



Research Facts

Research & Technology Development for the Canadian Beef Industry



Are we making the right transport decisions?

by Alberta Beef Producers

Project Title:

Compromised Cattle Benchmarking Project

Researchers:

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Background:

Transport is a very visible portion of our industry. It is often the only portion of beef production practices that the general public is exposed to, and as such, garners a great deal of attention. Ensuring that cattle arrive to their destination in good condition is very important to producers, transporters, and the public.

As most beef cattle are transported several times during their lives, decisions regarding the fitness of animals to be transported must be made before the animal is loaded. Previous research indicated that over 99.9% of short (4 hours or less) and long (4 hours or more) haul cattle arrived at their destination with no serious problems.

However, despite sporadic anecdotal reports, scientific information regarding the prevalence of cattle arriving at auction markets and abattoirs in less than desirable condition is lacking. This project was designed to provide the industry, and individual producers, with credible information regarding the condition of animals arriving at different transport destinations in order to improve on any areas found to be lacking.

The new [Regulations Amending the Health of Animals Regulations](#) outlines the conditions that inspectors would render an animal compromised or unfit for transport. Unfit animals are prohibited by law from being transported except by veterinary order to receive care. Compromised animals may be transported to the nearest location to receive veterinary care or be humanely slaughtered, and are prohibited from being transported to auction for sale.

Objectives:

The objectives of this study were to:

- 1) Assess the number of beef and dairy cattle arriving at auctions and abattoirs in a compromised or unfit condition and to characterize which conditions are most prevalent
- 2) Identify risk factors associated with the arrival of compromised and unfit cattle
- 3) Catalogue the outcome of compromised and unfit animals arriving at Alberta auction markets and abattoirs

What They Did:

An initial pilot phase was conducted to test the evaluation criteria for determining compromised or unfit conditions, measure observer reliability, and determine logistics. Then, over a one-year period, using a specific set of criteria, trained observers monitored the condition of cattle arriving to auction markets, provincial abattoirs, and one federal abattoir. Participation by the auctions and abattoirs was voluntary, but 8 out of 22 Alberta auction markets, 10 out of 43 provincial abattoirs, and one out of three federal abattoirs participated. Data on cattle type, age, sex, and condition were collected, along with weather, trip distance, trailer type, group size and market prices. Auctions and abattoirs were stratified both on size and geography to ensure a representative sample. Each auction market was visited six times over the year, while abattoirs were visited nine times. Approximately 70% of the cattle observed were feeders or fats, with 30% being mature cattle for a total of over 9,600 beef and dairy cattle observed at all locations.

What They Learned:

The total proportion of cattle arriving in fit condition at auction was 96.8%, which rose to 98.2% at the federal abattoir, and decreased to 79.3% at provincial abattoirs. Compromised and unfit cattle accounted for 3% and 0.2% of those arriving at auction, 18.1% and 2.5% at provincial abattoirs, and 1.8% and 0.1% at the federal abattoir, respectively. These numbers are encouraging, as they demonstrate the vast majority of compromised animals are being transported directly to slaughter instead of ending up for sale at auction.

There were differences between mature and feeder or fat cattle with a higher proportion of mature beef animals considered compromised or unfit at auction (0.47% feeder/fat vs. 9.8% mature). This fits in with the previous research on transport. [We know that cull cows are at a greater risk of becoming compromised during transport than other classes of cattle.](#)

The most common conditions observed in compromised or unfit beef cattle arriving at auction included moderate lameness (3.8%), heavy lactation (3.6%), and thin with a body condition score less than 2 (3.4%). Another 3.7% of beef cattle demonstrated indications of pain such as teeth grinding. Of these, approximately 60% of the mature animals demonstrated multiple conditions, compared to 40% of the feeder/fed beef cattle. For bulls specifically, 3.8% observed at auction had acute penis injuries.

While the numbers of compromised and unfit beef cattle arriving at auction markets was small overall, the majority (172) of the compromised cattle were sold, with 3 sent for salvage slaughter. Thirteen unfit animals went through the ring, with one animal refused at arrival and one animal returned to the owner.

Similarly, the number of unfit cattle arriving at provincial and federal abattoirs is small (31), but is still concerning, as these animals should not have been transported anywhere unless by veterinarian order for treatment.

The odds of cattle arriving in a compromised or unfit condition increased with group size, final location (southern vs. northern Alberta), warmer temperatures, and the previous week's market price.

What It Means:

The majority of beef cattle transported within Alberta are in compliance with transport regulations, and arriving in good condition. Compromised cattle are being shipped to local abattoirs, which is the appropriate location. Animals destined for auction need to be identified prior to body condition loss or any signs of lameness, and recently calved cows should be dried off. Auction staff should be aware of compromised and unfit conditions to ensure the animals are not sold and transported further. While small, the number of unfit animals arriving at abattoirs could be decreased via emergency salvage slaughter on farm or more timely euthanasia.

Decisions regarding transport need to be made objectively. "She's not that lame" can turn into something much more serious very easily over hundreds of miles or extra time waiting at an auction or abattoir holding pen. Everyone has a camera, and you wouldn't want your animal on the six o'clock news.

Use [this decision tree](#) to help make the right choice.

[Here are fact sheets](#) developed by Alberta Farm Animal Care on the most common compromised or unfit conditions observed during this project.

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