Western Canadian Animal Health Network

WECAHN BEEF NETWORK REPORT

JANUARY - MARCH 2025

The WeCAHN Beef Network held a quarterly videoconference meeting on June 19th, 2025, to discuss the animal health events occurring from January to March 2025, with veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives in attendance.

1) Overview

Data sources in this report include:

- Clinical Impressions Surveys completed by network practitioners.
- 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).
- Scan: bovine surveillance reported by other sources or networks.

2) Interesting Cases

i) Case study: Hair balls caused severe intestinal blockage in Holstein cross calves of 350 to 500 lbs.

- Multiple calves had bloating or abdominal swelling and kept losing weight despite treatment with mineral oil and antibiotics. Several calves died or had to be euthanized.
- Hairballs blocking the intestine were found during field post-mortem exams. Hairballs were also found in the stomachs and intestines of calves that died of other causes.
- Trichophagia (eating hair) may be associated with insufficient dietary fibre.

ii) Case study: Leptospirosis in Holstein feeder calves, resulting in sudden death among animals weighing over 800 lbs.

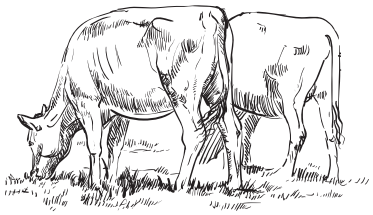
- Same herd described above. Multiple calves were found dead; the feedlot operators suspected bloat because of the sudden death in larger animals.
- The veterinarian noted that dead calves had icteric (i.e. yellow) eyes, gums and skin, and the bladder was full of bloody urine. Leptospirosis was diagnosed.
- A leptospirosis vaccination protocol for calves weighing approximately 500 lbs was implemented in April. Vaccination against leptospirosis had not been previously implemented due to local concerns regarding vaccine efficacy or adverse events.
- The source of the bacteria remains unknown. Once introduced in the herd, Leptospiras were likely transmitted to other calves during cross-suckling.

iii) Laboratory detection trichomoniasis.

- A laboratory had positive tests for trichomoniasis during routine sampling. These are the first positive detections since Q1 2020.

iv) Laboratory diagnosis: Stillborn calves related to yersiniosis.

- Stillborn calves were examined during post-mortem, and the findings suggested a bacterial cause. Yersiniosis (caused by the bacteria *Yersinia pseudotuberculosis*) was diagnosed.
- This bacterium can infect many species, including cattle, small ruminants, and humans. *Yersinia pseudotuberculosis* - StatPearls - NCBI Bookshelf
- Dr. John Campbell from the University of Saskatchewan's Western College of Veterinary Medicine wrote a piece in The Western Producer in June 2024 (LINK): "Several animals died after a short period of illness."



v) Bovine tuberculosis (bTB) in a Manitoba (MB) dairy herd (Canadian Food Inspection Agency (*CFIA), 2025*)

- On June 9, 2025, a suspect case of bovine tuberculosis was identified at a federally registered slaughter plant in MB from a 7-year-old dairy cow.
- The CFIA confirmed bovine tuberculosis (caused by the bacteria *Mycobacterium bovis*) on June 13th.
- Using the DairyTrace system, the CFIA identified the herd of origin of the infected cow in the Pembina Valley region of MB.
- This herd was placed under quarantine until testing and depopulation can be completed.
- This outbreak has different aspects to be dealt with, for example, the CFIA had never dealt with bovine tuberculosis in a dairy herd before. A challenge is that processors do not want to accept milk from the herd, even though pasteurization produces a safe milk product.

vi) Update on bTB cases in Saskatchewan (SK):

- 2024 case (CFIA Status of the bovine tuberculosis investigation (2024): Investigation status as of 2025-06-05):
  - The index herd was depopulated.
  - A couple of goats that lived on site were euthanized as a precautionary measure because bTB can be transmitted to goats.
  - The investigation continues and is anticipated to last through to spring 2026.
- 2023 case (Status of the bovine tuberculosis investigation – Saskatchewan (2023))
  - "The strain found in the infected herd is not a close match to any strain previously reported in livestock or wildlife in North America."

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'

In the following document, under the sub-heading 'laboratory diagnoses,' there are multiple graphs called '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 situations, control charts are not applicable (e.g., when the previous data points do not have a horizontal trend line), but these plots can still be used to demonstrate time trends.

Respiratory system disease

Clinical impression survey for respiratory system disease

Respiratory disease was reported Commonly (1/3) to Very frequently (2/3).

- Pneumonia was reported Rarely to Very frequently, depending on the type.

Laboratory diagnoses for respiratory system disease

At the Veterinary Diagnostic Services (VDS) laboratory, in all cattle (beef and dairy), two causes of respiratory diseases (infectious bovine rhinotracheitis (IBR) and Mannheimia) were reported to have increased compared to previous years.

