

The evolution of dairy cattle welfare

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Abstract

In this article we discuss the evolution of dairy cattle welfare, the approaches being taken to improve welfare in other countries and the recent changes that have been taking place in the U.S. and Canada. The role of the veterinarian as a leader in the animal welfare discussion is addressed, along with the growing list of concerns for the dairy industry in maintaining public trust, and the changes that we predict are needed in current auditing procedures.

Key words: dairy, welfare, audits

Introduction

Concern for the welfare of farm animals is not new and continues to evolve over time since Ruth Harrison first raised factory farming concerns in production agriculture in the book *Animal Machines*, released in 1964. This book helped instigate the Brambell Report in 1967 in the United Kingdom, which led to the formation of the Farm Animal Welfare Council and subsequent development and publication of the “Five Freedoms”. Astrid Lindgren, author of the *Pippi Longstocking* novels, similarly moved the animal welfare discussion forward in Sweden in the 1980s with the implementation of key pieces of welfare legislation.

In the U.S., the evolution of animal welfare is much more recent. In the 1970s, Earl Butz, Secretary of Agriculture under the Nixon administration, was envisaging a hyper-efficient, centralized food system that could profitably and cheaply “feed the world” and move away from the supply management systems in place prior to that time. Butz was known for the quotes “get big or get out” and “plant fence row to fence row”, with volume production and efficiency aimed at compensating for inevitable lower prices. While animal welfare concerns regarding how we manage production animals were developing in Europe, the U.S. was moving forward with the industrialization of agricultural systems based on climate, geography, proximity of population centres and available feed, with scant regard for animal welfare.

In the dairy industry, the rapid evolution of animal welfare concerns in the U.S. was accelerated by the Humane Society of the United States (HSUS) and an undercover video exposé of poor animal handling practices at a California slaughter plant in 2008. This scandal led to changes in slaughter plant practices and the handling of down cows and drove increased consumer awareness. Canada waited until 2014 until an undercover video by Mercy for Animals on a dairy farm in Chilliwack, BC, led to similar concerns and reactions. In both countries, these incidents drove the implementation of national assurance programs (DairyFARM and ProAction) administered by the dairy industry itself, in an attempt to show the public that there was oversight of farming practices. Since that time and along with the gradual evolution of social media, the public continues to question whether the animals under our care, that contribute to our food supply, are living a reasonably good life, and it is clear that the veterinary profession has an important part to play in answering those questions.

The continued evolution of animal welfare on the dairy

One of the dairy industry’s core strengths is the positive view that many people have about dairy farming, and the “wholesomeness” of both milk and the way it is produced. This view is frequently accompanied by images of children drinking milk and cows grazing on pasture. This strength can also be regarded as a threat if industry practices no longer align with evolving public expectations. In the last decade the expansion of round-the-clock media consumption has resulted in a growing awareness that the agrarian image (little red barn with green fields) of dairy farming is slowly disappearing into the sunset, and no longer representative of the dairy farms producing the majority of the volume of milk.

Every year there are fewer dairy farms, and the ever-decreasing proportion of society that works within this industry will never be able to “educate” the large majority that do not, at least not on all issues all of the time. Evidence also suggests that when consumers are educated on the routine animal care practices that take place on dairy farms, they find many of them aversive and react, not with acceptance, but with concern. At a time when consumers have increasing amounts of choice in the food that they eat, this concern leads to an erosion of trust in the industry and loss of market share and product value. The notion that consumers will pay more for products from more “welfare friendly” systems and that farmers would be enticed into these approaches has been left far behind. Instead, we have begun an era where failure to consider adapting farming practices, so that they ensure the highest standards of animal welfare and align with societal values, will result in an erosion of the customer base. People no longer need to consume dairy products and will not pay more for them so that farmers can meet their expectations for animal care. There are a lot of non-dairy substitutes, and consequently, there is a clear and present danger to the prosperous future of the dairy industry if they fail to act.

