



The WeCAHN Small Ruminants Network held a quarterly videoconference meeting on September 4th, 2025. The network members discussed the animal health events from April to June 2025. Veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives attended the meeting.

1) Overview

1. Clinical Impressions Surveys 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 College of Veterinary Medicine Diagnostic Services Unit (UCVM DSU).
3. Scan: small ruminant surveillance reported by other sources or networks.



2) Interesting Cases

Fatal mastitis with *Pseudomonas aeruginosa* in a goat

- Herd of 15 pet goats, no antimicrobials used during dry periods. One Nigerian Dwarf nanny suddenly became ill and was diagnosed with severe mastitis (inflammation of the udder). Despite treatment she died upon return to the farm. No other animals were affected at the time.
- Laboratory tests detected generalized infection with *Pseudomonas aeruginosa* bacteria in multiple organs. These bacteria were resistant to most antibiotics.
- Mastitis in goats is not common in the area (no dairy goat farms) and when found it's associated with *E. coli* or *S. aureus*. This is the first case of fatal mastitis associated with *P. aeruginosa* seen at this veterinary practice.

Young lambs with neurological illness

Start up flock with 20 ewes. Lambs seemed healthy for 20-30 days, then developed neurological signs (down, seizures). Some died, others that received early veterinary treatment survived. The owners want to expand the flock and requested recommendations to prevent this situation from repeating next lambing season.

Necropsy revealed little body fat and congested kidneys; suspected diagnosis of enterotoxemia with polioencephalomalacia ('polio').

Recommendations before expanding the flock include proper ewe and lamb nutrition, enhancing lamb immunity with access to colostrum, implementing a flock health and vaccination program, improving basic husbandry. Many good resources prepared by industry groups are available for new sheep owners. Anecdotally, some folks prefer to follow social media trends instead of trusting knowledge-based resources.

Salt toxicity in sheep

A sheep flock was losing 1 to 2 ewes per week with neurological signs (circling, stargazing, down). The flock was feed old silage so Listeriosis (bacterial infection of the brain) was suspected, however, cases did not improve after treatment.

Analysis by pathologists revealed microscopic changes in the brain. Toxicology testing confirmed high levels of salt in the brain linked to salt toxicity or water deprivation. Other tests such as rabies, *Listeria* and thiamine deficiency ("polio") were negative.

Sheep deprived of water may show signs of illness in 1 to 2 days. It's difficult to differentiate between polio and listeriosis based only on clinical signs. Even though salt toxicity is not common, toxicology testing of the brain should be considered when treatments for polio or listeriosis fail.

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 suggest a need for investigation to determine whether/how significant a signal they represent.



Respiratory system disease

Clinical impression surveys

Respiratory disease was reported **Rarely** with *Bibersteinia trehalosi*, *Mannheimia haemolytica*, *Pasteurella multocida*, and *Histophilus somni* reported **Never**, and **stable**.

Laboratory diagnoses for respiratory system disease

At PDS Caprine Arthritis Encephalitis virus (CAE) and Ovine Progressive Pneumonia (OPP) (also known as Maedi-Visna) detections were within the control limits.

There were no detections of *M. ovipneumoniae* in goats but four detections in sheep this quarter, which exceeded the upper control limit of the control chart at PDS.

M. haemolytica cultures were within the control limits in sheep and goats at PDS but *B. trehalosi* cases in sheep exceeded the upper control limit of the control chart.

Digestive system disease

Clinical impression surveys

Digestive disease including diarrhea and grain overload was reported **Rarely**. However, Gastrointestinal parasites (Strongyles) were reported **Commonly**.

Laboratory diagnoses for digestive system disease

Mycobacterium avium subsp. *paratuberculosis* (MAP or Johne's disease) cases were within the control limits for sheep and goats at PDS.



Reproductive system disease, including mastitis

Clinical impression surveys

Abortions, uterine disease, male reproductive disease or injuries, as well as infertility were reported **Never**. Mastitis was seen **Rarely**.

Laboratory diagnoses for reproductive system disease

At UCVM DSU a goat abortion case was related to nutritional deficiency (Vitamin E and selenium). At PDS, idiopathic (i.e. unknown cause) abortions exceeded the upper control limit of the [control chart](#).

In sheep, bacterial abortions were linked to *Chlamydia psittaci*, *Coxiella burnetti*, and *E. coli*.

Mastitis in goats were linked to *Staphylococcus* spp. and *M. haemolytica* and *Bacillus*.

