Illinois

Ag Mag

An agricultural magazine for kids

Beef

ANIMAL HEALTH

Animal Health

That's why farmers and ranchers work hard to use the most recent science-based advancements that keep cattle healthy and the beef supply safe. Feedlot employees, farmers and ranchers work closely with veterinarians to monitor the health and well-being of the animals. Regular check-ups are done on the herd to prevent illness. If any of the animals are ill, they are evaluated before deciding what the next step is to take care of the animal. Farmers utilize important tools like vaccines along with good management practices to prevent, control and treat disease. By focusing on good animal care, proper nutrition and disease prevention, livestock farmers and their veterinarians reduce antibiotic use – and save money in the process.

In 2011, there were **1.1 million cattle & calves** on Illinois farms.

BREEDS

Breeds of Beef Cattle

Just as there are different breeds of dogs, there are different breeds of cattle. The most popular breed of beef cattle in the United States is Angus. Angus are solid black and are known for the high quality meat they produce. Some other common breeds are Hereford, Shorthorn, Charolais, Simmental, Limousin, Maine-Anjou, Brangus, Chianina, Red Angus, and Brahman, which is the most popular beef cattle breed in the world. All of these cattle come in different sizes and colors including black, red, white, roan, gold, brown and gray. Today's family farmers combine scientific advances with time-honored family traditions to improve their herds through careful selection and genetics. This allows farmers to raise cattle with certain traits, such as easy calving, good mothering instincts, early maturity, heavy muscling and high quality meat. Improvements in cattle farming technologies have helped provide consumers with the lean beef they demand while using fewer resources. This allows America's farmers to provide safe, high-quality beef at an affordable price.

