

NORTH CAROLINA

AG MAG



BEEF

TIME LINE OF BEEF CATTLE

Cow Calf Farms

North Carolina has mostly cow calf farms, which means that we are the start of the beef life cycle. Calves drink their mother's milk for the first two to three months of life and gradually begin grazing pastures. Once they are weaned, calves are introduced to grain as a supplement to grazing.



Livestock Sales/Auctions

On the average, cattle change ownership 3-4 times during their life. They may be sold to other farmers to meet their farm's needs.



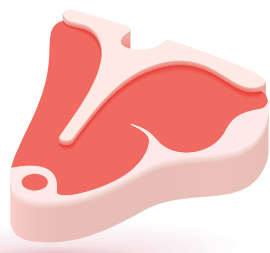
Feedlots

Mature cattle are often moved to feedyards (also called feedlots). Here cattle typically spend four to six months, during which time they have room to move around and eat at feed bunks containing a carefully-balanced diet made up of roughage (such as hay, grass and fiber), grain (such as corn, wheat and soybean meal) and local renewable feed sources (such as the tops of sugar beet plants, potato peelings, or even citrus pulp). Veterinarians, nutritionists and cattlemen work together to look after each animal. Feedlots can range in size, shape and geographic location.



Meat Packaging/ Processing

When cattle are 18-24 months old, they are sent to processing plants where the beef is humanely harvested and packaged. Then, it can be sent directly to restaurants, consumers, and grocery stores in the U.S. and around the world.



EAR TAGS

Have you ever seen a cow wearing a tag in its ear? No, it's not jewelry. Farmers tag their cattle for identification. These tags usually have numbers on them and can tell the farmers a lot about each animal, including its history and medical treatment or issues. Some farmers brand their cattle with a mark to show where they came from. Ear tags are an important part of the extensive record keeping that cattle farmers do.

DID YOU KNOW?!

There are over **360,000 BEEF CATTLE** in **NORTH CAROLINA**

It was **first** brought to this country in **1493** by early settlers.

The **average American** eats about **50 pounds** of beef **every year**.

One **beef cow** produces about **500 pounds of beef**.



BQA (BEEF QUALITY ASSURANCE)



Thousands of NC beef cattle farmers have taken the extra step to become BQA certified. BQA is a training program that promotes best management practices in animal husbandry combined with environmental stewardship. BQA guidelines are designed to make certain all beef consumers can take pride in what they purchase - and can trust and have confidence in the entire beef industry.

Many Thanks!

Thank you to Lisa Atkins, Stokes County Farm Bureau Kenan Fellow, for her efforts in assembling the content necessary to produce this publication. Thank you to North Carolina Cattlemen's Beef Council for their expertise and guidance.

What does it take to raise BEEF CATTLE?²



First of all, you need land. Each head of cattle needs approximately one acre of grass to graze per year. It requires machinery such as tractors. To be a cattle producer, you need some knowledge of agriculture and caring for animals. Farmers and ranchers often study agriculture or animal science. It also helps to have some business and finance experience. Many cattle farmers have other jobs or sources of income. Most of all, you need dedication to the land and animals. Cattle farming involves a lot of hard work—being outside in all kinds of weather, repairing fences and equipment, and feeding and caring for the animals.

POPULAR NC CATTLE BREEDS

Breeds are identified by different characteristics such as size, color, and heat tolerance. Pictured below are some of North Carolina's most popular breeds. (Photos provided by North Carolina Cattlemen's Beef Council)



Angus



Hereford



Simmental



Red Angus

Other Popular breeds in NC:



Brahman



Brangus



Charolais



Gelbvieh



Limousin



Santa Gertrudis



Shorthorn

Beef provides great nutrition!⁴

- **Protein** – helps build muscles and repair tissue.
- **B vitamins** – healthy skin, good vision, and energy. B12 can only be found in animal foods.
- **Amino acids** – help protect us from infectious diseases
- **Iron** – keeps our blood healthy
- **Zinc** – keeps our memory sharp
- **Niacin** – can aid in digestion



COW CALLING!

