Western Canadian Animal Health Network

WECAHN POULTRY NETWORK PRODUCER REPORT

July - September 2025

The WeCAHN Poultry Network held a quarterly videoconference meeting on November 27th to discuss animal health events occurring from July to September with veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives.

1) Overview

Data sources in this report include:

1. Clinical Impressions Survey completed by network practitioners.
2. Data shared by western veterinary diagnostic laboratories: Manitoba Veterinary Diagnostic Services (VDS) laboratory, Prairie Diagnostic Services (PDS) laboratory, and University of Calgary Faculty of Veterinary Medicine Diagnostic Services Unit (UCVM DSU).
3. Scan: poultry surveillance reported by other sources or networks.

2) Interesting Cases

Clinical case: Hen diuresis (excessive urination) syndrome.

- Several layer and broiler breeder flocks, including males, showed ongoing watery droppings, skin irritation around the vent, and urine scalding.
- Birds continued to lay or breed despite the problem. The cause was unknown and it was difficult to recommend a solution.
- Post-mortem exams showed normal-looking kidneys, suggesting a functional issue rather than kidney disease/damage.
- Similar cases have been seen after feed changes, raising concern about excess protein or changes in grain sources.
- Water quality issues and cold barn conditions causing cramping and diarrhea were also considered possible contributing factors, and testing of water and droppings was recommended.

Clinical case: internal cloacal inflammation and impaction

- Different flocks of laying hens and broiler breeders, including males, were reported with severe inflammation and blockage of the cloaca, with some birds dying.
- The inside of the cloaca was badly damaged, while the outside skin often looked normal (i.e. different to vent glee).
- Examination of the digestive tract confirmed presence of bedding material (e.g. sawdust).
- Affected flocks, especially new placements, were reported as very hungry and were eating litter material.
- Practitioners advised reviewing fiber levels in feed and being cautious with bedding containing certain wood shavings that may irritate the birds' guts.

Clinical case: "Flightiness" (hysteria) in layers due to LED light flickering

- A free-run layer flock had repeated panic events, broken eggs, and internal infections, despite no obvious barn problems.
- Slow-motion video revealed subtle flickering from LED lights that could not be seen with the naked eye.
- Replacing the faulty lights stopped the panic behavior and stabilized the flock.
- Research shows chickens are more sensitive to light flicker than people (Ref: Edet et al. RU01; Edet et al. RU02).
- Lighting systems should be checked when unexplained panic or sudden behavior changes occur in flocks.

