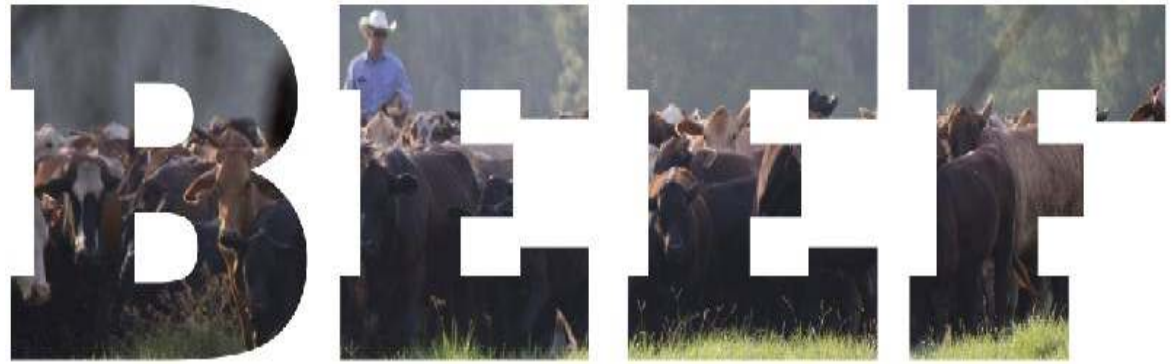


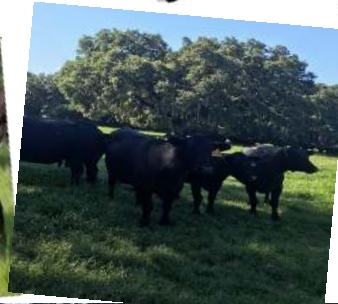
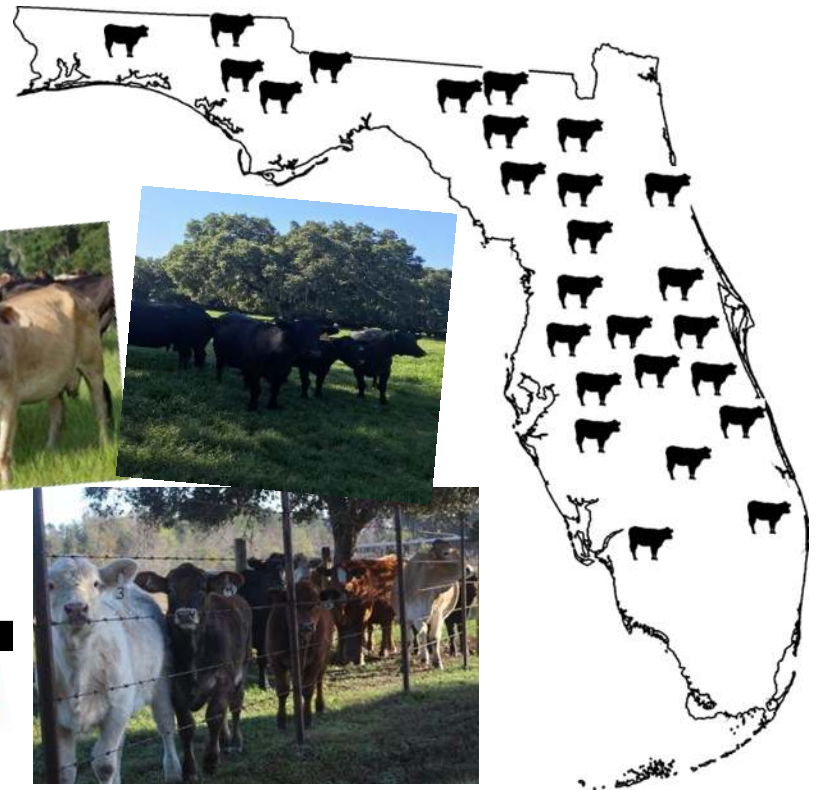


All about



Florida Beef Fun Facts

- There are over 1 million head of cattle in Florida
- Beef cattle are raised for meat production while dairy cattle are raised for milk production
- Ranchers care about the quality of their animals and try to keep them comfortable at all times
- Florida is a cow-calf state meaning calves are raised here and then sent to a feed yard to be finished
- Ranchers are ‘**Environmental Stewards**’ meaning they responsibly use and protect the environment
- There are several kinds of beef **breeds** or types of beef animals



Agriculture is the second largest industry in Florida behind tourism. Agriculture is the **science** of raising crops and animals. Agriculture is important because it is how we receive our food supply to feed the entire population. The state of Florida is very involved with agriculture, especially the beef industry! Florida is a **cow-calf** state that has over 1 million cattle! A cow-calf operation means that **calves** (cattle less than a year old), are born in Florida, raised by adult cows for six to eight months and then sent out west to be finished. **Finishing** cattle is the process where the animal gains weight before it is harvested. Cattle will spend four to six months at a **feed yard** where they receive a balanced diet and daily care to ensure **quality** standards. When the animal is **harvested**, it is sent to a packing plant to be processed. At the **packing plant**, different types of cuts or sections are taken from the animal making the different types of options that we see in the grocery store and restaurants. Meat options such as hamburger, steak, ribs and brisket all come from beef cattle. Meat is an excellent source of **protein** and a part of a balanced diet!



