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Florida Cow-Calf and Stocker Beef Safety and Quality Assurance Handbook: Introduction[1]

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- Introduction
- History of Beef Quality Assurance
- Why Get Involved?
- What is Quality?
- Florida Beef Quality Producer Program
- The Basic Ideas Behind HACCP
- All sections of the handbook are listed at http://edis.ifas.ufl.edu/TOPIC_BOOK_BSQA

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Florida Beef Quality Producer Program

Managing cattle for the kind of beef you want your kids to eat.

For Cow-Calf and Stocker Operators

MEMBER Florida CATTLEMEN'S ASSOCIATION

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A cooperative program by Florida Cattlemen's Association, Florida Department of Agriculture and Consumer Services, and the University of Florida (IFAS) Extension Service

Florida Cow-Calf and Stocker

Beef Safety

and

Quality Assurance

Handbook

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Introduction

As a Florida food producer, your livelihood depends on securing the trust of your consumers. Food safety – or the perception of it – plays a major role in the buying decisions of health-conscious Americans all across the country. Fortunately for cattle producers, the public generally perceives beef as a safe and wholesome product. However, there is no such thing as "too" safe when it comes to the food consumers buy for themselves – and their children. After all, the beef you produce is a product that somebody will put in his or her mouth.

Add to that reality the ever-increasing competition for the consumer's protein dollar, and you quickly see how crucial it is for cattle producers of all sizes in every segment to commit to a management strategy that inspires consumer confidence in the safety of beef products.

In addition to safety, factors affecting cattle quality – and food quality – are also important. At the consumer level, quality attributes such as tenderness, flavor and portion size are important. At the production level, we are concerned with things like performance, health and predictability all through the system.

In both cases, these quality factors can be affected by management decisions throughout the production chain – including your management decisions at the cow-calf or stocker level.

Furthermore, consumers have become more environmentally conscious. They are more closely scrutinizing agricultural practices that affect air and water quality and animal welfare. Although these factors may or may not *directly* affect the safety and quality of beef, they impact public *perceptions* of the beef industry, which may alter consumer acceptance of beef products. The Florida Cattlemen's Association has been very proactive in the environmental arena. An excellent manual *Water Quality Best Management Practices for Cow/Calf Operations in Florida* has been previously published. Environmental stewardship is becoming more important and should be considered an essential component of any Total Quality Management Program.

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The beef industry is evolving into vertically coordinated (vs. integrated) production systems, which require all segments – from the cow-calf producer to the consumer – to communicate and share information to (1) assure that beef is safe and wholesome, (2) increase the efficiency of production and (3) enhance environmental quality.

Beef Quality Assurance (BQA) is a proven system of sensible management practices that will further strengthen consumer confidence in beef products. Adopting BQA principles is a proactive way to implement a philosophy of Total Quality Management (TQM) into your beef operation and address quality and safety issues.

BQA can also help you become more competitive as a producer. Your active participation in this program is beneficial to building up the world's image of beef originating from the State of Florida and the United States.

The History of Beef Quality Assurance

In the early 1960s, Pillsbury, NASA and the U.S. Army Natick Laboratories cooperatively developed a revolutionary quality control program. Its objectives were to ensure food safety on NASA missions and to reduce the chance of product defects entering the food chain.

Their program, the Hazard Analysis Critical Control Point (HACCP) system, gained U.S. Department of Agriculture acceptance and is presently the dominant outline for safety assurance programs in processed and fresh foods. HACCP plans are simply prevention plans that identify and control potential foods hazards and monitor the production process.

Because of concerns with additional government regulation, cattle producers began investigating ways to ensure that their production practices were safe and would pass the scrutiny of the consumer. In 1982, USDA's Food Safety Inspection Service (FSIS) began working with the U.S. beef industry to develop the Pre-harvest Beef Safety Production Program.