1

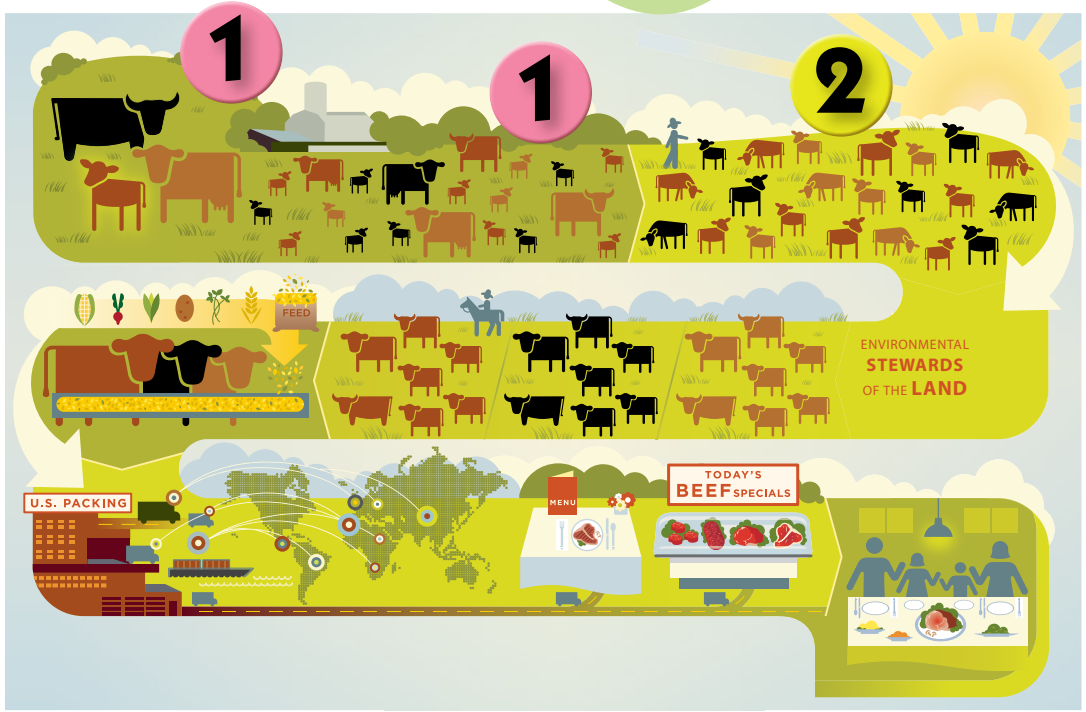
Birth to Weaning

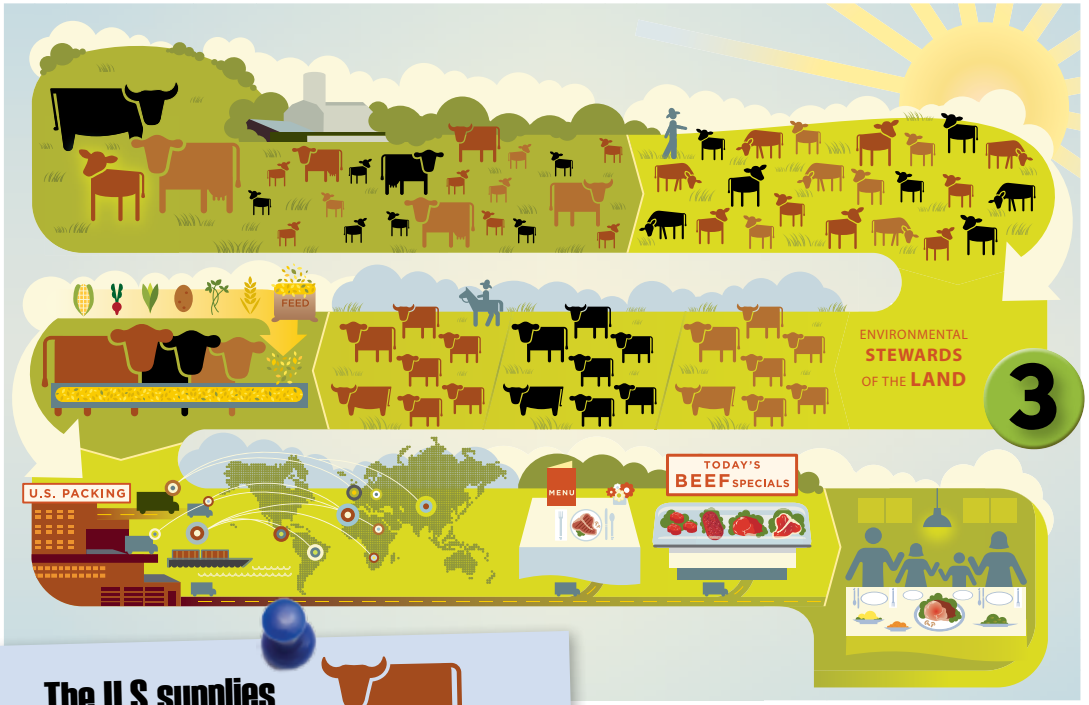
The gestation (pregnancy) period for cows is 285 days, or about 9 months. Beef production begins with a cow-calf farmer who maintains a breeding herd of cows that raise calves every year. When a calf is born, it weighs 60-100 pounds. Beef calves are weaned (no longer dependent on their mother's milk) at 6 to 10 months of age when they weigh 450-700 pounds. After the calves are weaned, some are sold at an auction market. A cow-calf farmer may also choose to keep the best females to add to the breeding herd. Younger or lighter weight calves may be sent to a backgrounder or stocker who continues to graze them on grass or other forages until they are 9-12 months old. They may also go directly from the cow-calf farmer to the feedlot or from the backgrounder/stocker to the feedlot.

2

Animal Identification

Farmers use a number of ways to identify their animals: brands, tattoos, ear notches and ear tags. Animal identification allows farmers the ability to observe each animal very closely and to keep records on an animal's birth date, mother, father, growth, weight gain, health history, offspring, and even how much feed they are eating.





Environmental Stewards of the Land

Approximately 85% of U.S. grazing lands are unsuitable for producing crops because they are too high, too rough, too dry or too wet. So what does this have to do with cattle? Humans cannot digest grass on these lands. But cattle can! Grazing animals on this land more than doubles the area that can be used to produce food. Cattle farmers are responsible for protecting the environment in these areas. Cattle aerate the soil with their hooves, which means they loosen the soil when they walk on it. This allows more oxygen to enter the soil, helping grasses and plants grow better. They also provide "natural" fertilizer in the form of manure for the soil, its plants and grasses. When cows eat, they use their tongues to wrap around grass and their lower incisors to cut it, which prevents them from ripping the grass out by the roots. Cattle producers also use a method called rotational grazing. This means they regularly rotate cattle to different pastures to ensure the return of native grasses. Protecting the land ensures it can support grazing for generations to come.

