

Pillars of Beef Chain Success

Key findings of the checkoff-funded 2011 National Beef Quality Audit.

The National Beef Quality Audit (NBQA) was initiated in 1991, and every five years since has provided guideposts for improving the U.S. beef supply. Early audits focused on physical attributes of beef and beef byproducts, such as marbling, external fat, carcass weight and carcass blemishes.

Results from the early audits were impressive. Excess fat, revealed as an issue in the 1991 NBQA, has been removed. Injection-site lesions were drastically reduced, and progress in the reduction of other defects has also been achieved. It is obvious that when cattlemen and other beef producers know about challenges that reduce profitability and limit progress, they step up.

During the past 20 years, however, the landscape of the industry — and of society — has changed dramatically. The changes in cattle and beef markets, in eating patterns, in consumer attitudes and more were considered as phases of the 2011 NBQA were being developed, as the research was conducted, and as researchers and study participants reviewed the resulting data.

The 2011 NBQA was the most comprehensive and detailed audit yet. The components yielded a wealth of information that will create an industry roadmap for driving sectors of the industry

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forward and creating more opportunities for all beef producers. They include:

Phase I

Face-to-face interviews, conducted during an 11-month period, of each production sector helped define seven different quality categories. Understanding what quality means to the various industry sectors, as well as determining the value of each quality attribute to the sectors, will help the industry make modifications needed to increase the value of its products.

Some conclusions from Phase I interviews:

1. Terminology about quality among segments is not standardized.
2. According to interview participants, consumers want to know more about the beef they consume, how it's raised and where it comes from.
3. Food safety is the single most important quality attribute to packers, foodservice and retailers.
4. While the industry produces a safe, high-quality product, continuous improvement in these areas should be an industry-wide focus.
5. The entire industry prides itself on humane animal treatment, but segments closer to the consumer have additional customer/societal pressures to ensure humane treatment.

6. Interviews confirm that the industry must do a better job of telling its story.

Phase II

A comprehensive evaluation was conducted on about 18,000 carcasses on the harvest floor in eight processing plants. Quality and yield grade characteristics were gathered from about 9,000 chilled carcasses in 28 processing plants, and instrument grading information from approximately 2.4 million carcasses from 17 plants owned by four processing companies was compiled. The information helps the industry measure progress compared to previous surveys, and provides a benchmark for future industry efforts.

Some results from Phase II research:

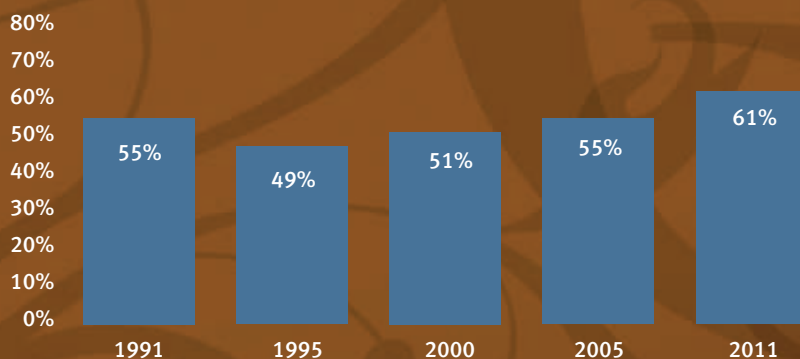
1. Individual animal identification (ID) has been increasing. The number of cattle individually identified with visual tags jumped from 38.7% in 2005 to 50.6% in 2011.
2. An increasing number of carcasses are grading USDA Choice and Prime. This suggests continued improvement in product eating quality.
3. Instrument grading was not found to be notably different than human cooler grading. These results may accelerate the trend toward more instrument grading.
4. Carcass sizes have increased significantly, but average quality grades have improved. This suggests the industry has made strides in selection and management, especially at the feedyard.
5. The trend toward more “branded” beef at the supermarket was supported by both Phase I and Phase II research. This suggests a need for more program cattle.

Phase III

A survey of 3,755 cattlemen helped identify the adoption of Beef Quality Assurance (BQA) management principles. This marks the first time cattle producers have been surveyed on a national basis for input to measure and strengthen practices that support confidence in beef products and production systems.

Some Phase III survey findings include:

Fig. 1: USDA Prime and Choice trend



Source: National Beef Quality Audits of 1991, 1995, 2000, 2005 and 2011.

Table 1: Quality challenges, ranked according to priority, 1991 to 2011

1991	1995	2000	2005	2011
External fat	Overall uniformity	Overall uniformity	Traceability	Food safety
Seam fat	Overall palatability	Carcass weights	Overall uniformity	Eating satisfaction
Overall palatability	Marbling	Tenderness	Instrument grading	How & where raised
Tenderness	Tenderness	Marbling	Market signals	Lean, fat & bone
Overall cutability	External & seam fat	Reduced quality due to use of implants	Segmentation	Weight & size
Marbling	Cut weights	External fat	Carcass weights	Cattle genetics

Source: National Beef Quality Audits of 1991, 1995, 2000, 2005 and 2011.

