



**BCRC**

BEEF CATTLE RESEARCH COUNCIL

**RESEARCH FACTS**

RESEARCH & TECHNOLOGY DEVELOPMENT FOR THE CANADIAN BEEF INDUSTRY

## IN PROGRESS

# Identifying the best strategies for treating toe tip necrosis and digital dermatitis in feedlot cattle

### Project Title:

Identification of treatment strategies for the most common causes of lameness in feedlot cattle

### Researchers:

**Karen Schwartzkopf-Genswein Ph.D. and Murray Jelinski D.V.M.**

[karen.genswein@agr.gc.ca](mailto:karen.genswein@agr.gc.ca)

Karen Schwartzkopf-Genswein Ph.D. (Agriculture and Agri-Food Canada), Murray Jelinski D.V.M. (Western College of Veterinary Medicine), Sonia Marti Ph.D., Eugene Janzen D.V.M. and Karin Orsel D.V.M. (University of Calgary)

### Project Code:

ANH.05.17

### Completed:

*In Progress.  
Results  
expected in  
March 2023.*

## Background:

Lameness is a relatively common and very costly problem in feedlot cattle, with performance, economic, and welfare consequences. However, different forms of lameness are caused by different things, so different approaches are needed for effective treatment. Reliance on antimicrobials may not always be appropriate or effective; and contributes to antimicrobial resistance. This study will evaluate and refine more appropriate and effective treatment options for two relatively common and troublesome types of lameness, toe tip necrosis syndrome (TTNS) and digital dermatitis (DD).

## Objectives:

To assess the efficacy of commonly used antimicrobial and non-antimicrobial treatments for the treatment of DD and TTNS.

## What They Will Do:

Three experiments will be conducted in commercial feedlots. For each experiment, breed, sex and days on feed will be recorded. Weight, lameness (gait, stride length, speed), and blood parameters will be measured weekly until the animal has healed. Treatment costs and times, retreatment rates, and treatment failure rates will be calculated.

TTNS will be studied in 144 fall-placed calves. Two antibiotics (Tetracycline and florfenicol) and an anti-inflammatory pain relief product (banamine) will be compared (Liquamycin LA + banamine, Nuflor + banamine; Resflor) on their own, or in combination with nipping the toe tips to let the infection drain.

DD will be studied in 144 animals in spring and treated with a ceftiofur antibiotic on its own (Excede in light weight calves or Excenel in heavy weight calves), ceftiofur + copper sulfate footbath, or only a copper sulfate footbath.

Another 144 DD cases will be studied in spring, comparing the effects of walking affected animals through a copper sulfate footbath once, twice 7 days apart, or twice 14 days apart.

### ***Implications:***

---

This project will identify effective treatment strategies for common types of lameness encountered in commercial feedlots to reduce the reliance on antimicrobial treatments, slow the development of antimicrobial resistance, improve animal welfare, improve production efficiencies, improve industry competitiveness and support public confidence in Canada's beef industry.

Proudly Funded By:



For more information, visit [www.beefresearch.ca](http://www.beefresearch.ca)

**RESEARCH AND TECHNOLOGY DEVELOPMENT FOR THE CANADIAN BEEF INDUSTRY**