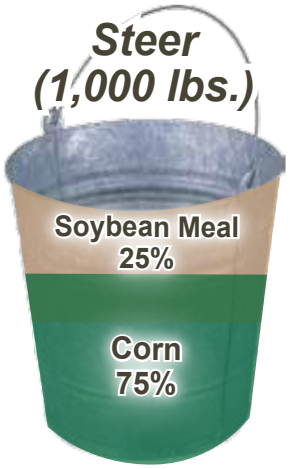
3

Beef Cattle & Their Diet 4

Our nation's food security depends on growing our own food. Illinois' economy depends on farms and rural communities that prosper. Each year, the Illinois livestock industry generates $27 billion in economic activity, $292 million in state tax revenue and 99,000 jobs.

Growing a larger Illinois beef and livestock industry is important. A strong livestock industry gives farmers a greater competitive edge in regulation, technology, transportation and strategic marketing. Livestock is also the strongest domestic market for Illinois corn. Illinois is part of the Corn Belt and ranks second in corn production, which makes it perfect for raising beef cattle and other livestock. Each year, the state's livestock eats 118 million bushels of corn and 31 million bushels of soybean meal.

The bucket graphics (to the right) are approximations based on sample diets. Trace minerals, vitamins and other supplements may also be added. Animals eat to meet their calorie (energy) needs each day–they do not overeat. Young animals that are actively growing have greater requirements for protein than older animals. As the animal gets older, the protein needs decrease.



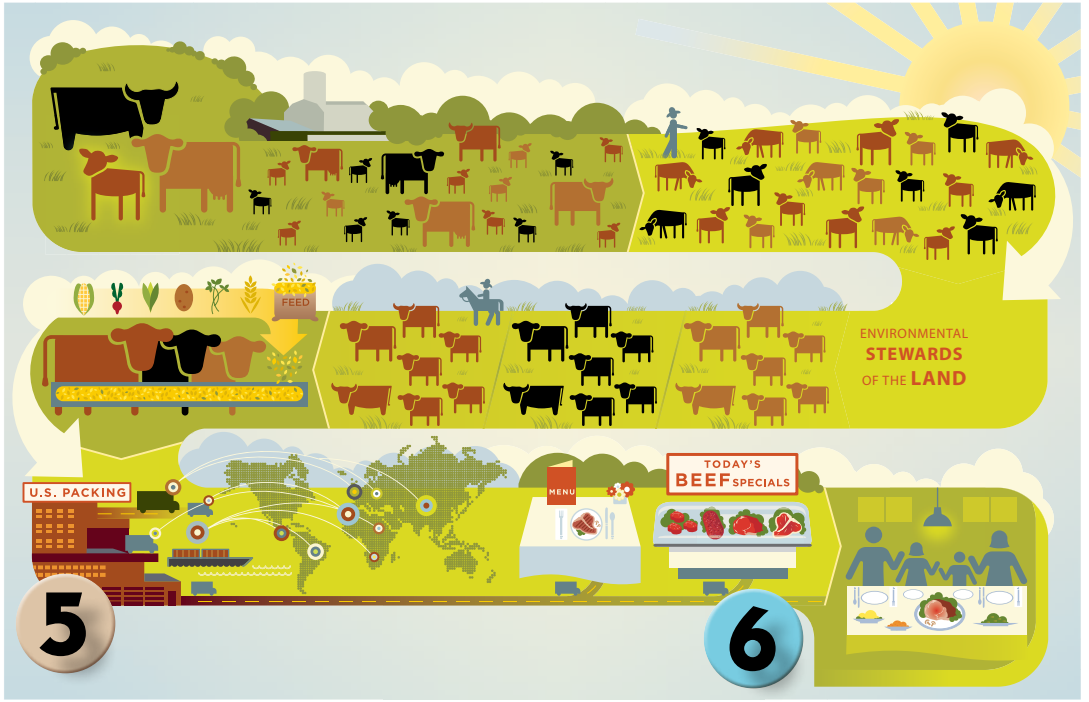
Feedlot 4

Most beef cattle spend approximately four to six months in a feedlot, just prior to harvest, where they are fed a grain-based diet. At the feedlot (also called feedyard), cattle are grouped into pens that provide space for socializing and exercise. They receive feed rations that are balanced by a professional nutritionist. Feedlots provide consistent, wholesome and affordable beef using fewer resources. The time cattle spend in a feedlot is often called the "finishing phase." All cattle spend the majority of their lives grazing on grass pasture.