At the Prairie Diagnostic Services (PDS) laboratory, Mannheimia and another common cause of respiratory disease (Bibersteinia) were not as frequently identified in beef as in the previous quarter (Q4 2024).

At the University of Calgary Faculty of Veterinary Medicine Diagnostic Services Unit (UCVM DSU), there were 6 cases of pneumonia caused by inhalation of fluids or material, and two of these cases were in adult cows.

Digestive system disease

Clinical impression survey for digestive system disease

Digestive disease was reported Rarely (1/3) to Commonly (2/3).

- Diarrhea was reported Commonly (2/2).
- Severe diarrhea with blood and mucus (dysentery) was reported Rarely (1/2) to Commonly (1/2).
- Gas bloat was reported Rarely (1/2) to Commonly (1/2).
- Parasites in the stomach and intestines were reported **Never** (1/2) to Commonly (1/2).

Laboratory diagnoses for digestive system diseases

At VDS, there were more cases of rotavirus, coronavirus and cryptosporidiosis (crypto) diarrhea in calves this quarter compared to the summer (Q3 2024) and fall (Q4 2024). Post-mortem diagnoses of enteritis caused by rotavirus were high this quarter, and near the upper limit of the control chart. Enteritis caused by coronavirus was also diagnosed at post-mortem more frequently, and above the upper limit of the control chart.

At PDS this quarter, there was a slight increase in positive coronavirus tests for all cattle compared to the previous two quarters.

At UCVM DSU, a 3-year-old Angus cross had an ulcer that perforated, which resulted in infection in the abdomen, pneumonia from the inhalation of fluid or material and shock.

Reproductive system disease

Clinical impression survey for reproductive system disease

Reproductive disease was reported Rarely (1/3) to Commonly (1/3) to Very frequently (1/3).

- Abortions were reported Rarely (1/2) to Commonly (1/2).
- Uterus disease was reported Rarely (1/2) to Commonly (1/2).
- Bull reproductive disease was reported Rarely (1/2) to Very frequently (1/2).
- Bull reproductive injuries were reported **Never** (1/2) to Commonly (1/2).
- Infectious causes of infertility (e.g., *Tritrichomonas*) were reported **Never** (2/2).

Laboratory diagnoses for reproductive system disease

At VDS, many abortions were investigated this quarter, with the number of cases (i.e., one submission to the laboratory) remaining within the expected range of the control chart. There were three cases of IBR-related abortion in beef this quarter, the first diagnoses since Q2 2021.

The diagnoses of abortion with inflammation of the placenta (placentitis) at PDS this quarter were few.
At UCVM DSU, there were 12 cases of abortion without a known cause and one case of placentitis. A deformed Simmental cross calf was aborted, and it had kidney stones.

Musculoskeletal system disease

Clinical impression survey for reproductive disease

Musculoskeletal disease was reported Rarely (1/3) to Commonly (2/3).

- Interdigital dermatitis (sometimes referred to as “slurry heel/horn”) was reported Commonly (1/2) to Very frequently (1/2).

Laboratory diagnoses for musculoskeletal diseases

At PDS, inflammation of the muscle was diagnosed at post-mortem multiple times.

Multisystemic and metabolic diseases

Clinical impression survey for multisystemic and metabolic diseases

Multisystemic disease was reported **Never** (1/3) to Rarely (2/3).

- Blood infections (septicemia) caused by *Histophilus* were reported Rarely (1/2) to Commonly (1/2) and **stable** (1/2) to **increasing** (1/2).
- Energy deficiency was reported Rarely (2/3) to Commonly (1/3).

Laboratory diagnoses for multisystemic and metabolic diseases

At VDS, the number of positive Johne's disease (caused by *Mycobacterium avium* subspecies paratuberculosis or MAP) tests this quarter was within the normal limits.

At PDS, positive Johne's disease tests in beef appear to be increasing since the start of data collection.

At UCVM DSU, there was a case of congestive heart failure caused by ionophore (e.g., Monensin) toxicity. A 15-month-old Simmental steer was diagnosed with blackleg and infection of the heart.

Dermatological disease

Clinical impression survey for dermatological disease

Dermatological disease was reported Rarely (1/3) to Very frequently (2/3).

- External parasites were reported Commonly (1/2) to Very frequently (1/2).
- Lice were reported Commonly (1/2) to Very frequently (1/2) and **stable** (1/2) to **increasing** (1/2). One practitioner noted that they treated the lice unsuccessfully.
- Fungal (i.e., as caused by a fungus) infections were reported **Never** (1/2) to Very frequently (1/2).