- Nearly 90% of producers have a working relationship with their veterinarians. However, about a quarter said they would use medications other than as directed on a drug product's label without being directed by a vet.
- Use of electric prods is becoming rare in the industry. Overall, 98.4% said they do not use an electric prod as their primary driving tool.
- Progress continues to be made in quality areas identified in the 1991 NBQA. The preferred route for administering injections is subcutaneously (84.2%), and 87% said their preferred location for injections was in front of the shoulder.
- About 78% had attended a meeting at which best management practices or BQA principles had been discussed, and of those cow-calf producers who had attended a BQA session, 99% said they followed best management practices consistent with BQA.

Pillars of success

Forty-one individuals representing each segment of the industry met at the 2011 NBQA Strategy Workshop to review results of the research phases and discuss implications for the U.S. beef industry. Strategies developed at the meeting provide

Table 2: Percentage distribution¹ of carcasses stratified by quality² and yield grade

USDA Yield Grade	USDA Quality Grade, %			
	Prime	Choice	Select	Other
1	0.0	3.6	7.3	1.4
2	0.4	22.8	15.3	2.4
3	1.8	25.9	8.0	1.5
4	0.5	6.3	1.4	0.4
5	0.1	1.3	0.1	0.1

¹Carcasses with missing values for USDA quality or yield grades are not included.

²USDA Quality Grade was affected by maturity and dark-cutting beef. There were no Canner carcasses observed in the audit.

Source: National Beef Quality Audit, 2011.

the industry a blueprint for the next five years.

Some key priorities were identified at the strategy workshop after participants had a chance to review the data:

Assuring eating satisfaction and product integrity are paramount.

The industry must focus on protecting, defending and continuously improving eating satisfaction and product integrity. In order to do this, it must find a way to connect consumers to the beef story by assuring product authenticity and

demonstrating transparency. Meeting these objectives will require more-effective information sharing to improve beef's value while maximizing consumer trust.

We must do a better job of telling our industry's terrific story. The industry has a great story to tell, but often the message is marginalized by those who don't want the industry to succeed.

Barriers to success

Participants in the workshop identified

CONTINUED ON PAGE 280

Table 3: Recordkeeping methods: Percentages of Phase III survey respondents keeping track of withdrawal times by method

	Overall	Seedstock	Commercial cow-calf	Backgrounder/preconditioner	Stocker/yearling	Feedlot	Dairy
Individual ID ¹	78.3	88.8	76.9	73.4	61.9	77.9	83.2
Animal in a group ²	11.0	4.3	10.8	12.8	22.5	15.5	11.7
Tracking groups ³	9.1	6.6	10.6	9.6	13.8	5.5	3.7
More than one	1.6	0.4	1.7	4.3	1.9	1.0	1.5

¹By recording the individual ID.

²By identifying only animals in a group that are treated.

³By tracking groups of cattle where individuals within the group were treated.

Source: National Beef Quality Audit, 2011.

Pillars of Beef Chain Success CONTINUED FROM PAGE 279

a number of potential barriers to success in the industry. They included:

A low level of written protocols. Proper recordkeeping must become more consistent through the entire supply chain.

Balancing the needs of all industry segments. There must be a system that transmits information and facilitates data flow to communicate the proper signals throughout the supply chain.

A lack of trust between industry segments. Transparent and accurate information sharing between segments would help increase trust and build a more authentic and sustainable beef industry.

A disconnect with dairy. Dairy animals supply a significant portion of the beef marketed, so communicating the importance of BQA to the dairy segment is crucial.

Carcass inconsistency. The industry must eliminate costly nonconformers and

provide better market signals that lead to better selection, production practices and post-harvest fabrication.

No common language. The communication barrier that allows segments to define value differently must be resolved.

Potential food safety issues. While the industry has a stellar food safety record, the industry must closely monitor emerging pathogens and address potential challenges.



Conclusion

Only that which is measured can be effectively managed. The NBQA provides an industry-wide scorecard for individual decision-makers across the beef supply chain to improve the quality and value of U.S. beef. More than that, though, it helps identify and correct quality shortfalls and nonconformance, which will lead to greater profitability through improved beef demand. More information about the 2011 NBQA (and how it compares to preceding audits), as well as the NBQA Executive

Table 4: Lost opportunities* identified by NBQA 2011, per head

Reason	Loss
Quality grade	(\$25.25)
Yield grade	(\$5.77)
Carcass wt.	(\$6.75)
Hide branding	(\$0.74)
Offal	(\$5.15)
Total	(\$43.66)

*Amount lost due to nonconformance.

Source: National Beef Quality Audit, 2011.

Summary, can be found on the Beef Quality Assurance website at www.bqa.org.

For more information contact the National Cattlemen's Beef Association, 9110 East Nichols Ave., Centennial, CO 80112; 303-694-0305.



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