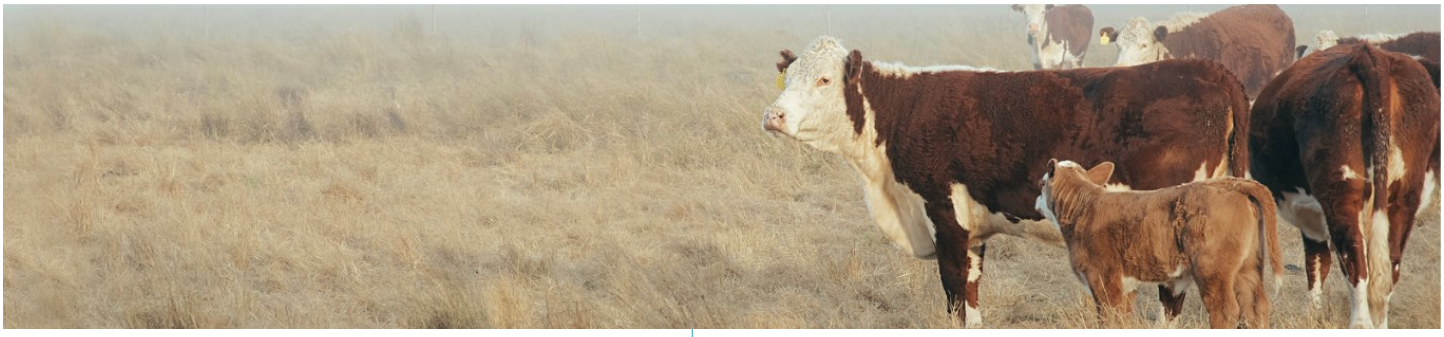
Western Canadian Animal Health Network

# WECAHN BEEF NETWORK PRODUCER REPORT

**JULY—SEPT 2022**



Beef Network Meeting

## INTRODUCTION:

***Participants attending the meeting:***

The videoconference meeting of the WeCAHN beef network was held Dec. 1, 2022.
Participants attending the meeting: dairy practitioners, laboratory diagnosticians, veterinary college faculty, and industry representatives.

## Report Contents:



## 1. Dataset Overview:

- **Clinical Impressions Survey**
- **Laboratory Data:**
  - UCVM Diagnostic Services Unit (DSU)
  - Prairie Diagnostic Services (PDS)
  - Manitoba Veterinary Diagnostic Services Laboratory
- **Scan:**
  - Promed

### Clinical Impressions Survey and Laboratory Data:

The clinical impressions survey is to be a simple, quick overview of diagnoses by practitioners, which does not require practitioners to extract data from their information management systems to complete. Practitioners report, for a list of selected pathogens/syndromes, how frequently they have diagnosed these pathogens over the time period in question. Additionally, they are asked whether, compared to the previous time period, their diagnosis of these pathogens is increasing/decreasing/ or stable. For each category of disease, clinical impressions survey findings are followed by relevant laboratory data.

## 2. Interesting or Unusual Cases:

**1. Anecdotally, producers have treated more animals for foot rot. ("In August I had performed 3 claw amputations because of severe joint infections")**

**COMMENTS ON DARTING:**

- Darting can result in unacceptable carcass lesions from quality perspective.
- Can have multiple delivery problems: too much volume in one site, or product delivered intra-muscularly (IM) instead of sub-cutaneously (SQ).
- Increased risk of broken needles.
- Most popular injection site is in hind quarter muscles.
- Some want to use Excede™ and need to realize the withdrawal is **150** days if not administered in the ear!
- Usage at higher-than-recommended injection volume means this is off-label use.