Cardiovascular system disease

Clinical impression survey for cardiovascular system disease

Heart and blood vessel diseases were reported Rarely (2/3) to Commonly (1/3).

- Infection of the heart muscle (myocarditis) was reported Very frequently (1/1).
- The infection was reported to be caused by *Histophilus*
- Very frequently and **increasing** in post-weaning calves and feeders (1/1).

Vaccine and Infectious Disease Organization (**VIDO**) is developing a new vaccine targeting Histophilus-associated myocarditis (LINK).

4) Scan

i) The Canadian Feedlot Antimicrobial Use and Antimicrobial Resistance Surveillance Program (CFAASP.ca) provide health surveillance in Alberta feedlots.

- They should have the first data set later this year or early next year.

ii) The highly pathogenic avian influenza (HPAI) of concern is influenza A virus subtype H5N1 genotypes B3.13 and D1.1 in dairy cows.

- There have been no reported detections of HPAI in beef cattle. "While beef cattle are likely susceptible, the differences in production and management practices (for example, the use of milking equipment, higher density housing, and more contact with humans), pose an increased infection risk for dairy herds" (LINK).

USA:

- **Dairy cattle:**
  - As of July 7, 2025, one new confirmed HPAI in cattle in 1 state in the last 30 days (case definition).
  - The total is 1,074 confirmed cases in 17 states (USDA's most recent detections).
  - 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.
- **Humans:**
  - As of July 7, 2025, the CDC has confirmed 70 cases of avian influenza A(H5) in people in the USA. 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:**
  - As of June 30, 2025, the CFIA laboratories tested 4,544 raw (unpasteurized) milk samples at processing plants; all samples were negative for HPAI (LINK).
- **Poultry:**
  - Between May 6th and July 7th, there were two non-commercial poultry infected primary control zones (PCZ) for avian influenza subtype H5 in MB (1) and Prince Edward Island (1) (CFIA, 2025).

iii) Canadian Animal Health Surveillance System (CAHSS) Dairy Network Q4 2024:

- Ontario identified multidrug-resistant *E. coli* in dairy-beef crosses. Affected calves are very sick (septicemia) and have swollen joints.

iiv) Réseau d'alerte et d'information zoosanitaire (RAIZO), Quebec, Bovine Network:

- Veterinary practitioners reported an increase in the Bovine Respiratory Disease (BRD) complex in dairy cattle Q1 2025, and beef and veal Q4 2024.
- Similar to the above note from Ontario, veal calves were very sick with *E. coli*. A veterinarian reported seeing more cases of multidrug-resistant *E. coli*.
- Two calves of 1.5 months in the same region had leptospirosis in Q4 2024. One practitioner noted increased leptospirosis in a cow-calf herd (Q4 2024). Testing for the bacteria is ongoing in Q1 2025.
- Two adult cows from a cow-calf herd in Q1 2025 had listeriosis with symptoms of circling, head tilt, paralysis and tremors.

v) Foot and Mouth Disease (FMD) in Europe and the Middle East:

- Hungary: 5 herds affected so far, with the newest detection on April 17, 2025 (British Agriculture Bureau (BAB), 2025).
- Slovakia: 6 herds were affected since March, with the newest detection on April 4, 2025 (BAB, 2025).
- Germany has been fully re-instated as free of FMD by the World Organisation for Animal Health (WOAH), after detecting FMD in water buffalo in January this year (Reuters, 2025).
- Of note, an exotic strain of FMD was detected in Turkiye on June 26, 2025 (WOAH World Animal Health Information System, 2025) and in April 2025 (Food and Agriculture Organization of the United Nations (FAO), 2025).
- Additional information about FMD: Canadian Food Inspection Agency (CFIA) (LINK).

vi) "Positive changes have been made to Canada's BSE program" by Dr. Roy Lewis in The Western Producer

Takeaways

1. Sudden deaths in calves with swollen bellies aren't always caused by bloat. In one recent case, postmortem examination and testing by a veterinarian revealed leptospirosis as the actual cause. Identifying the reason for death helps protect the rest of the herd, and having your vet on site for regular consultation or diagnostics is a smart move for long-term herd health.
2. Veterinarians in the network reported mixed occurrences of the bacteria *Histophilus* (part of the bovine respiratory disease complex). The Vaccine and Infectious Disease Organization (VIDO) is working on a new vaccine in response to heart-related illness from this bacterium. Ask your vet about emerging vaccine options to help protect your herd.
3. Bovine tuberculosis has been detected in Western Canada, with recent cases in Canadian cattle in Saskatchewan (2023 and 2024) and Manitoba (2025). Government investigations are ongoing. Keep animals tagged and records updated to act quickly, minimize costs, and safeguard your herd during a disease investigation.

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