



The WeCAHN Beef Network held a quarterly videoconference meeting on August 28th, 2025 to discuss animal health events occurring from April to June 2025 with veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives.

1) Overview

Data sources in this report include:

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

2) Interesting Cases



i) Clinical case: encephalitis and hypomagnesemia in multiple cattle

- Herd of 320 beef calves placed in a feedlot, November 2024. No major health issues for six months until multiple calves died, some with neurological signs. Other cattle in the feedlot, which were on the same feed and water source, showed no signs of illness.
- Laboratory tests for infectious agents of the nervous system including rabies, herpes virus, *Neospora*, *Toxoplasma* and *Listeria* were negative. The only remarkable necropsy finding was encephalitis (brain inflammation). Toxicology analysis detected low magnesium levels (hypomagnesemia).
- Low magnesium can lead to neurological signs but does not produce encephalitis, suggesting other undetected factors leading to illness and death.
- Investigation of feed composition revealed inclusion of potato waste, a potential cause of hypomagnesemia or aluminum toxicity. The investigation continues.

ii) Clinical case: Enteritis and high mortality in bottle-fed calves

- 1200 head cow/calf operation. Severe scours, dehydration and high calf mortality mostly affecting bottle fed orphaned or twin calves. Several calves died despite hospitalization and IV fluid therapy.
- Pathology analysis revealed enteritis (inflammation of the intestines). Common intestinal pathogens including BVD, coronavirus, Crypto and *Giardia* were not isolated however, a strain of *Salmonella* bacteria not seen before in cattle but associated with swine was detected. Interestingly, genomic sequencing confirmed abundant presence of Aichivirus B (bovine Kobuvirus) but the relevance of this finding is unknown. The investigation continues.
- Management recommendations included improving biosecurity risks to reduce fecal-oral transmission of disease (e.g. avoid sharing a nurse cow) and improving record keeping.



iii) Case study: Organochloride toxicosis

- Twenty-five cow-calf pairs moved to a new pasture 3 weeks prior. Five calves were found dead at various locations on the field. One calf had neurological signs (twitching, blindness) and rapid breathing before death.
- Necropsy revealed inflammation of the kidneys and spleen. Toxicology analysis of fresh stomach contents and liver identified lindane. A white powder found on the property was later tested and confirmed to contain lindane.
- Lindane, an organochloride, is an agricultural product that was banned in 2005. Producers should look for old bags of chemicals in their junk yard.
- Check with your province on how to report livestock diseases linked to exposure to toxic substances.

iv) Provincial prevalence study on anaplasmosis

- A number of Manitoba herds were sampled at the time of preg-checking. Three farms tested positive, two showed very high prevalence (60-75%).
- The tested area is considered endemic for anaplasmosis, and high prevalence farms have adjusted management practices to prevent clinical disease. [LINK](#)
- Stressed cattle (e.g. naive, imported cattle) and cattle with low BCS are at higher risk of clinical disease.



v) Research update: Lead poisoning in Western Canada

- Between 2014 and 2024, lead poisoning was diagnosed in 352 cattle from 233 herds (98% beef). The average occurrence is 23 herds per year with more cases in the summer months, peaking in June. Most cases were seen in Saskatchewan, followed by Alberta, Manitoba and British Columbia.
- Most cases involve young calves and are linked to contact with vehicle batteries, old vehicles and junk yards. Experience in Alberta herds has shown that in addition to curious calves, dominant “boss” cows are also affected because they will keep the rest of the herd away while they lick exposed battery panels.
- There are differences in reporting and testing requirements across provinces. Lead toxicosis is reportable in Alberta and British Columbia, not in Manitoba or Saskatchewan.
- Cattle exposed to lead are not ordered destroyed. Producers just need to wait and keep their cattle in their possession until lead blood levels are within permitted values. This is usually manageable for beef producers. [LINK](#)

vi) Research update (follow up to Q1 2025): Bovine Respiratory Disease Pathogen Antimicrobial Resistance (AMR). (CFAASP.ca)

- *Mannheimia haemolytica* (Mh), *Pasteurella multocida* (Pm) and *Histophilus somni* (Hs) bacteria were isolated from deep nasopharyngeal swabs of cattle at arrival at feedlot and ~2 months later.
- AMR was measured and AMR trends for 8 antimicrobials were described. Differences in AMR were found for some antibiotics at rehandling compared with the AMR at arrival. [LINK](#)



3) Syndromic 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 (special cause or unstable point) suggest a need for investigation to determine whether/how significant a signal they represent. In some cases, we excluded "zero" detections recorded before a set date to make the data easier to interpret. These zeroes may reflect periods when the test was not yet available.