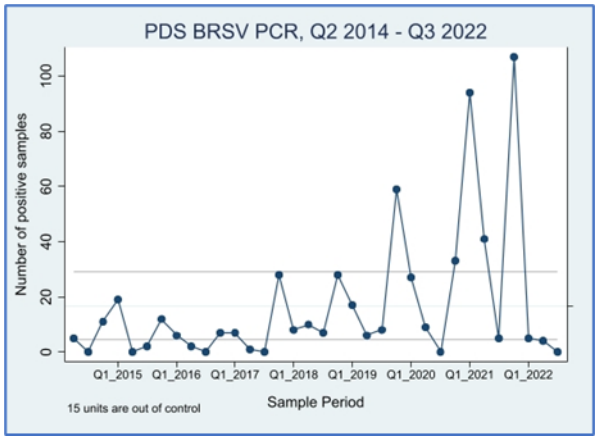
## Interesting or Unusual Cases continued:

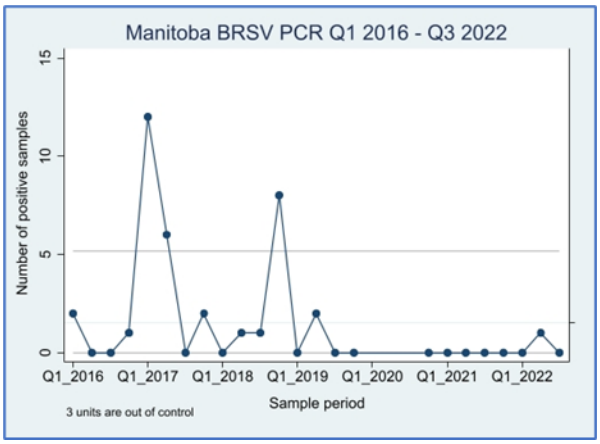
**2. Possible case of genetic skin disease (epidermolysis bullosa) in heifer calf.**
Presentation:

- Black Angus heifer born with small skin wound.
- Turned out to pasture.
- Problem noted and veterinarian called at ~ 2 months.
- Vet clipped abdomen and extremities, resulting in more skin wounds and also identifying multiple skin abnormalities; calf was euthanized.
- Diagnosis: epidermolysis bullosa. Several specific types are reported.

## 3. Respiratory System

- **Un-differentiated pneumonia** (with no supporting post-mortem or lab information) was the most frequently reported syndrome, followed by interstitial pneumonia. This was associated with both "pasture pneumonia", or AIP, which is linked to nutritional/forage issues, and Bovine Respiratory Syncytial Virus (BRSV), and each of these were also associated with treatment failure.



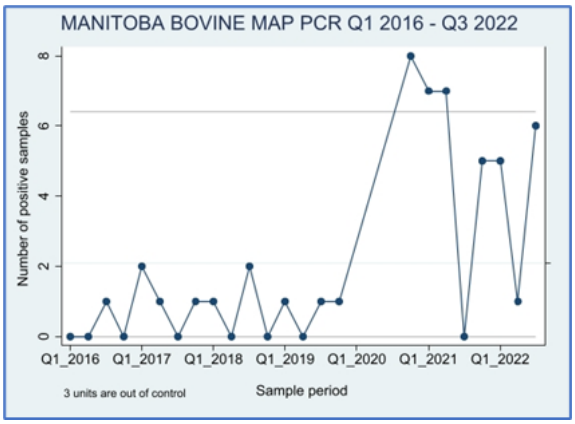



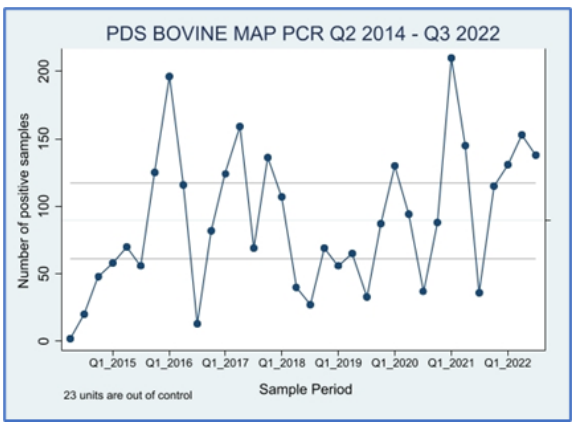

- Lab submissions for BRSV assay also broadly trended up at PDS over the past 4 years although down past couple of calendar quarters (3 month intervals), driven by increasing submissions, with proportion of samples positive relatively stable over time. Time series analysis of the PDS BRSV data supports a trend of increasing detections across the dataset.