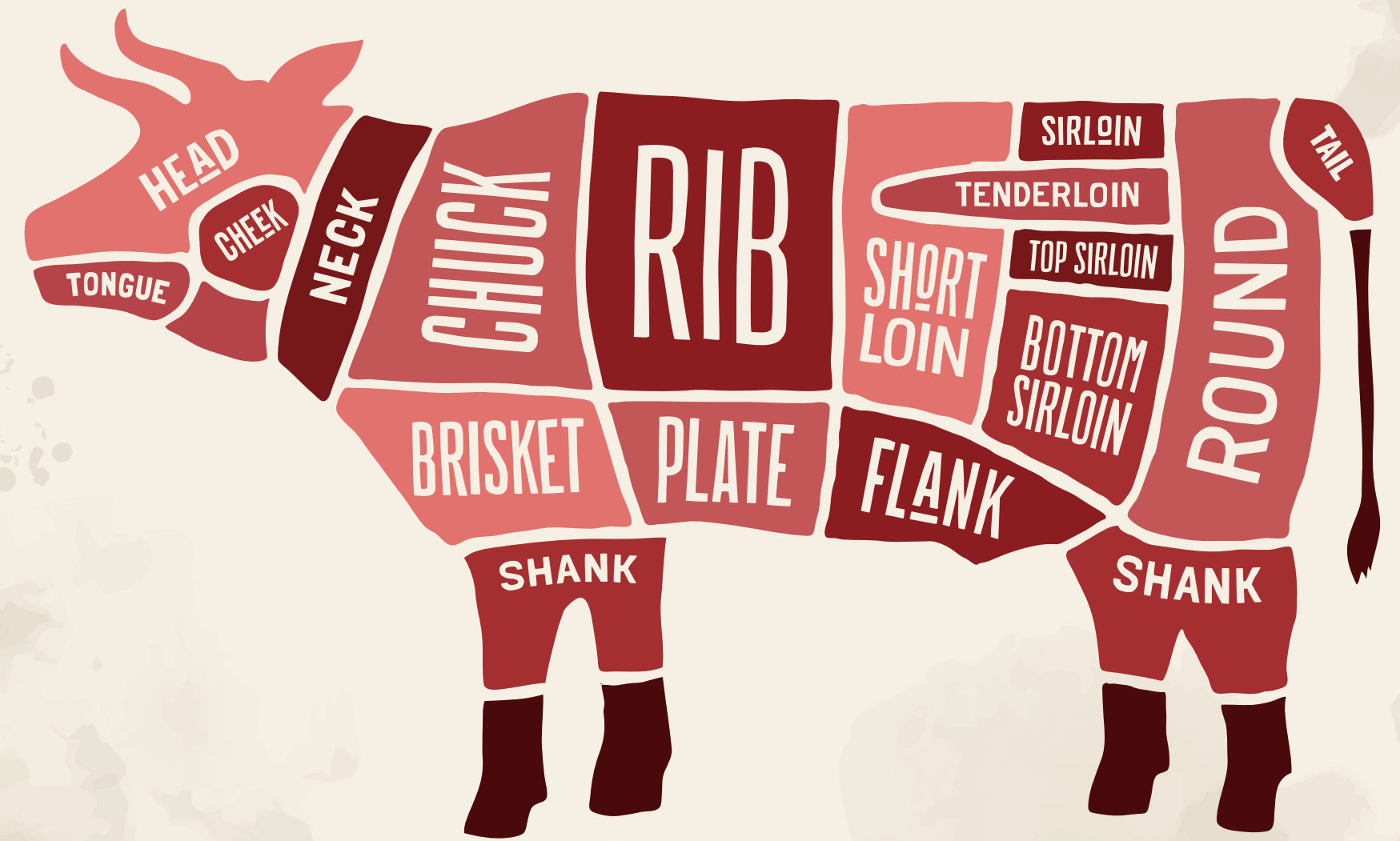
We hear many different words and names associated with beef cattle. Here are some terms used in the beef industry and what they mean.

Beef cattle: cows raised for meat
Brand: a technique for marking livestock so as to identify the owner



- Bull:** a male used for reproduction
- Calf:** a young cow or bull
- Cattle:** plural
- Cow:** an adult female
- Feeder Calf:** a calf raised to be meat cattle
- Free Martin:** infertile female
- Grain-finished:** Cattle that graze in pastures, but also eat a diet of grain, local feed ingredients, or hay
- Grass-finished:** Cattle that spend their entire lives grazing and eating from pastures
- Head of cattle:** a unit of measurement used to determine the number of animals on a farm or ranch
- Heifer:** a young female cow, with no calves
- Herd:** group of cattle
- Polled:** no horns
- Producer:** an individual or entity directly engaged in the production of agricultural products, including livestock
- Silage:** grass or foliage compacted without first being dried, and used as animal feed
- Springer:** cow close to calving
- Steer:** a castrated male
- Yearling:** a calf that is 1-2 years of age

CUTS OF BEEF



What do cows eat? A LOT!³

Cows eat about 2% of their body weight every day. That's about 24 pounds of food! How do they do it? They have a huge stomach with four compartments. The largest is called the rumen. Microorganisms in their stomach help them break down food. Cows continually burp up their food and chew it again. This is called "chewing cud," which they spend a lot of time doing—sometimes 8 hours a day! They graze on grass, but they also eat hay, silage, and grain. Cows are up-cyclers. This means they'll eat parts of plants humans will not, such as pulp, peels, and hulls.



