

Total Quality Management

TQM puts cow-calf producers on the front line for producing a quality beef product.

BY ERIC GRANT

Most cattle producers probably haven't heard of W. Edwards Deming. But Deming, whose ideas and work began to gain acceptance in the industrial communities nearly a half-century ago, has had a far-reaching and profound impact on the way people produce products and deliver them to the marketplace.

Deming's philosophy is at the heart of total quality management (TQM), which believes problems are best managed when they're prevented from occurring, long before they get too big to control.

Deming believed managers should move from "outcomes" or "goals" and focus instead on "processes" and "people."

Interestingly, the first industrialists to adopt Deming's philosophies were the Japanese. Deming — perhaps more than anyone else — helped transform their economy and its industries into one of the world's largest and most robust. Today, Japanese companies produce many of the highest-quality and affordable products in the marketplace — from electronics to cars.

In recent years, the TQM revolution has swept across many segments of the beef

industry. Most packers and meat processors now follow strict, Deming-based Hazard Analysis and Critical Control Points (HACCP) procedures when harvesting cattle and processing beef. HACCP is just a fancy way of saying TQM.

An example of a HACCP procedure at the packer level

would be a requirement that only "clean" cattle enter the kill floor. Rather than washing hides after a soiled animal has entered the plant, the animal would be rinsed before it comes through the door. This would leave potential

contamination outside, where it couldn't affect processing or food safety.

TQM can be applied to a number of different aspects of cattle production.

■ Recordkeeping

Maintaining good books on everything from finances to breeding to animal health is a surefire way to add value to your cattle. This is especially true as the industry is moving quickly into an information age. And as the industry becomes more information-dependent, those who keep good records will have a clear advantage over their counterparts who don't.

Being proactive about bookkeeping also can make

securing operating loans much easier, and it can make your financial dealings with partners, spouses or even your kids less stressful.

■ Good people management

Producers need to be aware that their employees are key in delivering quality to the marketplace. Part of this involves continuously educating employees about such things as animal handling and animal health procedures, focusing much of this energy on processes rather than on outcomes. If they do things right while they are doing them — instead of monitoring for problems later, product quality is secured.

■ Environmental quality

Take a walk around your ranch or farm, and look at it through the eyes of a passerby. If your operation is a dump, maybe it's time you apply a little TQM and clean up the place a bit.

Product quality and consumer perceptions of our product often are colored by how well cattlemen manage their lands. Consumers who see overgrazed rangeland or poor manure management are less likely to support the beef industry by purchasing its product.

"If we're doing the right things to ensure environmental quality, then there's less of a chance that we'll have problems with the public and [see] decreases in demand for our product," says Bas Aja, who coordinates Arizona's beef quality assurance (BQA) program. "We want to have a TQM program that's flexible and dynamic enough to foresee [and to] respond to any beef consumer or public perception issues that impact beef demand."

In Wyoming the vast Split Rock Ranch took a TQM approach to monitoring its rangeland resources. The proactive management enabled the ranch to improve productivity and plant viability

both for cattle and wildlife.

The Bureau of Land Management (BLM), the government agency from which the Split Rock leases much of its lands, allowed the ranch to double stocking rates because of the improved management. The action was completely counter to what's happened elsewhere in the West, where grazing reductions are the norm.

"The Split Rock wouldn't have gotten any of this — even the 100% increase — without having a proactive monitoring program in place," says Tony Malmberg, who conducted the monitoring. "Without a way of qualitatively demonstrating the impacts of his grazing program through good records, we'd be at ground zero."

■ Animal handling

TQM is all about anticipation. And one of the easiest ways to improve the productivity of your cow herd — and to help the industry produce higher-quality products — is to take a look at your animal handling practices and facilities.

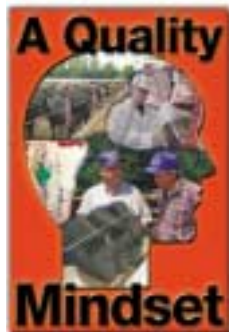
If your facilities are run-down, or your fences are torn up, or your hired man is a yahoo, believe it or not, you're probably negatively affecting beef quality.

Busted fences add up to more time working your cattle, which often results in more stress on your cows and crews, carcass bruises, and scratches or other damage to hides.

One of the simplest ways to prevent these things is to spend an hour or two walking through your facilities and fixing them before the cows get there. Protruding nails cause hide damage and bruises, so pound them in. Broken fence posts can cripple a cow. And so on.

If your crew doesn't work your cattle quietly and gently, encourage them to change their manner or let them go.

Roughing up your calves prior to shipment to a feedlot can make them more prone to sickness. Handling your cull cows or bulls improperly before



trucking them to town can cause bruises and injury.

And stressing your fed cattle before they go to the packing plant can result in a higher frequency of dark cutters and lower quality grades.