Different countries and regions have taken different approaches to this reality. Some, such as the European Union, have adopted government “animal welfare specific regulations”, while others have attempted to self-regulate themselves by developing industry standards, such as in the United States and Canada, and still others such as Australia, have lagged, but are now looking to see what works and what does not. Regardless, each approach comes with advantages and disadvantages, with some, but not all, aspects of animal welfare being successfully addressed, and significant variation existing in the degree to which farms show that they adhere to the standards.

In some parts of the world, such as Ireland, New Zealand, Australia and large parts of South America, dairy herds are almost exclusively managed on pasture. Of interest is that many European countries who initially moved away from incorporating pasture, such as the Netherlands, are now doing an about face, and once again providing pasture access for at least the summer

months – a move driven almost exclusively by public demands and the farmer’s desire to retain their customer base. In stark contrast, for much of North America and the Middle East – where intensive housing is the norm, routine pasture access is a thing of the past. This adoption of zero grazing challenges consumer expectations of what they envisage to be an ideal dairy farm, creating an unfortunate disconnect and an erosion of trust.

Pain management for procedures such as dehorning and castration, and the banning of certain mutilations, such as tail docking, are legislated in most of Europe, while in North America, we are only just starting to see changes in these practices. While the Canadian dairy industry ended tail docking in 2009, the U.S. dairy industry took an additional 10 years before banning the practice and enforcing this change. The Canadian Code for the Care and Handling of Dairy Cattle (Dairy Code) has required some form of pain control for dehorning since 2009, but now in the recently published second version of the Dairy Code (2023) “horn bud removal *must* take place before 8 weeks of age” and “local anesthesia and systemic analgesia *must* be provided.” Through the Dairy FARM program, up to the end of this year, the U.S. dairy industry has only mandated the timing of the procedure, allowing farms up to 4 years to implement some type of pain management, which will now become a Mandatory Corrective Action Plan in version 5.0 of the program starting January 1, 2024. To date, the U.S. has no requirement for both procedural and post-procedural pain management, relegating such things to the list of “best practices” rather than “must do practices”. In the U.S., many farms have adopted the latter practice of providing a post procedural anti-inflammatory, but fewer are providing a local anesthetic, and the recent changes to the FARM program fall short of recommending such action. The 2019 updated version of the AABP Dehorning Guidelines for members also continues to stop short of recommending that a local cornual block be provided for all instances of dehorning cattle, despite organization guidelines suggesting that members “always consider the welfare of cattle when practicing veterinary medicine” in their Principles of Animal Welfare which was published in 2016. The slow pace of adoption of best practices for animal welfare has also resulted in some state governments playing a role in enacting the will of the people through propositions and state level mandates.

Despite regional improvements in some aspects of animal welfare, and the significant enhancements being made by those in the industry who embrace change and the concept of continuous improvement, much work remains to be done, creating an opportunity for the veterinary profession to become flag bearers for animal welfare and help lead the discussion. What is clear, is that practices that continue to be out of step with public values, will increasingly be questioned and the industry will be expected to listen, and veterinarians can play a role in helping farmers hear. However, to do that, the veterinary profession needs to start taking a leadership role in the animal welfare discussion – rather than the reactive, passive role it has customarily taken.

Health vs. welfare

Veterinarians are trained to improve animal health, and while the protection of animal health and welfare is indeed stated in the oath that every veterinarian takes upon graduation, few are well-trained in animal welfare science – which equally embraces other aspects of welfare, such as the negative impacts of production systems on the animal’s affective state, and the importance of “naturalness” in promoting positive experiences

and behavior. In contrast to animal welfare scientists, veterinarians tend to put outweighed importance on the perceived preservation of health – even if it has significant negative impacts on other aspects of the welfare of the animal. Sometimes, this stands in the way of the profession taking a leadership role in promoting industry change.

