

## Sand & Sage Round-Up Jr. Market Beef Study Guide

Study the Beef Resource Handbook 4-H 117R and Sand & Sage Round-Up Fair Book

Bovine-An animal in the cattle group

Breed-Groups of cattle with similar traits such as coat, color, & horns

Bull-An intact (non-castrated) male

Calf-A young beef animal less than one year of age

Cow-A fully grown female beef animal

Crossbred-An animal that has parents from different breeds

Dehorn-To remove the horns

Heifer-A young, female beef animal that has not calved

Internal Parasites-Parasites that live inside the body of beef cattle

Minerals-Elements required by cattle to build bones & teeth and make blood, muscle, & nerves

Nutrients-Ingredients that make up a ration

Purebred-An animal whose parents are from the same breed

Sire-The father of the calf

Steer-A castrated male calf

Vitamins-Dietary nutrients needed in very small amounts for the health of eyes, nasal passages, lungs, blood clotting and other body functions

Wean-To take the calf from its mother

Beef Breeds:

Angus-Polled with a black, smooth coat. Good carcass quality

Brahman-Light gray or red to almost black color, developed in southwestern United States

Known for their ability to withstand heat and insects

Brangus-Developed in Louisiana, 3/8 Brahman and 5/8 Angus, solid black and polled

Charolais-Large and white animal noted for fast growth and lean meat

Hereford-Red body with white face, known for hardiness and quiet disposition

Limousin-Solid-to-golden-red color. Lighter circles around eyes & muzzle

All feeds are made up of nutrients. The essential nutrients for beef are water, energy, protein, minerals and vitamins

There are 4 basic ways to help identify beef: nose printing, ear tagging (simplest & easiest to identify), tattooing (more permanent) and branding

Parasites-They are organisms that live off another organism. Parasites can reduce weight gain, poor appetite, diarrhea and other health problems

External Parasites-Flies, Lice and Grubs

Internal Parasites-Stomach Worms, Lung worms

Besides meat, beef provide other by-products.

Examples: candles, perfumes, paints, ceramics, plastics, crayons, piano keys, ice cream, leather sporting goods, luggage, boots, shoes, bandages, wallpaper, paint brushes, chewing gum

Keys to being successful in showing your animal:

1. Start working with your animal early but allow your animal to get settled in his pen for a few days after you get him.
2. The halter should be placed on the animal's head with the lead strap on its left side, inches from the eye.
3. When leading your animal, you should be on the calf's left side with the halter in your right hand.
4. The strap length should not touch the ground but long enough for control
5. Do not wrap the halter strap around your hand or fingers.
6. A steer drops its head first before escaping. Important to firmly grab over the strap so your thumb is closest to you and not under the strap. Your wrist is stronger this way and gives you more control over the animal.
7. Show sticks help in proper placing of the feet, calm the animal, control the animal, and keep the top straight

To figure pounds gained:

Animal's ending weight – animal's beginning weight

Example: August 10, 2022 animal weighed 1425 pounds

February 20, 2022, animal weighed 825 pounds

$$\begin{array}{r} 1425 \\ - 825 \\ \hline 600 \end{array} \quad \text{So animal gained 600 pounds}$$

To figure if you had a profit

Take the total income – the total expense

Example: \$2000.00 Income

-- 600.00 Expenses

\$1400.00 Profit

Know the parts of the beef

## Sand & Sage Round-Up Int. Market Beef Study Guide

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**Bloat**-Abnormal condition in ruminants due to accumulation of gasses; usually seen on animal's upper left side

**Bovine**-An animal in the cattle group

**Breed**-Groups of cattle with similar traits such as coat, color, and horns

**Bull**-An intact (non-castrated) male

**Calf**-A young beef animal less than one year of age

**Castrate**-To remove the testes from a bull so that it cannot reproduce

**Colostrum**-The first milk produced by the dam after she calves

**Conformation**-The general shape or structure of a beef animal's build

**Cow**-A fully grown female beef animal

**Crossbred**-An animal that has parents from different breeds

**Cud**-The bolus of feed that cattle regurgitate from the rumen and chew. This process helps to digest the feed

**Dehorn**-To remove the horns

**Dual-Purpose Breed**-A breed which can be raised for beef as well as milk production

**External Parasites**-Parasites that live on the outside of beef. Examples: Flies Lice, and Grubs

**Feed Concentrate**-Grain mixtures such as corn, oats and soybean meal fed in a ration

**Finish**-The amount of fat cover on an animal

**Forages**-Plants used as feed for livestock

**Heifer**-A young, female beef animal that has not calved

**Internal Parasites**-Parasites that live inside the body of beef cattle. Examples: Stomach Worms, Lung Worms, and Round Worms

**Nutrients**-Ingredients that make up a ration

**Ruminant**-An animal that has four stomach compartments (rumen, reticulum, omasum, and abomasum)

**Withdrawal Time**-Time needed to let drug residue to diminish to a safe level

### Beef Breeds:

**Angus**-Polled with a black, smooth coat. Good carcass quality

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**Charolais**-Large and white animal noted for fast growth and lean meat

