

Do the Right Thing

Beef Quality Assurance and health training workshops offer management tips for socially conscious producers.

by Kasey Miller

Do the right thing, even when no one is looking,” asserts Stephen Russell, director of industry relations of the Kansas Beef Council. “Consumers want safe food in a socially conscious way.”

A way to show consumers your dedication to socially conscious management practices is to become Beef Quality Assurance (BQA)-certified. BQA ensures a safe, wholesome and healthy beef supply by improving animal husbandry. It also provides a principled way of doing business.

Russell explains that the goal of BQA is to get producers to have a management and emergency plan, to keep records and follow rules, and to use measured indicators to drive decisions. The program also encourages producers to do the right thing all of the time, but also to tell the story of those positive practices to those outside of the ag industry.

Importance of BQA

Dan Thomson, director of the Beef Cattle Institute (BCI) at Kansas State University (K-State) and assistant dean at the College of Veterinary Medicine, says the Kansas beef industry generates \$6.53 billion annually. Based on industry numbers, odds are one in three steaks or hamburgers is from Kansas. Agriculture is a gigantic industry, but he notes that it gets attacked every day by animal rights groups and the media.

“Animal rights groups use abuse incidents to drive animal welfare legislation,” he says. “Animal welfare is doing the chores. It’s preventative medicine, it’s breaking ice for our cows, it’s shelter for our animals, it is nutrition. Everything we do is to improve production, reproduction rates, decrease morbidity, and decrease mortality.”

Many people take for granted that food production is so stable in the United States, and thus take issue with management practices. Thomson mentions his involvement with the World Organization for Animal Health (OIE), and 75% of the 175 member countries are developing. From this involvement, he says he has learned, “Money equals food, and poverty equals starvation.”

He asserts that if you are fed, then you have the luxury of having other problems.

BQA came about as a means to combat those other problems.

BQA origins

Today, BQA helps cattlemen answer two core questions: How well do we care for our cattle? How can we prove it?

In the 1970s, the precursor to BQA, Beef Safety Assurance, was started to target real and perceived beef safety issues, with the goal of rebuilding beef demand. According to www.bqa.org, production measures were successfully implemented and stakeholders were educated about proper pharmaceutical product use, including honoring withdrawal times. The program switched focus a bit and changed to BQA in the late 1980s and early 1990s.

Dee Griffin, veterinarian and associate professor, Great Plains Veterinary Education Center, University of Nebraska, was among the BQA pioneers. “It’s a process of figuring out what could go wrong, planning to avoid it — then validating and documenting what you have done,” Griffin says. “BQA is just part of good business.”

With the change to BQA came the first National Beef Quality Audit (NBQA) in 1991. Russell explains the three phases of the 2011 NBQA. Knowing industry strengths and weaknesses as a whole allows for the creation of BQA guidelines.

Phase I identified how each beef production and market sector defines “quality,” and consumers’ willingness to pay for said “quality.” The NBQA found that each sector defined quality differently, Russell reports, which makes communications with consumers difficult. Food safety and eating satisfaction were viewed as both strengths and weaknesses, which means that gains have been made, but opportunities are still available to improve.

Phase II assessed the quality and consistency of U.S. fed steers and heifers at the cooler and processing plants. The percentage of cattle grading Prime and Choice has increased, despite higher carcass sizes. Management practices have also improved, as fewer hides had mud and manure on them.

Phase III looked to quantify producers’ BQA-related practices, in addition to developing a benchmark to measure BQA adoption. More than 78% of the respondents use individual tags to identify their cattle. More than 90% of respondents have a

working relationship with their veterinarian, though more than 25% said they would use medications other than as directed on the label or don’t have written withdrawal records. Russell warns that these statistics are disconcerting and require immediate attention from the industry.

Phase III also showed that 98% of respondents do not use the electric prod as their primary driving tool. Almost half didn’t use one at all, and 43% said they use an electric prod on less than 10% of their cattle.

Another win for BQA was that a subcutaneous (sub-Q) neck injection was preferred by 87% of respondents. Additionally, 87% had heard of BQA, 78% had attended a meeting at which best management practices or BQA principles were discussed, and 99% of the cow-calf producer respondents said they followed BQA or similar best management practices.

Management practices

BQA works to ensure cattle five freedoms, Thomson says:

- ▶ freedom from thirst and hunger;
- ▶ freedom from discomfort;
- ▶ freedom from pain, injury and disease;
- ▶ freedom from fear and distress; and
- ▶ freedom to express normal behavior.

Best management practices, written operating procedures and assessments for each of these saves money and helps with audits from animal rights groups.