As an example, calf morbidity and mortality rates remain abhorrently high in the dairy industry in 2023, in the face of all the vaccines, treatments and facility enhancements we have made over the last few decades. Despite a growing body of scientific evidence to suggest that calves have improved welfare and health when fed at higher rates, in groups rather than individual pens, and in the presence of their mothers, few veterinarians are calling for change in the industry – instead it is the animal welfare scientists leading the discussion. While the economic viability of their clients is a concern of the herd veterinarian, this concern should not color their viewpoint to the degree that it compromises their stance on issues that are important to animal welfare as a whole. So, while we appreciate that converting the dairy industry over to promote prolonged cow-calf contact and fundamentally change the way we raise calves will be a monumental task, it is one that is possible and is happening slowly outside North America. It would be very disappointing if veterinarians were not more involved in this necessary evolution of the industry.

The “List”

Several years ago, the authors developed a list of dairy cattle welfare concerns that “keep us up at night”. In looking back on that list in 2023, it is of grave concern that the majority of items are still “on the list” and are prevalent on many dairy herds. There are still too many young calves that are fed restricted amounts of milk that leave them hungry, too many cows with lameness and hock injuries, too many cows continue to live in tie stalls and stanchions – where freedom of movement is compromised – and we continue to spend airtime engaging in discussions in some states regarding the banning of tail docking and the use of a local anesthetic for dehorning. At the same time, undercover video exposés continue to document poor standards of animal handling – even on farms that are recognized as industry leaders, calves continue to die of respiratory disease and scours at an alarming rate and overstocking in our freestall-housed dairy herds is perhaps worse now than it has ever been since the COVID 19 pandemic. Images of these concerning practices are increasingly shown on social media, and when viewed by the public, they are effective in leaving them questioning whether we indeed are providing the cows and calves under our care a reasonably good life. Truth be told, when thinking of our list of “what keeps us up at night”, it has gotten longer, not shorter. New issues that are increasingly being discussed in the media in Europe and other parts of the globe, and arguably also now in North America, include cow-calf separation, the raising of the milk-fed calf in individual pens without any social contact with other calves, the killing of healthy surplus male and female calves at birth, transport times and distances for neonates, and the failure to timely cull the dairy cow at the end of her productive life in the herd, to name a few. All of these issues are shocking to the customer once they are made aware of them. Believe us when we say that it is not if awareness grows, but simply when, given the rate of consumption of social media. Once they know, in their view, the industry will have clearly failed in their duty to care for the animals. Collectively, these issues and the ever-increasing size

of the U.S. dairy herd – often referred to by critics of animal agriculture as “factory farms” – place the industry at odds with public expectation.

When we look back at when the practice of tail docking was being questioned, the discussions were heated and ripe with tension, but it is clear now that despite it being hard for many farmers to accept, in the end the solution was easy to implement – they simply stopped docking tails and milk quality did not suddenly worsen. Arguably, equally easy to change, is the provision of multi-modal pain mitigation to calves when dehorning – a management practice that is simply the right thing to do, yet many farms have still to implement this change and many veterinarians refuse to change their practices.

We predict that the answers to the growing list of criticisms with regard to animal welfare will not always be so easy to solve, and many solutions may require changes in infrastructure or increases in labor that will cost money; and no doubt in some cases dedicated research efforts will be needed to identify the best path forward. For some producers, this may not be acceptable, but realize then that failure to act also comes with its own risks and costs if no one wants to buy milk from cows, and the actions of the few will impact the market as a whole.

Auditing and the future

If farmers are to maintain their social licence to keep cows and generate milk that consumers are prepared to buy – because they believe that the product is safe and that the animals are well cared for, the industry will need to take these issues seriously and embrace change. One important mechanism for this change in North America has been through the adoption of well-crafted audits, executed with competence and consistency across the industry, that result in demonstrable continuous improvement.

