



The WeCAHN Dairy Network held a quarterly videoconference meeting 16th May 2024 to discuss the animal health events occurring January to March 2024, with veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives in attendance.

Report Contents:

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1. Dataset Overview

Data sources in this report include:

- i. Clinical Impressions Surveys completed by network practitioners.
- ii. 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).

2. Interesting Cases

i. HPAI in dairy cows

Background: On March 25, 2024, a herd of dairy milking cattle in Texas was diagnosed with Influenza A H5N1. Since that initial case, there were 83 additional herds identified in the 11 US states (as of June 6th).

The clinical signs include:

- decreased feed intake
- decreased rumination and rumen motility
- acute drop in milk production

Additional clinical signs may include colostrum-like/yellow milk, negative or trace positive CMT result, clear nasal discharge, dry-tacky feces or diarrhea, depression, dehydration, and mild fever.

The infection can be subclinical (i.e., no clinical signs in an infected animal) and present in other age groups (e.g., heifers).



Multiple research studies are in progress to confirm the safety of the milk and beef supply. The pasteurization process was confirmed effective at inactivating Influenza A in milk. Raw milk remains a transmission risk for Influenza A. In the US, commercial milk samples were tested using a PCR test and H5N1 fragments were identified; however, these samples did not have viable viruses as tested using an egg inoculation test. Many ground beef samples from retail outlets in states with affected dairy cattle were tested H5N1 using PCR — these were negative. Ground beef was inoculated with Influenza A and then cooked to assess the effectiveness of the cooking process in inactivating the virus – no virus remained in the cooked beef. In Canada, retail milk samples across Canada tested negative for HPAI fragments using a PCR test.

Interesting Cases (continued)

Canada: CFIA has outlined a testing plan for HPAI in lactating cows without clinical signs and for ‘suspect cases.’ A ‘suspect case’ will be based on demonstrating clinical signs without an alternative diagnosis and with a history of recent introductions into the herd, discovery of dead or neurological animals, and potential for feed and water contamination by wild birds.

Comment: A practitioner commented that the focus should be on biosecurity. Biosecurity measures include designating an area for new introductions to the herd and monitoring these animals daily, requiring visitors to wear overshoes, clean or disposable boots before entering the production area, and other measures recommended in the Pro-Action Plan ([LINK](#)).

Question: What are the provinces’ plans if there were a positive case of HPAI detected in their province?

Answer:

MB – The attending vet will get back to the producer and build a biosecurity plan. Don’t move cows.

SK – Working with SK Milk to develop a response plan. Currently plan to:

- Request voluntary stop movement
- Request maintain voluntary stop movement until 30 days after clinical signs return to normal
- SK Milk is working on biosecurity recommendations as well

AB – Promptly implement stop movement. Public health agency will follow up with people that may have been exposed and will guide them regarding monitoring of symptoms, testing and when to seek medical care.

Question: Is there an emphasis from the industry on keeping visitors out? For example, “Breakfast on the Dairy” (an Albertan producer initiative with Alberta Milk sponsorship) was cancelled.

Answer: A practitioner explained that there is a small risk of introducing a virus into the herd from the public. Major events are planned, e.g. stampede, fairs and 4H, and veterinarians are **not** advising their clients to cancel these outreach projects. The network vet consensus is to advise visitors to wear booties, and masks if symptomatic. Alberta Milk are following the recommendations of the Dairy Farmers of Canada (DFC) to restrict visitors to farms. Regular biosecurity measures should be applied. Cattle at 4H and fairs should be dewormed and vaccinated. Animals returning from a show or fair should be kept in the designated area for all incoming cattle and observed daily for 30 days, as recommended by the DFC and CFIA.

USA (USDA) most up-to-date information: [LINK](#)

Canada (CFIA) most up-to-date information: [LINK](#)

ii. Bovine coronavirus-associated pneumonia

Background: Multiple practices have noted bovine coronavirus-associated pneumonia in lactating cows, as noted in previous quarters of WeCAHN dairy network meetings.

History: This past quarter, heifers and cows had fever and an increased respiratory rate. The practitioner prescribed antibiotics to some animals, but there were too many affected to prescribe to all. The heifers and cows quickly recovered. At about the same time, a calf herd was affected by pneumonia, and they were located in a barn 3-400 m away. It is unknown how the virus was transmitted between barns and which barn had it first.

Interesting Cases (continued)

Research update

Projects at Prairie Diagnostic Services are sequencing western Canadian bovine coronavirus isolates from the gastrointestinal and respiratory systems to study how the genome of disease-causing viral strains vary across cases, and if the vaccine strain differs from the field strain.

iii. Other respiratory infections were reported to be increasing by a practitioner

History from multiple practitioners: One practitioner reported an increase in cases of *Mannheimia haemolytica* and *Mycoplasma bovis* compared to last fall. *M. haemolytica* was identified in a heifer barn and moved to another barn, where it caused the mortality of 2-3 mature cows. *Mycoplasma bovis* may be endemic in pre-weaned calves at a site in BC.

IBR increased diagnosis was likely associated with a decision to stop vaccinating a herd.

iv. Attempts to remove a mummified fetus from a cow to achieve some reproductive success.

Comment: Usually, it is a sporadic finding, and the impression of this practitioner was that it was non-infectious.

v. There was an increase in the culture of *Trupeerella pyogenes* in cases of mastitis at PDS this quarter.

T. pyogenes causes a mastitis in dry cows and heifers, often during the summer. It produces a profuse, foul, purulent exudate and the infected quarter is often lost. ([Merck Veterinary Manual](#))

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

Meeting takeaways:

i. HPAI in cattle is an evolving issue. The mainstay of treatment is supportive care. The recommendations are to apply biosecurity measures and ask your veterinarian if you have any questions. In a positive HPAI case, lactating cattle movement is stopped or limited; additional responses will vary per province.



ii. The respiratory pathogens reported by the network veterinarians can all produce pneumonia, but require different treatment and control measures. Involve your veterinarian early if there is a problem to get the correct diagnosis and treatment protocol.

iii. Mastitis in dry cows and heifers that produces purulent material should be investigated by your veterinarian.

