The Management of Cull Dairy Cows in Canada

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This document was prepared by the National Farmed Animal Health and Welfare Council. The Council was formed in 2010 to advise governments and all other stakeholders in animal agriculture on matters of the health and welfare of farmed animals in Canada. The Council is funded jointly by non-government organizations with an interest in animal agriculture and federal, provincial and territorial governments. Council members are designated by their constituency because of broad expertise in animal health and welfare, public health and an interest in approaching topics and developing advice in the context of One Health.

The National Farmed Animal Health and Welfare Council would like thank the working group composed of Council members and the expert consultation group for their time and commitment to improving Canada's farmed animal health and welfare system.

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Rationale for this report

"Cull" animals, especially in the dairy, beef, swine and egg sectors, are recognized as needing special forms of management. As a first step in facilitating a pro-active approach to the management of cull animals, the National Farmed Animal Health and Welfare Council convened an expert consultation on the management of cull dairy cows to provide guidance on future actions, policy and research in the area. The meeting, held on March 23-24, 2016, brought together experts (listed in Appendix 1) from dairy farming, dairy processing, veterinary medicine, animal transportation, animal auctions, slaughter, provincial regulation, federal regulation, and animal welfare science. The expert consultation resulted in a "consensus statement" of key observations and recommendations. These, together with further discussion by the National Farmed Animal Health and Welfare Council and extensive consultation with stakeholders, resulted in the present report and recommendations.¹

The need for information, analysis and awareness

Currently about 40% of dairy cows (roughly 350,000 animals) are removed from dairy herds each year in Canada. Some of these are healthy animals that are culled because of low production, failure to breed or simply to rejuvenate the milking herd, but many are culled because of compromised health. Moreover, because the market for these animals is somewhat specialized, some slaughter plants do not accept them. As a result, animals that may be in compromised health can be transported significant distances from farm to slaughter.

The management of cull dairy cows varies widely depending on the location. Where the option exists, some producers ship their cows directly to a nearby slaughter plant, in some cases within one hour's travel, and the animals are slaughtered promptly. More often, cows are sent to a livestock auction from where they may be shipped to a plant, possibly some distance away, or bought by dealers who may re-sell them one or more times in a process that may involve repeated handling and lengthy transportation. As examples, some cull dairy cows from Newfoundland are slaughtered in Ontario; some cull cows from Quebec have been identified in British Columbia; and cows from several provinces are commonly shipped across provincial borders or to the United States. Those familiar with the process believe that the time from farm to slaughter can be as much as 7-10 days in some cases.

However, many producers and herd veterinarians are not aware of the extent of the transport and delay that may occur when they make culling decisions. For example, some may assume

¹ The Council is extremely grateful to the participants in the expert consultation for their cooperation and their insights, to Dr. Jane Stojkov and Ms. Nicole Sillett for excellent work in organizing and recording the meeting, and to Dairy Farmers of Canada and the Loblaw Corporation for their support.

that cattle sent to a livestock auction will have relatively little delay until slaughter, whereas the reality may be very different.

It is recommended that provincial authorities and dairy producer organizations:

- (1) use available sources of information to characterize cull cow management and movement in their respective areas,
- (2) identify the potential length of journeys and the factors that lead to long delays before slaughter for animals originating in their provinces,
- (3) communicate this information to producers and herd veterinarians so these individuals are aware of the potential for long travel distances and can take this information into account when culling decisions are made.

The need for pro-active culling

In many cases, pro-active culling can prevent cattle from developing significant health and welfare problems such as emaciation and serious lameness that affect animal welfare and reduce the commercial value of the animal. Pro-active culling might be promoted by providing training materials to both producers and herd veterinarians, by including the herd veterinarian in culling decisions, and by promoting greater recognition that dairy farms produce a valuable meat product as well as milk and hence that cattle should be shipped before losing their value for slaughter. Although concrete analysis is lacking, it seems likely that pro-active culling would also have practical advantages for herd health, producer convenience, and the profitability of the farm.

It is recommended:

- (4) that that dairy sector develop training materials (preferably at the national level for the sake of consistency) on early culling based on the recognition that dairy farms produce both milk and meat, and
- (5) that all dairy organizations and dairy advisors use these materials to encourage producers to include early culling criteria in their herd health program, and encourage producers to include the herd veterinarian in culling decisions.

It is further recommended that the dairy sector:

- (6) undertake or commission comprehensive analysis of the economic and practical implications and benefits of pro-active culling and make this analysis available to producers and veterinarians, and
- (7) include early culling criteria as a feature of herd health programs in future Codes of Practice.

The importance of animal condition

Cows that are culled for health reasons vary widely in their condition, with varying degrees of lameness, mastitis, metritis, displaced abomasum, pneumonia and emaciation. The condition of the animal, together with the potential delays to slaughter, need to be considered when culling decisions are made. Compromised cows can quickly deteriorate when exposed to transport conditions. As examples, a cow that is "off feed" may have a displaced abomasum that will

cause significant threat to animal welfare if many days elapse before slaughter, and cows may develop mastitis if they are not dried off before long-duration handling and transportation. Each animal's fitness for the longest potential journey should be assessed before the animal is loaded.

It is recommended:

- (8) that the dairy sector identify a lead to adapt existing assessment (decision-tree) tools for loading animals to include the potential delay to slaughter as well as the animal's condition, (9) that herd veterinarians play an active role in guiding producers on determining fitness for transport,
- (10) that transport and auction companies ensure that their personnel are trained to recognize and handle compromised cattle, including awareness of criteria for deciding to load animals for the potential journey.
- (11) that CFIA, and those provincial governments that regulate animal transport, ensure that regulations specify maximum journey times and other details appropriate for compromised animals, and that these maximum journey times also be included in the next version of the Code of Practice for the Care and Handling of Farm Animals: Transportation.

