Western Canadian Animal Health Network

WECAHN SMALLHOLDER NETWORK PRODUCER REPORT

July - September 2025

The WeCAHN Smallholders Network held a quarterly videoconference meeting on December 11th to discuss animal health events occurring from July to September 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 Diagnostic Services Laboratory (VDS), Prairie Diagnostic Services (PDS), and University of Calgary Faculty of Veterinary Medicine Diagnostic Services Unit (UCVM DSU).
3. Scan: smallholder surveillance reported by other sources or networks.

2) Interesting Cases

i) Research update: Smallholder views on avian influenza biosecurity

- Recurrent highly pathogenic avian influenza outbreaks since 2021 prompted interviews and focus groups with smallholders across British Columbia and near the Yukon capital.
- Participants understood the seriousness of avian influenza but reported poor quality information, limited smallholder-specific guidance, and difficulty navigating government websites.
- Many producers wanted clear multimedia information at the start of an outbreak and a balance between explaining why actions matter and how to carry them out.
- Trust was weakened when producers could not reach government staff or veterinarians for advice, even when official guidance directed them to seek veterinary help for suspected signs of avian influenza.
- Some smallholder beliefs about bird health conflicted with biosecurity expectations, such as viewing forest access as healthier than enclosed runs.
- Messaging that aligns with smallholder values and highlights co-benefits like predator control and prevention of other diseases may improve reporting and cooperation.

ii) Outreach and training needs for smallholder producers

- Participants questioned who is responsible for outreach now that BC government funding for small flock programs has been withdrawn.
- CAHSS and WeCAHN will continue offering training for veterinarians serving small flocks and herds, with a new series planned for spring 2026 focusing on multi-species smallholder operations.
- Network members identified priority topics, including access to veterinary services, euthanasia and culling across species, mortality disposal, home processing, and food safety.
- Additional needs included clear guidance on zoonotic risks, biosecurity, species separation, and proper quarantine, since some producers believed fenceline separation was adequate.
- Members emphasized the importance of credible information to counter unproven supplements or holistic practices that may delay needed care.
- Feeding and nutrition guidance was requested to prevent nutrient dilution when adding extra ingredients to complete feeds.
- WeCAHN website lists veterinarians who work with smallholders.

iii) Case study: Enteritis in Berkshire cross piglets

- A group of 15 nine-day-old pigs had six sudden deaths and nine sick animals.
- Postmortem findings showed infection of the intestine typical of *Clostridium perfringens* type C.
- The bacteria were not cultured, likely because the piglets' received antibiotics before the sample was collected.

iv) Case study: Common field questions from small flock owners

- One BC practitioner received questions about *Mycoplasma gallisepticum* (MG) vaccination. The only licensed vaccine is costly and difficult to access for small flocks. Rather than vaccination, they recommended a combined approach using management, antibiotics, and culling.
- A social media claim that fenbendazole affects feather growth was reviewed and found unsupported by published research.
- The Saskatchewan Veterinary Medical Association confirmed that repackaging any commercial product requires prescription labelling, and the prescribing veterinarian is responsible for label accuracy.

v) Laboratory case: Septicemia in a domestic duck

- A male duck with a history of being picked on developed weakness, loss of coordination, and nasal discharge before euthanasia.
- Examination showed lung swelling and many bacteria, including *E. coli* and *Staphylococcus aureus*, along with widespread inflammation.
- Tests for avian influenza and Newcastle disease were negative.
- The pathologist noted no signs of viral disease and suggested sepsis (extreme reaction to infection) as a possible contributor to the neurological signs.

vi) Case study: Epizootic hemorrhagic disease (EHD) in wildlife near Grand Forks, BC

- About 100 deer and some bighorn sheep died in September and October, with suspected but unconfirmed cases in domestic sheep.
- PCR ruled out anthrax, and lesions confirmed EHD.
- The same strain was reported in Washington; winds may have carried midges into BC.
- Ontario reported chronic cases of EHD with hoof sloughing compared to the acute pattern seen in BC.
- BC veterinarians were alerted to watch for foot and mouth disease-like lesions in livestock and to be alert for bluetongue disease (midges and conditions overlap).

vii) Laboratory case: E. coli infection and mineral deficiency in farmed elk calves