Between 1982 and 1985, three feedlots cooperated with FSIS to evaluate production practices and assess residue risks. In 1985, after careful analysis and adjustment of production practices, these three feedlots were certified by FSIS as "Verified Production Control" feedlots. What was learned during those three years now serves as the backbone for the National Cattlemen's Beef Association (NCBA) Beef Quality Assurance program. (Guidelines for the NCBA program are presented in the Appendix on page 115.)

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This *voluntary* program has clearly been successful. BQA practices have almost eliminated violations associated with chemical residues and significantly reduced injection site lesions in fed beef cattle (steers and heifers fed in a commercial feedyard). However, residues and injection site lesions are still a significant issue in cull breeding stock (your "used" cows and herd bulls). Cull cattle provide approximately 15 to 20 percent of total beef production.

In the 1990s, USDA mandated that all packing and processing plants develop and implement HACCP programs. To date, similar mandatory regulations do not exist for preharvest segments of the beef industry. However, in order to provide a quality, wholesome product without government regulation, industry groups have developed voluntary safety and quality assurance programs for the production segments of the industry.

For example, in 1986, the Texas Cattle Feeders Association initiated the first state BQA program in the country. In recent years, the TCFA program has grown to incorporate HACCP principles to address safety concerns and further address quality issues by identifying quality control points within the feedyard management system. It has paved the way toward ensuring the safety and quality of fed cattle in their members' control.

With all of this in mind, the Florida Beef Quality Producer program has been developed to assist Florida cow-calf and stocker operators with developing BQA management strategies to ensure the safety and quality of cattle within their control – *your* control.

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Why Get *Involved?*

Other segments of the industry, from feedyards to foodservice, have already adopted HACCP and BQA management principles. And to further ensure the safety of products leaving their operations, whether that product is fed cattle or case-ready meat products, these companies are looking to do business with cow-calf producers and stocker operators who utilize the same management philosophy.

By adopting BQA principles as a way of doing business, you are positioning your operation to take advantage of these opportunities. In other words, making a commitment to Beef Quality Assurance isn't just the right thing to do for the consumer – it's also the right thing to do for *you* in terms of market access.

Participating in the Florida Beef Quality Producer program is one way to show our customers, whether they are calf buyers or consumers, that Florida cattle producers take every step possible to raise beef for them responsibly. Furthermore, every aspect of a BQA program is part of good business management.

For example, the information gained from record keeping in your BQA program will help you make better business decisions and avoid making costly production mistakes. BQA may also be an important resource for producers who are confronted with additional government regulation and/or possible litigation.

In other words, making a commitment to Beef Quality Assurance isn't just the right thing to do for the consumer – it's also the right thing to do for <u>you</u> in terms of market access.

What *is* Quality?

"Quality" can be defined in several different ways. One definition is "providing products that meet or exceed expectations and established requirements every time." Obviously, in the beef industry, established product requirements differ among the various production segments, but there are some common expectations.

For example, the products of a commercial cow-calf operation are weaned calves and cull breeding stock. These calves should meet the requirements for performance, health and carcass characteristics that satisfy stocker operators and cattle feeders. Cull breeding stock must meet requirements of non-fed beef processors for health, food safety and expectations for carcass characteristics.

As products of a stocker operation, feeder cattle should meet requirements of cattle feeders for performance, health, carcass characteristics and food safety. Fed cattle must meet the requirements of beef processors for health, carcass characteristics and food safety. Commodity beef products must meet requirements of beef purveyors for fat trim, marbling, portion size, safety and lack of defects, such as injection site blemishes, dark cutters, etc.

Beef products sold to the consuming public must consistently meet expectations for both safety and eating satisfaction.

The bottom line is that quality in the beef industry goes far beyond the parameters of food safety. It also encompasses performance, health, carcass characteristics and eating satisfaction, which are all affected by management decisions throughout the beef production system. Because factors other than food safety are involved in quality, the material in this handbook is oriented toward the Total Quality Management concept.

