



**BCRC**

BEEF CATTLE RESEARCH COUNCIL

**RESEARCH FACTS**

RESEARCH & TECHNOLOGY DEVELOPMENT FOR THE CANADIAN BEEF INDUSTRY

## IN PROGRESS

# Economic and environmental impacts associated with removal of performance-enhancing technologies in the Canadian beef cattle industry

### Project Title:

Economic and environmental impacts associated with removal of productivity- enhancing technologies in the Canadian beef cattle industry

### Researchers:

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### Project Code:

ENV.15.17

### Completed:

*In Progress.  
Results  
expected in  
March 2023.*

## Background:

The benefits of performance enhancing technologies (PETs) like implants, beta-agonists and ionophores on weaning weight, growth rate and feed efficiency are well-established. [Research](#) funded under the second Beef Science Cluster suggests that growth promotants contributed to the improved resource use efficiency and environmental impact we have seen over the past 30 years.

However, perceived health concerns among consumers are leading retailers and foodservice companies to promote “free-from” beef products. Commercially relevant data is needed to accurately assess the benefits (potential domestic and international market access) and costs (increased environmental footprint, production and product segregation costs) of removing performance enhancing technologies from Canadian beef production.

## Objectives:

To examine productivity, environmental sustainability, and economic viability including cost of segregation associated with removal of productivity-enhancing technology from the Canadian beef cattle industry. Researchers will also examine current and future

market demand (retail and export) for beef raised without PETs.

### ***What They Will Do:***

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The research team will use published and current Canadian research and commercial data (30,000 feedlot records) to estimate nationally relevant production cost, productivity and carcass value impacts of removing production enhancing technologies. Results from the National Beef Quality Audit retail meat case study and consumer purchasing data from Alberta, Saskatchewan, Ontario and Quebec will be used to assess actual consumer behavior with respect to price, quality and production claims.

### ***Implications:***

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This project will provide in-depth analyses to understand whether market premiums associated with domestic and international beef market opportunities for beef raised without performance enhancing technologies the environmental and economic drawbacks of removing these performance enhancing technologies.

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