Respiratory system disease

Clinical impression survey

- Respiratory system disease was reported **Rarely** to **Very frequently**.
- Infectious bronchitis virus (IBR) was reported **Never** to **Rarely**, and relative to the same period last year, the frequency of diagnosis was **stable**.
- Bronchopneumonia was reported **Commonly** to **Very frequently**. Isolation of *Mannheimia haemolytica*, *Pasteurella multocida*, and *Histophilus somni* was **Rare** to **Common** and **stable**.

Laboratory diagnoses for respiratory system disease

At the Prairies Diagnostic Services (PDS) laboratory, *Salmonella* Dublin was isolated from lung tissues of beef cow/calf nursing calves in two cases. In beef cattle, the number of interstitial pneumonia diagnoses exceeded the upper control limit of the control chart. Cultures of *H. somni* and *Bibersteinia trehalosi* as well as detections of bovine respiratory syncytial virus (BRSV), bovine parainfluenza virus 3 (PI-3), and bovine herpesvirus 1 (BHV-1) were within the control limits.

At the Manitoba Veterinary Diagnostic Services (VDS) laboratory, *H. somni* and *B. trehalosi* cultures as well as BHV-1 and *Mycoplasma bovis* detections were within the control limits.

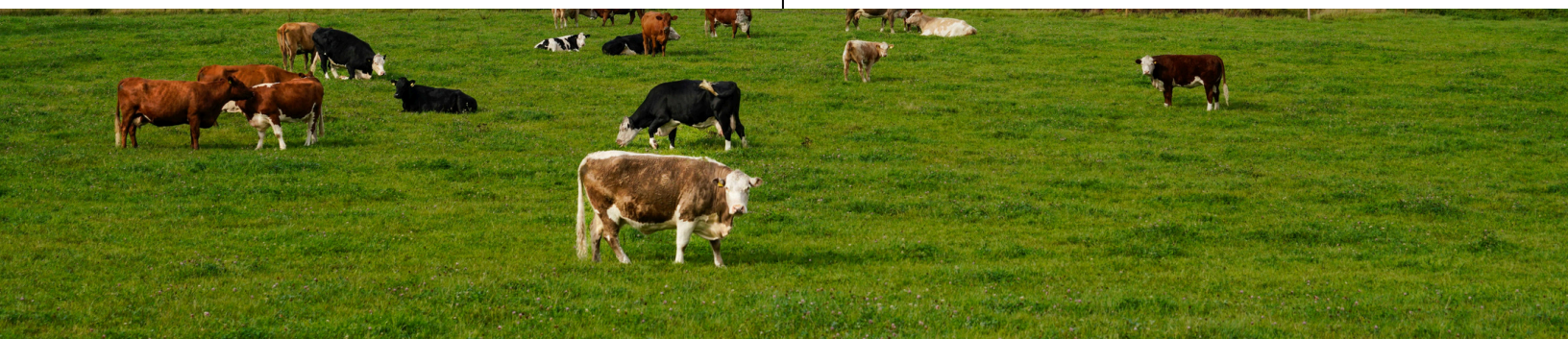
At the University of Calgary Faculty of Veterinary Medicine Diagnostic Services Unit (UCVM DSU), there were five cases of interstitial pneumonia; two of these cases were diagnosed with Acute Respiratory Distress Syndrome.

Digestive system disease

Clinical impression surveys

Digestive system disease was reported **Rarely**, **Commonly**, or **Very frequently**.

- Diarrhea was reported **Commonly** to **Very frequently**.
- *Escherichia coli*, coronavirus and cryptosporidia were reported **stable**.
- *Mycobacterium avium* subspecies paratuberculosis (MAP, Johne's disease) was reported **Never** to **Rarely** to **Commonly**, and **stable** to **increasing**.



Laboratory diagnoses for digestive system diseases

At PDS, *Salmonella* Dublin was isolated with high growth (3+) from colon tissue submitted from a nursing 2-week-old calf from a cow/calf system. Detections within the control limits this quarter include: serology of *S. Dublin*, and serology for MAP. Near the upper control limit was PCR coronavirus. Detections exceeding the control limit include rotavirus, *E. coli* PCR and MAP PCR.

At VDS, the calf enteric panel was used frequently (n=19 cases); there were 5 cases positive for rotavirus, 3 for coronavirus and 6 for *Cryptosporidium* spp. *E. coli* cultures were within the control limits. MAP PCR detections exceeded the upper control limit when all historical data were included. However, after excluding 'zero' detections before Q1 2020, the number of detections this quarter falls within the control limits.

