

Killing with Kindness

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Abstract

The year 2008 found North America in a state of increased awareness regarding the humane treatment of animals, especially cattle destined for harvest. Of particular concern are the culled dairy cows and calves that are sent to auction markets and harvest plants. Practitioners, producers and slaughter establishments need to be aware of the criteria and expectations necessary to proactively address animal condition. This includes proactive management of on-farm facilities and care, timely cull, careful transport, immediate euthanasia of downed animals and the utilization of auditing criteria to measure results.

Résumé

En 2008, l'Amérique du Nord devient de plus en plus consciente du traitement humanitaire à accorder aux animaux surtout en ce qui a trait aux bovins destinés à l'abattoir. Cette problématique touche particulièrement les vaches laitières réformées et les veaux qui sont envoyés à l'encan et aux abattoirs. Les praticiens, les producteurs et les abattoirs doivent être conscients des critères et des attentes afin d'aborder proactivement le sujet de la condition animale. Ceci inclut la gestion proactive des établissements et des soins à la ferme, la réforme au moment propice, le transport avec soin, l'euthanasie immédiate des animaux non déambulants et l'utilisation de critères d'audit pour mesurer les résultats.

Introduction

For the North American dairy industry, 2008 will long be remembered as the “year of the downer”. In January, the Humane Society of the United States (HSUS) released undercover videos taken at Westland Hallmark’s California plant showing compromised dairy cows being dragged, prodded, and forced to rise for movement to slaughter. The meat industry then experienced the largest recall in US history because of evidence suggesting that this plant may have processed non-ambulatory cows that “went down” after passing the initial ante mortem inspection by the local USDA veterinarian.

In April, a second set of HSUS undercover videos was released showing non-ambulatory cows and weak calves at auction houses where they were abandoned “to

languish” for many hours or overnight. The investigators stated that the auction house did not euthanize the cows or calves in a timely manner and instead waited for the rendering company to come to retrieve the “carcass.”

In May, Food Safety Inspection Service (FSIS) announced a policy change now forbidding the slaughter of any acutely injured beef animal that became non-ambulatory after passing the initial antemortem inspection. This is a reversal of a rule published in 2007, which allowed veterinary evaluation of acutely injured downed animals to consider the potential for slaughter. National Meat Association and American Meat Institute petitioned for this regulatory reversal, to “bolster consumer confidence” regarding the USDA inspection service and the US beef industry. With the many export challenges that the US has faced the past few years with Japan, Korea and other key countries, regarding the beef industry safety measures for control of specified risk material and bovine spongiform encephalopathy (BSE), the decision to eliminate any downed animals from the supply chain is meant to send a clear message to our foreign customers. Clearly the expectations have changed.

Reasons for downed animals

It is important to recognize some of the reasons why downer cattle may exist at slaughter:

- Production focused genetics could result in less hearty animals that are more susceptible to poor bone density, mastitis, foot injuries and ailments, disease or metabolic issues.
- Concentrated or poorly balanced feeding regimens can cause metabolic conditions in dairy or beef cattle.
- Higher feed prices and production costs may influence producers to optimize resources towards long term animals (borderline starvation of compromised or weak animals).
- As genetics have evolved, and dairies have consolidated, some producers may be using older facilities that do not provide adequate comfort and welfare for today’s larger animals.
- Poor foot care, rough or wet cement and inappropriate walking surfaces can be responsible for hoof wear, white line disease, ulcers, thin soles and upper leg injuries.
- On-farm or slaughter plant facility design and wear can cause animal slipping and falling,

which greatly increases the potential for weak animals to “go down.”

- Transport injuries occur because of poorly maintained trucks or as a result of traffic conditions.
- Terminal market handling and time at collection sites can contribute added stress on an already weakened cull animal.
- Slaughter plants are also consolidating and closing such that harvest options require longer transport times and more animal fatigue.

