

Cattle Research Panel: Progress in Cattle Benchmarking Project



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BACKGROUND

- Animal Care a priority issue for cattle industry
- Large body of research on cattle transport and welfare
- Lack of baseline data on compromised cattle arriving to auction markets and abattoirs in Alberta

NEED FOR PREVALENCE DATA

- Increased public concern and awareness drives need for transparency
- Increased pressure from animal rights groups via videos or photos
- Necessitates a substantiated scientific study

VALUABLE TO MANY GROUPS



PROJECT TEAM

- Graduate Student – University of Saskatchewan
 - Courtney Heuston
- Alberta Farm Animal Care
 - Natalie Diether
 - Melissa Moggy
- Agriculture and Agri-food Canada
 - Karen Schwartzkopf-Genswein
- University of Calgary
 - Claire Windeyer

PROJECT OBJECTIVES

1. To assess the number of beef and dairy cattle arriving at auctions and abattoirs in a compromised (unfit) condition and to characterize which conditions are most prevalent
2. To identify risk factors associated with arrival of compromised cattle
3. To catalogue the disposal of compromised animals

REGULATIONS

- Canadian Food Inspection Agency (CFIA)
 - *Health of Animals Regulations, Part XII*
 - *Compromised Animal Policy*
- Province of Alberta – Animal Protection Act
 - Animal Protection Regulation

DEFINITIONS – COMPROMISED ANIMAL

“Compromised Animal: A compromised animal is an animal with reduced capacity to withstand transportation but where transportation with special provisions will not lead to undue suffering. Compromised animals may be locally transported with special provisions to receive care, be euthanized or humanely slaughtered.”

EXAMPLES – COMPROMISED CATTLE

- Lameness*
- Acute penis injury
- Bloat (not already weak or down)
- Laboured breathing
- Blind in both eyes
- Open wound/laceration (depending on severity)
- Recently calved (within 48 hours)
- Rectal or vaginal prolapse
- Heavy Lactation
- Ocular squamous cell carcinoma (stage 2/3)

SPECIAL PROVISIONS

- Emergency veterinary care prior to transport;
- Providing extra bedding;
- Loading the animal last and unloading it first;
- Separating it from other animals in the shipment; or
- Transporting it with a familiar animal to help it remain calm.

DEFINITIONS – UNFIT ANIMAL

“Unfit Animal: An unfit animal is an animal with reduced capacity to withstand transportation and where there is a high risk that transportation will lead to undue suffering. Unfit animals if transported would endure unjustified and unreasonable suffering. Unfit animals may only be transported for veterinary treatment or diagnosis.”

EXAMPLES – UNFIT CATTLE

- Lameness*
- Non-ambulatory
- Open wounds/lacerations (depending on severity)
- Fractures
- Exhaustion
- Emaciation, weakness
- Dehydration
- Fever
- Likely to give birth
- In Shock/Dying
- Uterine Prolapse

LAMENESS

- Compromised: “animal has imperfect locomotion, a slight limp; the lame leg may not be immediately identifiable”
- Unfit: “obvious limp with uneven weight bearing, and the inability to bear any weight on one leg is immediately identified (unable to use a foot to walk”
- Unfit: non-ambulatory

NON-AMBULATORY CATTLE

- Cannot rise without assistance and is reluctant to walk, exhibits halted movement
- Unable to remain standing without assistance

AUCTION MARKETS

- Not an acceptable location for compromised cattle



PROVINCIAL ABATTOIRS

- Acceptable location for compromised animals



FEDERAL ABATTOIR

- As federal abattoirs are not the closest location for animals to be humanely slaughtered they should not be arriving
- Longer distance travelled
- Difficult to provide special provisions



OBSERVATIONS

- Year-long observation of cattle arriving to each type of facility
 - Provincial Abattoirs (11)
 - Auction Markets (8)
 - Federal Abattoir (1)
- Stratified sampling by:
 - Operation location (north/south)
 - Size (provincial abattoirs and auction markets)
 - Animal age (20% cull and 80% market cattle)

DATA COLLECTED

- For all animals observed:
 - Age, type, sex, body condition score, description of conditions observed (if any)
 - Associated factors (weather, group size, truck type, market prices)
 - Trip distance (subset of animals)
 - Animal disposal

WHAT TYPES OF CONDITIONS WERE OBSERVED?

- Emaciation – BCS <2 (on the 5 point scale)
- Depression
- Respiratory signs
- Indicators of Pain
- Mobility score
- Lactation
- Udder condition

WHAT TYPES OF CONDITIONS WERE OBSERVED?

- Eye conditions – injuries, tumors, infection
- Injuries – lumps, open wounds, broken horns
- Penis injuries
- Bloat
- Prolapse – rectal, vaginal, uterine
- Exhaustion/weakness
- Instability
- Abnormal behaviour

WHAT TYPES OF CONDITIONS WERE OBSERVED?

- Based on these observations
 - An overall score for the animal's condition (**CC Score**) was assigned
 1. Fit
 2. Compromised
 3. Unfit

RESULTS

- Currently completing a revision of the analysis
- Stakeholder report
- Plan to submit papers to journals this spring
- Fact sheets based on conditions observed:
 - Lameness
 - Emaciation
 - Lactation
 - Penis Injury

SCENARIO #1

- Mature beef bull at auction market 🙅
- Body condition score 2.5/5
- Mild depression
- Mild lameness – shortened steps with hind limbs
- Repeated standing and laying down
- Distended belly, prepuce, and scrotum



Water Belly – Unfit

Risk of shock/dying due to rupture

SCENARIO #3

- Fed beef heifer at provincial abattoir 👍
 - Body condition score 4/5
 - Mild depression, vocalizing
 - Mild lameness – front limbs short stride
 - Bowed front legs, medium swelling of both knees
 - Noticeable slipping and uneven hoof contact with ground - unstable
- Compromised



Instability increases risk compared to animal in
Scenario 2

SCENARIO #4

- Mature beef cow at auction market 🙅
- Body condition score 3.5/5
- Left orbit swollen (large)
- Profuse purulent and bloody discharge
- Eye may still be present, but difficult to discern under discharge and swelling
- Smell



Unfit

OSCC that has Progressed outside of Orbit

SCENARIO #5

- Mature dairy cow at auction market 🙄
- Body condition score 2.5/5
- Bright, alert, responsive
- Shivering
- Udder engorged and dripping



Compromised

Heavy lactation – must be dried off prior to shipment

THANK YOU

