

## **Bridging the Gap between the Beef and Dairy Industries – A Packer Perspective**

Lily N. Edwards-Callaway, PhD

JBS USA LLC, Greeley, CO

Email: Edwards-Callaway@jbssa.com

Over the past several years, effort has been put forth within the agricultural industry to bridge the gap between the beef and dairy industries concerning the value of a cow as perceived by the different agricultural sectors. In a dairy cow's lifetime, she contributes to the food industry in a variety of ways, primarily providing milk, but also importantly serving as a source of meat within the beef supply chain. In 2015, approximately 28 million cattle were processed in federally inspected meat plants in the United States and 10 % of those animals were market dairy cows, representing a significant portion of the supply chain (USDA, 2015).

One of the challenges that the beef and dairy industries face is finding a common understanding of when the value-gain of production on-farm changes to the value-gain of the market animal at the packing plant. Identifying where this value tipping point lies is subjective and is impacted by many variables; understanding these impacting variables needs further focus and collaboration between all segments of the value chain. Even though fluid milk is the main income for a dairy farmer, the sale of market cows and bulls does provide an additional source of income. Unfortunately, these market cows and bulls are often taken out of the herd for a reason that can often directly, or indirectly, impact the quality of the animal/carcass, such as arthritic joints, inadequate muscling, potential sickness, lameness, and bruising. Many of these quality defects also negatively impact animal well-being. It is important for both

the beef and dairy industries to understand and explore ways to improve the quality and well-being attributes of animals that are culled and marketed.

The 2007 National Market Cow and Bull Beef Quality Audit (NMCBBQA) identified that market dairy cows, compared with both beef cows and dairy and beef bulls, had the greatest number of visible defects (e.g. cancer eye, udder defects, etc.) observed in lairage at the packing plant (Hale et al., 2007). As a result of some of the information gathered in the 2007 NMCBBQA, a survey was conducted at auction markets to document the prevalence of several quality traits in market cows and bulls in the auction ring (Ahola et al., 2011). The survey also assessed whether or not the quality traits identified had any impacts on purchase price of the animals (Ahola et al., 2011). Ahola et al. (2011) determined that the following traits resulted in discounted purchase prices of dairy cows at the auction markets included in the study:

- Extra-large udder,
- Visibly sick,
- Surgical evidence,
- Cancer eye,
- Foot abnormalities,
- Low body condition score (< 3),
- Mastitis,
- Lameness,
- Reproductive defects, and
- Hip sores.

Although many of these traits are common reasons for culling, many of them, depending on the severity, are causes for

concern as they can negatively impact the state of well-being of the animal. Many of these traits may also decrease the animal's likelihood of making it through the marketing process and some of the additional stresses related to that process (i.e. loading, transportation, unloading, lairage, etc.).

When purchasing a market cow, a cattle buyer is thinking about several variables with quality, animal welfare, and price among them. Determining the value of a market cow, from a packer perspective, takes into consideration:

- Market demand (i.e. number of animals to purchase, type of animals to purchase),
- Animal condition (i.e. does the animal exhibit any characteristics that will likely prevent it from passing ante or post-mortem inspection),
- Animal well-being (i.e. is the animal's welfare impaired and will it be able to withstand the stress of transportation and additional handling), and
- Quality (i.e. although bruising cannot be viewed from the outside, does the animal have any obvious signs of injury or defects that could add to loss of carcass value).

Processors look to purchase animals that fit within their specifications for size and quality, but they also want to purchase an animal that is fit for transport and is in a good state of well-being.

During the 2007 NMCBBQA conducted by the National Cattlemen's Beef Association (NCBA), a strategy workshop was held that identified primary directives for the improvement of market cow and bull quality focusing on both increasing value to

the producer by minimizing quality defects and improving economic gain, but also to increase value by improving the animal well-being status of market animals, as some of the market cow deficiencies often negatively impact animal welfare (NCBA, 2007). Similarly, during a strategy workshop convened as a part of the 2011 National Beef Quality Audit (NBQA), the audit focused on finished steers and heifers, the working group identified the beef industry disconnect with the dairy industry as one of the industry's barriers to progress and recognized the importance of working with the industry to bridge this gap (NCBA, 2012).

There have been several initiatives to unite the animal care programs led by both the dairy and beef industries, as several of the quality issues were present within both industries. In the early 1980s the beef industry responded to increased observations of quality issues such as residues, injection site lesions, and bruises in finished cattle. The concept for the NCBA Beef Quality Assurance (BQA) program was developed and since then has grown into the cattle industry's guidelines for maintaining high levels of animal care and resulting meat quality. The Dairy Beef Quality Assurance (DBQA) program was subsequently designed in the early 1990s to educate and help dairy producers recognize that the animals they cull from the herd play an important role in the beef food chain. Several years later in 2009, the National BQA program partnered with the National Dairy Herd Association, who had developed a program similar to DBQA, to launch today's program called Dairy Animal Care Quality Assurance (DACQA). The management techniques that are discussed in the DACQA program provide information on how to minimize meat quality defects, monitor health, and market cattle in a timely

manner. The dairy industry also has developed animal care programs focusing on best management practices for the dairy animal with some focus on the cull animal as well. Simultaneously in 2009, National Milk Producers Federation (NMPF) initiated the creation of the National Dairy FARM Program (Farmers Assuring Responsible Management) to demonstrate, and eventually verify, commitment to animal care and quality. This program originally focused more on dairy cow management and quality from a milk production standpoint, but in the past year there has been enhanced collaboration between representatives of the beef industry and NMPF to add more components of beef quality assurance and focus on market cow condition in future versions of FARM.

Efforts have begun on the 2016 NBQA, for which data will be collected for both finished and market cull animals simultaneously. The audit results will provide interesting information about progress that both industries have made in some of the defects that can impact meat quality and animal well-being. Dairy and beef producers alike must accept that they play a key role in ensuring that beef is safe and wholesome for consumers.

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