

# On the Right Track

*Audit shows improvements in beef quality and identifies key challenges to overcome.*

BY ERIC GRANT

**A**ngus breeders have played a key role in helping the industry respond to the marketplace, delivering higher-quality products to consumers than they did in the mid-1990s.

Overall, the recently concluded 2000 National Beef Quality Audit (NBQA) found that the industry reduced the costs due to quality defects in fed cattle by 15% since 1995. Much of that improvement is due to reductions in producer-related problems, such as injection-site lesions, bruises, dark-cutting carcasses and horns.

This good news comes on the heels of the National Beef Tenderness Survey, which

shows beef tenderness has improved by 20% since the early 1990s.

“Cattle producers have taken seriously their commitment to meeting and exceeding expectations of consumers,” says Ran Smith, chairman of the industry’s quality assurance advisory board. “Thanks to [the] national beef quality assurance (BQA) program, state-run BQA programs, Extension specialists, veterinarians and the tireless energy of individual producers, beef is better than it used to be.”

The audit, sponsored by the National Cattlemen’s Beef Association (NCBA) and funded by the \$1/head beef checkoff

program, was conducted by Colorado State University, Oklahoma State University, Texas A&M University and West Texas A&M University.

To identify quality problems, researchers conducted the audit in three phases. First, they distributed surveys to producers, packers, purveyors, restaurateurs and retailers. Second, they conducted on-site audits at packing plants. Third, they conducted a strategy workshop with representatives of all industry sectors to discuss findings and to develop recommendations for the industry.

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PHOTO BY SHAUNA ROSE HERMEL

The list of goals to reach by the 2005 National Beef Quality Audit (NBQA) includes accompanying all seedstock animals with meaningful genetic data for production and end-product traits.

## Goals for the 2005 NBQA

### By the year 2005, the industry should

- eliminate USDA Standard-grade carcasses;
- eliminate Yield Grade (YG) 4s and 5s;
- eliminate injection-site lesions from whole-muscle cuts, including the chuck;
- eliminate side-branded hides;
- reduce horns to less than 5% of the fed-cattle supply;
- develop and implement a voluntary, industry-driven, standardized electronic identification (ID) system;
- develop an information system that allows producers to conduct quality audits of their own herds;
- accompany all seedstock animals with meaningful genetic data for production and end-product traits;
- provide BQA training for all beef producers;
- eliminate major and critical bruises that result in a devaluation of subprimals;
- improve the transportation practices and cattle-handling equipment; and
- continually improve the eating quality of beef.

### Strategies

1. Use selection and management techniques to produce cattle that fit customer expectations for marbling, red-meat yield, weight and other value-determining attributes.
2. Collect and analyze data, then share and use information.
3. Enhance an already commendable record of production of safe, nutritious and wholesome beef.
4. Assure delivery of predictable and uniform lots of cattle by more correctly managing implants, nutrition, horns, castration, sorting and health programs while refining selection strategies to meet specific market windows.
5. Assure that the needs of case-ready-product marketing efforts can be met by improving the yield, consistency and palatability characteristics of beef.
6. Implement new production technologies only after carefully considering the consumer-demand perception, economics, environment and animal-welfare consequences.
7. Encourage continued use of cattle-marketing systems that identify, categorize and assign price to product attributes that affect consumer satisfaction by appropriately rewarding and discounting performance.
8. Identify breeding, management and sorting systems that optimize production, palatability, cutability and profitability.
9. Encourage postharvest product-enhancement technologies to assure the delivery of suitably tender and flavorful products to consumers while simultaneously managing the preharvest production process to achieve the same objectives.

# Now what?

Results of the latest National Beef Quality Audit are in.  
So what should producers do with them?

BY ERIC GRANT



**Tom Field**

Colorado State University animal scientist Tom Field, who took part in the recently concluded 2000 National Beef Quality Audit (NBQA), provides insight as to how cattle producers should interpret results of the audit to position their breeding programs for the future.

## **What's your overall reaction to the NBQA's results?**

"I'm generally positive about results of the study. The market's better than it's been for a long time, and there's reason for hope. If we can now shore up some of our biosecurity issues and make sure U.S. beef remains BSE (bovine spongiform encephalopathy)-free, U.S. beef producers could potentially own the world market."

## **As producers select replacement heifers this spring, and as they look at results of the 2000 NBQA, what are the basic criteria they should use as they move toward greater consumer orientation in their cow herds?**

"Producers should move toward consumer needs primarily with their sires. The cows must fit the production and climatic environment of their particular enterprises. For this reason, I would be hesitant to have people chasing carcass traits in the replacement females unless it can be done without compromising fertility, fleshing ability, convenience traits, calving ease, stayability, etc. If a herd has an identification system that lets you track calves throughout a retained ownership situation, then you may want to cull those dams that produced calves that fail to perform adequately in either the feedyard or on the cutting table."

## **In your research, have you seen significant changes in the reproductive or overall efficiency of the nation's cow herd as the industry has moved toward greater consumer orientation?**

"We do not have meaningful evidence in regards to trends in reproduction as influenced by selection for carcass traits. To be honest, I think that the industry generally has not yet put much emphasis on selection for carcass traits other

than making some decisions about which breeds to use.