- Ten calves, four to six weeks of age, died within a few days of being moved to pasture.
- Two calves had widespread *E. coli* infection along with copper deficiency.
- One calf was thin with meningitis, and another had colisepticemia with low zinc and selenium.

viii) Laboratory case: Cardiac blackleg in bison with mineral deficiencies

- A herd of 700 pairs on two pastures lost fifteen calves in one group and two in the other.
- *Clostridium chauvoei* was cultured from the heart, confirming cardiac blackleg.
- Calves showed marked copper deficiency and low levels of several other minerals.
- Two calves also had *E. coli* infections and signs of heart and kidney inflammation.

ix) Highly pathogenic avian influenza surveillance in Canada

- No avian influenza infections have been found in Canadian cattle, and more than seven thousand raw milk samples have tested negative.
- This fall saw an early rise in HPAI cases in poultry in Canada. Between September 9 and December 9, 2025, 88 poultry premises were confirmed as HPAI-positive.
- A flock of ostriches in BC was culled in November.

3) Syndromic Surveillance

Clinical impression surveys

Quarterly surveys are completed by network practitioners. Answers:

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.

Small poultry flocks: Clinical impression survey and laboratory diagnostic results

Clinical impression survey

- Early mortality from non-bacterial causes was reported **never** to rarely, and one practitioner linked these losses to poor brooding (conditions were stable).
- Coccidiosis was reported **never** to rarely, and one practitioner noted it in mixed-age flocks (**stable**).
- Aggression-related injuries, in-lay septicemia, and bacterial lameness were reported as **never** to rarely (**stable**).
- Histomoniasis was reported **never** to rarely, and blackhead was confirmed in range turkeys (**stable**).
- Peritonitis, Marek's disease, *Mycoplasma* spp., ovarian cancer, and predator losses were reported **never** to commonly (**stable**).
- Multidrug-resistant *E. coli* was reported **never** (**stable**).
- Other issues such as mites and coryza were reported **never** to rarely (**stable**).
- Early mortality from bacterial causes, fowl cholera, fowl pox, inclusion body hepatitis, infectious laryngotracheitis, lameness, Salmonella, and yolk sac infections were reported **never** (**decreasing** to **stable**).
- Overall, diagnoses this quarter were **decreasing** to **stable**, similar to the previous quarter.

Laboratory diagnostic results

At **Prairie Diagnostic Services (PDS)**, a swallow-tailed kite was submitted as part of a small flock submission. No infectious laryngotracheitis (ILT) or Marek's disease was diagnosed. *Mycoplasma* detections remained within control limits. One chicken had osteomyelitis. Polyserositis and colibacillosis (generalized *E. coli* infections) increased and remained above control limits. Salmonella cultures increased slightly but stayed within control limits, and no avian influenza was detected.

At the **University of Calgary Veterinary Medicine Diagnostic Services Unit (UCVM DSU)**, a backyard chicken was diagnosed with avian tuberculosis. Another chicken cultured *E. coli* with no resistance. A domestic duck had septicemia caused by *E. coli* and *Staphylococcus aureus* and tested negative for avian influenza and Newcastle disease. A turkey was diagnosed with parvovirus enteritis (PEMS). Four broilers had bursal disease. One group of chickens was diagnosed with ascites. An eight-week-old turkey tested positive for avian influenza.

At the **Veterinary Diagnostic Services (VDS)** laboratory, two ILT detections were made by PCR, but no ILT-related lesions were found. No *Mycoplasma* detections were reported. No colibacillosis or septicemia was diagnosed in chickens, and one turkey case was identified. A few Salmonella cultures were reported. Several chickens were diagnosed with Marek's disease, and four PCR detections were recorded.

Small Herds of Small Ruminants: Clinical Impression Survey and Laboratory Diagnostic Results

Clinical Impressions Survey

- Neonatal diarrhea, pneumonia in young and older animals, caseous lymphadenitis, coccidiosis, strongylosis, haemonchosis, lice, foot rot, mastitis, urolithiasis (kidney stones), toxin ingestion, and pregnancy toxemia were all reported **rarely** and were **stable** this quarter.
- The practitioner noted treatment failure in strongylosis cases.
- Diarrhea not caused by parasites, Johne's disease, listeriosis, keds, lameness, chronic wasting, congenital issues, polioencephalomalacia, and other conditions were reported **never** and were **stable** this quarter.

