

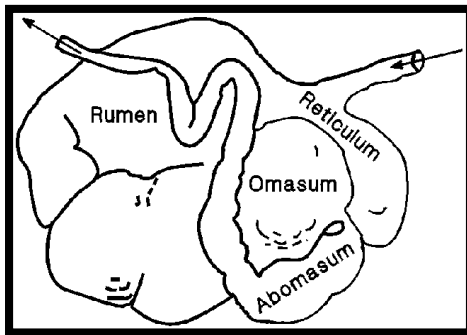


# Northwest Livestock Expo

## 2017 BEEF STUDY GUIDE

### DIGESTIVE SYSTEM:

- Cattle are ruminant animals. They have 4 compartments to their stomach (rumen, reticulum, omasum, and abomasum).
- Ruminant- Ruminating is when the animal regurgitates their feed into what is called “cud,” to further breakdown their feed with their teeth.
- Cattle can eat roughages (hays) and concentrate (grains).



Name the four different compartments of the stomach in cattle

---



---



---



---

**DID YOU KNOW:** The rumen in a mature cow can hold 50-60 gallons. It is the largest compartment of a beef animal's stomach.



### 6 essential nutrients for cattle

- Protein
- Fat
- Carbohydrates
- Vitamins
- Minerals
- WATER**

*“What one do you think is the most important?”*

---

A calf will drink about 8% of its body weight on a cold weather day and up to 9% a day in hot weather.

## Beef Grading Systems

Yield Grade: Yields grade describes the amount of fat that is within a cut of meat (cutability).  
 Grades: (leanest to fattest) 1, 2, 3, 4, and 5.

Quality Grade: Quality grades a guide for describing the quality of tenderness of the meat.  
 Grades: (highest to lowest quality) Prime, Choice, Select, Standard, Commercial, Utility, Cutter, and Canner

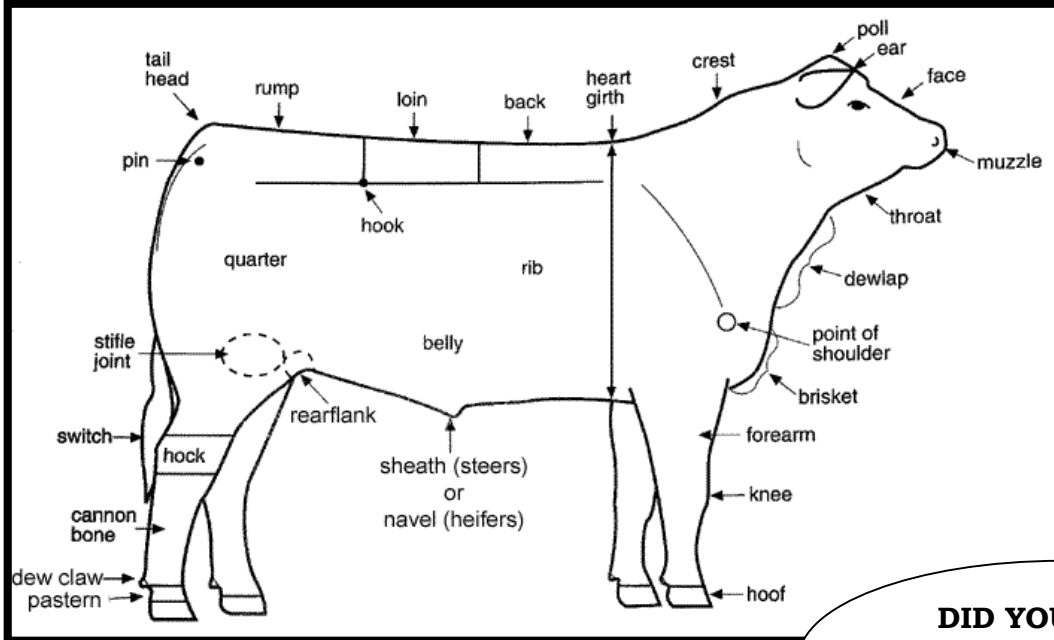
Quality grades are based on Marbling and Maturity

- Marbling: the amount of fat within a cut of meat
- Maturity: The estimated age of the carcass