Consumer attitude changes

Consumers, up until recently, have been quite removed from the knowledge of where and how modern agriculture provides food on the table. There does appear, though, at this time to be more interest and awareness regarding humane treatment and the welfare of production animals.

In the past year, many large corporations have announced the intent to purchase from producers with more “consumer-friendly” production alternatives such as:

- Eggs from cage free hens
- Pork from producers who have eliminated sow gestation stalls
- Poultry processed using controlled atmosphere versus electrical stunning
- Milk from cows that were not treated with BST (bovine growth hormone)

Practitioners, scientists, agriculture production corporations and welfare activists sometimes differ in their opinions of the above mentioned programs, but the evidence is clear that the public in the US and even more so in Europe wants to know that the animals used for food have received respect, adequate care and calm, humane treatment from birth to death. The moral compass appears to be moving away from “industrial production without regard for animal well-being” and more in the direction of monitoring and ensuring acceptable conditions for the animals in our care.

What happens at harvest?

Typically, beef and dairy cattle (calves, cows and bulls) are culled for poor productivity, injury or age. The animals are often transported to an auction or central location, for consolidation, held for one to several days and then moved to the harvest plant. It is important to be aware that feed is withdrawn by the producer prior to transport, and often the animals receive limited or no water and feed during holding, sale and subsequent transport. This can make an already weak animal even weaker. To improve animal condition at harvest, auction houses, transporters and harvest plants may want to provide food and water during or after long holds or transports.



Photo 1. Auction barn holding pens.



Photo 2. Auction: calves with ID, held for sale.

When cattle are transported, it is important that only healthy and fit animals are loaded and that the trucker considers animal size and weather conditions. Straw bedding can be used in winter for colder climates to facilitate temperature control and good footing. In summer months, when temperatures are above 60°F (15.6°C), sawdust should be used for long hauls. Overloading of trailers is the number one cause of animal injury. The American Meat Institute Recommended Animal Handling Guidelines and Audit Guide provides recommendations for transport temperature control and stocking density based on cattle type and size: www.animalhandling.org.

Once the truck arrives at the plant, cattle should be unloaded as soon as possible, usually within 15 to 30



Photo 3. Straw bedding used for winter transport.



Photo 4. Wet surfaces or overloading can cause downers.

minutes of arrival, with a maximum wait time of one hour. Truckers must take care to provide shade and ventilation in warm weather and wind protection in cold weather, during transport, stops and waiting time at the plant.

A common cause of injuries and non-ambulatory cattle is poor design of unloading docks and landings. Cattle can be injured during the transition from the truck to the pens, especially if surfaces are slippery or if there is a drop, step or gap between the truck and the dock or ramp. Providing a level surface for unload and an anti-slip ramp or landing can assure a smooth unload. It is important to make sure that inside the truck, gates and guides are utilized to move cattle towards the exit,

without bumping or jamming. Truck doors need to be in good working condition and raise high enough to allow the tallest animal to exit, without hitting the head or scraping the back. The use of steel grating or bars on landings and steps can help to assure smooth footing. Electrical prods and hot shots should not be used for unloading cattle. Audit guidelines for evaluating trailer unload are provided at www.grandin.com.

Once cattle are unloaded, the animals are held in pens usually for a minimum of two to four hours and up to 24 hours. The plant is not required to provide feed unless animals will be held 24 hours or longer. It is important for water to be provided at all times (USDA and CFIA regulation). Providing ample space during holding prevents injuries and also reduces pre-slaughter



Photo 5. Truck gates used to guide cattle to exit.



Photo 6. Steel grating on landing to improve footing.



Photo 7. Worn cement results in slips on the dock.