Laboratory Diagnostic Results

At **UCVM DSU**, pneumonia cases included a pygmy goat with bacterial bronchopneumonia involving *Klebsiella pneumoniae*, *Proteus hauseri*, and *Morganella morganii*, and a young goat with *Mannheimia haemolytica* bronchopneumonia. A pet goat was diagnosed with listeriosis, and *Listeria monocytogenes* was cultured from the brainstem. Another goat had mixed infections with *Fusobacterium necrophorum*, *Schaalia* spp., and *Bibersteinia trehalosi*. A meat sheep had *Corynebacterium pseudotuberculosis* from a lymph node abscess. Septicemia cases included *Trueperella pyogenes*, *B. trehalosi, E. coli,* and *Streptococcus infantarius*. Mastitis cases included *Staphylococcus aureus*.

At **PDS**, no *Mycoplasma ovipneumoniae* was detected in goats, while detections in sheep were within expected levels. MAP serology and PCR results in goats were within control limits, and in sheep, one case was PCR-positive for MAP. No abortion pathogens were detected, and no abortions were diagnosed. Polioencephalomalacia diagnoses in sheep were within control limits. One sheep was diagnosed with listeriosis. Caseous lymphadenitis (CL) cases in goats and sheep were within control limits. Septicemia cases in sheep were also within control limits. Mastitis cultures in goats included *Staphylococcus xylosus* and other *Staphylococcus* species.

At VDS, no abortions were diagnosed in goats or sheep. One goat had *C. pseudotuberculosis*. One sheep had C. pseudotuberculosis cultured. No *Mycoplasma ovipneumoniae* detections were reported. A few mastitis-related *Staphylococcus* isolates were identified.

Small Herds of Swine: Clinical Impression Survey and Laboratory Diagnostic Results

Clinical Impression Survey

- Neonatal diarrhea, intestinal parasites, sudden intestinal deaths, hernias, bacterial lameness, degenerative lameness, prolapse, reproductive failure, septicemia, skin disease, including erysipelas, other skin issues, nutritional deficiencies, and other conditions were reported **never** and were **stable** this quarter.
- Respiratory disease, injury-related lameness, neurologic disease, ectoparasites, and poor growth were reported **never** to **rarely** and were **stable** this quarter.

Laboratory Diagnostic Results

No swine submissions were received through the smallholder programs this quarter, so no laboratory diagnoses were reported.

4) Scan and other updates

i) BC Smallholder Investigation Program:

The program continues to track submissions from different smallholder species, and more detailed disease reporting will be provided in future updates.

ii) Alberta NQ/NC Disease Investigation Program

- Fourteen poultry cases were submitted by producers and veterinarians, showing continued use of the program for early disease investigation.
- Chicken cases included infectious laryngotracheitis, Marek's disease, coccidiosis, colibacillosis, MG, salpingitis, mixed bacteria pneumonia, suspected myeloid leukosis, fatty liver hemorrhagic syndrome, and ascites, indicating a wide range of health issues in small flocks.
    - One duck case of leucocytozoonosis highlighted vector-borne disease risk in waterfowl.

iii) WeCAHN Poultry Network Meeting Q3 2025)

- BC wildlife surveillance continues to detect HPAI, reinforcing ongoing risk to domestic flocks (BC Dashboard).
- Avian metapneumovirus remains active in Ontario and Quebec, and investigations continue despite the availability of an imported subtype A vaccine.
- The CDC reported a large multistate Salmonella outbreak linked to backyard poultry, with 69 percent of affected people reporting poultry contact (CDC Investigation Update).

iv) WeCAHN Small Ruminant Network Meeting Q3 2025

- Malignant catarrhal fever was confirmed in an Alberta lamb, showing that sheep can occasionally develop severe disease despite often being silent carriers.
- A ram developed a silica urinary stone despite low-risk feeding, showing that rare mineral-related blockages can still occur and may be costly to manage.
- Nearly 100 wild deer near Grand Forks, BC, died from epizootic hemorrhagic disease, marking the first confirmed case since 1988 and raising awareness of vector-borne risks to livestock.
- A Canadian study (Alkie et al., 2025) confirmed that HPAI H5N1 can cause severe mastitis in goats, with major milk loss and kid exposure, mirroring disease seen in dairy cattle.