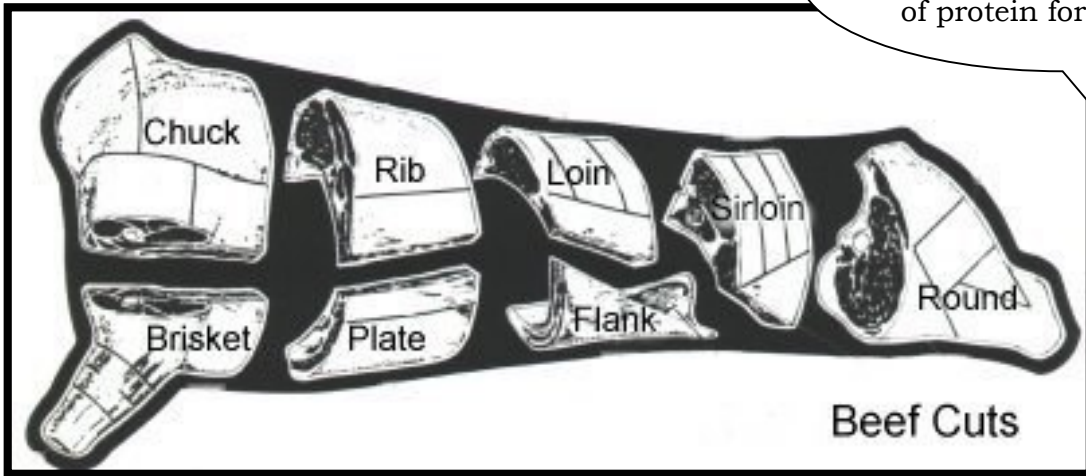
**Grade A (under 30 months of age) is the stage of maturity at which most market beef in the United States is harvested.**

### **Parts of a Beef Animal**

It is important to be able to identify the parts of your 4-H animals. Study this picture and practice identifying the parts.



**DID YOU KNOW:**  
BEEF is a great source of protein for humans.



### **Wholesale Cuts of Beef**

Can you name wholesale cuts of beef?

---



---



---



# Breeds of Cattle

*Knowing the names and a few characteristic of different breeds of cattle is important.*

Match the breeds of cattle with the pictures.



A.



B.



C.



D.



E.



F.

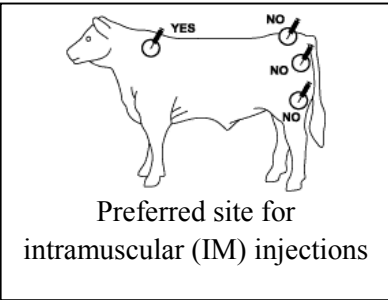


G.

- **Angus:** These animals are polled (no horns) with a black coat. They are known for their carcass quality, milking and mothering and their reproductive traits.
- **Hereford:** These animals are red with white faces and can be polled or horned. They became popular due to their hardiness, feed efficiency and disposition.
- **Charolais:** These animals are large and white. They are known for their fast growth and lean meat.
- **Gelbvieh:** They are solid cream to reddish yellow in color. These animals are known to be a general-purpose breed with good milking-abilities
- **Limousin:** These cattle are golden red color with smaller circles around the eyes and muzzle. These animals yield a high percentage of lean meat.
- **Shorthorn:** Shorthorn cattle can be red, white, or roan in color. They are characterized by their good disposition and mothering and milking abilities.
- **Brahman:** These animals can vary in color from light gray or red to almost black and traditionally have large ears. They are known for their ability to withstand heat and insects.

THINGS TO KNOW!