Reproductive system disease

Clinical impression surveys

Reproductive system disease was reported **Rarely** to **Commonly** to **Very frequently**.

- Uterus disease was reported **Rarely** to **Commonly**
- Bull reproductive disease and injuries were reported **Rarely** to **Commonly** to **Very frequently**.
- Infectious infertility (e.g., *Campylobacter*, *Tritrichomonas*) was reported **Never**.

Laboratory diagnoses for reproductive system disease

At PDS, detections of *N. caninum* were within the control limits of the [control chart](#). The detections of *Campylobacter fetus* and *Tritrichomonas foetus* exceeded the upper control limit of the control chart this quarter in beef.

At VDS, there were no serological or PCR detections of *N. caninum* this quarter. The few detections of *Ureaplasma diversum* were within the control limits. The idiopathic abortion diagnoses were within the control limits after a peak last quarter.

At UCVN DSU, many abortions were investigated: 14 were idiopathic (unknown cause), and three cases had a cobalt deficiency. Additional abortions were associated with congenital anomaly, *Campylobacter jejuni*, and *Coxiella burnetii*.

Musculoskeletal system disease

Clinical impression survey

Musculoskeletal system disease was reported **Rarely** to **Commonly** to **Very frequently**.

- Foot lesions/lameness were reported **Commonly** to **Very frequently** and **stable** to **increasing**.
- Non-foot lesions/lameness was reported **Rarely** to **Commonly** to **Very frequently** and **stable**.
- Fractures were reported **Rarely** to **Commonly**, and **stable** (4/4).
- Post-calving obturator/peritoneal nerve lameness was reported **Never** to **Rarely** to **Commonly**, and **stable**.

Dermatological disease

Clinical impression surveys

Dermatological disease was reported **Never** to **Rarely** to **Commonly**.

- External parasites were reported **Rarely** to **Commonly**.
- Lice and other ectoparasites were reported **Commonly** to **Very frequently**, and **stable** to **increasing**. Two practitioners reported treatment failure.



Multisystemic diseases

Clinical impression surveys

Multisystemic disease was reported **Never**, **Rarely**, **Commonly** or **Very frequently**.

- Septicemia was reported **Rarely** to **Commonly**. *Clostridia* were reported **Never** to **Rarely** to **Commonly**, and **stable** to **increasing**.
- Toxicities were reported **Rarely** (2/2). Selenium toxicity was reported **Never** to **Commonly** and **stable** to **increasing**.
- Nutritional deficiencies were reported **Rarely** to **Commonly**. With energy, protein and copper deficiencies **stable** to **increasing**.

'Other' clinical syndromes or disease presentations:

- Nitrate toxicity in a small herd of beef cows on pasture. Clean up from a previous year's fire exposed some chemicals that had been previously inaccessible to the cattle in some old, abandoned vehicles.

Laboratory diagnoses for multisystemic and metabolic diseases

At PDS, diagnoses within the control limits include *M. bovis*. Diagnoses that increased from the last quarter but remained within control limits include *Pseudomonas aeruginosa* cultures and navel ill (omphalitis). Diagnoses exceeding the control limit of the control chart include *Bacillus cereus*, and *E. coli* PCR. Notably, there was a case (two PCR detections) of anthrax (*Bacillus anthracis*) in adult Hereford cow-calf cattle in Saskatchewan. Toxicology diagnoses include: lead selenium, and copper toxicity.

At VDS, *E. coli* cultures and related septicemia diagnoses neared the upper control limit of their respective control charts. *M. bovis* and *Pasteurella multocida* cultures were within the control limits. There were no diagnoses of enteritis or lead toxicity this quarter.



4. Scan

i) New World Screwworm *Cochlyomyia hominivorax* in Central America and Mexico

- NWS is endemic in South America. It had been kept under control through a sterile fly release program in Panama. Dramatic increase of NWS cases in Panama: 2022 = 25 cases. 2023= 6,500 cases
- Female flies lay their eggs (200-300 per clutch) on open wounds of warm-blooded animals (including humans). Larvae (i.e. maggots) burrow deep and feed on live tissue causing pain, inflammation, infection, and in severe cases, death.
- NWS is now present in Central America and Mexico. Direct and indirect costs to the livestock industries are unknown and, likely, extremely high.
- USDA on high alert.
<https://www.aphis.usda.gov/livestock-poultry-disease/cattle/ticks/screwworm/outbreak-central-america>
- NWS will not survive Canadian winters but cases may occur during the warm months.
- Treatment of NWS is simple but it is labour intensive, making it difficult in large groups of animals. Once the fly is present in an area, any open wound is at risk of being parasitized. All wounds need to be checked, all larvae should be removed with tweezers and killed in a container with alcohol. Any larva that falls on the ground may be able to complete its life cycle and generate more flies. Once larvae are removed, the wound needs to be disinfected and have insecticide applied to it. Ivermectin alone doesn't kill the larvae.
- There are no approved products in Canada against NWS.