Many practices or assessments are very commonsense, but little changes make a big difference. Appropriate use of driving aids and proper care of downer cattle are areas of concern in avoiding abuse or neglect, he says. Cleanliness is the watchword for thirst and feed, and he says dirty water means *E. coli*.

For feed additives and medication, no extra-label use of feed is allowed, and additives must be used according to the Food and Drug Administration (FDA). He asserts that in the case of additives, no one, not even veterinarians, can change the use.

Cattle comfort can be assessed by a mud score, pen maintenance and by having plans for snow and rain. Inspections should also include the processing, loading and unloading areas, and hospital areas.

Thomson shares the results of a study on feeder calves that examined average-daily-

gain (ADG) losses due to the depth of wintertime mud. As Table 1 shows, the deeper the mud, the bigger the losses in average daily gain.

Table 1: ADG losses, by depth of mud in pen

Depth of mud	ADG losses, %
No mud	0
Dewclaw-deep	7
Shin-deep	14
Below the hock	21
Hock-deep	28
Belly-deep	35

Just one lap around a receiving pen with a box blade can let new cattle lie down to decrease stress and increase performance, Thomson shares.

He emphasizes that shade is necessary to combat heat stress.

“A beef cow requires 20 square feet of shade per head,” he explains. “The higher the shade is put, the more shade it makes, but make sure that your loaders can get underneath it.”

Another study shows that pen bedding also affects temperature, even without shade. With an ambient temperature of 97° F, the average temperature in a pen with a bare floor was 137°. With 6 inches (in.) of manure, the temperature was 137°; whereas, with 6 in. of straw it was 112°.

Handling is always discussed when animal welfare comes up, but it is not the only aspect of stress. Facilities can also add to stress. For this reason, Thomson recommends using the Bud Box designed by Bud Williams or the tub system designed by Temple Grandin. Both handling systems use the animal’s behavior to

work with the handler. He also suggests walking through your facilities to understand what a calf sees as his options within the system. Often, a simple gate placement decreases stress levels during cattle handling.

Have a valid veterinarian/client relationship, Thomson stresses, and document employee training, especially on procedures such as dehorning and castration. To reduce vet bills in the feedyard and improve performance, he urges producers to precondition or background calves before sending them to the feedyard.

Avoidance of injection-site lesions has always been a key focus of BQA, an issue that sparked the creation of the program. Thomson recommends using a sub-Q injection in the neck between the ear and the point of the shoulder. Use a ½- or ⅝-in. needle for sub-Q injections (and a 1-in. or 1½-in. needle for intramuscular injections). He warns against tenting the skin, as that may increase the chance of an accidental needle stick. Movement of injection sites to the neck from other areas, such as top of the round, has drastically decreased the incidence of injection-site lesions in beef products.

For best management practices, standard operating procedures, cattle handling and transportation guides, and assessments for your own operation, you can download BQA materials from www.bqa.org/resources.aspx. The website also lists certification and training events. A BQA certification is valid for three years.

“Nobody cares more about cattle than the people who choose to be in this industry,” Thomson concludes.



Care of downed animals

An important aspect of cattle care that often gets the worst publicity is downer cattle. Dan Thomson, director of the Beef Cattle Institute (BCI) at Kansas State University (K-State) and assistant dean at the College of Veterinary Medicine, explains there are many causes for downer cattle, including listeria, polio, lead, tetanus, nervous coccidiosis, *Histophilus somnus*, and calving difficulties.

It is illegal to drag a downed cow, or to lift her with chains. It is acceptable to use a sled, lowboy trailer or the bucket of a loader, Thomson says.

To care for downed cows, remember that there is a difference between alert cows and moribund cows. Alert cows need shelter, hay and water. If a cow is moribund, or approaching death, she should be euthanized, and if an alert cow shows no improvement for 36 hours, euthanasia is also recommended.

If euthanasia is required, Thomson urges that a veterinarian be called, but if that isn’t possible, he shared that different munitions may be preferred over others if using a gun. A .22 solid point, 9 mm solid point, and 1-oz. 12-gauge shell work well. Birdshot can work if at a close range. Avoid using a hollow-point bullet, as it is ineffective. A captive bolt is also available, but the animal must be restrained for this method to avoid injury to the cattleman.

If euthanizing an animal using a firearm, he stresses to not shoot between the eyes. The bovine brain is higher in the skull. To find the preferred spot, imagine a line from the inside corner of each eye to the opposite side of the poll, as if making an X on the forehead. The point where the lines intersect is the most effective target.

He also notes that blunt force should never be used, nor injection of air or a chemical substance (unless it is barbiturate from a veterinarian) into the vein.