5

Packing Plant, Food Service & Retail

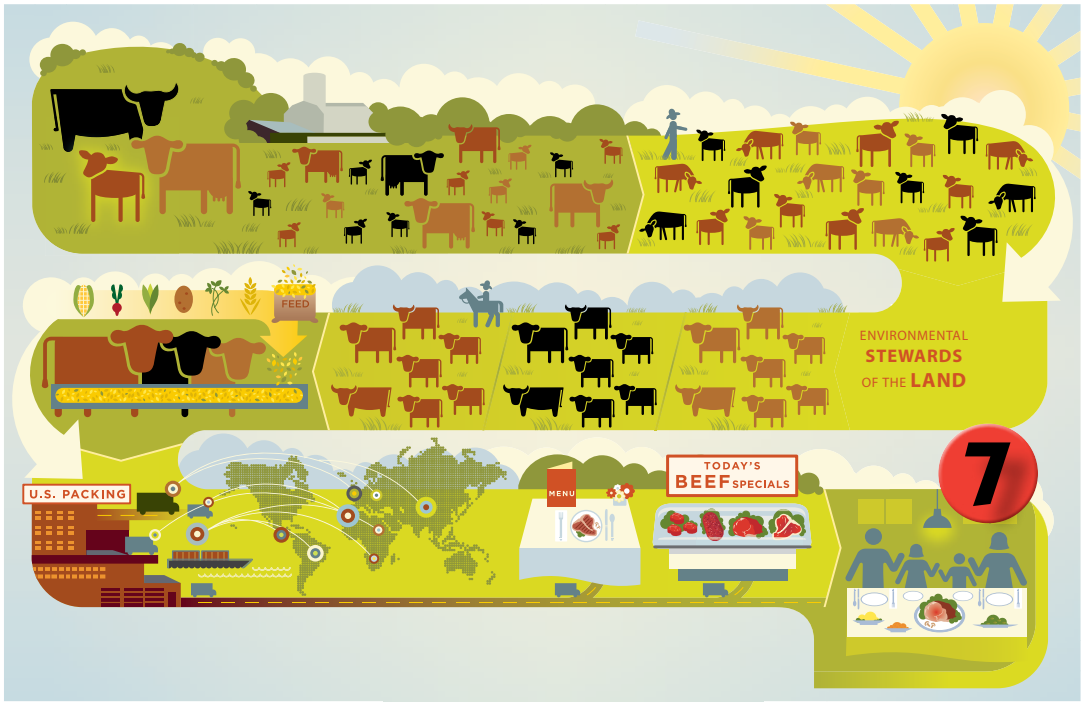
Once cattle reach market weight, (typically 1,200-1,400 pounds and 16-20 months of age) they are taken to the processor. Once the meat has been processed, it is inspected to ensure it is safe, wholesome and correctly labeled and packaged. The final beef products are shipped to grocery stores and restaurants for consumers to purchase.



"More than Meats the Eye"

6

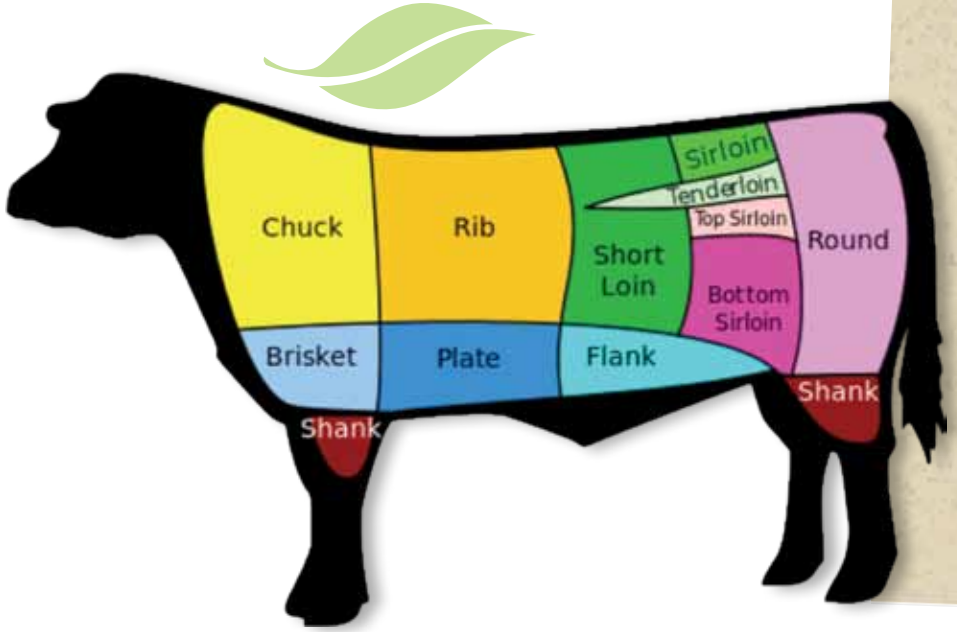
We get more than meat from beef cattle. You may be surprised to learn that paint is made from beef cattle—as well as many other products. These are called beef by-products. Because of these by-products, we are able to use 99% of every steer. Some examples of these by-products include candles, crayons, cosmetics, detergent, insulation, plastics, soaps, pet foods, piano keys, luggage, wallpaper, insulin for diabetes, car polishes, textiles for car upholstery, footballs, baseballs and basketballs. In fact, 11 basketballs or 144 baseballs can be made from 1 cow hide, and it takes 3,000 cow hides to supply the NFL for 1 year!



