

# Management of Cull Feeder Cattle

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## Abstract

Every cattle-feeding operation has animals that fail to meet standard health and/or performance expectations. This may be the result of illness and failure to respond to therapy, an aversion to environmental conditions, or a low pecking order within the hierarchy of the pen. If the immune system and metabolic status of the animal fails to adjust or recover from the challenges, a degenerative state of health and performance is likely to follow. As a result, the animal may be moved to a convalescent or long-term recovery pen where additional management programs may be applied. Upon entering this salvage program, the animal may be classified as a “chronic”, “realizer”, or “railer”. Multiple management strategies can be utilized to return the animal to a productive state, or sell through an alternative marketing program. However, in certain instances, the veterinarian and the producer must concede to a progressive and degenerative condition that requires an immediate decision for the health and well-being of the affected animal.

## Résumé

Dans tous les parcs d'engraissement, certains bovins n'atteignent pas le niveau de santé et/ou de performance voulus. La cause peut en être la maladie et une mauvaise réponse au traitement, une aversion envers les conditions d'élevage ou encore une position au bas de l'ordre hiérarchique dans l'enclos. Si le système immunitaire ou le métabolisme de l'animal ne parvient pas à s'ajuster ou à se remettre des défis rencontrés, la santé et la performance de ce dernier risque de se dégrader. On doit alors reloger le bovin dans un enclos de convalescence ou de récupération à long terme, où on pourra le traiter avec les soins requis. Au début de ce programme de sauvetage, l'animal qui répond mal au traitement peut être qualifié de « chronique », de « realizer » ou de « railer ». Il existe plusieurs stratégies de gestion qui permettront soit de graduellement réhabiliter le bovin vers un état productif acceptable ou de le vendre suivant une voie commerciale alternative. Toutefois, dans certains cas, le vétérinaire et le producteur ne peuvent que conclure à la dégénérescence progressive de la santé de l'animal et doivent alors prendre une décision immédiate, pour la santé et le bien-être de celui-ci.

## Introduction

In the past few years, there has been increased emphasis in farm animal welfare. While cases of neglect have been reported through media outlets, many have been staged for propaganda purposes under an animal rights driven agenda. Unfortunately, there have also been valid cases of animal abuse/neglect that demand immediate attention from food animal veterinarians and producers. As veterinarians, the health and well-being of animals under our care is consistently at the forefront of production objectives. It has long been understood that improper handling or care of cattle creates stressors that predispose them to sickness and poor performance. By providing physical comfort, disease protection, nutritional needs, and emotional stability, cattle have an excellent opportunity to thrive and perform within a feedlot setting.<sup>3</sup> Cattle that fail to thrive in the feedlot due to disease, metabolic imbalances or injuries are a minority of the population, and must be managed in a manner conducive for recovery or salvage.

Bovine respiratory disease (BRD) is the most devastating health problem of the beef industry. It remains the primary cause of morbidity (70 to 80% of total) and mortality (40 to 50% of total) in US feedlots, and contributes to substantial losses in feedlot performance, health, and carcass quality.<sup>4</sup> Despite being the leading cause of morbidity and mortality, it is not the leading cause of cull animals being marketed in alternative programs. According to a recent survey conducted by Terrell and Thomson (unpublished data, 2010), the leading cause for culling animals is a compromise in skeletal confirmation—lameness due to infection or injury. Visually, these animals may or may not display swelling in the affected limb or joint, but the presence and varying levels of pain during locomotion is evident. Cattle chronically affected by BRD are the second most common population sold as realizers, while non-performing cattle are the third most common group sold prematurely.

## Realizer – Definition

The definition of a realizer, cull, chronic, or railer may take many forms; however, a practical feedlot and industry definition would be as follows:

A “realizer” is an animal that is culled and sold prior to reaching expected carcass or slaughter weight due to injury, chronic illness or poor performance. The

term “realizer” suggests that by salvaging an animal while some monetary value exists, we are “*realizing*” some return on the initial investment. A moderate to severe loss on investment can be expected. The term “*railer*” refers to the carcass being hung on a rail at the packing plant sooner than anticipated, likely with a lighter than the expected carcass weight, and often purchased based on the carcass price on the rail.

## Food Safety and Animal Welfare

Two primary considerations to address before selling cull cattle through an alternative marketing program are food safety and animal welfare.