"If we make an all-out run toward cutability, we likely would select for genotypes that aren't going to have high reproductive performance in relatively stressful environments. We learn the most about reproductive performance of various genotypes when we have the harshest conditions (drought, blizzard, etc).

"Efficiency of offspring is a different matter; we have improved individual animal performance to the point where we likely ought to be very careful. The amount of carcass weight produced today on a per cow basis is the highest in history. We need to quit focusing on efficiency of an individual animal at one stage in the system and begin to think about how groups of animals function throughout the system."

## **What's the goal for individual producers — as they relate to the tactics and goals presented in NBQA 2000 — as they move into the coming years?**

"NBQA lays out a benchmark for commodity beef. Producers can best use the information as a measuring stick to determine how their cattle perform. Producers can then begin to assess the demands of the various market niches that exist and determine where they can best participate in a profitable fashion."

# NBQA 2000

*A commitment to never-ending improvement*

## **What does the advent of case-ready beef mean to average producers, and how will it affect their cow herds in the coming years?**

"Case-ready beef simply means that there [is] going to be lots of focus on capturing cost efficiencies between packing plants and retail outlets. In the long run, especially if packing plants try to automate, it will become increasingly important for the industry to be able to deliver load lots of cattle that are consistent in tenderness, cutability and size. I think we'll spend more time in the future trying to fine-tune breeding systems rather than chasing individual traits or extremes."

## **What's the next step?**

"Now the key to continued improvement will depend on individual producers [conducting] their own, individual quality audits, evaluating where their management and genetics stand. Then they need to initiate contact with their customers or suppliers to open up lines of communication within this industry. There is no longer a one-size-fits-all protocol for this industry. It's the small, individual conversations that will make continued quality improvements happen."



### The good news

The audit found several key trends that point to improvements in beef quality.

**More Choice and Prime carcasses.** The percentage of Choice and Prime carcasses climbed from 48% in 1995 to 51% of the total fed population in 2000. The percentage of Prime-grade carcasses rose from 1.3% to 2% in 2000. These trends correlate with increased use of Angus genetics, which have an established track record for superior eating quality and marbling.

**Fewer undesirable “hardbone” and B-maturity carcasses.** The percentage of B-maturity carcasses dropped from 4.3% in 1995 to 2.5% in 2000.

**No major shifts in excess fat production.** While carcass fat thickness is slightly higher than it was in 1995, it remains well below 1991 levels. In 1991 excess fat production was a primary product-quality concern.

**Substantial improvements in horns.** The percentage of cattle without horns improved dramatically, from 68% in 1995 to 77% in 2000. Cattle with horns cause carcass bruising during transport and handling.

**Substantial improvements in the frequency of injection-site lesions.** Less than 3% of all top butts contained an injection-site lesion in 2000. That’s down from 22% in the early 1990s. While not a food safety problem, injection-site lesions negatively affect tenderness and product presentation.



PHOTO BY MATT PERRIER

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### Still needing attention

The audit also identified the top 10 quality issues that still negatively affect the quality of beef.

1. **Low overall uniformity and consistency of cattle, carcasses and cuts.** With increasing numbers of packers and meat processors moving to case-ready products, the need for greater uniformity of cuts and carcasses has become a pressing issue.
2. **Inappropriate carcass size and weight.** Carcasses that weigh in excess of 950 pounds (lb.) are difficult for packers and others to handle, to transport and to process because they produce cuts that are too big.
3. **Inadequate tenderness.** Despite headway, undesirably tough beef continues to be a problem that must be eliminated.
4. **Insufficient marbling.** While the percentage of Choice and Prime carcasses has risen, there is still great need for well-marbled carcasses.
5. **Reduced quality grade and beef tenderness** due to overly aggressive implanting, poor animal health and inappropriate weight loss.
6. **Excess external fat cover.** Cattle were slightly fatter in 2000 than they were in 1995, and producers should continue to seek genetics and production practices that result in a desirable quality grade while at the



PHOTO BY PAUL ANDRE

Cattle were slightly fatter in 2000 than they were in 1995, and producers should continue to seek genetics and production practices that result in a desirable quality grade while diminishing excess fat.

same time diminishing excess fat.

7. **Inappropriate USDA quality grade mix.** The industry still needs more high-quality-grade cattle than it is producing today.
8. **Too much hide damage due to brands.** Producers who must brand should move the location from the rib to the hip, where they cause less damage.
9. **Too frequent and severe bruises.** While their frequency has diminished, bruises still negatively affect beef because they must be trimmed and sold as a lower-value product. Producers should manage and transport their cattle to continue making improvements in this area.
10. **Too frequent liver condemnations.** Producers should strive to prevent liver fluke infestations of cattle.

“The industry should be pleased with the progress we’ve made,” says Bob Kerschen, chairman of NCBA’s quality assurance subcommittee. “But it’s also important for all producers to recognize that commitment to quality is something that never ends. There’s still opportunity for improvement and still a need to deliver higher-quality products in the future.”

