

Antimicrobial and Vaccine Usage In Western Canadian Beef Cows

Background

In 2014, 100 cow-calf herds in Alberta, Saskatchewan, and Manitoba reported antimicrobial usage (AMU)¹. In 2017, their vaccine usage was studied. Median herd size was approximately 230 cows².

Lameness

AMU:



oxytetracycline



procaine penicillin G – also tulathromycin (7%), tilmicosin (4%)

Frequency of AMU:

80% of herds reported AMU for lameness. Less than 5% of cows were treated in 68% of herds

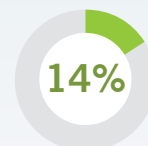
No herds reported use of *F. necrophorum* vaccine in cows; two vaccinated replacement heifers.

Reproductive Disease

AMU:



oxytetracycline



procaine penicillin G

sulfamethazine: 5%

Viral vaccines for BVD, IBR: 91% of herds

Campylobacter fetus: 16%

Frequency of AMU:

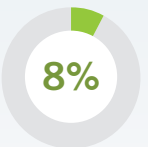
49% of herds reported AMU in cows for reproductive disease. Less than 5% of cows were treated in 48% of herds.

Ocular Disease

AMU:



oxytetracycline



procaine penicillin G

Frequency of AMU:

45% of herds reported AMU for ocular disease. Less than 5% of cows were treated in 40% of herds

No herds used a pinkeye (*Moraxella bovis*) vaccine in their cows

Respiratory Disease

AMU:

florfenicol, with (16% of herds) or without (5%) flunixin meglumine

Frequency of AMU:

31% of herds. Less than 5% of cows were treated in 30% of herds.

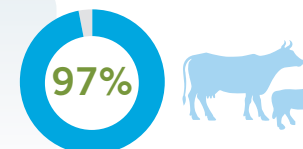
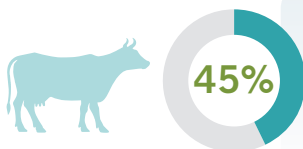
Respiratory Bacterial Vaccines:

Mannheimia hemolytica: 4% of herds

Pasteurella multocida: 2%

Clostridial Vaccines (combined)

Only used in cows in 45% of herds, although 97% of herds vaccinated their pre-weaning calves



Conclusions

Cows, like bulls, need to maintain routine calthood 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 Can. Vet. J. 2019; 60; 255-267. ² Can. Vet. J. 2019; 60; 414-422.

The Beef Research Cluster is funded by the Canadian Beef Cattle Check-Off and Agriculture and Agri-Food Canada. This project was funded in part by the Canadian Agricultural Partnership, a five-year federal-provincial-territorial initiative