Western Canadian Animal Health Network

WECAHN DAIRY NETWORK PRODUCER SUMMARY

APRIL-JUNE 2023

Dairy Network Meeting

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

Report Contents:

1. Interesting Cases

i. Liver flukes causing red water in 1st lactation cow in Manitoba

- Practitioner received text from a client regarding first calf heifer 200 DIM with bloody urine. Four hours later the cow died.
- Diagnosis was clostridial infection secondary to liver fluke damage, causing destruction of blood cells resulting hemoglobin in urine.
- History: this herd experienced increased number of replacement heifers, and so unusually for normal herd procedure on this farm, this heifer had history which included having been out on pasture.

QUESTION: Is the frequency of fluke infestations in cattle in western Canada changing?
ANSWER: flukes continue to be seen sporadically in recognized areas of the west (Alberta and especially Manitoba), with disease prevalence fluctuating with changes in weather.

ii. Congenital hepatic fibrosis.

- **History:** herd is high health, involved in embryo transfer and flushing. From Nov. 2022- June 2023, of 27 recipients, 9 1st- and 2nd-trimester, and 6 3rd-trimester abortions. Cleanup bull used has been *Ureaplasma* negative.
- PRELIMINARY FINDINGS: 8 month gestation fetus.
- FINAL DIAGNOSIS**:** Congenital hepatic fibrosis (reported in cattle and children) i.e. abnormal scar tissue in liver.

COMMENT: "The fetus appeared small in size. The fetus was expelled dead as the lungs appeared collapsed. The liver appeared slightly firm and had occasional white nodules. The microscopic changes in the liver are very suggestive of congenital hepatic fibrosis. This is a genetically determined condition. It has been reported in aborted fetuses in past, but it is not clear if this is the cause of abortion. Examining all calves for this lesions may be helpful if this is a sire issue."

2. Syndromic Surveillance

Update: IBR outbreaks in BC herds: follow-up from Q1 2023 meeting discussion

Overview: 4 dairy herds in one practice had outbreaks of clinical IBR with clinical signs including fever, decreased production, respiratory signs including laryngo-tracheitis, and red swollen udders.

i. 2 herds inadequately or un-vaccinated:

- 1 herd lapsed 14 - 16 months ago.
- The other had 2 year-olds coming in not properly vaccinated prior to freshening.

Both herds were vaccinated intra-nasally, which seemed to resolve clinical signs and drops in production. Follow-up going forward was with injectable vaccine.

ii. **2 vaccinated (according to manufacturers' recommendations)**

- one was boosted with killed vaccine, and no more clinical cases were seen.
- one was kept on herd schedule and problems subsided.

QUESTION: have you seen other vaccine breaks in vaccinated herds?

ANSWER: No, not in 12 years of practice here (Fraser Valley).

QUESTION: do you have ideas regarding what factors could contribute to these breaks?

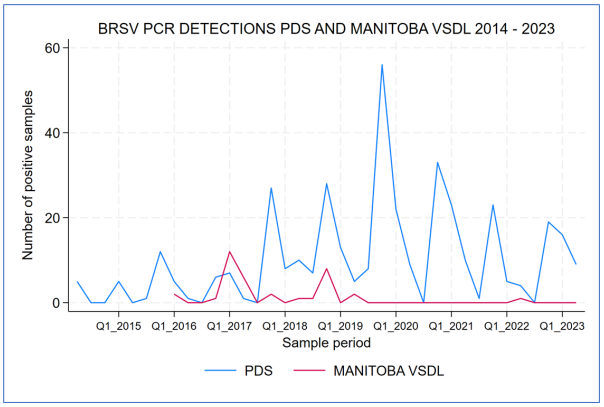
ANSWER: there have been a lot of stressors here [Fraser Valley] over the past couple of years as downstream consequences of extreme weather (drought and flood): unusual animal movements, different feedstuffs. Also in general increasing numbers of animals are being kept on the same land base. So there could be several factors:

- increased viral load with increased animal density and viral shedding,
- some failures in maintaining vaccine protocols due to increased animal movements.
- To minimize the stress of boosting live vaccines in lactating cows, we currently delay till 30 DIM. It could be better to extend this waiting period to 50 days to maximize their vaccine response.

Bovine Respiratory Syncytial Virus

The trend of BRSV detections has varied between reported PDS and Manitoba submissions. The following graphic displays number of positive detections aggregated quarterly, for both laboratories, on the same axes.

PDS has reported an increase in BRSV detections starting roughly in 2017 and peaking in 2019, while in Manitoba BRSV detections peaked in 2017 and have relatively declined since. Potential predictors could include a change in assay applied, a change in the population at-risk, environmental changes such as a decline in nutrition, or a change in the agent meaning incursion of a new strain.



A project to sequence circulating BRSV strains to identify sub-types circulating in the west and compare field and vaccine strains is being developed.

***Salmonella* Dublin**

One case of S. Dublin isolation was reported by Manitoba VSDL, with none reported this quarter by PDS or UCVM DSU. The B.C. *Salmonella* Dublin program is moving into a new phase, and participants are being recruited to complete a survey of management practices which could have an impact on S. Dublin infection on-farm. Findings of this survey will be incorporated in a B.C. -specific risk assessment tool to provide guidance on mitigation and control strategies. Those interested in participating can contact: https://www.sdublinbc.ca/survey

Meeting takeaways:

Multiple factors contributed to outbreaks of IBR and BRSV in dairy cattle.

Liver flukes continue to be seen in certain areas of Alberta and Manitoba. Practitioners, labs, and provincial veterinarians monitor post-mortems and slaughter cattle to determine which species of fluke is occurring, since this guides treatment.

The provincial S. Dublin program in B.C. is recruiting producers for the next phase. For more information: https://www.sdublinbc.ca/survey