2) Syndromic and laboratory surveillance

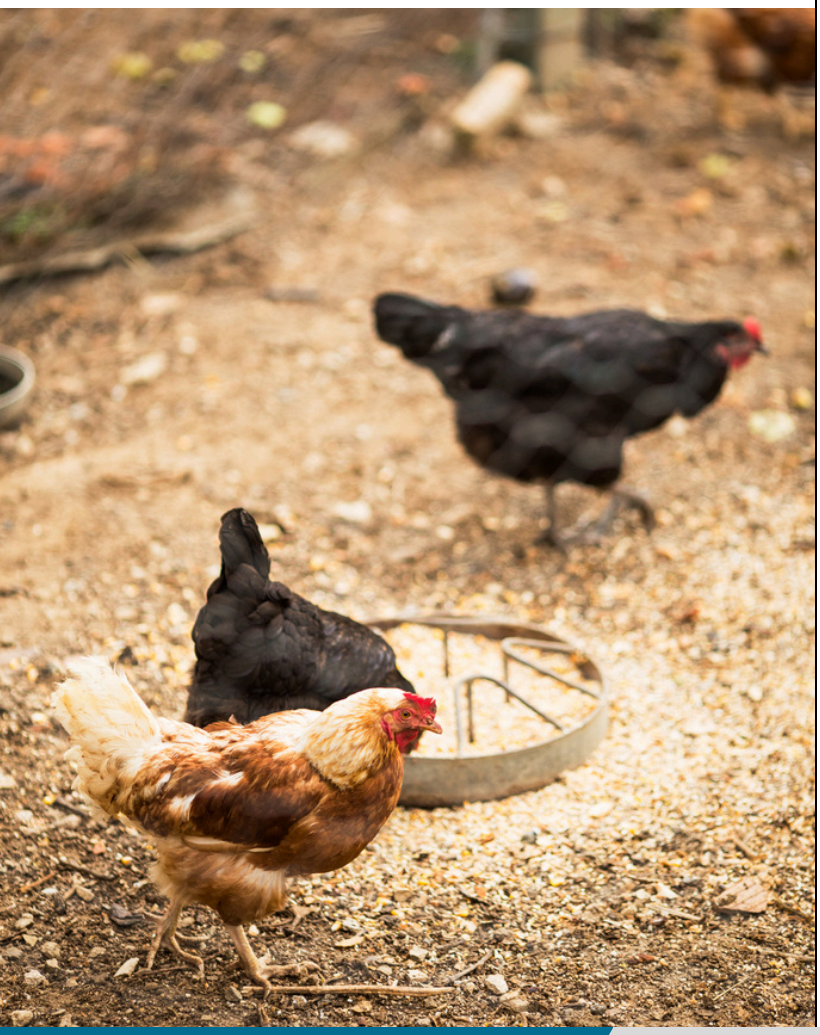
Important information

Clinical impression surveys

Never; Rarely = 1-2 times per 3 months; Commonly = 1-2 times per month; Very frequently = 3+ times per month.

'Control charts'

Control charts are a simple way of presenting data collected over time (e.g., increasing or decreasing detection frequencies). Each data point reflects the number of positive samples or cases reported by a diagnostic laboratory over 3 months (quarter of a year). The upper and lower horizontal lines are called **control limits**. Individual points lying outside the control limits suggest a need for investigation to determine whether/how significant a signal they represent.



Respiratory system disease

Clinical impressions survey

- In broilers, infectious bronchitis was reported **never** to rarely and trends were **stable**.
- In broiler breeders, ILT was reported never and stable, while Mycoplasma-related respiratory disease ranged from never to rarely and was stable to increasing.
- In layers, respiratory disease linked to IBH, ILT, and Mycoplasma was reported never and stable.
- In turkeys, mycotic respiratory disease, Mycoplasma, and ORT were reported **never** to rarely and **stable**.

Laboratory findings

Respiratory laboratory findings were largely within control limits. IBH detections remained within expected ranges, with two broilers diagnosed with IBH and concurrent *E. coli* isolated from brain and lung samples. No ILT cases were confirmed by pathology, although two PCR detections occurred without associated lesions. *Mycoplasma gallisepticum* (MG) and *Mycoplasma synoviae* (MS) detections remained within control limits, and avian reovirus activity declined below baseline. Isolated cases of pneumonia and *E. coli* air sacculitis were reported

Digestive system disease

Clinical impressions survey

- In broilers, digestive disorders including coccidiosis, necrotic enteritis, and ascites were reported rarely to commonly and were **stable**, while IBH- and IBD-associated digestive disease was **stable** to **increasing**.
- In broiler breeders, coccidiosis was reported rarely and **stable**, with other digestive diseases reported **never** and **stable**.
- In layers, coccidiosis, necrotic enteritis, and focal duodenal necrosis were reported **never** to rarely and **stable**.
- In turkeys, enteritis ranged from rarely to commonly and was **stable**, while coccidiosis, histomoniasis, and parasites were reported **never** to rarely and **stable**.

Reproductive system disease

Clinical impressions survey

- In broiler breeders, in-lay bacterial septicemia, including *E. coli,* was reported rarely and **stable**, and IBV-related production issues were reported **never** and **stable**.
- In layers, bacterial peritonitis and salpingitis were reported rarely to commonly and **stable**, while IBV-related egg and production issues were reported **never** and **stable**.

Laboratory findings

No reproductive disease findings exceeded control limits this quarter, and laboratory results remained within expected range.

Musculoskeletal system disease

Clinical impressions survey

- In broilers, bacterial lameness ranged from rarely to commonly and was **stable**, while viral, developmental, and nutritional lameness was reported **never** to rarely and **stable**.
- In broiler breeders, bacterial lameness was commonly reported and was **stable** to **decreasing**, with other lameness categories reported **never** and **stable**.
- In layers and turkeys, musculoskeletal disease was reported **never** and **stable**.

Laboratory findings

Laboratory findings included isolated cases of osteomyelitis and multiple diagnoses of tibial dyschondroplasia in broilers. Polyserositis cases (inflammation of the lining of internal organs) exceeded control limits and have remained elevated, coinciding with increased poultry submissions.

Multisystemic and metabolic disease

Clinical impressions survey

- In broilers, early systemic bacterial infection and yolk sac infections were reported commonly to very frequently and were **stable** to **increasing**, often involving *E. coli*.
- In broiler breeders and layers, early bacterial infections, yolk sac infections, and peritonitis ranged from **never** to commonly and were **stable**, while aggression and cannibalism were **increasing**.
- In turkeys, early and late systemic bacterial infections were reported rarely to commonly and were **stable**, with other early mortality causes reported **never** to rarely and **stable**.