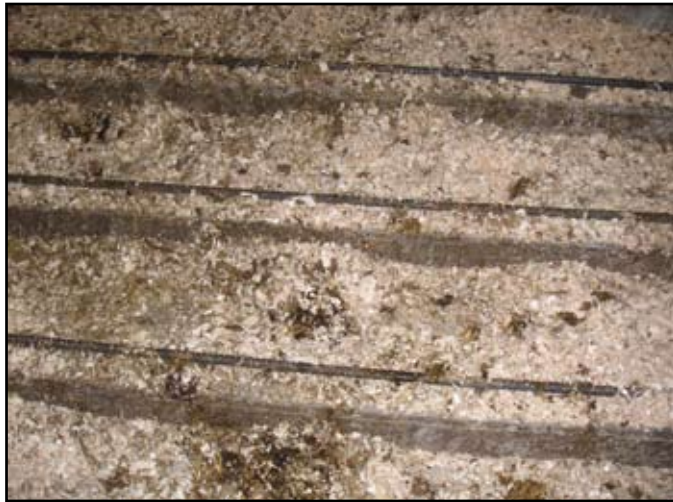


Photo 8. Steel bars on dock steps to improve footing.



Photo 9. Door guides at plant entrance.

stress. Animals should be able to stand up, lie down to rest and reach water.

During movement in the alleys and crowd pen, it is necessary to provide non-slip surfaces. The use of welded steel grating and steel bars can prevent slipping in high traffic areas such as alleys, lead-up chutes (races) and stun boxes. Cattle can become agitated if the floors are slippery, and this makes movement and stunning more difficult. Quiet handling and non-slip flooring will greatly improve animal and worker safety as well as plant efficiencies. Plant design is important to minimize distractions that will prevent cattle movement.

One last measure that can greatly improve handling is the employee attitude. Providing employees



Photo 10. Transport injury from unload door.



Photo 11. Harvest plant holding pen, overfull.



Photo 12. Holding pen with space for lying down.



Photo 13. Hinged floor grating lifts for cleaning.



Photo 14. Welded grating on stun box floor.

with training, skills and tools will assure that the plant meets regulatory and consumer expectations for humane handling. Alternative tools such as rattle paddles, sticks with flags and canes need to be readily available, and the use of electric prods discouraged. Employees that are treated with respect will have a respect for the animals, will be more likely to handle them gently and will recognize situations that require special care or attention.

The operators responsible for driving animals to the stun box and stunning cattle need to have additional training to understand the importance of calm handling. Cattle that are agitated or prodded prior to stun can have higher levels of adrenaline, which could result in additional kicking reflexes during hanging and bleeding. This can be a safety issue for shackle and bleed operators. Agitated cattle are more difficult to stun, because



Photo 15. High walls and mirror to view cattle.



Photo 16. Stick with bag and shaker to move cattle.

of animal movement which can cause poor stunner aim or miss-shots. A team approach is helpful, so that each handler recognizes their role in assuring a smooth operation for all plant employees and the cattle!

As a beef practitioner, what role can you play?

Expectation:

- Dairy and beef cattle breeders need to focus on selection for animals with strong frame, disease resistance and a domestic disposition, suitable for a lifetime of mobility.
- Production facilities should be designed to provide animal comfort and prevent injuries such as hoof wear, foot injuries, slipping and falling.
- Management practices need to incorporate sanitation, veterinary care and monitoring to minimize and rapidly treat mastitis, foot and leg ailments.
- Production managers and employees need to be aware of the importance of calm, low- stress handling to acclimate animals to humans, prior to harvest.
 - This is especially important for cow/calf operations utilizing range production. Cattle must be accustomed to seeing humans on foot, not just on horseback.
- Production facilities must utilize a cull program with “timely replacement”, well before the animals reach a compromised state.
- Producers should operate with a “herdsman” philosophy of respect for the animals.
- Very sick or injured animals that are non-ambulatory and not expected to make an immediate recovery should be euthanized as quickly and humanely as possible.
- Consumers need to be educated regarding animal needs versus “anthropomorphic” consumer expectation for animal comfort.