v) CIPARS 2025 Annual Webinar

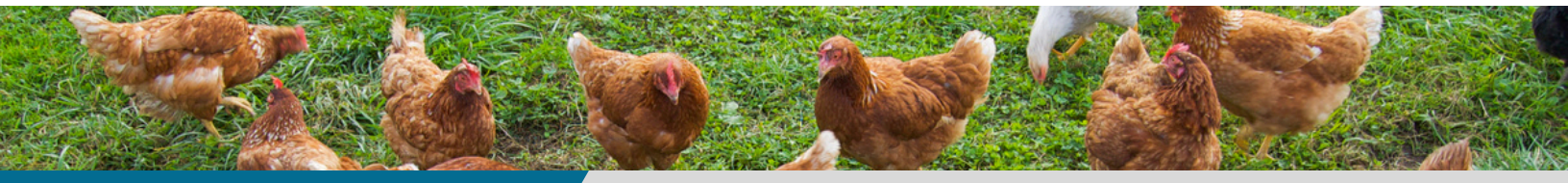
- Smallholder sample numbers remain low, limiting detailed analysis (CIPARS LINK).
- Poultry surveillance (PDF report) continues to detect *Salmonella* across commodities, emphasizing the value of whole genome sequencing for tracking spread.
- Grower-finisher pig results (PDF report) showed rising ciprofloxacin resistance in *Salmonella, E. coli, and Campylobacter*, highlighting antimicrobial resistance concerns.

vi) Wild Pigs in Canada

- The 2023 Canadian Invasive Wild Pig Report shows established populations in three provinces (AB, SK, and MB) and ongoing eradication efforts to reduce ecological and agricultural impacts.
- A new national website, wildpigs.ca, provides updated information for producers.
- Serology from Alberta wild pigs confirmed exposure to HPAI H5Nx during the 2022-2024 outbreak, suggesting possible transmission between wild birds and wild pigs (Ley Garcia et al., 2025).

vii) HPAI in Other Countries

- USA dairy cattle: New herds in Wisconsin and California tested positive, bringing the total to 1,083 herds across 18 states (USDA-APHIS), with mandatory bulk tank milk testing ongoing.
- USA poultry: Ninety flocks were affected between mid-November and mid-December 2025, including 57 small flocks (USDA-APHIS).
- USA humans: One fatal H5N5 case was reported (Washington State Department of Health), and the USA has now recorded 71 human H5 infections, mostly linked to dairy cattle or poultry exposure (CDC).
- Europe: EFSA reported record-high HPAI detections in wild birds across 26 countries, especially cranes, raising concern due to Europe's historical pattern of preceding North American outbreaks.



ix) African Swine Fever (ASF)

- ASF was detected in wild boar near Barcelona, Spain, with sequencing similar to the Georgia 2007 vaccine strain, and caution was advised when interpreting these unconfirmed findings (Pig Progress).

x) Capripoxviruses

- Sheep and goat pox outbreaks were reported in Greece (The Fence Post) and Romania (WAHIS).
- Lumpy skin disease continues to spread beyond Africa, with first cases confirmed in Italy, France, and Spain in 2025 (WAHIS).
- CFIA has applied import restrictions due to LSD in Europe and provides additional guidance through its Fact Sheet.

xx) Long-Horned Tick (LHT) and Theileriosis

- Theileriosis was detected for the first time in Canada (ON) in a show cow imported from Illinois, which developed severe anemia (WAHIS).
- The cow is a lifelong carrier of Theileria orientalis Ikeda, and transplacental spread may be possible (Swilks et al., 2017).
- Additional resources include Illinois Extension, the CAHSS vector-borne diseases webpage, the e-tick identification tool, and the VECTOR education library.
- The tick can bite many species, and sheep may carry the parasite without signs (Lawrence et al., 2021).

5) Producer takeaways

1. Biosecurity steps help protect your flocks from avian influenza and provide other benefits like fewer predator deaths.
2. Avian influenza continues to be found in poultry and wildlife, and research showed it can infect small ruminants and wild boar. Stay alert during migration seasons and report any unusual illness to your veterinarian.
3. Report any unusual mouth or hoof lesions (like blisters) to your veterinarian immediately.

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