

National Beef Quality Audit: We've come a long way but still have far to go.

The National Beef Quality Audit (NBQA) was created to identify and measure quality problems within our industry and to establish an educational plan to address the problems identified. The first audit began in 1991 and was conducted again in 1995, 1999, 2000 and most recently 2005. Each audit begins with a series of questionnaires and conversations with personal in all segments of the beef industry. Individuals from producers, packers, purveyors, retailers and restaurateurs identify the top 10 quality problems they feel are affecting the beef product. Secondly, quantitative data is collected from several packing plants on the slaughter floor and in the cooler, at two separate times during the year. Finally, data is analyzed. Quality problems in beef carcasses are ranked and educational programs are arranged to address these challenges.

The first audit concluded that US beef carcasses had several quality issues; too fat, too large, and too inconsistent. NBQA estimated that each carcass left \$279.82 on the table due to waste (fat and muscling), taste (palatability, marbling, maturity and gender), management (hide defects, carcass and live pathology, tongue infection, injection sites, bruises, dark cutters, grubs, blood splash, calloused ribeyes and yellow fat) and carcass weight (Table 1). That first audit prompted educational programs aimed at producers to adjust management choices to increase the quality of the meat product, such as Beef Quality Assurance (BQA) programs. Indeed we did make progress by decreasing the number of injection site lesions, presence of bruises on carcasses, hide damage due to parasites and brands among others. This resulted in a 22.8 percent improvement from 1995 to 2000 in value-losses due to waste, taste, management, and weight concerns (Table 2). However, as illustrated in Table 1 we still have many carcass problems to address.

Table 1. Greatest quality challenges for purveyors, retailers, and restaurateurs.

NBQA-1991	NBQA-1995	NBQA-2000	NBQA-2005
(1) External Fat	(1) Overall Uniformity	(1) Marbling	(1) Marbling
(2) Injection Sites	(2) Tenderness	(2) Overall Uniformity	(2) Carcass Weights
(3) Ribeye Size	(3) Overall Palatability	(3) Tenderness	(3) Uniformity in cuts
(4) Carcass Weights	(4) External Fat	(4) External Fat	(4) Tenderness
(5) Seam Fat	(5) Price vs. Value	(5) Flavor	(5) External Fat
(6) Overall Uniformity	(6) Flavor	(6) Carcass Weights	(6) Juiciness
(7) Overall Cutability	(7) Carcass Weights	(7) Ribeye Size	(7) Flavor
(8) Dark Cutters	(8) Quality Grade Mix	(8) Overall Cutability	(8) Overall Palatability
(9) Overall Palatability	(9) Injection Sites	(9) Juiciness	(9) Overall Cutability
(10) Bruise Damage	(10) Overall Cutability	(10) Overall Palatability	(10) Ribeye Size

*Adapted from the Executive Summary of the 2005 National Beef Quality Audit

Table 2. NBQA benchmarks for quality value challenges/losses to the beef industry.

	Using 1991 Logic/Prices			Using 2000 Logic/Prices	
	NBQA-1991	NBQA-1995	NBQA-2000	NBQA-1995	NBQA-2000
Waste	\$219.25	\$203.38	\$207.90	\$47.76	\$43.41
Taste	28.81	36.10	21.85	38.30	23.14
Management	27.26	32.98	35.45	45.16	40.14
Weight	4.50	4.13	6.07	4.66	8.23
TOTAL	\$279.82	\$276.59	\$271.27	\$135.88	\$104.92

*Executive Summary of the 2005 National Beef Quality Audit

Quality grades and yield grades remain to be a trouble spot for the beef industry. We are not supplying the consumer with what he or she wants (Table 3). The only reason the spread between preferred and actual is not larger due to the influence of dairy breeds. Dairy cattle tend to marble very well and finish with less fat. For example, of all of the native cattle processed 2.1% of the carcasses graded Prime whereas 12.9% of all the dairy cattle processed. Likewise, of all the native cattle processed 49.1% were YG 1 and 2 compared to 54.6% of all the dairy cattle processed. Our carcass weights have also remained to gain pounds each year (57 pounds over the last 16 years) despite the industry's cry for smaller and more consistent ribeyes and value cuts. We have also been producing carcasses that are too fat and require costly trimming in order to appeal to the consumer. Our future depends on genetic selection and proper feed/finish management to achieve carcass values that resemble the preferred taste of the consumer.

Table 3. Quality grades and yield grades preferred by the consumer vs. actual supply.

	Preferred	Actual		Preferred	Actual
Prime	7%	3%	YG1	14%	17%
Top Choice	29	19	YG2	53	36
Low Choice	33	35	YG3	32	33
Select	31	38	YG4	1	12
Standard	0	5	YG5	0	2

* 2005 National Beef Quality Audit

A portion of the audit also reveals that exporting to foreign markets emphasizes different challenges for beef producers than does marketing domestically. The top five concerns for concerns for beef in regards to export are as follows;

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| <ul style="list-style-type: none"> • Age and Source Verification • Size and Weight Variability • Insufficient Marbling • Dull and Dark Lean Color • Implanting of Cattle | <p>Other concerns, not placed in any particular order</p> <ul style="list-style-type: none"> • Assured Animal welfare • Tenderness Guarantee • Excess Fat • Injection Site Free • Assured Food Safety (BSE) |
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Results of the 2005 National Beef Quality Audit have prompted the industry's key people and researchers to generate a list of "Industry Goals" in order to increase the quality and acceptability of our end product:

- Clarify beef market signals that encourage production of cattle, carcasses and cuts that conform to industry targets.
- Foster communication and understanding among industry groups and segments of beef supply chain.
- Move expeditiously toward source and age verification to build supply lines of cattle to fit domestic and export markets.
- Minimize production of excess fat.
- Strive for uniformity/consistency in cattle production.
- Consider tenderness in genetic and management decisions.
- Target weights that optimize profitability without creating productivity or product desirability problems.
- Recognize the importance of marbling as a value-determining trait.
- Use results of instrument assessments of cattle, carcasses and cuts to make genetic and management decisions.
- Select management practices that increase value.

The National Beef Quality Audit is a terrific tool for managers of all segments of the industry to use. It points out trends in consumer preferences, our movement toward a better product and the work we have ahead of us. Each segment of the industry can use this audit to take responsibility for the shortcomings and plan to adjust their management in order to give the consumer what they want. We all need to help our neighbors; our feeders and our packers achieve their individual goals and work together to achieve a stable market share both domestically and internationally.

For a copy of the Executive Summary of the 2005 National Beef Quality Audit stop by your local extension office.

Barbi Riggs

So how do we get there paragraph? Our future depends on genetic selection and proper feed/finish management to achieve carcass values that resemble the preferred taste of the consumer. Too fat will be less prominent with increasing feed costs? Identification of genetically superior bulls for marbling? Feeding strategies?