

# The Narrow Window

*Through genetics and management, commercial and seedstock Angus producers can produce uniform, consistent cattle.*

Story by  
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Beef quality assurance (BQA) is much more than ensuring injections are administered properly and in the right location. Though correct injection-site protocol is critical, cattle producers need to keep in mind there are a whole host of often-overlooked quality measures that they can take to improve beef for consumers.

“BQA is a manufacturing philosophy that impacts every area of management in a production system,” says Bill Mies, a former Texas A&M University Extension specialist who recently joined Future Beef Operations LLC. “The concept of quality management starts with the design of the product, such as genetics, and continues through the marketing of the final product. In the cow-calf industry, the producers must first design the genetics with both the final consumer as well as the rest of the industry in mind.”

This means producers need to know what their final product looks like at harvest and how well it fits industry standards, Mies adds. This requires considerable effort and tracking on the part of producers, but it is information — which can be obtained through American Angus Association commercial and seedstock programs — that is vital if changes are to be made in a breeding program that will ensure the producer of a place in the market in the future.

“The production of the calves during their stay on the ranch must be managed with the final consumer in mind as well,” Mies says. “This means that implants, injections, brands and body composition are all keys to producing a high-quality product. In addition, the calves themselves must be uniform and predictable in their performance when they leave the ranch, no matter who owns them in the next phase of the production chain. Unless the calves are predictable in their performance and composition, they will not be a high-quality product on grass, in the feedyard, the packinghouse or in eating satisfaction on a consumer’s plate.”

To produce a high-quality product, cow-

calf producers must look beyond their ranch in order to determine if they have produced a quality product, Mies says. They must follow their calves through the system and determine if their calves were considered to be high-quality at each phase of the production chain. Deficiencies that show up in this type of evaluation can be corrected with changes in genetics or management or both.

## **Management**

Angus producers should begin their individual BQA programs by decreasing the length of their calving seasons, Mies says. “If we cull cows that are either open or habitually late in the calving season and only put the bulls out for 60 days, we can narrow the calving season in a cow herd dramatically in one year. The decreased calving season not only makes sense in terms of labor and other costs, it will produce a set of calves that are more uniform for weight at weaning. If we can then select our early-born heifers, we will be selecting for females that will breed early and continue to fit the window.”

Next, Mies encourages commercial producers to implant the youngest half of their heifers with a calf implant. “If you are only selecting heifers from the oldest half of your calf crop, then you can implant the remaining heifers and cause them to catch up with the rest of your calf crop for weight,” he explains. “Since these younger heifers will not be held for breeding, there is no issue of delayed fertility to be concerned about as a result of using implants on them.”

In addition, producers should castrate early and implant all steer calves, he recommends. “Research shows that castrating calves at a young age has a positive effect on the tenderness of our product.”

Third, producers should consider creep-feeding their calves. “Creep-feeding calves can add pounds to the sale weight of your cattle when every pound is important,” Mies says. “In addition, the calves from lower-milking mothers will tend to catch up to the calves from the high-milking mothers. This will bring the calf crop closer together at sale time.” How much creep-feeding you

can afford is based on your own environmental and financial situation.

Mies’s fourth management tip is to stimulate immune systems by vaccinating while calves are still on the cows. “This allows calves with mothers to provide either a few maternal antibodies or a large amount of maternal antibodies to react more the same to postweaning vaccinations,” he says.

## **Genetics**

From a genetics-management standpoint, Mies has five steps to improve consistency in the cow herd. And he believes production of a more uniform calf crop starts with visual selection.

First, “use visual selection to remove your very largest-framed cows and your smallest-framed cows to even up your herd with females that are more uniform,” he says. “By doing this, you simply take the extreme ends off. You want to do the same with the extreme-muscle cows and the cows that don’t have enough muscle.”

Second, Mies advises commercial producers to use one type of bull from one breed. “Pick a bull, any bull, but a bull of one breed — and stick with him,” he says. “Many producers commonly use two or three breeds of bulls on a given set of cows. These random matings produce very nonuniform calf crops. A single breed of bulls will also produce calves with differences, but if you have selected bulls of similar type, you will move toward uniformity more rapidly.”

Third, producers should select the type of bull based on his expected progeny differences (EPDs), frame size and muscling. “In order to try to use one type of one bull in your herd, use visual indicators of frame size and muscling,” he advises. “The majority of commercial producers are not able to find enough sires with data, so they need to do the next best thing, which is visual selection for correctness, frame and muscle. The appropriate frame size and muscle needed in a bull will vary depending on where those traits are in your cows.”