Laboratory findings

Colibacillosis cases (generalized *E. coli* infection) exceeded control limits, largely associated with increased lab submissions. A confirmed case of *Histomonas meleagridis*–associated infection was reported in a turkey, and a single avian influenza A case was confirmed in an 8-week-old turkey. Other multisystemic findings, including myocarditis (inflammation of the heart muscle), pericarditis (inflammation of the heart membranes), and kidney-related disease, remained within control limits. *Salmonella* detections across poultry types remained within expected ranges.

3) CFIA poultry condemnations

Control charts were created to track total poultry condemnations at Federal abattoirs, including liver, respiratory, subcutaneous, leg, skin, dark carcasses, emaciation, and other causes.

- In British Columbia, liver condemnations exceeded control limits in 2020–2021, remained within limits in 2022–2023, and have stayed below limits since early 2024. Respiratory condemnations showed intermittent peaks above limits in 2022–early 2024 but stabilized mid-2024.

- In Alberta, total condemnations peaked above control limits in 2020, 2022, 2023, and again in 2025. Subcutaneous condemnations have been steadily increasing and exceeded limits in 2025.

- In Saskatchewan and Manitoba (data combined), total condemnations remained within limits except for a mid-2022 peak. Respiratory condemnations showed single annual peaks in 2020, 2022, and 2025. Subcutaneous condemnations began rising in mid-2020 and exceeded limits in 2025.

Practitioners noted that broad condemnation categories limit clinical interpretation, and rates may be influenced by inspector variability. WeCAHN will seek for clarity of definitions before continuing analysis next quarter.

4) Scan

i. Updates from CAHSS Q2 poultry network:

Avian Metapneumovirus (aMPV)

- In Ontario, 7.2 million doses of modified live aMPV vaccine were approved under emergency release, but illness has been observed in vaccinated turkeys prior to boosters, with subtype A detected.
- Similar subtype A detections occurred in vaccinated flocks in Québec, with virus sequencing pending.
- Risk currently appears concentrated in Eastern Canada, and Eastern laboratories are validating test to differentiate vaccine strains from field virus.

Infectious Bronchitis Virus (IBV)

- IBron® (CEVA) is approved for IBV control, and producers are advised to monitor circulating genotypes, particularly Delmarva strains.

ii. Highly Pathogenic Avian Influenza (HPAI) H5N1

Canada

- In Canada, the current wave of HPAI in domestic poultry began earlier than previous years, with 66 cases reported since September 9, mostly in the western provinces; British Columbia and Alberta reported the highest number of infected premises (CFIA link).
- Wild bird detections continue, with 23% occurring in AB, SK, MB, and 61 positive wild birds reported in British Columbia (dashboard link).
- No HPAI has been detected in Canadian dairy cattle; 6,643 raw milk samples tested negative (CFIA link).

United States

- No new dairy cattle cases were reported between October 17 and November 17, 2025; cumulative cases total 1,082 across 18 states (USDA-APHIS).
- HPAI affected 35 commercial and 37 small poultry flocks, with detections across all four North American flyways.
- The first human case of H5N5 was reported in Washington State, linked to backyard poultry exposure; overall, 71 human H5 cases have been reported, primarily linked to cattle or poultry (public health link).

Europe

- The European Food Safety Authority reported record HPAI levels in wild birds across 26 countries, mostly H5N1 DI 2.1 genotype, not yet present in North America, raising concern for potential transcontinental spread.

Relevant publications

- Serologic evidence shows HPAI exposure in invasive wild pigs in Alberta, suggesting interspecies transmission.
- Experimental H5N1 infection in dairy goats caused mastitis, transmission to offspring, and milk production losses.
- Cache Valley virus (CVV), transmitted by biting midges, affects ruminants causing abortions and birth defects. Recent outbreaks lead to production losses in Alberta and Saskatchewan sheep flocks. Research confirmed that domestic poultry including chickens and ducks, are not reservoirs of CVV.

Producer Takeaways:

New health issues: Some flocks have experienced unusual conditions like excessive urination in hens, severe cloaca problems, and flighty behavior linked to flickering lights. These cases show how feed, water, housing, and barn environment can affect flock health.

Ongoing disease monitoring: Common poultry diseases like IBV, aMPV, *Mycoplasma*, and coccidiosis are still present. Most flocks remain stable, but labs sometimes find new strains or mixed infections that can affect bird health.

Avian influenza trends: H5N1 avian influenza continues to occur in western North America. While human cases are rare, research shows the virus can spread to other animals such as goats and wild pigs, emphasizing the importance of biosecurity.

Financial support was provided under the Sustainable Canadian Agricultural Partnership, a federal-provincial-territorial initiative.