The need for opportunities for local slaughter

Some long distances and lengthy delays occur because of a lack of opportunities for local slaughter, either because plants are not available or will not accept cull dairy cows. Ideally, all sectors (production, transport, sales and slaughter) would function as an integrated system that ensures animal welfare and hence maintains public trust. As a first step, negotiation between producer organizations and slaughter plants might create agreements to facilitate local slaughter of vulnerable animals.

It is recommended:

(12) that provincial dairy organizations and authorities (a) identify local options for the slaughter of cull dairy cows, possibly by negotiating cooperative agreements with plants, and (b) communicate these options to producers so as to make short transport distances and timely slaughter the norm for all cull cows and especially for those showing any sign of compromised health.

Options for management of compromised animals

Provincial legislation creates different management options to protect the welfare of cull dairy cows.

- A "direct to slaughter" designation is available in Ontario. This involves an animal that is found to be compromised at an auction and is then tagged by a provincially appointed veterinarian to proceed directly to a nearby slaughter plant and not go through the normal marketing process that may delay slaughter and pose a risk to welfare.
- On-farm emergency slaughter can be performed in some provinces. In this case, the animal receives ante-mortem veterinary inspection on the farm, is then killed and bled on the farm,

- is transported to a nearby slaughter plant for post-mortem inspection, and (if appropriate) enters the food system.
- Mobile slaughter, used especially in Alberta for certain species, is a potential option for culled dairy cows. This allows the entire slaughter process to occur without transporting the animal, and (pending suitable inspection) enter the food system.

The different options have potential advantages and disadvantages in terms of animal welfare, biosecurity, food safety and economics.

It is recommended:

(13) that the Council of Chief Veterinary Officers examine and discuss the various options and recommend their adoption as appropriate in additional provinces and jurisdictions.

The need for timely, effective euthanasia

In some cases, immediate euthanasia is the only acceptable action as the animal cannot be shipped and would suffer if kept alive for management options such as on-farm emergency slaughter where authorized. However, carrying out euthanasia is stressful for many producers and staff. Producers need to have training in making decisions about euthanasia plus either suitable training and tools to perform euthanasia or ready access to euthanasia services including carcass disposal. Similarly, auction markets need either staff who are trained and equipped to conduct euthanasia or ready access to appropriate services. Veterinarians need suitable training and tools so that they can support effective and humane on-farm practices. Training needs to include managing the personal stress that can arise from conducting euthanasia.

It is recommended:

(14) that provincial producer organizations and authorities ensure, especially through the Pro-Action program, that all dairy farms have the training and tools needed for prompt, effective euthanasia, or ready access to euthanasia services including carcass disposal, and that a euthanasia protocol is part of every herd health program,

(15) that the Livestock Markets Association of Canada and provincial authorities ensure that all livestock auctions have the training and tools needed for prompt, effective euthanasia or ready access to euthanasia services,

(16) that training include managing the human stress that can arise from euthanasia.

Enforcement

Appropriate inspection and enforcement are important to ensure animal welfare and maintain public trust. However, enforcement is complicated by the fact that the responsibility for ensuring fitness to travel can involve a number of different people if the animal changes ownership repeatedly between farm and slaughter. Moreover, inconsistent enforcement could create an incentive for compromised animals to be sent to locations where inspection is perceived to be less frequent or less stringent.

Enforcement of relevant regulations involves a number of agencies and is handled in somewhat different ways in different provinces.

- Throughout Canada the CFIA is responsible for enforcing the Transportation of Animals regulations of the Health of Animals Act. To this end, CFIA staff are present periodically at auctions, assembly yards and other locations to determine compliance with the regulations as guided by the CFIA's Compromised Animals Policy.
- Provincial officials are responsible for various provincial regulations depending on the
 province. Frequency of inspection varies among provinces. In Ontario, for example, the
 Livestock Community Sales Act requires that provincially appointed inspectors are present
 at auction markets on any day that auction is being conducted, whereas inspection is
 periodic or complaint-based in some provinces.
- In some provinces, SPCA inspectors enforce animal welfare/cruelty laws and may attend auction or assembly yards, typically on a complaint basis.
- In some provinces, provincial inspectors are authorized to monitor compliance with the federal Transportation of Animals regulations, in order to achieve more efficient inspection and sharing of information between federal and provincial authorities.
- In some provinces, producer organizations are formally involved in certain corrective actions; for example, Dairy Farmers of Ontario does follow-up with producers who are found to have shipped compromised animals.

It is recommended:

(17) that provincial authorities, with the assistance of the Federal-Provincial Animal Welfare group, examine the different options with a view to recommending the widespread and harmonized adoption of practices deemed best for the protection of animal welfare, (18) that all enforcement authorities consider a memorandum of understanding to facilitate inter-jurisdictional sharing of information related to non-compliance.

Age verification for shipment to the USA

In addition to the normal handling of cattle at auction yards, cows intended for shipment to the USA are subjected to additional handling through a chute to verify that they were born on or after March 1, 1999, in order to meet that country's import requirements. The additional handling imposes increased risk of stress and injury, and the probability of a dairy cow being aged more than 17 years is negligible.

It is recommended:

(19) that the Canadian Food Inspection Agency negotiate with their US counterparts to permit other means of age verification, for example from health records, and to negotiate a date when additional age verification can be discontinued.

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