BEEF BY-PRODUCTS

When beef cattle are processed, over 98% of the animal is used. About 40% of the animal is used for meat, and the other 60% is used for by-products.

- Leather for boots, belts, hats and furniture
- Balls, gloves, and sports equipment
- Violin strings
- Tooth and hair brushes
- Buttons
- Sandpaper
- Piano keys
- Glue
- Wallpaper
- Over 100 pharmaceutical products
- Cosmetics
- Crayons
- Pet foods
- Gelatin and marshmallows.



Recipe for COWBOY CHILI

INGREDIENTS:

- 2 lb. lean hamburger
- 1 small onion, chopped
- 1 small bell pepper, seeded and diced
- 1 can pinto beans, rinsed and drained
- 1 can kidney beans, rinsed and drained
- 1 can diced tomatoes
- 1 cups beef broth
- 2T chili powder
- 1T Worcestershire sauce
- Jalapeño pepper or hot sauce, optional and to taste

DIRECTIONS:

Brown the hamburger and drain the grease. Add the peppers and onions and cook until tender. Mix all the ingredients in a large stockpot or Dutch oven and cook for at least 45 minutes, stirring occasionally. Top with shredded cheddar cheese and sour cream if desired.



CAREER CORNER



Dr. Rachel Flow

Large Animal Veterinarian

When did you know you wanted to be a vet?

I have known since middle school that I wanted to be a veterinarian. I grew up riding horses and I just really love animals.

What does a typical day look like at your job?

At our practice, we see mixed animals, both large and small. Some days, we do appointments and office visits. We also see animals for emergencies and urgent care. Specific days are set aside just for scheduled surgeries. We do farm visits because it is easier for us to go to them than for the farmer to load them up and bring them to us. We service a large area, so sometimes there is a lot of travel involved. You never know what to expect, so it's always interesting.

How important is education to your job?

If you are interested in a particular job or have a specific goal, it's very important that you study hard, stay focused and make good grades. An education can help you get the job you want.



Lukcus Hawks

Cattle and Livestock Auctioneer

What kind of training do you need to do your job?

I went to the World Wide College of Auction in Des Moines, Iowa right after high school. It also helps to have background knowledge. I am from a rodeo family. I grew up around cattle and so, I'm familiar with the auction.

What advice would you give to someone interested in becoming an auctioneer?

First, you need to work on your "chant." Every auctioneer sounds a little different. You have to be fast, but also catchy and easy to understand. Practice a lot. It is also really helpful to have a good mentor that will show you around the business and get you on the right path.

What do you like most about your job?

It is a good, steady, or stable income. The pay is good. Most people who work with cattle have several jobs or "hustles" we call them; extra ways to make money. If you pay attention, you hear about all kinds of opportunities around you. I work a circuit, so I get to go to different places and meet different people. And of course, I like working with the animals. It's pretty interesting. You see all kinds of animals in here.



Taylor Jones

Meat Processing and Packing Plant Health and Safety Inspector

Tell us a little bit about your job.

First, we check the animals when they first come to the facility to make sure they are healthy and free of disease. We want to make sure that the meat is safe and high quality for the consumer. Meat is graded according to its quality. I also make sure the workers are safe and following guidelines and procedures.

What education is required to do your job?

I have a college degree in animal science. There is also a lot of on-the-job training, such as learning what needs to be done and how to be most effective.

What do you like most about your job?

I always loved animals and wanted to work in this field. I like that I get to see the whole process from the time the animals arrive and are unloaded until the product is packaged and ready to be distributed to an individual or sold on the shelves at local businesses.

What is the hardest part of your job?

Well, there is a lot of paperwork involved, and you have to pay attention to details, but I am still able to be up and active most of the day, and I enjoy that. I like to stay busy.