How to execute these expectations:

- Don’t be afraid to speak up and provide resources.
- Understand that “what my dad and grand-dad did” may no longer be good enough.
- Provide support, advice and management skills to aid the modern dairy to utilize the most appropriate and cost-effective facility design tools for managing dairy comfort.
- Provide veterinary oversight for programs involving foot care, treatment and prevention of lameness.
- Be proactive and prevent the “undercover” opportunity.
- Become actively involved in education and communication for the local production facility, dairy, auction house and transporters.
- Bridge the gap between social responsibility, consumer activism and practical care.

On-farm Measures that can be used:

Production facilities should be encouraged to utilize monitoring criteria to continuously evaluate the overall condition of the animals in their care. Ongoing assessment of these key health characteristics can help to pinpoint trends and quickly identify changes. When visiting a farm or dairy, the veterinarian can evaluate the conditions and provide feedback regarding results. Benchmarking of each production facility will help the producer to know how well his/her operation scores, compared to other facilities that are observed. Below are examples of characteristics utilized in the Validus Animal Welfare Review Dairy Audit Standards.

Benefits of Auditing:

In many cases, producers, transporters and harvest plants may not be familiar with humane handling criteria. In 2004, the initial audits of six beef harvest

Table 1. Examples of Validus Humane Handling Criteria for Dairy Production.

Validus Animal Welfare Review Dairy Audit Standards		
Characteristic	Criteria	Result
Herd lameness	<5% of cattle score ≥3.0 on observation	
Body condition score	<3% of cattle score <2.0 on observation	
	<10% score >4.0 on observation	
Footing evaluation	<1% of animals observed fall	
	<4% of animals observed slip	
Animal hygiene	<10% of cattle score >2.0 on observation	
Stocking rate	maintained less than 120% (1.2:1) animals per stall	

Table 2. Initial and final audit scores for six Canadian beef harvest plants using the criteria outlined in the American Meat Institute (AMI) Humane Handling Audit.

2004 Humane Handling Audit Results for Canadian Beef Harvest Plants			
AMI Humane Handling Criteria	Passing Score %	Initial Evaluation	Final Evaluation
Stun Efficacy	≥95	99.18	99.18
Insensibility	100	100.00	100.00
% Prodding	≤25	5.75	3.67
% Slipping	≤3	16.37	0.75
% Falling	≤1	0.98	0.00
% Vocalization	≤3/5	4.27	2.30

Table 3. Initial and final audit results for six Canadian beef harvest plants using the criteria outlined in the AMI Humane Handling Audit.

2004 Humane Handling Audit Results for Canadian Beef Harvest Plants					
		Initial Evaluation		Final Evaluation	
AMI Humane Handling Criteria	Passing Score %	Number of Plants Passed	Percent that Pass	Number of Plants Passed	Percent that Pass
Stun Efficacy	≥95	6	100.0	6	100.0
Insensibility	100	6	100.0	6	100.0
% Prodding	≤25	6	100.0	6	100.0
% Slipping	≤3	3	50.0	6	100.0
% Falling	≤1	4	66.7	6	100.0
% Vocalization	≤3/5	3	50.0	6	100.0

plants in Canada showed that only three of six or 50%, passed all of the humane handling criteria. For three of the plants, this was their first experience using these audit expectations. Once the expectations were communicated and issues such as slippery alleys and stun boxes were identified and addressed, the plants were quickly able to pass the American Meat Institute (AMI) Humane Handling Audit.

Conclusions

Clearly, there is an increased interest and emphasis on humane handling of cattle and other livestock.

Understanding the importance of facility design, gentle, quiet handling and the implementation of effective animal management practices can greatly improve overall animal condition. Animal handlers and herdsman need to be provided with the training and tools necessary to optimize animal care and well-being. By utilizing audit criteria on farm and at the harvest facility, veterinarians, production and slaughter establishments can measure the humane handling results and assure that regulatory and consumer expectations are met.