Cattle Tattle Tale

1 Florida's history is rich in agriculture. As a matter of fact, Florida's very first economy was agriculture. In 1513, Spanish explorer Juan Ponce de Leon landed in Florida searching for the Fountain of Youth. Upon his arrival, Ponce de Leon named our state after all of the wildflowers he saw covering the land.

2 When Ponce de Leon did not find the 'Fountain of Youth' he was searching for, he left Florida and went back to retrieve supplies. He promised to return. Eight years later in 1521, he returned to the Southwest region of Florida (present day Tampa area). This time, he brought cattle and citrus trees. After trying to establish a colony there, Ponce de Leon and his settlers were forced to flee from the attacking Calusa Indians. Ponce de Leon fled north and later died of his wounds.

3 The Andalusian cattle he had brought with him to feed his colonists were abandoned and left to roam the area on their own. These were the first domesticated cattle in North America. In 1539, another Spanish explorer Hernando de Soto came to Southwest Florida looking to settle the area. He also brought cattle with him and his colonists. De Soto moved north after some time, trailing the cattle behind him. Many of the cows strayed and were left behind. The cattle learned how to survive the harsh Florida climate and populated the South and Central Florida areas over the next several hundred years.

4 Some cattle were herded and domesticated by Native Americans in Florida, while others were discovered by pioneer settlers coming into Florida in the 1800's. These settlers branded or marked their cows and continued to let them roam the land until they were ready for market. They named the cattle "Cracker Cattle", named for the special whips the Florida cowboys used that sounded like firecrackers as they popped them. This was Florida's first start in the cattle industry.

5 During the Civil War, Florida was the top beef supplier to the Confederate Army. The town of Kissimmee, in Central Florida where Disney World is today, became the beef capital of Florida. In 1882, the railroad came to Kissimmee. This allowed more trade in and out of the state. As Florida ranchers became advanced, the original Spanish cow descendants were bred with other breeds like the Brahman, Angus, and Hereford cattle. This made for better meat and a sturdier cow in Florida's harsh climate.

6 Florida's history is steeped in agriculture and is still around us today. Some of you saw cattle on your way to school today or as you drove through Kissimmee to go to Disney World. Yes, we have a famous mouse and beautiful beaches, but true Floridians know that the heart of Florida is an orange sunset disappearing into a pasture spotted with cattle. On the next road trip when you pass a herd of cows or an orange grove, hopefully you will remember and appreciate the important role they play in making Florida the wonderful state it is!

Create your own timeline!
Draw a picture to represent
each paragraph.

1

2

3

4

5

6

Just like we eat a balanced diet to fuel our bodies, ranchers feed cattle a **balanced diet** to keep them healthy and growing. Beef animals have feed requirements depending on their age, size and type of animal.

Ranchers feed animals rations or mixtures of feed. Rations can include different amounts of corn, oats, silage, hay, minerals, vitamins and proteins.

Its time to feed! Help solve the following problems about the feed rations!

- Adult cattle can eat 22 pounds of hay and 7 pounds of corn per day. How many pounds of food is this?

- One bovine was given 35 pounds of food but only ate 21 pounds. How much food was left in the food trough? _____
- Beef cattle typically gain two pounds each day depending on their feed ration. How much weight could one cow gain over a two week period? _____

STEAM Dreamers Lesson Plan

Dilemma: Marvin loves animals, especially the calf! Unfortunately, the calf's mom does not produce enough milk to feed her baby.

