Sporty Cattle

Do you have a favorite sport? Chances are good that it involves a product from cattle. Leather, which is used to make many sports equipment, comes from cattle. The hide from one steer can make 144 baseballs, 20 footballs, or 12 basketballs. Companies that make sports equipment use more than 100,000 hides each year. The National Football League alone uses about 3,000 cowhides to make footballs for one season.

More than "Meats" the Eye

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. They are called beef by-products. Because of these by-products, we are able to use 99% of every steer. About 400 pounds of beef come from one steer, and the rest of the steer is used for by-products. Some examples of these by-products are candles, crayons, cosmetics, detergent, insulation, plastics, soaps, pet foods, piano keys, luggage, wallpaper, insulin for diabetes, car polishes, and textiles for car upholstery. Even 100 different types of medicines use beef by-products.

By-Product Round-up

Unscramble to letters to reveal a product made from beef cattle.

1. Uleg
   — — — —
2. Rmhalwsolmas
   — — — — — — — — — — — —
3. Heoss
   — — — — —
4. Naipt
   — — — — —
5. Pisclkit
   — — — — — — — —

Think About It

Make a list of all of the products (both food and non-food items) that you use each day which involve cattle.

This *Farmer Ben Bulletin* is sponsored by the Virginia Beef Industry Council.
For more resources visit Virginia AITC on the web at www.agintheclass.org

World Beef Supply

Overview

What does Christopher Columbus have to do with cattle? He is the first to have brought cattle to the Western Hemisphere, when he made his second voyage to the "New World" in 1493. Today, the United States beef industry includes over one million businesses, farmers, and ranchers who supply almost 25% of the world's beef supply. However, beef cattle are so much more than just meat. In fact, beef by-products enable us to use almost 99% of every beef animal.

Percent of World Supply produced by the USA.

Virginia Beef

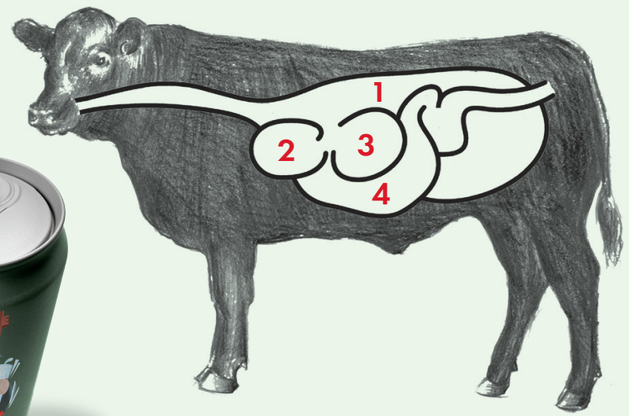
Cattle in Virginia date all the way back to the Jamestown settlement, where they were considered by the colonists to be a most prized possession, and have been an important commodity (agricultural product) in the state ever since. In fact, beef cattle is Virginia's second largest commodity and is raised in almost every county. The three most common breeds of beef cattle found in Virginia are Hereford, Angus, and Simmental.

Four in One

Do you enjoy a can of soda? How about 320 cans of soda? In one day? Well, a beef animal drinks about 30 gallons of water a day, which equals about 320 cans of soda. Additionally, a full grown steer eats about 25 pounds of feed each day too. All of this food and drink means a large stomach, and a cow's stomach can hold as much water and food as two full bathtubs (66 gallons)!

Tiny microorganisms in the stomachs help cattle digest the roughage they eat. To break down the grass and hay cattle must "burp" up a mixture of what they have already eaten. It is called "cud" and is about the size of a baseball. Cows may spend as many as eight hours a day chewing their cud. This is why when you see them in a field it may look like they are chewing gum.

