## The National Beef Quality Audit – 2011:

Quantifying willingness-to-pay, best-worst scaling, and current status of quality characteristics in different beef industry marketing sectors

he National Beef Quality Audit (NBQA) is conducted to identify quality challenges, shortfalls, and targets of desired quality levels for the beef industry. It has been funded by the Beef Checkoff every five years for the past two decades. Results of the first two audits (1991 and 1995) determined that the greatest concerns for packers included hide damage and the lack of uniformity in live cattle; yet, purveyors, retailers, and restaurateurs were more concerned with excessive external fat, low overall uniformity, and inconsistency of beef cuts. The NBQA-2000 documented improvements in certain producer management practices which resulted in an improvement of end-product characteristics. Results from the NBQA-2005 revealed numerous improvements in beef production at the packer/merchandiser level, but also identified opportunities for improving cattle production practices to more consistently meet packer and merchandiser specifications and consumer demands. Through face-to-face interviews with representatives from all sectors, NBQA-2011 determined how each beef market sector defined quality, estimated willingness-to-pay (WTP) for those quality categories, and established a best-worst (BW) ranking for the identified quality categories.

Table 1. Comparison of the Quality Challenges Ranked by Priority for Each of the	
National Beef Quality Audits	

1991	1995	2000	2005	2011
External Fat	Overall Uniformity	Overall Uniformity	Traceability	Food Safety
Seam Fat	Overall Palatability	Carcass Weights	<b>Overall Uniformity</b>	Eating Satisfaction
Overall	Marbling	Tenderness	Instrument	How and Where the
Palatability			Grading	Cattle Were Raised
Tenderness	Tenderness	Marbling	Market Signals	Lean, Fat, Bone
Cutability	External/Seam Fat	Reduced Quality Due to Implants	Segmentation	Weight and Size
Marbling	Cut Weights	External Fat	Carcass Weights	Cattle Genetics

Results from these face-to-face interviews conducted over 11 months revealed areas where the industry needs to improve in order to increase the value of its products and continue to be a competitive protein.

One area identified

is being more transparent in telling the beef story. The knowledge level of consumers is increasing and they want to know more about **how and where the animals were raised**. *Animal well-being* is an attribute identified by retailers (50%), foodservice (44%), and packers (39%) who want to ensure the animals have been raised humanely before harvest, which could give producers a competitive advantage as suppliers if BQA-certified, PACCO-certified, or Trained Animal Handlers (TAH) are documented. *Feed stuffs in diets* is also a response identified in this category by all beef market sectors specifically discussing the composition of the diet of the animal (grain-fed, grass-fed, vegetarian only diet, etc.) and how it affects the end product. Lastly, *maintain health/management records* is frequently stated in this category by all beef market sectors except foodservice. Specifically the sectors want health/management records documented (either by paper or electronically) to know that withdrawal times are met, and if all of the specifications for "niche" programs



Second in a series of NBQA fact sheets.

are being followed. Overall, **how and where the cattle were raised** (1:4) and **food safety** (1:6) are the only two categories with significant odds of being identified by companies as "non-negotiable requirements" prior to purchasing. Additionally, retailers mean what they say when they call a specific quality category a "non-negotiable requirement," and are not influenced by a discounted price.

**Food safety** is the single most important quality category to packers, foodservice, and retailers; those sectors closest to the consumer. The awareness of the importance of **food safety** in beef products is increasing as evidenced by packers who want to sell product, and foodservice, and retailers who want to buy product with *no detectable* E. coli *O157:H7*.

The primary opportunities for improving **eating satisfaction**, common to all beef market sectors, concerned *tenderness* and *flavor* of beef products produced, which is also the way **eating satisfaction** is most frequently described by all sectors. **Eating satisfaction** is the only category, common to packers (1:2), foodservice (1:3), and retailers (1:2), with significant odds for which companies are willing to pay a premium; whereas feeders are willing to pay the highest percent premium for **eating satisfaction**, if the pricing mechanism allows for such reward.

The most important opportunities to improve **visual characteristics** of products sold to retailers and foodservice were to provide product with *appropriate lean color* that contains the specified *amount of marbling* requested. **Visual characteristics** are the only category, common to feeders (1:3), packers (1:5), and foodservice (1:6), with significant odds for which companies are least likely willing to pay a premium. Packers, foodservice, and retailers all frequently mention *no defects* as a description of **visual characteristics** specifying no bruises, blood splash, dark cutters, foreign material, buck shot, hide damage, excessive purge, blood clots, and that the product is at an optimal pH level.

Other opportunities for improving the competitiveness of the beef industry include the categories **cattle genetics** and **lean, fat, and bone**. As a consequence from the growth of branded beef programs, when asked about **cattle genetics**, all beef market sectors responses include *breed type* and *genetic potential for marbling*. Interestingly, *genetic testing/marker testing* is only mentioned to describe **cattle genetics** by the government and allied industry sector, which demonstrates the need for producer education about utilizing these tests for selection. The category **lean, fat, and bone** is most frequently described as *lean-to-fat ratio*, which could warrant premium values if the supply specification is met by each beef market customer starting with the producer.

Comparing the results of this audit to the 1991 NBQA shows that progress is being made in the areas of injectionsite lesions, hide damage due to mud/manure and hot-iron brands, and liver condemnations. Although these successes have been made as a result of concerted efforts by all

segments, shortfalls remain that need to be addressed to improve the industry as a whole. This is not just about one sector but about the entire beef industry acting together as a whole, telling the beef story, building trust and consumer confidence in not only those that purchase our products, but also with each other up and down the beef supply chain.

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