The FLORIDA BEEF QUALITY PRODUCER *program*

What is the objective?

The objective of the Florida Beef Quality Producer program is to assure that cattle and beef products originating from Florida cow-calf and stocker operations are safe and wholesome and meet requirements for quality throughout the production system.

This curriculum encompasses (1) traditional BQA principles to address food safety issues and (2) management decisions affecting health, performance and carcass characteristics.

How do you participate?

The Florida Beef Quality Producer program is a voluntary program that will include "basic training" in Beef Quality Assurance, with a pre- and post-evaluation. Don't worry; this is not a "test" of your skills. The pre-evaluation will help instructors identify areas of knowledge that may need to be emphasized during the course of the training session.

The post-evaluation does two things. First, it helps instructors make certain the material has been presented to you effectively. Also, it satisfies national guidelines (currently being developed) for helping states determine whether their various BQA programs are "equivalent" to each other, even though no two programs are likely to be identical.

This is because environmental differences (climate, precipitation, parasites, etc.) require management strategies to be adapted to fit specific regions.

The states that already require some sort of evaluation or testing are setting the standard for the rest of us. We certainly want our Florida program to be accepted as a BQA program of the highest caliber. Equivalency among states is also an important aspect for marketing forces that are driving the dynamic adoption of BQA principles and management.

For example, today there are marketing outlets that name particular state BQA programs and *equivalent* programs as a specification for describing the type of feeder cattle (or management) they want to buy. We believe that trend will grow. Insurance of BQA training will also be a key component of accessing foreign markets for US Beef.

The Basic Ideas Behind HACCP

At the ranch level, HACCP is as simple as creating a plan ahead of time to deal with something that doesn't go well; for example, a needle breaking off inside of a calf when you give him an injection. HACCP's seven principles are incorporated in the discussions throughout the handbook.

Although specific reference to these seven principles is not always made, the concepts of control points, critical limits, preventive measures, corrective actions and monitoring are utilized in the discussion points. The seven principles include:

1) **Review all management programs** to identify production practices that affect food safety, quality and the environment. More formally, this is called a "hazard analysis." For example, everyone who helps you work cattle should be instructed to avoid giving intramuscular (IM) injections anywhere but the neck area. IM injections given in the hip at branding have been shown to cause injection site blemishes identifiable in the steaks from that animal, and it toughens the meat several inches around the injection site.

2) **Identify the control points** where potential problems can occur be prevented and or controlled. For example, storage of feed and/or chemical products is a control point. To ensure that your feed is not accidentally contaminated, never store batteries, fuel containers or paint in the same location as feedstuffs.

3) **Establish critical limits** associated with each control point. For example, identify and follow proper withdrawal times associated with any drug treatment to determine the earliest date the animal treated could be sold.

4) **Establish control point monitoring requirements** to ensure that each control point stays within its limit. For example, pesticide use records should be maintained so that you can check grazing restrictions on a particular field or pasture before turning cattle out.

5) **Establish corrective actions** in the event a problem occurs. For example, corrective actions for a drug residue violation might include improved record keeping and employee training.

6) **Establish effective record keeping procedures** that document the system is working properly. For example, using a processing map to record where each injection was given, how much was given, how it was given and what the injection was is a way to verify your treatment protocol.

7) **Establish procedures for verifying** that the system is working properly. For example, a periodic review of your animal treatment records, production practices, critical limits, treatment protocols, etc. is a way to verify that your management strategies are being carried out according to your BQA plan.

These seven principles may seem complicated at first, but for the most part it is a matter of anticipating what can go wrong and thinking of solutions to prevent the problem from occurring or reoccurring … before you have a serious problem on your hands.

Control points

As with any industry trying to build or improve a production system, points in the production chain where problems could arise must be anticipated. Each such point is called a "control point". Within each segment of the beef industry, there are broad types of control points that need to be identified. Two of these are emphasized in this handbook. They are:

1. *Food safety control points*
2. *Quality control points*