Antimicrobial and Vaccine Usage in Canadian Beef Cows

Background

In 2020, 146 cow-calf herds from across Canada reported antimicrobial usage (AMU)[1]. In 2020, their vaccine usage was studied. Median herd size was approximately 130 cows[2].

Lameness

AMU:

58% oxytetracycline

14% procaine penicillin G – also tulathromycin (**10%**)

Frequency of AMU:

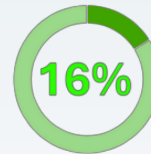**83%** of herds reported AMU for lameness. Less than **5%** of cows were treated in **78%** of herds.

One herd (1%) reported use of *F. necrophorum* vaccine in cows; **no herds** vaccinated replacement heifers.

Reproductive Disease

AMU:

25% oxytetracycline

16% procaine penicillin G also sulfamethazine (**5%**)

Frequency of AMU:

45% of herds reported AMU in cows for reproductive disease. Less than **5%** of cows were treated in **98%** of herds.
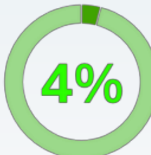
Viral vaccines for BVD, IBR: **92%** of herds
Campylobacter fetus: **21%**

Ocular Disease

AMU:

30% oxytetracycline

4% procaine penicillin G

Frequency of AMU:

40% of herds reported AMU for ocular disease. Less than **5%** of cows were treated in **94%** of herds.

2% of herds used a pinkeye (*Moraxella bovis*) vaccine in their cows and **1%** in replacement heifers.

Respiratory Disease

AMU:

florfenicol (**10%** of herds)

Frequency of AMU:

17% of herds. Less than **5%** of cows were treated in **99%** of herds.

Respiratory Bacterial Vaccines:

Mannheimia hemolytica: **4%** of herds

Clostridial Vaccines (combined)

59%   **88%**

Only used in cows in **59%** of herds, although **88%** of herds vaccinated their **nursing** calves.

Conclusions

Cows, like bulls, need to maintain routine calfhood vaccinations such as Clostridial vaccines, e.g. at pregnancy testing or pre-calving. Given the devastating impact of IBR and BVD in unvaccinated herds, more cattle should be vaccinated for these viruses

[1] *Vet. Sci. 2023; 10, 366.* [2] *Front. Vet. Sci. 2023; 10, 1235942.*

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