**i. Usage:** practitioners report some use of protocols involving using intra-nasal respiratory vaccines including BRSV at birth, followed by injectable at spring processing.
**ii. Lab submissions:** Recently submissions are supported by drug companies which may partly explain increased submissions.

## 4. Digestive System

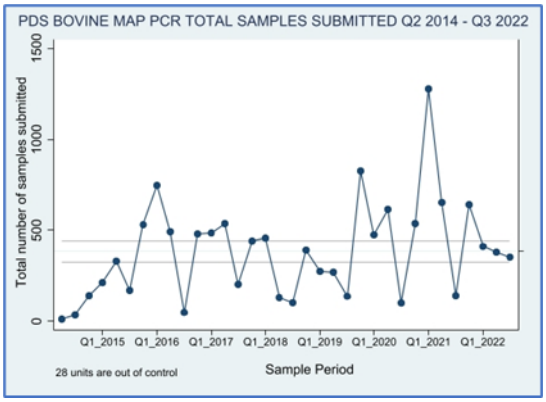
- **Diarrhea** in beef herds was observed monthly or more frequently, by three practitioners, most often associated with Johne's disease (aka *Mycobacterium avium pseudotuberculosis,* or MAP).

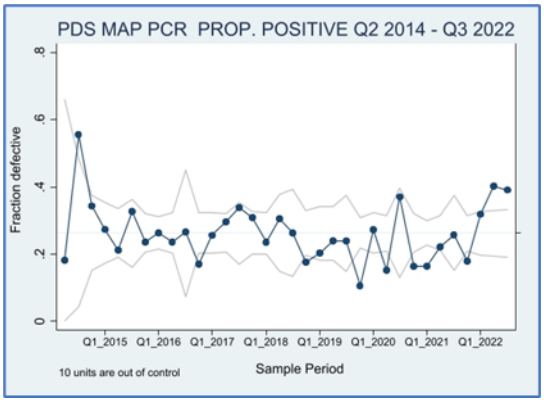


## Digestive System continued:

- There is an underlying positive trend over in the PDS Johne's (MAP) PCR detection data, meaning that the frequency of detections is increasing over time.




- The trend in increasing positives detected is driven by a similar trend in increasing submissions, as well as a recent run of increased proportions of samples positive.

- **Dysentery (bloody diarrhea) was reported and associated with coccidia by two of four network practitioners.**

**Use of coccidiostats on pasture:**
Frequency of usage: consensus - rare- maybe associated with certain pasture forage types, or timing risk.
Administration: e.g. in mineral
- can be in general very difficult on very extensive pasture.
- increasing number of clients use relatively expensive coccidiostat blocks.

**Q:** Should we be encouraging to improve lifetime performance?

**Q:** How many clients feed mineral on pasture?
**A:** Consensus - very few.

**COMMENT:** Supplementation on pasture is associated with improved performance in feedlot.
**COMMENT:** Historical data on trace minerals in forage is dated.
-have seen calves coming off poor pasture so deficient that they had brittle bones from lack of calcium.

**Summary of recent North American research on potential usage of coccidiostats on pasture**

| | Research group | |
|---|---|---|
| Practice [Reference] | WCCCSN[1]/ C3SN[2] | NAHMS[3] 2017 |
| Creep feeding [Waldner, 2022] | 27% (23/89) | |
| Coccidiostat feeding: Lasalocid Monensin [Waldner, 2019] | 1% (1/95) 6% (6/95) | |
| In-feed antibiotic delivered to unweaned calves [NAHMS 2017] | | 4.7% |

WCCCSN=Western Canadian Cow-Calf Surveillance Network
C3SN = Canadian Cow-Calf Surveillance Network
NAHMS = National Animal Health Monitoring System