All of these things can cost you big bucks.

■ **Animal health, beef quality**

A key area where TQM principles play an important role is BQA. Currently there are 47 states with BQA programs. Each state conducts educational workshops and is responsible in large part for developing educational materials for producers and their employees.

One of the oldest and most successful BQA programs is Arizona's. "The fact that every finished steer or heifer in Arizona is produced in a BQA-certified feedyard is probably our greatest accomplishment to date," Aja says.

The certification program has led to significant improvements in the quality and safety of beef, he continues. "We've reduced our residue incidence to zero [and] reduced bruising; and — as a result of the audits and training programs — we are seeing producers do a better job of handling cattle and retention of information."

Aja's workshops focus on proper injection-site quality control, which means producers always should administer injectable products in the neck or shoulder regions of their cattle; proper handling; and improved documentation of when and how animal health products are administered.

Aja encourages producers to maintain extensive records as a key component because it enables feedlot operators to document when, how and why animal health products were administered to avoid product quality or safety problems once cattle leave the lot.

Many of beef's product-quality problems begin with mismanagement in the cow-calf sector. For instance, in 1994 the National Non-Fed Beef Quality

Audit discovered that quality defects in cull cows and bulls robbed the beef industry of nearly \$70/head marketed that year. The biggest problems were hide defects, excess external fat, inadequate muscling and bruising.

Injection-site lesions continue as one of the major product-quality problems for cattle producers. A recent survey conducted by Colorado State University showed that nearly 30% of rounds in beef cows contain an injection-site lesion. Many rounds from cows are sold as whole-muscle cuts, not as ground beef, so it's becoming vitally important that producers ensure they're not damaging this economically important cut.

While not a food safety issue, injection sites do affect eating quality and industry competitiveness. Meat processors must trim and discard the damaged tissue, which greatly reduces the marketability and value of the round. Tenderness also is significantly reduced in an area that extends at least 3 inches (in.) in all directions from an injection site lesion.

Research also shows that injections given to calves can cause carcass damage, so it's imperative that producers administer intramuscular (IM) products properly — in the neck region, where they will do the least damage — Aja says.

But thanks to TQM and BQA, producers are making headway on this important issue.

Recent audits conducted by the National Cattlemen's Beef Association (NCBA) reveal that the incidence of injection sites has fallen below 3% in top sirloin butts, the lowest level in 10 years. That's down from the 22% high point experienced in 1991.

NCBA began conducting quarterly injection-site audits in 1991 after packers and retailers raised concerns over high incidence levels of the problem.

"The industry's challenge now is to make even greater reductions in the incidence of

Transforming your company

Deming's 14 steps to TQM

1. Create constancy of purpose toward improvement of product and service, with the aim to become competitive, to stay in business and to provide jobs.
2. Adopt the new philosophy. We are in a new economic age. Western management must awaken to the challenge, must learn their responsibilities and take on leadership for change.
3. Cease dependence on inspection to achieve quality. Eliminate the need for inspection on a mass basis by building quality into the product in the first place.
4. End the practice of awarding business on the basis of price. Instead, minimize total cost. Move toward a single supplier for any one item and a long-term relationship of loyalty and trust.
5. Improve constantly and forever the process of production and service to improve quality and productivity, thus constantly decreasing costs.
6. Institute training on the job for everybody, including management, because new skills are continuously required.
7. Institute leadership. The aim of supervision should be to help people, machines and gadgets to do a better job. Supervision of management is in need of overhaul, as well as supervision of production workers.
8. Drive out fear so everyone may work effectively for the company.
9. Break down barriers between departments. People in research, design, sales and production must work as a team to foresee problems of production and usage that may be encountered with the product or service.
10. Eliminate slogans, exhortations and targets that ask for zero defects and new levels of productivity. Such exhortations only create adversarial relationships. Low quality and low productivity belong to the system and lie beyond the power of the workforce.
11. Eliminate quotas, management by numbers and arbitrary numerical goals. Substitute with helpful leadership.
12. Remove barriers that rob hourly workers of pride of workmanship. The responsibility of supervisors must be changed from sheer numbers to quality. Remove barriers that rob people in management and in engineering of their pride of workmanship. This means abolishment of the annual or merit rating and of management by objective.
13. Institute a vigorous program of education and self-improvement.
14. Define top management's permanent commitment to improving quality and productivity and management's obligation to implement these principles. Management must know what it is they are committed to and take action to accomplish the transformation.

injection-site lesions," says Ran Smith, chairman of the NCBA Quality Assurance Advisory Board and a feedlot operator from Tribune, Kan. "We believe that, through continuous education and individual effort

by cattle producers, the industry stands poised to make even more dramatic improvement. All of this will make our product higher in quality and more competitive in the marketplace."