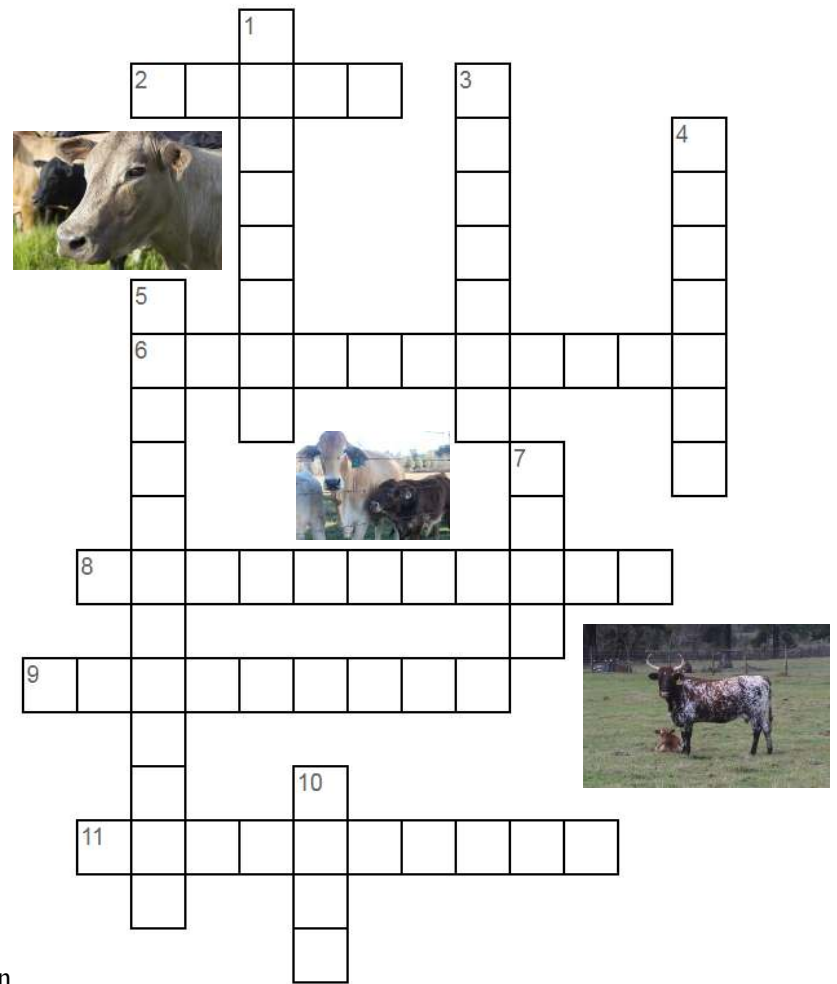
Mission: Help Marvin feed his calf! Design an automatic feeding device. The prototype must hold two cups of dry food that the calf can easily eat from!

Students: As a group, brainstorm design ideas that could feed the calf! The feeder must distribute two cups of food throughout multiple feedings. Pick a prototype to build, design feeder and submit to teacher for approval. Once approved, it's time to engineer and build your feeder!

Materials: Paper towel rolls, water bottles, disposable cups, tape, scissors, cereals (test feed), and more as needed.

Analyze: Was all feed (cereal) released during the feedings? How can the design be improved? A spoon can be used to simulate the calf eating.

All About BEEF Crossword Puzzle



Down

- 1 A mature beef animal is sent here to gain weight
- 3 These operations raise young calves and ship them when they are older
- 4 Beef is an excellent source of this
- 5 This is where different cuts of meat are sectioned off
- 7 Thanks for learning all about ____!
- 10 A balanced ____ is fed to beef animals to ensure quality meat

Across

- 2 This classifies different types of beef animals
- 6 The science of cultivating crops and raising animals
- 8 Ranchers are good stewards of the land because they care about this
- 9 The secondary product produced while meat is being produced
- 11 Florida has over _____ head of cattle

MEASURE UP WITH AGRICULTURE

Florida is known for its beaches and attractions but it is also known for agriculture! Agriculture keeps Florida green with its rows of crops and acres of green pasture. Each rancher builds a fence around the pasture to keep their animals together and safe. Within the pastures are water troughs for animals to take a cool drink and often near this is an equipment shed to store the rancher's tractors and farming equipment.

Can you design the perfect cattle pasture for Florida ranchers?
Grab some graph paper, construction paper and a ruler to design a 3-D farm model! Below are the rancher's requirements! Good luck!

Fence Perimeter	130 Centimeters
Water Trough Perimeter	20 Centimeters
Equipment Shed	60 Centimeters

A **byproduct** is a secondary product that is made while producing a main product. When we produce beef animals for meat, secondary products are also being produced as an outcome. Rather than wasting the parts of the animal that are not meat, we save them to make other products. When beef is harvested, we are also harvesting hide, hair, bones, horns, hooves, blood, gelatin, organs and more!



The mission of Florida Agriculture in the Classroom is to increase agricultural literacy through K-12 education in Florida.

Please visit Florida Agriculture in the Classroom's website www.agtag.org/teachers/ for answer key, standards and additional resources.

FAITC is funded by the:



There's A Cow In My Marshmallow!

Can you find the By-Products?

By-Products From Hide and Hair

Baseball Gloves
Car Upholstery
Drum Heads
Leather Coats
Violin Strings
Shoes
Felt Hats
Luggage
Wallets
Leather Watchbands
Rawhide Softballs



By-Products From Glands and Organs

Asphalt
Cosmetics
Fertilizer
Insulation
Medicines
Paint
Plastic
Soap
Tires

By-Products From Bones and Horns

Bone China
Ice Cream
Piano Keys
Candies
Knife Handles
Vitamin Capsules
Chewing Gum
Lipstick
Wallpaper Paste
Comb
Photo Film

BEEF Up Your Vocabulary!

Several important vocabulary words are in **bold** throughout this handout. Find the words, define them and then write a summary about the beef industry using as many vocabulary words as you can!