Fourth, “try to get the color of your calves uniform,” Mies says. “If calves are all one color, or color pattern, they look more

uniform than they really are. Since perception and appearance sell most feeder cattle, it is important to have the calves colored as much alike as possible. And, if you set out to color them the same, inadvertently you make carcass quality more uniform.”

Finally, Mies advises producers to gather

as much data as possible on calf performance in feedlots and the packinghouse. “The ultimate decisions concerning consistency and uniformity can only be made with data,” he concludes. “Producers need to obtain this data through opportunities made available to them through steer-feeding

tests with their universities or state cattle associations. This information will help producers narrow the window of consistency and uniformity.”



**Editor's Note:** Please see accompanying story, “BQA and the stocker operator,” on page 16.

## A BQA refresher

Remember all the details of the beef quality assurance (BQA) workshop you attended? If not, you may want to review the National Cattlemen's Beef Association (NCBA) BQA standards and guidelines for production of quality cattle and beef.

### Feedstuffs

- Maintain records of any pesticide and herbicide use on pasture or crops that could potentially lead to violative residues in grazing cattle or feedlot cattle.
- Establish adequate quality control programs for incoming feedstuffs. Programs should be designed to eliminate contamination from molds, mycotoxins or chemicals of incoming feed ingredients. Supplier assurance of feed-ingredient quality is recommended.
- Analyze suspect feedstuffs prior to use.
- Per Food and Drug Administration (FDA) guidelines, do not feed ruminant-derived protein sources.
- Support with sound science the feeding of byproduct ingredients.

### Feed additives and medications

- Use only FDA-approved medicated feed additives in rations.
- Use medicated feed additives in accordance with the FDA good manufacturing practices (GMP) regulation.
- Extralabel use of feed additives is illegal and strictly prohibited.
- To avoid violative residues, strictly adhere to withdrawal times.
- Where applicable, keep complete records when formulating or feeding medicated feed rations.
- Keep records a minimum of two years.
- The operator will assure that all additives are withdrawn at the proper time to avoid violative residues.

### Processing/treatment and records

- Follow all FDA, U.S. Department of Agriculture (USDA) and Environmental Protection Agency (EPA) guidelines for products used.
- Use all products according to label directions.
- Minimize extralabel drug use, and use only when prescribed by a veterinarian working under a valid veterinary-client-patient relationship (VCPR).
- Strictly adhere to extended withdrawal periods (as determined by the veterinarian within the context of a valid VCPR).
- Maintain treatment records, recording individual animal or group identification (ID), date treated, product adminis-

tered and manufacturer's lot or serial number, dosage used, route and location of administration, and earliest date animal will have cleared withdrawal period.

- When cattle are processed as a group, all cattle within the group shall be identified as such and the following information shall be recorded: group or lot identification, date treated, product administered and manufacturer's lot or serial number, dosage used, route and location of administration, and earliest date animal will have cleared withdrawal period.
- Appropriate personnel should check all cattle (fed and cull) shipped to slaughter to assure that animals that have been treated meet or exceed label or prescription withdrawal times for all animal health products administered.
- Transfer all processing and treatment records with the cattle to the next production level. Prospective buyers must be informed of any cattle that have not met withdrawal times.

### Injectable animal health products

- Administer in the neck region products labeled for subcutaneous (sub-Q) administration.
- Administer in the neck region only all products labeled for intramuscular (IM) use. No exceptions, regardless of age.
- All products cause tissue damage when injected IM. Therefore, avoid all IM use if possible.
- Products cleared for sub-Q, intravenous (IV) or oral administration are recommended.
- Products with low dosage rates are recommended. Follow proper spacing.
- Administer no more than 10 cubic centimeters (cc) of product per IM injection site.

### Care and husbandry practices

- Handle and transport all cattle in such fashion as to minimize stress, injury and bruising.
- Regularly inspect facilities (fences, corrals, loadouts, etc.) to ensure proper care and ease of handling.
- Keep feed and water handling equipment clean.
- Provide appropriate nutritional and feedstuffs management.
- Maintain an environment appropriate to the production setting.
- Evaluate biosecurity.
- Keep records a minimum of two years (three for restricted-use pesticides).