Waldner, 2022 = Waldner, C, Wilhelm, B, Windeyer, MC, Parker, S, Campbell, J. 2022. Improving beef calf health: frequency of disease syndromes, uptake of management practices following calving, and potential for antimicrobial use reduction in western Canadian herds Translational Animal Science, 1–12. https://doi.org/10.1093/tas/txac151

Waldner, 2019 = Waldner, CL, Parker, S, Gow, S, Wilson, DJ, Campbell, JR. 2019. Antimicrobial usage in western Canadian cow-calf herds. Canadian Veterinary Journal. 60:255–267

NAHMS 2017 = United States Department of Agriculture-Animal and Plant Health Inspection Service-Veterinary Services- Centers for Epidemiology and Animal Health-National Animal Health Monitoring System. 2020a. Beef cow-calf health and management practices in the United States, 2017, report 2. Retrieved 1 October 2022 from https://www.aphis.usda.gov/animal_health/nahms/

## 5. Reproductive System

- **Individual cow disease of uterus or ovaries**, or increased % open cows at pregnancy testing, compared to the previous year, were the most frequently seen reproductive problems this quarter (July – September 2022).
- Two of the four network practitoners also reported seeing **non-infectious infertility associated with energy and protein deficiency**, as often as individual disease or increased open cows.
- **Abortions or infectious infertility** (e.g. due to *Neospora*) were less frequently seen. Water quality issues impacting fertility were reported by one practitioner.

**Q:** How did pregnancy testing go this fall?
**A1:** Most variable rates in we've seen, and we could forecast [herd performance] based on BCS. If herds had poor water quality or no moisture on pasture, pregnancy rates were poor. Some local areas had good moisture, and the cows did much better.
**A2:** Variable to worse than usual. Some herds have had very high open rates and now we are doing some bull testing. We think a poor feeding season and use of alternative feedstuffs are part of the problem.
**A3:** In our practice [BC] rates were excellent. We had a good June [for weather-rainfall], and think consequently pregnancy rates and also calf ADG were above average this year.

## 6. Scan

**Brucellosis in Wyoming elk, Nov. 7 2022**

- The Wyoming Game and Fish Department has detected brucellosis in Elk Hunt Area 45 in the Bighorn Mountains. The disease was detected in a hunter-harvest bull elk in October [2022]. Last week [week of 31 Oct 2022], the blood sample submitted to the Wildlife Health Laboratory tested positive for brucellosis. The positive detection was confirmed by the National Veterinary Services Laboratory in Ames, Iowa. The Wyoming Livestock Board is working closely with Game and Fish to monitor the disease.
- Brucellosis has not been documented in livestock in this area. "Livestock producers are reminded that there is no risk of spread of brucellosis from bull elk to cattle," said Dr. Hallie Hasel, Wyoming state veterinarian. "Livestock surveillance may be initiated if cow elk are found positive in this region."

**Brucellosis in Wyoming elk, Nov. 7 2022 continued:**

- Game and Fish will increase surveillance efforts in the Bighorn Mountains in 2023 to determine the extent and distribution of the disease. Brucellosis was 1st detected on the western slope of the Bighorn Mountains in 2012, but has not been detected since 2016.
- Retrieved from Promed https://promedmail.org

**Meeting takeaways:**

1. **Darting** is increasingly reported for treating disease on pasture, including pinkeye. It can result in off-label usage, residue violations, and unacceptable carcass lesions. If darting is going to be used on-pasture, the neck muscles should be targeted where possible, and selected drugs should be administered within label recommendations for volume at one injection site.

2. **Pasture mineral supplementation** is not widely observed by network practitioners, although usage is associated with improved feedlot performance, and mineral supplement can also be a vehicle for coccidiostat delivery on-pasture.

3. **Bovine Johne's** detections at PDS are trending up over time, underlining the need for good diagnostic approaches. BCRC has a testing decision tool with supporting educational materials available at https://www.beefresearch.ca/tools/johnes-disease-calculator/