Cattle, sheep, and goats are called ruminants (ROOM-IN-UHNTS). Ruminants are very important because of their grazing abilities. They have a special stomach so they can digest grass, hay, and other plant matter that humans cannot, preventing it from being wasted. There are four compartments in the ruminant stomach called the

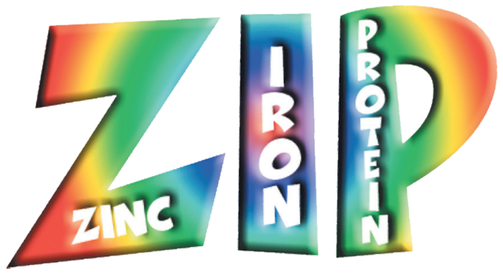


1. Rumen (ROOM-EN)
2. Reticulum (REH-TICK-YOU-LUM)
3. Omassum (OH-MAY-SUM)
4. Abomasums (AB-OH-MAY-SUM)

What do cattle eat?

Cattle raised on farms graze on pasture. Many times the land that cattle graze on is not suitable for farming. While grazing, cattle aerate (expose to air) the soil with their hooves. This helps soil get oxygen to help grass and plants grow. Calves gain 50-70% of their final weight before they are weaned from their mother by consuming primarily their mother's milk and grazing on the same land that their mother grazes. After weaning, cattle are fed hay, silage, grain and food processing by-products such as cottonseed meal, citrus pulp, tomato pulp, potato peels, sugar beet pulp, almond hulls, cereal by-products, soy hulls, or canola seed hulls. About 85% of nutrients eaten by cattle come from sources that would be inedible for humans, such as corn stalks and other "leftovers" from crop production. In addition, most cattle feed is produced on non-irrigated land.

Beef Has ZIP



Beef is a good source of ZIP! What is ZIP? ZIP stands for Zinc, Iron, and Protein. These three nutrients are especially important for girls and boys in their growing years.

Zinc is a mineral the human body needs to grow, learn, heal, and keep itself healthy. Zinc is also important for attention, short-term memory, and problem solving. Lean beef is one of the best sources of zinc.

Iron is another mineral important to human health. Iron is needed for the blood to carry oxygen to cells. Without enough iron humans get tired, weak and grouchy. Older girls need extra iron and only 40 percent get enough.

Protein is needed to build muscles, nerve tissue, blood, enzymes, hormones, antibodies, and organs. Protein is needed to build, repair and maintain the body. Protein is made up of amino acids. About 20 different amino acids can be found in protein. The body makes all but 9 of these amino acids. These are considered essential amino acids. No single plant food contains all of these essential amino acids. Animal sources of protein do contain all 9 essential amino acids. Animal sources of protein are considered complete protein while plant sources of protein are considered incomplete.

Does beef provide any other nutrients? Yes, beef also provides B complex vitamins such as niacin, riboflavin and B_{12}. B vitamins are needed to release the energy in foods eaten. Beef also provides selenium and phosphorous.

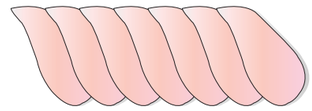
Did you know you'd have to eat all of this to get the same amount of zinc, iron, riboflavin, and vitamin B-12 as 3 ounces of cooked beef?

ZINC –
3 ounces of beef =

Almost 12 (3 ounce) servings of tuna

B_{12} –
3 ounces of beef =

7 (3 ounce) servings of chicken breasts

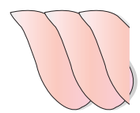


IRON –
3 ounces of beef =

3 cups of raw spinach

RIBOFLAVIN –
3 ounces of beef =

$2^{1}/_{3}$ (3 ounce) servings of chicken breasts



Build-a-Burger

Burgers are one of the most popular foods in the US. In fact, each year Americans eat about 25 million hamburgers! Most cheeseburgers include products from each of the 5 food groups. Follow the directions below to create your own burger.

Directions:
First cut your paper plate in half. This will represent the hamburger bun. Next, use the construction paper to cut out your patty and favorite toppings (examples: cheese, tomatoes, lettuce, pickles, onions). Line them up vertically and tape to the string of yarn. On the back of each food, write the food group that it belongs in – Milk; Meat and Beans; Vegetable; Fruit; Grains.

Materials:
Paper plate
various colors of construction paper
scissors
yarn
tape
markers/crayons