7

ZIP

Beef is a good source of ZIP (zinc, iron and protein) as well as many other vitamins and minerals that you need to be strong and healthy so you can do things like play basketball and run with your friends. They also help carry oxygen to your brain which helps you focus on your schoolwork. B-vitamins release the energy in food and work to promote growth and maintain health.



i ♥ Beef

Career Corner

Travis Meteer

University of Illinois
Beef Extension Educator
Mt. Sterling, IL

Please describe your job.
I represent the link between cattle farmers and the University of Illinois. I share new research and production strategies with farmers through meetings, press releases, social media and various annual programs. I advise and consult with farmers on a daily basis. I also design and participate in research that occurs at the University of Illinois Orr Research Center, as well as other outstations. I also currently serve as state beef quality assurance coordinator.

How did you become involved with the beef industry?
From a young age, I was always involved with the family farm and the beef community. My involvement continued to grow as I exhibited cattle through state and national breed associations, 4-H and FFA. I took more responsibility on the family farm as I got older and decided to pursue a college degree in agriculture, which strengthened my passion for beef cattle.

What changes do you expect to see for the beef industry in the next 10 years?
The animals that cattle farmers raise are their livelihood. A farmer's whole life is spent caring for his/her animals, day in and day out. Passion, pride and dedication go into every pound of beef. In the next ten years, cattle farmers will be forced to do more with less. Increases in global population will challenge all areas of agriculture, so technology and research will be crucial. The real challenge may lie in bridging the gap between the consumer and the farmer. More young people will grow up without knowing where their food comes from, so educational efforts by farmers for consumers will be vital to our community and food supply.

Joni Bucher

Owner
Bucher Cattle Co.
Marietta, IL

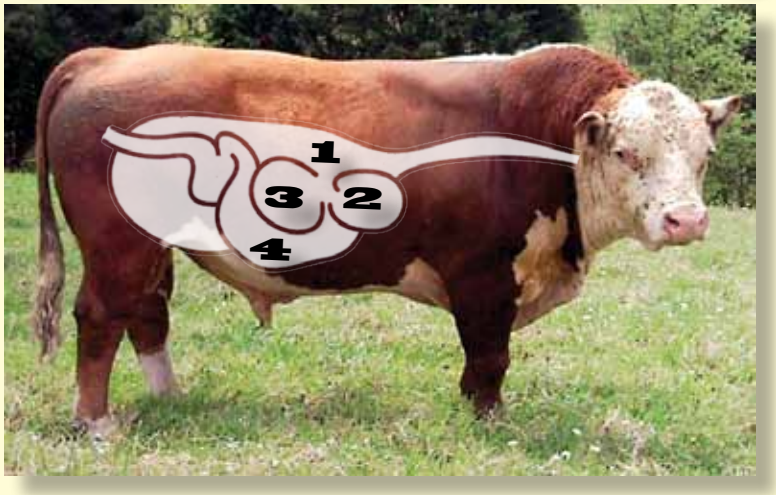
How did you become involved with the beef industry?
I was raised on a family farm. I am the 4th generation of cattle farmers in my family, as well as the first woman in my family to raise cattle. My father passed his love of agriculture on to me. I spent many hours in the barn, tractor and pasture with my father and grandfather. Today, many things I do in my daily work hold the wisdom and knowledge passed on to me by my dad and grandpa. Additionally, both of my sons, as well as my granddaughter, are involved in raising and showing cattle. It's a passion for me, and I really enjoy having my children and grandchildren join me in the barn and pasture.

Explain how you care for your animals.
A typical day for me begins at 4 a.m. with chores. I walk through the pasture to check on the momma cows and their babies. It is important to check your cattle daily, as it allows you to observe their appearance and activity. It also enables you to recognize an illness or injury before it becomes severe. If I find a concern, I can call in a veterinarian to come take a look. If it is grazing season, I check grass height and determine if I need to move the cattle to another pasture. If it is late fall and winter, I will feed silage and hay to the cattle, refill mineral feeders and check water stations for free flowing water.