In Europe, the track record for improving animal welfare through the use of audits and assurance programs has been mixed; in part, due to lack of enforcement. However, they have attempted at a minimum to remove the worst offenders from the industry – the ones that make everyone else look bad. Where the European system falls short, is providing evidence that there is sustained continuous improvement on dairy farms. In North America, historically, auditing has focused on outcome assessment rather than process control, and when appropriately benchmarked, some positive progress has been documented using this approach. However, for this to work, the dairy producer must be willing to act to implement lasting change, as audits on their own simply provide information regarding the current status of the farm – they do not fix things! This is where the on-farm veterinarian has an opportunity to assist in the implementation of cost-effective solutions.

Over the period of implementation of audit programs, the “welfare conversation” has also continued to evolve, and audits must adapt to capture these concerns. An example of this is the problem of overstocking in the U.S. The last time the industry pushed ahead with intense overstocking, when milk prices collapsed, the discussion was about how much overstocking we could get away with, without negatively impacting individual cow health and productivity. We are now once again experiencing overstocking on our dairy farms, despite milk prices having been healthier than they have been for some time (although they continue to fluctuate significantly), and animal welfare science providing a plethora of evidence that confirms that even a little overstocking has an immediate and a long-term negative impact on the welfare of the cow. Even though some herds may

be able to manage overstocking better than others in terms of health management, the conversation has changed in the intervening years, and overcrowding will not be accepted by the public once awareness grows, thus eroding consumer trust.

We predict that welfare audits will likely evolve to incorporate more process control alongside outcome assessment, as a consequence of the decision making on many farms, driven by a short-term view focused on maximizing efficiency. For example, a maximum stocking density may be enforced on U.S. dairy farms, such as the stocking density of 1.2 cows per stall set over a decade ago in Canada. While the U.S. continues to remain silent on the issue of stocking density, the newly published Canadian Dairy Code of Practice for the Care and Handling of Dairy Cattle now states that effective April 1, 2027, stocking density must not normally exceed 1.1 cow per stall and that effective April 1, 2031 this will decline further to 1 cow per stall. Other process controls may relate to requirements regarding freedom of movement (i.e., tethering of calves), outside access for zero-grazing herds, no killing of healthy calves, providing calves with adequate amounts of milk and social housing, and management of the cow and calf at the time of calving to promote prolonged contact. However, with farmer driven assurance programs such as the U.S. National Milk Producer Federation’s Farmers Assuring Responsible Management (FARM) program and the Canadian equivalent ProAction (based on the requirements set out in the Dairy Code), there is constant pressure from some within the industries to keep standards sufficiently slack to maximize the chance that all farms comply. Although both Canada and the U.S. dairy industries highlight that over 99% of the farm milk supply is registered (and visited) by their respective assurance programs, transparency in terms of how well farms are actually doing, and data on how many farms have been removed from the supply chain due to poor performance is not widely available to the public. This puts into question whether the dairy industry can self-regulate – thereby threatening the social license to farm. Not surprising, failure to self-regulate in this manner, is also mirrored by increasing pressure from operators post-farm gate, for stricter standards that are needed to keep products from “bad farms” out of their supply chain. Although we see tremendous opportunities for rigorous but confidential first-party audits as a method for preparing farmers to meet standards, this approach will likely not be sufficient in the long run to maintain public trust. Third-party audits are needed to provide external stakeholders, including the public, confidence that welfare standards are being met, and here again, veterinarians are well positioned to play an important role.

Conclusion

Dairy farmers must have courage to engage in the hard discussions and to be open to change; only then will they be able to forge a path forward that is good for animal welfare, good for the farmer, while also ensuring that they maintain the public’s trust – an integral component needed if they want them to continue to buy and consume dairy products. Herd veterinarians have an important part to play in delivering that message to the farms. They have the skills to assist producers meet the standards set by assurance programs and on welfare advisory panels, they need to advocate for the cows and their owners. That does not mean that they need to act as “industry apologists”, rather, they need to play an active role in forging a path forward that is reasonable and attainable, that improves animal welfare while protecting animal health and maintaining public trust.

