Cattle Welfare: Understanding Welfare Standards to Protect and Uncover Profit Opportunities

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Introduction

The topic of animal welfare in the dairy industry resonates strongly with the general public today as both consumers and livestock caregivers demonstrate growing interest in the quality of life of dairy animals. Over the past several decades, there has been great progress seen within the dairy industry; however, the welfare conversations and future vision of dairy farming is continuously evolving (Weary and von Keyserlingk, 2017). For instance, research questions and ethical decisions for animal welfare in the 1983 dairy industry were centered on behavior, stress, objective assessments, animal sentience, and a moral obligation to maximize welfare (Fox et al., 1983). Whereas in 2017, welfare efforts and focus have been centered on balanced and applicable science, objective and subjective assessments, increasing two-way engagement with concerned people, demonstrate compliance with accepted standards, and positioning the industry as a leader in welfare (Weary and von Keyserlingk, 2017). As the focus of discussion, training, and action in the welfare space continues to evolve, there have been many standards and resources developed to assess and address such issues in the dairy industry, amongst other livestock industries (FARM, 2019; PAACO, 2019; OIE, 2019). In order for welfare science and expert guidance to continuously drive effective advancements in the dairy industry, animal welfare issues must be addressed in a holistic manner whereby aspects beyond health and production of cattle welfare are met, in addition to the welfare needs of their caregivers (von Keyserlingk et al., 2009).

Welfare Standards and Tools

The area of welfare science, standards, and policy is vast. Animal welfare standards for livestock take the form of laws, guidelines and certification programs (Weimer et al., 2018). When cattle caregivers adopt appropriate practices relevant to their region and segment within the dairy industry, it is important that they understand (1) the accepted standards and (2) the ways of demonstrating compliance to such standards. The three schools of welfare (Fraser et al., 1997) have served as the scientific basis for most accepted standards and/or definitions of animal welfare and encompass the biological functioning, affective state, and natural living conditions of an animal. Although the three schools are widely recognized among the scientific and research community, the importance of understanding and applying this basic framework at the caregiver level is critical during training exercises and protocol development that is grounded on accepted standards. Given that the three schools can and do overlap, the management of cattle should extend beyond measures of health and production to include the mental state and behavioral expression of animals (von Keyserlingk et al., 2009).

There are two federal livestock animal welfare laws in the U.S, which are limited to animal transportation and slaughter: the Twenty-Eight Hour Law and the Humane Methods of Slaughter Act. Currently, there are no U.S. federal laws that regulate the management of livestock and poultry, however, various animal industry groups have established voluntary guidelines containing best management practices (Weimer et al., 2018). Welfare definitions, guidelines, and audits for dairy cattle are available on both the domestic and global scale, including those published by the National Milk Producers Federation (FARM, 2019), the World Organization for Animal Health (OIE, 2019), the Professional Animal Auditing Certification Organization (PAACO, 2019), and many other standards provided by private organizations (for example, Dean Foods Dairy Stewardship Program). Given that consumer skepticism continues to grow and there is a wide range of personal values and beliefs that drive welfare concerns and buying behaviors across consumers (CFI, 2017; von Keyserlingk et al., 2009), it is important to ensure that dairy managers and cattle caregivers remain science-based in their practices and can demonstrate compliance to accepted standards. Several methods of verifying compliance exist, which include obtaining certification by a 1st, 2nd, and/or 3rd party auditor (Weimer et al., 2018). The 1st and 2nd party auditors may not be considered as fully independent by an outsider (because 1st party auditors are employed by the dairy company and 2nd party auditors are employed by a stakeholder group or allied industry); however, they are the parties that help implement the changes needed in practices

and culture as identified by the assessment/audit. Third-party auditors are independently contracted, and therefore have no association with the producer and are not invested in the success of the producer's dairy. Thus, a 3rd party auditor may bring a level of confidence to outsiders given the nature of their unbiased and independent position, but this should be balanced with the recognition that these auditors do not directly drive change at the farm level.

Overcoming welfare issues as an industry

It is critical that the dairy industry is committed to working together and communicating as an industry to find solutions that address industry-wide welfare concerns. One particular welfare issue that will require an industry-wide approach in leadership is the issue of compromised culled dairy cows arriving at slaughter facilities. Although this is a significant welfare concern recognized by many within the supply chain, compromised dairy cattle that are unfit for transport continue to arrive at slaughter facilities in the U.S., which casts doubt on the priorities that supply chain stakeholders have on production and finances versus cow welfare (Edwards-Callaway et al., 2019). One example that can be learned on addressing welfare issues affecting multiple stakeholders is the response and actions taken by the beef industry when significant observations were made on impaired fed cattle mobility in 2013 (AVMA, 2013). In addressing this issue as an industry, the feedlot, packer, and allied industry segments came together and not only established new methods of scoring cattle specific to this welfare concern, but developed research studies and industry benchmarking programs to monitor trends in abnormal mobility across the U.S. and understand the factors associated with impaired mobility for the betterment of beef cattle and the industry (Edwards-Callaway et al., 2017). The development of these tools has brought increased awareness and training emphasis on the importance of low-stress strategies during the final feeding and transport stages of fed cattle.

Another important area that will be critical for the dairy industry to work in partnership across all stakeholders within the supply chain includes overcoming the barriers that affect the welfare of the workforce-the 'boots on the ground' workers and drivers that directly interact with cattle (Hagevoort et al., 2013; Daigle and Ridge, 2018). It is known that dairy farming is among the most dangerous of occupations and modern dairies have become increasingly reliant on the diverse immigrant workforce (many with little dairy experience) to perform the critical responsibilities of cattle care and feeding, particularly as dairy businesses and productivity expand (Hagevoort et

al., 2013; Hagevoort et al., 2017; Daigle and Ridge, 2018). In addition to the language and literacy barriers, there are many other challenges that workers likely encounter on and off the farm that can have direct and indirect impacts on the care and attention they provide to cattle. For instance, there may be internal farm challenges and external personal challenges that may impact worker performance in the workplace, affect the animals in their care, and ultimately result in high turnover rates typically seen in the agricultural sector (Daigle and Ridge, 2018). Unfortunately, there are very little to no metrics available to effectively quantify or evaluate dairy worker performance, job satisfaction, and related impacts on cattle welfare and productivity (Hagevoort et al., 2013; Hagevoort et al., 2017). There is also a disconnect on the value placed on stockpeople (compensation, workload, ergonomics, perception by society, etc.) and this subject is not often proactively addressed on farms (Hagevoort et al., 2013; Daigle and Ridge, 2018). Although scientific tools such as science-based strategies, best management practices, and audits/assessments are essential for identifying and managing the factors that pose risks to animal welfare, the understanding of challenges and lack of metrics related to worker welfare is as essential for dairy cattle welfare.

Conclusion

Animal welfare is a continuously evolving issue, yet a topic that resonates strongly with the general public and all stakeholders of the dairy supply chain. In order for the dairy industry to position itself as a trailblazer in animal welfare, leadership is needed across the industry to drive advancements in understanding and adopting welfare standards, demonstrate shared values and compliance with accepted standards, and foster new ways of collaborating together as an industry. Furthermore, new methods of addressing cattle welfare-related issues may require a shift in farm leadership skills, approach, or training, because the industry must focus efforts on its people as part of its focus on animals. Given the increased need and dependency of a skilled and stable workforce to carry out cattle management needs in dairies, new tools must account for the physical and mental well-being of owners, managers, and hired labor of dairies.

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