**Hereford**-Red body with white face, known for hardiness and quiet disposition

**Limousin**-Solid-to golden-red color. Lighter circles around eyes and muzzle

**Maine-Anjou**-Originated in northwestern France. Very dark red with white markings on head, belly, rear legs and tail

**Polled Hereford**-Polled, red bodies, white face and belly, developed in the U.S. Known for quiet disposition

**Simmental**-Imported from Switzerland, France and Germany to the United States, can be any color and noted for fast growth, milking ability, and meat quality

Texas Longhorn-Long horns and several different color patterns known for hardiness, strong survival instincts and resistance to disease and parasites

The beef animal provides many different wholesale/retail cuts of meat to the consumer as many by-products. Examples of wholesale/retail cuts include: various kinds of steak, hamburger, beef roast, beef stew meat, and beef ribs. Examples of beef by-products include candles, shoes, paint brushes, chewing gum, ice cream, crayons, paints, luggage and bandages

What you feed your animal is very important. There are 5 essential nutrients needed for Beef.

1. Water-It helps keep the body cool and helps the body to form waste material. It is found in every cell in the body and carries other nutrients throughout the body. In one day a cow can drink up to 20 gallons or more of water. Cool water increases weight gain.
2. Energy-Used for growing and also producing a calf. Carbohydrates and fats give beef cattle most of the energy they need. Corn, barley, wheat and oats are high in energy.
3. Protein-Build muscles, hair, hooves and tissues inside their bodies.. Proteins are made up of small building blocks called amino acids. Soybean meal and alfalfa hay are examples of livestock feeds that are high in protein.
4. Minerals-Needed to build strong bones and teeth and make blood, muscle and nerves. Some minerals may need to be supplemented in to the ration. Salt, calcium and phosphorous are minerals needed in larger amounts than other minerals. Grass and hay can be a source of calcium, while grains are high in phosphorous.
5. Vitamins-Dietary nutrients needed in very small amounts for the health of eyes, nasal passages, and lungs, for strong bones, for blood clotting and for other body functions. Water-soluble vitamins that are important to cattle are the B-complex vitamins  
Fat-soluble vitamins that are important to cattle are Vitamins A, D, E, and K.

Concentrate feed or grain sources such as corn, are high in energy and low in fiber  
Roughages such as hay are lower in energy and higher in fiber

The information about the above information can be found on a feed tag. Anyone selling feed commercially must supply a label or tag with each bag or bulk shipment of feed.

The law requires that feed manufactures provide the following labeling information:

1. Product Name and Brand Name
2. Purpose of Feed
3. Purpose of Medication & Active Drug Ingredients
4. Guaranteed Analysis
5. Ingredient Statement
6. Feeding Instructions & Precautionary Statements
7. Name and Address of Distributor
8. Net Weight Statement

Know how to figure pounds gained

Know how to figure average daily gain

Know how to figure profit or loss

Know the parts of beef

## Sand & Sage Round-Up Sr. Market Beef Study Guide

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Artificial Insemination-Placing the semen from a bull into a cow's reproductive tract using an artificial method.(A.I.)

Bovine Virus Diarrhea-Contagious virus that causes diarrhea, abortions, weak calves, high temperature, discharge from the nose and problems in the intestine.(BVD)

Bloat-Abnormal condition in ruminants due to accumulation of gasses; usually seen on animal's upper left side

Bovine-An animal in the cattle group

Breed-Groups of cattle with similar traits such as coat, color, and horns

Brucellosis-Caused by bacteria. Can cause abortions, premature birth of calves and can be spread to humans. Also called Bang's disease

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Calf-A young beef animal less than one year of age

Castrate-To remove the testes from a bull so that it cannot reproduce

Colostrum-The first milk produced by the dam after she calves

Conformation-The general shape or structure of a beef animal's build

Cow-A fully grown female beef animal

Crossbred-An animal that has parents from different breeds

Cud-The bolus of feed that cattle regurgitate from the rumen and chew. This process helps to digest the feed

Dehorn-To remove the horns

Dual-Purpose Breed-A breed which can be raised for beef as well as milk production

Feed Concentrate-Grain mixtures such as corn, oats and soybean meal fed in a ration

Finish-The amount of fat cover on an animal

Forages-Plants used as feed for livestock

Gestation-The period of time from when the cow is bred (conceives) until she calves. This pregnancy period lasts about 283 days, depending on the breed.

Grass Tetany-This occurs when there is a low level of magnesium in the bloodstream of the cow

Heifer-A young, female beef animal that has not calved

Hormone-A body-regulating chemical secreted by a gland into the blood stream

Internal Parasites-Parasites that live inside the body of beef cattle

Nutrients-Ingredients that make up a ration

Ration-A daily mixture of feed ingredients given to cattle

Ruminant-An animal that has four stomach compartments (rumen, reticulum, omasum, and abomasum)

Total Digestible Nutrients-(TDN) An estimate of the energy requirements of beef cattle. It is used to formulate rations and to show the feed values of different types of feed

Withdrawal Time-Time needed to let drug residue to diminish to a safe level

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minerals needed in larger amounts than other minerals. Grass and hay can be a source of calcium, while grains are high in phosphorous.

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Know how to figure Average Daily Gain (how many pounds your animal is gaining per day)

Know how to figure feed conversion.

Know how to figure profit/loss

Know how to figure the cost of feed per pound

Know the parts of Market Beef