This Ag Mag complements and connects to the following North Carolina Standard Course of Study:

Social Studies

1st grade 1.C&G.1.1, 1.C&G.1.4, 1.H.1.1
2nd grade 2.H.1.2,
3rd grade 3.G.1.2, 3.G.1.3, 3.H.1.2
4th grade 4.E.1.2, 4.E.1.3, 4.G.1.1, 4.G.1.2

Science

1st grade 1.L.1, 1.L.2
2nd grade 2.E.1.1, 2.E.1.2, 2.E.1.4, 2.L.2.2
3rd grade 3.L.2, 3.L.2.1, 3.L.2.2, 3.L.2.3
4th grade 4.L.1.1, 4.L.2.1, 4.L.2.2
5th grade 5.L.1, 5.L.2
6th grade 6.L.1
7th grade 7.L.1
8th grade L.2.1

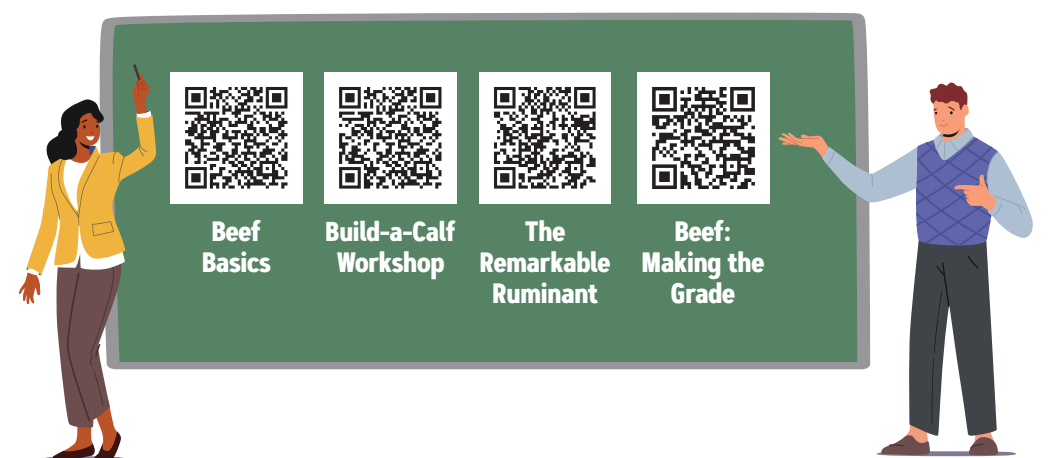
English/Language Arts

1st grade RI.1.1, RI.1.2, RI.1.3, RI.1.5
2nd grade RL.2.1, RI.2.1, RI.2.2, RI.2.3, RI.2.4, RI.2.5
3rd grade RL.3.1, RL.3.4, RI.3.1, RI.3.2, RI.3.3, RI.3.4, RI.3.5
4th grade RL.4.1, RL.4.4, RI.4.1, RI.4.2, RI.4.3, RI.4.4, RI.4.5
5th grade RL.5.1, RL.5.4, RI.5.1, RI.5.2, RI.5.5
6th grade RL.6.1, RL.6.2, RL.6.4, RI.6.1, RI.6.2, RI.6.3
7th grade RL.7.1, RL.7.2, RL.7.4, RI.7.1, RI.7.2, RI.7.5
8th grade RL.8.4, RI.8.1, RI.8.2, RI.8.3, RI.8.5

Health

3rd grade 3.PCH.1.2, 3.NPA.1.2
4th grade 4.NPA.1.1, 4.NPA.1.2
5th grade 5.NPA.1.1

ATTENTION TEACHERS: We have free lesson plans!



Our mission statements:

Ag in the Classroom (AITC) is a unique educational program founded and affiliated with **North Carolina Farm Bureau (NCFB)** in 1985. AITC is dedicated to promoting the importance of agriculture to all Pre-K through 12th grade public and private school teachers and students through the North Carolina Standard Course of Study-based curricula, workshops for in-service and pre-service teachers, grants, ag literacy books, and county Farm Bureau support. NCFB was formed in 1936 as a non-profit grassroots general farm organization and along with **Stokes County Farm Bureau**, aims to serve farmers and provide a unified voice for the interests and needs of the farming community through special projects and partnerships with AITC.

The **Kenan Fellows Program for Teacher Leadership (KFP)** at NC State connects outstanding public-school teachers with mentors

in local industry and research settings, creating opportunities that build meaningful relationships. Kenan Fellows are K-12 public school educators who spend three weeks during the summer interning at a local mentor site where they develop a deeper understanding of workforce needs, and how they can make relevant connections for students. Fellows are given unprecedented opportunities for networking, professional growth, and leadership development. KFP supports these exceptional teachers through its proprietary professional development that focuses on instructional leadership, project-based learning, elevating teacher voice, strengthening ties between the school and the local community, peer coaching and mentoring, and growing professional learning networks. Teachers who complete the program say they feel empowered to lead within their content-area teams, their schools, and their districts. Many become empowered to influence and lead educational innovation at state and national levels.

This issue of the North Carolina Ag Mag has been provided by:



- REFERENCES
1. Noble Institute
 2. www.beef2live.com
 3. www.agupdate.com
 4. www.beefiswhatsfordinner.com