ii) Réseau d'alerte et d'information zoosanitaire (RAIZO): Bovine network Q1 2025

- Severe multidrug-resistant *E. coli* infection in a four-month-old veal calf. Practitioners noted increased multidrug *E. coli* septicemia cases in older veal calves in the fall of 2024.
- Astrovirus encephalitis was diagnosed in a beef cattle, possibly the first case confirmed in the province of Quebec.

iii) First reported cases of lumpy skin disease

(LSD, a pox virus closely related to sheep and goat pox) in Italy ([World Organisation for Animal Health \(WOAH\)](#) [World Animal Health Information System \(WAHIS\)](#)), France ([WOAH WAHIS](#)) and Spain ([WOAH WAHIS](#)). Outbreaks were confirmed on June 21st, June 26th, and October 3rd, respectively.

- Canada applied import restrictions ([LINK](#)).
- Switzerland (free of LSD) applied preventive vaccination due to the high risk of introduction ([LINK](#)).
- [CFIA Fact Sheet on LSD](#).

v) Highly pathogenic avian influenza (HPAI)

Influenza A virus subtype H5N1 genotypes B3.13 and D1.1 in dairy cows. H5N1 genotypes D1.1 and D1.2 are currently the most prevalent in domestic and wild birds in North America.

USA:

• Dairy cattle:

- Between May 12 and August 12, 2025, there were three new confirmed cases of HPAI in dairy herds not previously affected in California (a case is defined by a positive PCR at a National Animal Health Laboratory Network (NAHLN) laboratory ([LINK](#)).
- The total is 1,078 confirmed cases in 17 states.
- The total does not reflect reinfection of farms. On August 1st, the [California Department of Food and Agriculture](#) posted a Livestock Health Alert indicating 43 herds have been re-quarantined (shown to have sufficient virus present) after prior release (3 negative bulk milk tank samples, 1 week apart).
- USDA's most up-to-date information can be found on their website ([LINK](#)).
- USDA's National Milk Testing Strategy (NMTS) continues with mandatory milk bulk tank surveillance. A map of the status of each State can be found [here](#).

• Poultry:

- Between September 3rd and October 3rd, 2025, there were 23 commercial flocks and eight backyard flocks with confirmed HPAI in multiple states ([LINK](#)).

• Humans:

- Between March 2024 and August 12, 2025, the CDC has confirmed 70 cases of avian influenza A(H5) in people in the USA. The last reported detection was in April 2025. Forty-one infections (59%) were associated with exposure to affected dairy cows, and 24 (34%) with exposure to infected poultry. The source of exposure for the remaining five human cases was either unknown (n=3) or animal sources (n=2) ([LINK](#)).



Canada:

• Dairy cattle:

- No HPAI has been detected in Canadian cattle.
- As of September 5th, 2025, the CFIA laboratories tested 5,602 raw (unpasteurized) milk samples at processing plants; all samples were negative for HPAI ([LINK](#)).
- CFIA released: "[Advisory: U.S. agricultural exhibitions precautions to protect Canadian cattle from highly pathogenic avian influenza \(HPAI\)](#)"

• Poultry:

- Between September 8th and October 3rd, there were seven commercial HPAI influenza A-infected premises in Alberta (5), Saskatchewan (1) and Quebec (1) ([CFIA Investigations and orders](#)).
- The latest non-commercial poultry detections of HPAI were in May in Saskatchewan, Manitoba and Prince Edward Island.
- HPAI infection in an ostrich farm in BC was confirmed in December 2024. The farm owners have been involved in a legal battle with the CFIA to prevent the culling of their birds.
- August 22nd interview with Dr. Rasmussen [LINK](#)

Producer Takeaways

- Multiple infections can occur at once making diagnosis and treatment more complicated. Using a combination of lab techniques—like pathology, toxicology, and molecular diagnostics—helps veterinarians accurately identify and treat complex cases.
- Cattle producers continue to lose animals to legacy contaminants such as pesticides and chemicals. Checking pasture and livestock areas prior to moving animals remains a good husbandry practice.
- New World Screwworm (NWS) is spreading northward and could threaten livestock and wildlife. While it's unlikely to become established in Canada, isolated cases may appear during warmer months. Early detection and awareness are essential to prevent outbreaks.

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