



*The WeCAHN Dairy Network held a quarterly videoconference meeting on November 8th, 2024, to discuss the animal health events occurring from July to September 2024, with veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives in attendance.*

## 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.

## Interesting cases



### i. HPAI in Dairy cows

- **Background:** Influenza A(H5N1) in dairy cattle is a continuously evolving issue. Between March 25th and December 3rd, 2024, there were 695 confirmed cases (herd with positive PCR sample of Influenza A, H5, clade 2.3.4.4b) in 15 states.
- **USDA's most up-to-date information** can be found here ([LINK](#)).
- The USDA approved two vaccine field safety trials for dairy cows against H5N1 ([LINK](#)).
- Two pigs from a smallholder farm in Oregon tested positive for influenza A(H5N1). Three other pigs were negative ([LINK](#) to news article and USDA [LINK](#)). The pigs were tested in response to identifying the disease in the poultry on the farm and knowledge that these animals shared water sources, housing and equipment.

- CDC confirmed 57 cases of avian influenza A(H5) in people in the US as of November 18, 2024. Thirty-four infections were associated with exposure to affected dairy cows and 9 with infected poultry. 26 cases from California were sequenced and confirmed as B3.13 genotype. These sequenced influenza A(H5N1) viruses had no known mutations that increase the infectivity or transmissibility among humans. ([LINK](#))
- HPAI is present in poultry and wild birds, but NOT dairy cattle in Canada ([LINK](#)).
  - The week of Nov. 5th, a teenager in BC tested positive for influenza A(H5N1) ([LINK](#) and CFIA statement [LINK](#)). The genotype of the H5N1 is D1.1 and is related to the avian influenza viruses in wild birds and poultry ([LINK](#)). The teenager had no detected link to poultry or other birds, but they had contact with a dog, cats and reptiles; these animals tested negative ([LINK](#)).
  - As of Nov 4th, CFIA laboratories tested 391 raw milk samples arriving at the processor; all samples were negative for HPAI. Additional processor plants joined the surveillance plan for national representation the week of October 28th. ([LINK](#)) CFIA laboratories tested 1,211 pasteurized commercial milk as of September 5, 2024; all samples were negative ([LINK](#)).
  - The Public Health Agency of Canada poster "Help prevent the spread of avian influenza" ([LINK](#)).



## ii. Cow mortalities associated with *Salmonella* serotype Dublin

- **History:** 10 adult milking cows died in a well-managed and “high health” herd. The farm recently started heifer raising; heifers were sent to a secondary location for development and were reintroduced to the herd as adults.
- **Take-home message:** Raising heifers at a development farm may increase the risk of bringing diseases home to the farm of origin because of the potential for mixing with heifer calves from other farms, each with unknown biosecurity standards.



## iii. Pneumonia in 3 dairy calves 8 and 9 months old

- **History:** Two 8-month-old and one 9-month-old calves died suddenly. They received a vaccine post-weaning for respiratory disease-causing organisms and were due for a pre-breeding booster. These calves had severe and acute pneumonia.
- **Take-home message:** Vaccines significantly reduce the risk of disease. However, animals can still suffer from respiratory diseases if there are other risk factors (e.g., the stress of moving/mixing/poor weather) or they are affected by another infection or virus that causes lung damage.

## iv. Four sick and dead dried-off cows

- **History:** 3 cows died after dry-off, and a fourth cow was weak and feverish. The cows died of a bacterial infection. One of the cloths used on the farm to clean the udder prior to administering teat sealant was tested and there was a variety of bacteria.
- **Take-home message:** Bacteria were likely introduced into the teat at drying off by using a dirty cloth to clean the udder and no intramammary antimicrobial. This caused an infection which killed the cows. This case highlights the importance of hygiene at drying off to avoid introducing infection into the teat.
- There are many resources available regarding techniques for dry-off, e.g., the [Canadian Mastitis Network](#).

## v. Ringworm in 3 heifers during the summer

- **Take-home message:** Ringworm in cattle is unusual in the summer but may happen if the animal is affected by an underlying issue or disease. Calves with ringworm may be good identifiers for stressors not being adequately managed. Reducing stressors and improving management will improve the overall health of the herd.

## Syndromic Surveillance

Important information:

### Clinical impression surveys

- **Never**
- **Rarely (1-2 times over the 3 months)**
- **Commonly (1-2 times per month)**
- **Very frequently (3+ times per month)**



### Digestive system

Clinical impression surveys:

**Digestive disease** was reported **Commonly** (3/3).

- **Diarrhea** was seen **Rarely** (1/3) to **Commonly** (2/3) this quarter; last quarter it was reported **Never** (1/2) to **Commonly** (1/2). It was rated **increasingly** (1/1) associated with other reasons in lactating cows (1/1) this quarter.
- **Diarrhea** was associated with nutritional changes at the end of the summer season.



## Reproductive system

### Clinical impression surveys:

**Reproductive system disease** was reported **Rarely** (1/3) to **Commonly** (2/3).

- **Non-infectious causes of infertility** were seen **Rarely** (1/2) to **Very frequently** (1/2) and rated as **increasingly** associated with energy/calorie deficiency in cows (1/1).

**Take-home message:** The end of feed sources from last year's harvest inventory and the stretching of feed sources have resulted in energy/calorie deficiency, which resulted in secondary infertility (no ovulation and cystic ovaries) and diarrhea.

## Mastitis

### Clinical impression surveys:

**Teats and udder disease** were reported **Never** (1/3), **Rarely** (1/3) and **Commonly** (1/3).

- **Acute mastitis** was seen **Commonly** (1/1).
- **Chronic mastitis** was seen **Commonly** (1/1).
- Both acute and chronic mastitis were rated to be **increasing** (1/1) and noted in heifers (1/2) and cows (2/2).

**Take-home message:** If a cow's mastitis is not responding per your usual mastitis treatment protocol, please contact your herd veterinarian to discuss treatment and diagnostic services to avoid an acute case becoming chronic.

## Scan

1) Dr. van der Meer at UCVM has initiated a project on scours in dairy calves. The main objectives of the project are to compare field strains of diarrhea-causing viruses in calves to the strains found in current vaccines. The project is currently recruiting dairy farms with calves up to 4 months old for submission of samples of feces.

- Interested dairy farmers will receive a sampling kit and shipment material (postage paid).
- 5-10 grams of feces in a leak-proof container from calves with and without scours. For calves with scours, the feces must be collected prior to treatment of the calf.
- The producer and veterinarian will receive the results of the PDS Bovine Diarrhea Panel in the format of a laboratory report, and if requested, this will be forwarded to your veterinarian.
- If interested, please contact Frank van der Meer: [frank.vandermeer@ucalgary.ca](mailto:frank.vandermeer@ucalgary.ca) or 403-992-4678

2) National Farm Animal Care Council update to the dairy cattle codes of practice ([LINK](#)): the updated Code came into effect in April 2024, and there are new requirements to be met (e.g., all indoor systems must pair/group calves early in life by 2031).



## Meeting takeaways

1. Dr. van der Meer at UCVM has started a project on scours in dairy calves. If interested in participating, please contact Frank van der Meer: [frank.vandermeer@ucalgary.ca](mailto:frank.vandermeer@ucalgary.ca) or 403-992-4678
2. New presentation of blood poisoning in adult cows from Salmonella serotype Dublin. Ten cows died from blood poisoning in BC.



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