### Food Safety

Maximizing consumer confidence and providing a safe and wholesome beef product is the mission and goal of Beef Quality Assurance Guidelines. The majority of realizers will likely have received therapeutic intervention for various disease processes, and are required to meet or exceed drug withdrawal requirements prior to being sold through any marketing program. Prevention of violative drug residues requires accurate and strict observation of treatment records prior to sale and is standard operating procedure for all cattle prior to shipment. Cattle failing to meet designated pre-slaughter withdrawal times are to be held until the clear date. Chronically ill animals may have compromised liver and kidney function, and an extended withdrawal period (beyond label requirements) may be considered. For added assurance, there are pre-slaughter antibiotic residue avoidance strategy test kits available for on-site testing.<sup>2</sup> Performing the test prior to shipment can be helpful in determining antibiotic residues in the urine. These tests mirror the antimicrobial screening tests used by the USDA-FSIS, screening for microbial inhibitors in the urine as apposed to the kidney. These tests can easily be performed prior to shipping realizers.

### Tests include:

- LAST or Live Animal Swab Test  
<http://gpvec.unl.edu/bqa/PHAST-AbScreen-06r.pdf>
- PHAST or Pre-Harvest Antibiotic Screening Test  
<http://gpvec.unl.edu/bqa/PHAST-AbScreen-06r.pdf>

### Animal Welfare

Welfare is defined by Webster as health, happiness, and well-being. As caretakers, we strive to provide the best possible opportunities for cattle to be in a state of all of the above. The reward is beneficial to the animal and the producer. Fraser *et al* defines “animal welfare” into three categories of ethical concerns: 1) *nature* – living a natural life, 2) *feelings* – pleasure or pain, and 3) *biological* – health and productivity.<sup>1</sup> In particular, the latter

two categories play an important role when deciding to cull an animal from the herd. Certainly, a debilitating disease will diminish health and productivity of a feeder animal, and the veterinarian and/or the producer must recognize a state of declining health and well-being and make humane decisions to minimize pain and suffering. Non-ambulatory animals are not candidates for slaughter and should be managed accordingly, or humanely euthanized in accordance with approved methods.

## Marketing Realizers – Options

It is typically accepted that a realizer has increased the amount of labor, medicine expenses, and mortality within a pen. Additionally, there are losses associated with decreased feeding performance and carcass quality. There are several options that allow for “best fit” management strategies that allow the feedyard manager to optimize a return on the initial investment. A 2009 survey conducted by Terrell and Thomson (unpublished data, 2010) at Kansas State University interviewed 23 feedlot consulting veterinarians that represented 11,295,001 head of feeder cattle annually; the average was 491,087 per practitioner. Veterinarians were represented from Colorado, Idaho, Iowa, Kansas, Nebraska, Oklahoma, and Texas. In the survey, veterinarians revealed four common methods that producers used to market culls/realizers:

**Slaughter** – Cattle that recover from a health and/or performance issue are lighter weight and have poor body condition compared to the pen average. These cattle are cleared of all pre-slaughter withdrawal restrictions, and sell with the rest of the pen to maximize sale potential.

**Sale** – Cattle are sold to a “realizer buyer” at a heavily discounted price; usually \$0.15 to \$0.35/lb of live weight. These cattle meet all pre-slaughter withdrawal clearances and USDA/APHIS pre and post-harvest requirements.

**Renderer** – Cattle that die, are euthanized or condemned due to terminal disease processes are eligible for rendering.

**Auction market** – Selling culls and realizers through an auction market is similar to the first in that cattle may have recovered from a health or performance issue, but are far behind in weight compared to their pen-mates. These cattle may have an acceptable outward appearance, but are a liability for future morbidity, mortality, and performance. Like purchasing a used car - buyer beware.

If facilities are available, an alternative to early marketing (salvage) of cull cattle is to place them in a rehabilitation program—essentially a “re-start” program. This can be done in a grass trap or pasture, or within a feeding pen in the feedlot. Health and nutritional man-

agement in the re-start program is similar to standard operating procedures. Cattle can later be marketed as they reach acceptable market weight.

### Conclusions

Managing cull animals in the feedlot is an essential part of a feedlot marketing strategy that optimizes health, welfare, and performance of feeder cattle, while minimizing death and economical losses. As veterinarians, our responsibility is to assure that realizers are handled humanely, and that the quality of the end product is safe and wholesome for the consumer.

### References

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