How do you take care of the land on which you raise your cattle?
Bucher Cattle Co. is an intensive rotational grazing farm. We rotate cattle about every 3 days; this helps to ensure a good return of our native grasses. Our cattle have water stations in every pasture. We make every attempt to protect our environment, and to raise our cattle in a low stress atmosphere. This ensures that our farm can support cattle for generations to come.

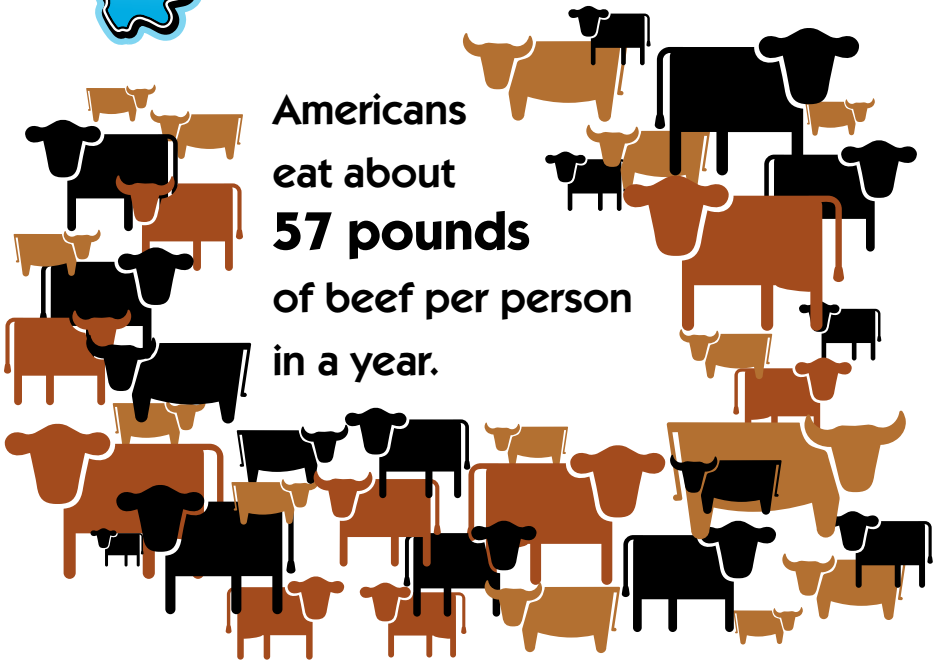
What is the Illinois Beef Checkoff?
The Beef Checkoff is money paid to the program by cattle farmers when they sell cattle. This money works for all cattle farmers to promote beef to consumers. "Beef. It's What's for Dinner." is the slogan of the Checkoff program. Checkoff dollars also go toward educating consumers about where their beef comes from.

Four Parts in One



Cattle are called ruminants. They have a special kind of stomach. It has four compartments called the rumen (1), reticulum (2), omasum (3) and abomasum (4). Ruminants first chew their food to soften it, swallow it, and then return it to their mouth for continued chewing. This is called chewing the cud. After chewing the cud, it is swallowed a second time, broken down further, and digested. Cows will spend up to eight hours a day chewing their cud.

The top 5 counties in Illinois for beef cattle production are JoDaviess, Adams, Fulton, Knox and Ogle.



Americans eat about **57 pounds** of beef per person in a year.

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Illinois Corn Marketing Board
Illinois Agriculture in the Classroom
The IAA Foundation

Information in this Ag Mag may be linked to the following Illinois Learning Standards: 1.B.2a; 1.B.2d; 1.C.2d; 5.A.2b; 5.B.2a; 6.A.2; 7.C.2a; 10.A.2c; 10.B.2d; 11.A.2d; 12.A.2a; 12.B.2b; 12.E.2c; 13.A.2c; 13.B.2a; 13.B.2c; 14.D.2; 15.A.2a; 15.B.2a; 15.D.2b; 15.E.2a; 17.A.2a; 17.B.2a; 26.B.2d

Illinois Assessment Framework: 1.4.09; 1.4.16; 1.4.18; 1.4.22; 6.4.01; 6.4.03; 7.4.04; 10.4.01; 11.4.02; 12.4.03; 12.4.04; 12.4.09; 12.4.31; 13.4.03; 13.4.11; 13.4.13