



The WeCAHN beef network met Aug. 31 2023 with veterinary practitioners, producers, provincial veterinarians, diagnosticians, and researchers in attendance.

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1. Interesting Cases

i. Redwater in beef and dairy herds resulting from liver fluke migration

- A practice in southeastern Manitoba has seen a series of herds with clinical redwater after fluke migration. The first was a dairy herd, which was followed by several beef herds.
- **Diagnoses in beef herd1:** Two cows died suddenly but were not post-mortem'd. Then a bull died and post-mortem was done by network practitioner, with major finding of large areas of liver damage. Subsequently another cow which died and had similar findings.
- **Treatment:** Animals are being treated with triclobendazole (Fasinex™) obtained by Emergency Drug Release [since it's not sold in Canada] for the flukes themselves. Elanco rep has stated that Flukiver™ (closantel) may be used for fluke treatment but only kills adults, therefore requiring re-treatment in ~ 6 weeks.

ii. *Coxiella burnetii* abortion.

The UVM Diagnostic Services Unit at Calgary reported a 9 months gestation abortion caused by *Coxiella burnetii* (Q fever).

QUESTION: this 9 months' gestation fetus (i.e. full term) had partially air-inflated lungs. Is this unusually late in pregnancy for a *C. burnetii* abortion?

COMMENT FROM PATHOLOGIST - late gestation abortions with *C. burnetii* are not an unusual presentation to the lab, since the organism causes a chronic infection in the foetus. All ruminant abortions in the lab are categorized as risk group 3, which requires additional PPE for staff. One finding from the Saskatchewan-supported program automatically testing ruminant abortions with placenta available for *C. burnetii* at no charge, has been the observation that it may be detected in some (sub?)clinical cases beyond those in which it is concluded to be the cause of the abortion. The detection rate in 2022 was about 12% from all placentas tested. [These are good arguments for producers to consistently wear appropriate PPE when intervening in calvings].

iii. Herd problem with skinny cows dying, and some clinical signs suggestive of ergot toxicity.

- **History:** Owner tested their pellets and found ergot. Stopped feeding the pellets a month ago. Still wondering if they can test for it [on rumen content in clinically affected cattle].
- **Laboratory:** received fresh tissues for examination including 2 ear tips, mammary gland, the tail tip, two claws from the left hindlimb and rumen content. The ear tips were dry and firm and on section the subcutaneous tissue was red. Similar changes were noted on the tail tip. The feet were unremarkable.

Interesting Cases (continued)

Laboratory Diagnoses:

- 1. Ear tips, dry gangrene.
- 2. Tail tip, healing wound.
- Ergot panel on rumen content: each specific ergot alkaloid tested for, not detected.

ERGOT BACKGROUND:

- The frequency of ergot contamination of cereal grains in western Canada is increasing over time.
- Rye is high! and the probability of grain being contaminated varies with species: rye > wheat > barley > oats.
- Rye and triticale are becoming increasingly popular western crops given their relative drought resistance.
- Screenings are anecdotally reported to be more likely to have elevated levels of ergot relative to other feedstuffs. If the vendor has not tested screenings for ergot, the purchaser should.
- Newer hybrid rye varieties will have reduced risk of ergot contamination relative to older ones.

2. Syndromic Surveillance

Johne's disease (*Mycobacterium avium paratuberculosis* (MAP))

While Johne's disease was diagnosed commonly by one network practitioner, it was not rated increasing by any. However, PCR detections of MAP have been trending up at both PDS and Manitoba VSDL.

- Currently vets' sampling strategy appears to be risk-based, meaning that "suspicious" (e.g. skinny) animals are more likely to be tested.
- Given recent research (Johnson et al., 2022), important to note that this risk-based testing may provide useful information to inform culling decisions but is unlikely to eliminate MAP from an infected herd.

- **Suggestion:** given some cows are likely to be culled in the near future given time of year and also drought situation in some areas, Johne's status could be one piece of information to inform culling [or purchase?] decisions.
- **Saskatchewan Johne's control program:** For more information: [_https://skstockgrowers.com/johnes-disease-surveillance-program/](https://skstockgrowers.com/johnes-disease-surveillance-program/)

3. Meeting Takeaways

- Ergot risk mitigation: if purchasing or raising rye for feed, consider newer hybrid varieties to reduce risk of ergot contamination; if feeding rye or screenings, especially rye or wheat, test; if purchasing other grains, at least visually inspect, remembering the limitations of this method of assessment.
- Calving or abortion protocols: PPE should be worn to reduce risk of zoonotic disease. Pathogens such as *Coxiella burnetii* (Q fever) are found with abortions and also incidentally.
- If you're culling cows, the ones with Johne's are a great place to start. They're going to get worse, and they're costing you money.

