BCRC
BEEF CATTLE RESEARCH COUNCIL

ALTERNATIVES TO ANTIMICROBIALS

Key Facts for Beef Producers

Antimicrobial: a substance that can destroy or prevent the growth of microorganisms such as antibiotics, anti-protozoals (e.g. ionophores for coccidiosis), alcohol, soap and bleach.

Antibiotic: an antimicrobial substance produced by a microorganism (or a synthetic version) that can kill or prevent the growth of another microorganism.

Prevent Illness to Reduce the Need to Use Antimicrobials

Maintain an ongoing relationship with a veterinarian to develop and maintain a suitable herd health management program and biosecurity protocols to help prevent and contain diseases.

Practise biosecurity to reduce spread of infection.

- Minimize commingling of animals from different sources
- Isolate sick and new animals entering the herd by keeping them at least 60 metres away for 14 days
- Avoid overcrowding

Ensure adequate nutrition through water and feed quality testing and balancing rations accordingly.

Maintain as clean and dry of pastures and pens as possible with adequate protection from the elements.

Be proactive.
Practices like manure composting help degrade antibiotic residues and antibiotic resistance genes.

Update vaccination programs.
A veterinarian will help develop a program based on the level of risk in the herd. This will cost less than the expense of diseases if they were to occur.

Reduce stress on animals.

- Precondition calves
- Keep cattle handling low stress
- Use low stress weaning techniques

Learn more at
WWW.BEEFRESEARCH.CA/AMR

Using Antimicrobials Responsibly

Monitor cattle health to ensure prompt treatment or care.

- Prompt care will usually result in a better response rate and require fewer treatments.
- Delayed treatment can lead to treatment failure and then prolonged therapy.
- Delayed treatment will increase the risk of spread of infection.
- Monitor effectiveness so that ineffective treatments are remedied quickly.

Work with your veterinarian to have the right diagnosis, product, and route of administration.

- For example, not all lameness is footrot.
- Maintain treatment records and monitor withdrawal times.

Properly dispose of expired product, empty containers and used needles.

- Discard used needles into a sharps container and in a manner that does not present a risk to cattle, other animals and people.

Adhere to requirements and recommended procedures in **Canada's Verified Beef Production Plus™ (VBP+) program.**

Know when to euthanize.

Euthanize without delay cattle that are unlikely to recover, fail to respond to treatment and recovery protocols, have chronic, severe, or debilitating pain and distress, are unable to get to or consume feed and water, or show continuous weight loss or emaciation.

- An acceptable method for euthanizing cattle must be used and done by competent personnel.
- Equipment used for euthanasia, such as guns or captive bolt devices, must be maintained according to manufacturers' instructions to ensure proper function.

Learn more at
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References

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[4] Beef Cattle Research Council. 2018. Evaluating the potential contribution of beef cattle to antimicrobial resistance. Available at http://www.beefresearch.ca/factsheet.cfm/evaluating-the-potential-contribution-of-beef-cattle-to-antimicrobial-resistance-148

[5] Beef Cattle Research Council. 2018. The Way You Purchase Antibiotics is Changing. Available at http://www.beefresearch.ca/files/pdf/AMR-List-2018%20v6%20Generic.pdf