



The WeCAHN Dairy Network held a quarterly videoconference meeting 24th May 2023 to discuss the animal health events occurring January to March 2023, with veterinary practitioners, diagnosticians, veterinary college faculty, researchers, and industry representatives in attendance.

Report Contents:

1. Interesting Cases
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1. Overview of Dataset

Data come from dairy veterinarians completing a clinical impressions survey (summary of their diagnoses over the past 3 months) and laboratory data from the western veterinary diagnostic labs.

2. Interesting Cases

1. Hemorrhagic Bowel Syndrome (HBS) on the rise in our B.C. practice in Q1 (January— March 2023) relating to available feedstuffs.

- **History:** our dairy producers are seeing shortfalls in usual feedstuffs (e.g. grass silage) reflecting previous drought and flooding.
- Result is producers are forced to feed more products with higher sugar and starch content, resulting in more hindgut fermentation which can be precursor for HBS.

QUESTION: do you recognize any pathogens potentially involved in disease, respecting that the underlying problem you're describing is a nutritional one?

ANSWER1 - we often recover *Clostridium perfringens* type A. We see a lack of consensus on its role. Currently there is no commercial vaccine available in Canada (this bacterial species is not included in commercial 7- or 8-way clostridial vaccines), and veterinarians report they are also unable to import a vaccine with an emergency drug release (EDR).



2. Laryngotracheitis and Interstitial pneumonia increases in practice area clinically associated with IBR/Bovine Respiratory Syncytial Virus (BRSV).

- We have seen outbreaks of clinical IBR/BRSV in herds fully vaccinated. We know that the past few years have brought unusual levels of animal movements and some accompanying relaxation in biosecurity practices, which may contribute to greater disease burden in some herds.
- **Clinical signs:**
- IBR: drop in milk production, fever, and 1 with herd laryngo-tracheitis (inflamed throat and windpipe), as well as red swollen udders.
- BRSV: bronchopneumonia in 5 herds well protected by vaccination, in the milking string.
- Got samples from deep nasopharyngeal swabs.
- Diagnosis: confirmed by PCR test.

COMMENT: our lab (Animal Health Center - Abbotsford) has also seen a surprising amount of BRSV this year.

QUESTION: how are you managing these herds?

ANSWER: We are vaccinating everything including milking string with intra-nasal (IN) vaccine in face of outbreak.

Interesting Cases (continued)

iii. Outbreak of mastitis in dairy heifers

- **History:** 700 cow herd which introduced animals from multiple sources
- Brought in 30 - 40 naïve (meaning they had not previously been exposed to the pathogens on-farm) heifers; about 30 licked off their teats due to udder sores with mastitis, which is associated with infection with bovine herpes virus II and IV.
- This case was frustrating since the problem was a reflection of biosecurity shortcomings, which are still ongoing in this herd.

Disease syndromes

For the following description of trends in western dairy cattle disease, data sources include veterinary clinical impressions surveys and laboratory data.

Respiratory disease

- Bovine Respiratory Syncytial Virus (BRSV) was reported diagnosed commonly and rated Increasing in lactating cows by one network practitioner.
- However, BRSV PCR detections remained stable at Prairie Diagnostic Service (PDS) and Manitoba VSDL Q1 2023.
- Both BRSV and IBR vaccinations are part of the “core” vaccination program for cattle recommended by the American Association of Bovine Practitioners.



3. Digestive Disease

- Diarrhea was the most frequently reported digestive syndrome reported by network practitioners, associated with *E. coli* or Rotavirus Never to Commonly (3 or more times per month), and coronavirus Never to Rarely (1-2 times per month).

Salmonella

- *Salmonella Dublin* was reported diagnosed Rarely but rated Increasing relative to Q4 2022 by one network practitioner. *S. Dublin* isolation was reported by Manitoba VSDL.
- The BC Salmonella Dublin program released their fourth quarterly report, available at <https://www.sdublinbc.ca>. Herd-level prevalence of *S. Dublin* based on BTM testing was 30%.

PROVINCIAL S. DUBLIN CONTROL PROGRAMS:

- Manitoba:** pilot project identified some problem herds based on known clinical cases and investigated serologically. Currently this is a scoping exercise and information will be used to launch a provincial program in 2024.
- B.C.:** phase 1 of the program mostly reinforced clinical impressions. A couple of herds found the results surprising and want to tackle control programs (especially where they didn't realize it was on-farm). The larger value of the program is as an introduction to open conversation re improving biosecurity generally.

- Alberta:** it is provincially reportable, and when a positive is identified we contact the veterinary whether they would like help in response. When Cleaning and Disinfection is complete we do some environmental testing to assess the cleanup and minimize chance of further transmission. We also stress eradication is unlikely if animals are kept outside.

4. Meeting Takeaway

- Multiple herd outbreaks were described, involving pathogens both easily vaccine preventable, less so (since vaccine for one pathogen is difficult to obtain) or for which there is no vaccine. Biosecurity was a factor in each outbreak, underlining how crucial good biosecurity protocols are to cattle health.

