# FEED ANTIMICROBIAL USE (AMU)
# IN CANADIAN FEEDLOT CATTLE - CFAASP 2023

- In 2023, AMU data were collected from 129,871 head of cattle in 393 randomly selected closed production lots, from 26 finishing feedlots in AB, SK, and ON.
- Fifty percent of the cattle on feed were calves, with the rest yearlings, 70% originated from auction markets, and 52% were at high risk for bovine respiratory disease (BRD).
- Average days on feed (DOF) for calves was 235 and for yearlings was 167.
- Ninety-five percent of all antimicrobials used in Canadian feedlot cattle in 2023 were administered in the feed.
- Feed AMU was higher in calves than yearlings.
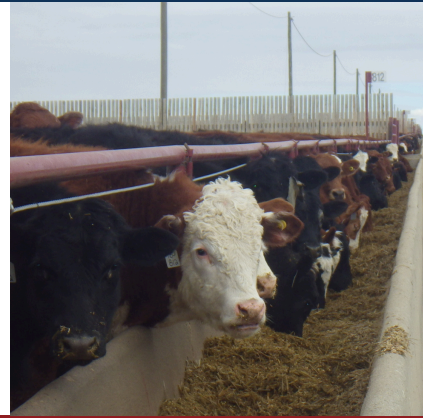
NO ANTIMICROBIALS OF VERY HIGH IMPORTANCE IN HUMAN MEDICINE* WERE USED IN FEED.

- Tylosin and virginiamycin were used in feed to reduce liver abscesses. Tilmicosin was occasionally used in the feed to control BRD. All 3 drugs are Class II antimicrobials of high importance* in human medicine.
- Tetracycline, an antimicrobial of medium importance* in human medicine (Class III), was the most used feed antimicrobial in calves and yearlings from 2019-2023, representing 80% of all use. It was used to control liver abscesses, outbreaks of BRD (including histophilosis), and foot rot (lameness), which are economically important diseases. Virginiamycin was licensed in Canada for cattle use in 2019, explaining its AMU trends below.
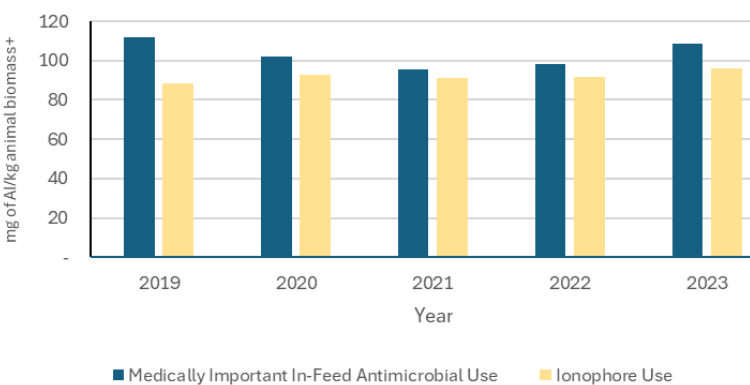