Musculoskeletal system disease

Clinical impression surveys

Musculoskeletal disease was reported **Rarely** and stable.

Laboratory diagnoses for musculoskeletal system disease
Diagnoses for emaciation (extreme malnutrition) in sheep at PDS increased this quarter compared to the past two quarters, but remained within the control limits.

Neurological system disease

Clinical impression surveys

Blindness, seizures, and paralysis were reported **Never**.
Polioencephalomalacia was reported **Rarely**.

Laboratory diagnoses for neurological system disease

Polioencephalomalacia in sheep was diagnosed more frequently (n=4) this quarter and exceeded the upper control limit of the [control chart](#) at PDS. There were no diagnoses of polioencephalomalacia in goats this quarter.

Dermatological disease

Clinical impression surveys

Dermatological disease including external parasites such as lice, as well as fungal infections of the skin were reported **Rarely** and **stable**.

Multisystemic disease

Clinical impression surveys

Nutritional deficiencies, septicemia, and toxicities were reported **Never**. Anemia, and caseous lymphadenitis were reported **Rarely** and **stable**.

Laboratory diagnoses for multisystemic disease

Diagnosis of goitre in sheep this quarter at PDS was within the control limits. **Caseous lymphadenitis**: was detected in five goats at UCVN DSU, four goats and one sheep at PDS, and one goat and one sheep at VDS.



4) Other Relevant Discussions

How many lambs per ewe is best?

A Saskatchewan study by Dr. Van Donkersgoed (2025) showed that having **two lambs per ewe** is ideal for both animal health and farm sustainability. While producers hoped that more lambs per ewe would increase profit, the study found that triplets and larger litters often result in **smaller lambs, higher mortality, and more work for farmers.**

Mortality management:

Veterinarians raised concern over the **limited rendering options for sheep in Alberta.** Industry groups recommend on-farm incineration and composting following municipal regulations and species-specific protocols considering wool/fat composition to ensure appropriate disposal.



5) Scan of Emerging and International Issues

New World Screwworm (NWS) - Spreading North

The New World Screwworm, a fly whose larvae eat live flesh, has moved north from South America into Central America and Mexico. Cases increased dramatically from 25 in 2022 to 6,500 in 2023 in Panama, with the first Mexican cases in late 2024. Although the parasite is unlikely to survive Canadian winters, it could appear in wounds from imported or traveling animals during summer months. Treatment requires physically removing larvae, cleaning wounds, and using special larvicide products. Although not confirmed in the US yet, producers should check animals returning from the U.S. or Mexico and contact a veterinarian immediately if suspicious wounds are found.



Highly Pathogenic Avian Influenza (HPAI) – H5N1

Ongoing H5N1 outbreaks in North American dairy cattle and poultry were discussed for One Health implications.

- **Canada:** As of Sept 5 2025, 5,602 raw milk samples tested negative for HPAI. An early start of the HPAI season has most Canadian provinces reporting detections in commercial poultry premises. ([CFIA Investigations and orders](#))
- **USA:** up to August 2025, 1,078 dairy herd cases have been confirmed across 17 states. Continued bulk tank milk surveillance remains mandatory under USDA's National Milk Testing Strategy . USDA's most up-to-date information on poultry and dairy cases can be found on their website ([LINK](#)).
- No new human H5N1 cases were reported since April 2025. The total is 70 cases.
- The owners of a BC ostrich farm confirmed infected with HPAI in Dec 2024 are still involved in a legal battle with the CFIA to prevent the culling of their birds. August 22nd interview with Dr. Rasmussen [LINK](#)

Relevant publication: Detection of antibodies specific to H5 avian influenza virus in a sheep in Norway, June 2024, eleven months after an outbreak of highly pathogenic avian influenza in a nearby seabird colony. BioRxiv preprint. J. HolFosse et al. **doi:** <https://doi.org/10.1101/2025.08.14.670265><https://www.biorxiv.org/content/10.1101/2025.08.14.670265v1.full.pdf>

Producer Takeaways:

1. Monitor feed quality and ensure your animals have constant access to high quality water. Many neurological and other diseases are linked to nutrition or water access.
2. Follow science-based resources, not social media advice. Reliable veterinary and industry information prevents costly mistakes.
3. Stay alert for emerging threats such as the New World Screwworm and avian influenza, which could affect Canadian livestock and wildlife.
4. Proper carcass disposal is critical to keeping farms and wildlife healthy.

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