Temperature: 101.5  
Gestation Length: 285 days

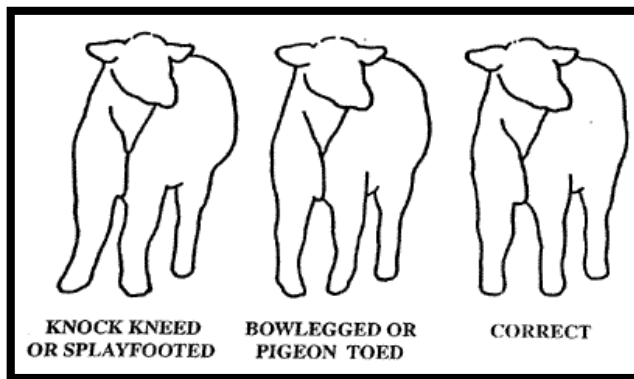
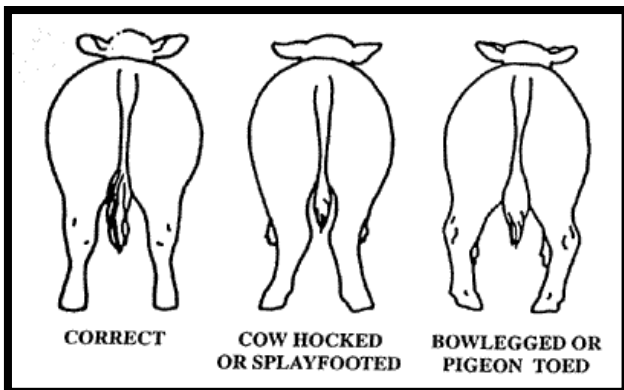
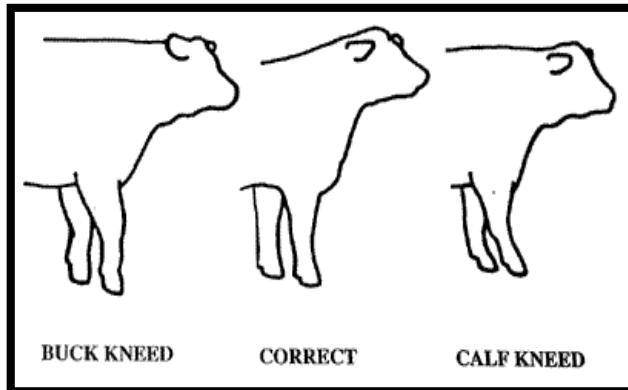
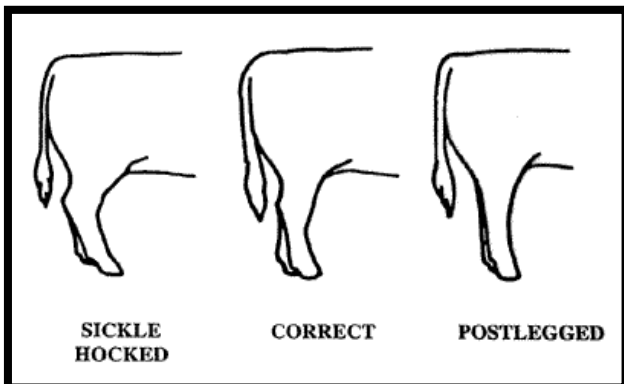


### Animal Health

It is very important to be able to monitor the health of your animal and be able to properly treat the animal as need.

- Never give medication to your animal without a parent , vet or your 4-H leader.
- To properly give medication to animals you must be able to understand the medication label. *Be able to identify:*
  - Name of the drug
  - Name of the distributor
  - Storage instructions
  - Withdrawl time
  - Quantity of contents
  - Active ingredients
  - Cautions and warnings

### Beef Animals Feet and Leg Structure



**Definitions:**

- Steer: castrated male
- Roughage: High fiber low energy feeds (example: hay)
- Regurgitate: the process of bring feedstuff from the stomach back up to the month to be re-chewed
- Concentrates: High energy low fiber feeds (example: corn)
- Ruminating: when the animal regurgitates their feed, into what is called “cud,” to further breakdown their feed with their teeth
- Conformation: The shape and design of an animal
- Heifer: A female that has not had a calf
- Bull: Male animal
- Cow: Female animal
- Gestation: The length of time a mother carries her calf
- Cud: The bolus of eaten feed which is regurgitated
- Colostrum: the first milk that a calf gets from its mother. It is rich in nutrients and antibodies
- Fattening: the process of depositing energy in the form of fat within the body tissue
- Dressing Percent: the amount of lean meat on a carcass. The more meat the higher the cutability
- Breakeven price: the price per pound you need to cover your total expenses

- ✓ Page 1: Four compartments: Rumen, reticulum, omasum, abomasums; The most important nutrient: Water;
- ✓ Page 3: Breeds of Cattle A. Brahman; B. Limousin; C. Angus; D. Charolais; E Shorthorn; F. Hereford; G. Gelbvieh.