Feed AMU from 2019-2023
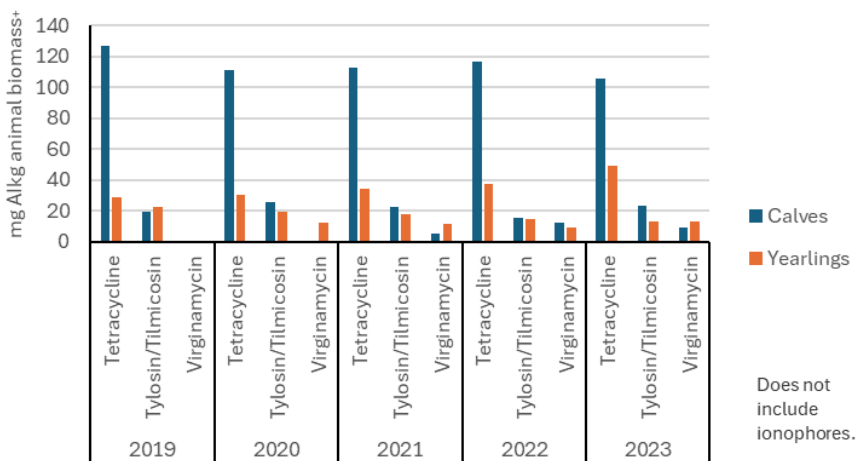
Reasons for Feed AMU in Canadian Feedlots
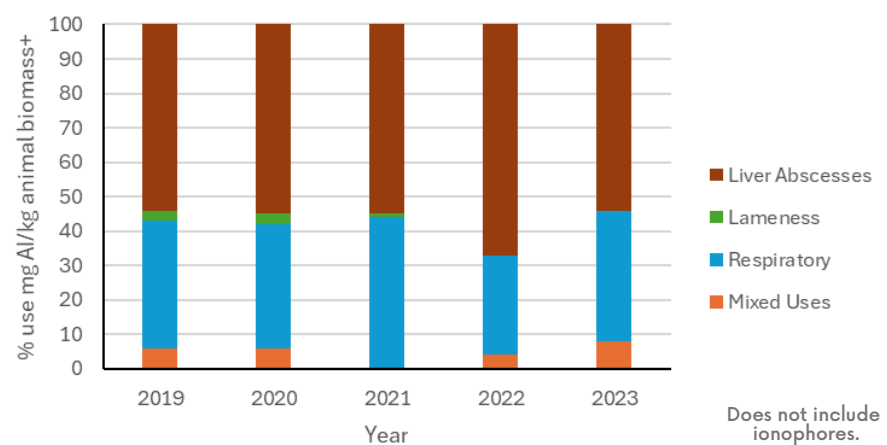
FROM 2019-2023, 47% OF ANTIMICROBIAL USE IN FEED (NOT INCLUDING IONOPHORES) WAS FOR LIVER ABSCESS PREVENTION AND CONTROL.+

Medicated Feed Additives (MFA) used in Canadian Feedlots

- The largest reduction in antimicrobial use in Canadian feedlot cattle would occur if cost-effective alternatives, such as vaccines, natural feed additives, or practical feeding management changes, could be identified and used instead of antimicrobials in the feed to reduce liver abscesses. Research actively continues in this area, and we encourage producers, veterinarians, and nutritionists to stay informed.
- **Producers should review with their veterinarian and nutritionist, at least annually, current animal health, feeding, and lot closeout records to identify ways to reduce in-feed use of medically important antimicrobials for liver abscess, BRD, histophilosis, and lameness prevention/control.** This may include changes in feeding practices, such as targeted limit feeding of medicated feed additives (MFAs)for liver abscess control with liver abscess monitoring at slaughter, increased monitoring of animal health and feeding records and adjustments in health and feeding protocols as needed, improved feedlot staff training, regular surveillance of AMR in nasal pathogens and enteric bacteria, strategic vaccination with effective vaccines, and improved animal husbandry practices.

+ mg active ingredient (AI)/kg animal biomass = (mgs of all active ingredients administered in the feed during the feeding period), divided by (the number of animals at risk multiplied by the annual average animal body weight at slaughter). Average slaughter weight from 2019 to 2023 was 661 kg.

* For more information on Health Canada Veterinary Drug Directorate's classes of antimicrobials of importance in human medicine, click **here** to view the **Antimicrobial and Antibiotic Backgrounder for Feedlot Cattle.**

Ionophores licensed for use in the feed for Canadian beef cattle include monensin, lasalocid, and salinomycin. Ionophores represented 47% of all in-feed use of antimicrobials in Canadian feedlot cattle from 2019-2023. They were used to prevent coccidiosis, reduce gas bloat, and improve growth performance. Ionophores are not considered medically important because they are rarely used in human medicine*.

LEARN MORE ABOUT AMU/AMR IN CANADIAN FEEDLOT CATTLE ON OUR WEBSITE.

QUESTIONS? EMAIL US!

INFO@CFAASP.CA

SCAN CODE OR CLICK ON LINK TO VISIT US:

CANADIAN FEEDLOT ANTIMICROBIAL USE AND ANTIMICROBIAL RESISTANCE SURVEILLANCE PROGRAM (CFAASP)