◆ Pandemic risk characterisation of zoonotic influenza A viruses using the Tool for Influenza Pandemic Risk Assessment (TIPRA) [Read More](#)
- ◆ Highly pathogenic avian influenza management policy in domestic poultry: from reacting to preventing [Read More](#)
- ◆ An mRNA vaccine candidate encoding H5HA clade 2.3.4.4b protects mice from clade 2.3.2.1a virus infection [Read More](#)
- ◆ Pre-print: Avian influenza virus surveillance across New Zealand and its subantarctic islands detects H1N9 in migratory shorebirds, but not 2.3.4.4b HPAI H5N1 [Read More](#)
- ◆ Hot topic: Influenza A H5N1 virus exhibits a broad host range, including dairy cows [Read More](#)

### Mpox

- ◆ Epidemiological analysis of confirmed mpox cases, Burundi, 3 July to 9 September 2024 [Read More](#)
- ◆ Emerging Monkeypox Virus Sublineage C.1 Causing Community Transmission, Vietnam, 2023 [Read More](#)

### Vectors and Vector borne Diseases

- ◆ PAHO - Epidemiological Update Oropouche in the Americas Region - 15 October 2024 [Read More](#)
- ◆ Reemergence of Oropouche Virus in the Americas and Risk for Spread in the United States and Its Territories, 2024 [Read More](#)
- ◆ Co-Circulation of 2 Oropouche Virus Lineages, Amazon Basin, Colombia, 2024 [Read More](#)
- ◆ Rocky Mountain Spotted Fever in Children along the US–Mexico Border, 2017–2023 [Read More](#)
- ◆ Evidence of Human Bourbon Virus Infections, North Carolina, USA [Read More](#)
- ◆ Detection of dengue virus serotype 4 in Panama after 23 years without circulation [Read More](#)

### Other

- ◆ The Changing Face of Pandemic Risk: 2024 Report [Read More](#)
- ◆ France - Weekly Bulletin for International Animal Health Surveillance 22/10/2024 [Read More](#)
- ◆ ECDC - Communicable disease threats report, 12-18 October 2024, week 42 [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.