Beef

*Lesson Plan for Grade 2, Science*

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*for Mississippi Farm Bureau Federation - AITC*

# OVERVIEW & PURPOSE

In this booklet we will go through each part of the industry! We will follow the stories of Steve the steer and Moolissa the heifer in their journey from pasture to you.

# EDUCATION STANDARDS

**Mississippi College-and-Career Readiness Standards:**

L.2.2 Students will demonstrate an understanding of how living things change in form as they go through the general stages of a life cycle.

ELA-L.2.4 Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.

**NALOs:**

T2.K-2 a Explain how farmers/ranchers work with the lifecycle of plants and animals to harvest a crop.

# OBJECTIVES

* Students will navigate the life cycle of beef cattle from birth to harvest

# MATERIALS NEEDED

* [Student Booklet (1 per student)](https://drive.google.com/file/d/1eqIOLYRZa9reUw1079YFzzgMGbu8vaSM/view?usp=sharing)
* Crayons (1 set per student)

# Lesson Set Up:

1. Print yourself a copy of the Teachers Booklet Guide to read and show the students.
2. Print the Student Booklets (1 per student)
3. Make sure that students have access to crayons while reading the booklet.

# Vocabulary

**livestock:** farm animals such as cattle, sheep, pigs, goats and others who are raised for their meat, wool, milk, or eggs

# Ag Facts:

In Mississippi in 2019 there were:

* 900,000 head of cattle in 2019
* 15,980 cattle farms
* $268 million value of cattle production in 2019

# Background Information for Teacher:

# **Ask A Farmer: What is a cattle feedlot?**

[Ryan Goodman](https://beefrunner.com/author/agproudryan/) [October 8, 2012](https://beefrunner.com/2012/10/08/ask-a-farmer-what-is-a-cattle-feedlot/)

*What is a factory farm? What is a CAFO? What is a feedlot?* These and numerous other questions are some that I receive on a weekly basis pertaining to cattle production. I have spent most of my life becoming better acquainted with many aspects of cattle production. Over the next several posts, I hope to share some insights from my experience in one of the most intensively managed stages of cattle production.

Next to reproduction, nutrition is probably my favorite area of cattle production. Even as a kid in elementary school, I had calves in the barn lot that my dad put me in charge of feeding. My family managed a large cattle ranch with over 12,000 head of cattle on an annual basis. Most of these cattle, when they left our ranch, went to the Panhandles of Texas and Oklahoma to be fed out and turned into the beef that is on our plates.

During college, I spent a summer working as a management intern for Cactus Feeders, which at the time was the largest [cattle feeding](http://en.wikipedia.org/wiki/Cattle_feeding) operation in the country. Apparently, I did not get my fill of cattle feeding and went to work for the now-largest cattle feeding company in the country, JBS Five Rivers, as a cattle-receiving manager after finishing my bachelor’s degree.

## ***Concentrated Animal Feeding Operations***

Many folks refer to *factory farms* as a part of modern livestock production. For years, we in agriculture have known these as *Concentrated (Confined) Animal Feeding Operations (CAFO)*.

The [USDA](http://www.usda.gov/), EPA, [NRCS](http://www.nrcs.usda.gov/), and other government agencies have defined Animal Feeding Operations.

*An operation is defined as an animal feeding operation, or* [*AFO*](http://en.wikipedia.org/wiki/Animal_feeding_operation)*, if the facility confines, stables, or feeds animals for 45 days or more in a 12-month period and a ground cover of vegetation is not sustained over at least 50 percent of the confinement area.*

*An operation is defined as a concentrated animal feeding operation, or CAFO, if it meets the definition of an animal feeding operation (above) and also confines more than 1,000 animal units (1,000 animal units is equal to 2,500 swine; 100,000 broilers; 700 dairy cows; or 1,000 beef steers).*

In the cattle business, these CAFOs are known as *feedlots*, interchangeable with *feedyard*. [Feedlots](http://en.wikipedia.org/wiki/Feedlot) are the final stage of production prior to slaughter with a focus on efficient growth and weight gain of the animals. This is achieved by providing a readily digestible, high-energy diet; reducing the amount of energy expended to find food, directing more toward growth, and managing the cattle to minimize stress and health problems.

**Feedlot and Mill in Dalhart, Texas**

## ***When and how did cattle feedlots begin?***

In the 1800s, grain farmers were looking for a market for excess grains and the ability to provide year-round employment for farm workers. Farmers began feeding the grains to livestock and soon realized the increased value in grain finished beef. Urban demand for this beef continued to grow at the Civil War and farmers began expanding their efforts. As population centers began to expand and transportation became more reliable, farmers soon moved closer to the grain producing areas of the country; primarily the Midwest.

Around the 1950s, cattle feeding began to grow and centralize in the High Plains states. The arid climate was ideal for finishing feeding fat cattle, irrigation enabled farming of grain and forage crops, and relocation of slaughter houses made the region perfect for the growing business away from population centers. Today most cattle feedlots reside from West Texas, through the Oklahoma Panhandle, Western Kansas and Nebraska, and Colorado.

**Present day location of cattle finished on grain feeds**

## ***Are cattle feedlots considered factory farms?***

Cattle feedlots and other CAFOs are considered to be *factory farms* by many in the animal rights movements. These operations may not be the picturesque red-barn farm, but they are not factories. There have been many misperceptions created about feedlots, which are often referred as synonymous with corporate agriculture. Yes, the feedlots I have worked for were owned by large companies, but most feedlots are owned and operated by family farmers. These feedlots are operated by people just like me, not large corporations out for the almighty dollar.

Those who are set on painting the image of factory farms harp on the negative and misrepresent the facts when it comes to CAFOs. Truth is, we do care about animal welfare and good stewardship of our environment and resources. Every animal receives individual, consistent care on a daily basis, even on these large farms. As the amount of land for agricultural use continues to decrease, and the global population continues to increase, these good stewardship principles become ever more so important.

### ***From:*** [***https://beefrunner.com/2012/10/08/ask-a-farmer-what-is-a-cattle-feedlot/***](https://beefrunner.com/2012/10/08/ask-a-farmer-what-is-a-cattle-feedlot/)

# LEARNING PROCEDURES

**Interest Approach:**

# 1. Open by telling the students that there are different places cattle have to visit before they become the food that we enjoy - This is called the “Six Segments of the Industry” and they are…

# • Producer/Farmer

# • Stocker/Backgrounder

# • Feedlot

# • Packer

# • Retailer/Food Service (These are separate segments, but for the sake of simplicity, we are going to combine them! So with these combined, there are “five segments of the industry!”)

# 2. Inform the students that they are going to follow some cattle named Steve and Moolisa.

3. Give each student a booklet, as well as crayons or colored pencils.

4.Read the Teachers guide booklet along with the students. When you reach a drawing activity, give the students about 5-10 minutes to draw what is told in the booklet

**Concept Elaboration and Evaluation**

* After the booklet reading and drawing is over, let the students show off their artwork to other students and the teacher(s)

# Additional Learning Procedures

To help students review and elaborate more about beef cattle try using [“The Carousel”](https://drive.google.com/file/d/1BD8J684aykTdoSInAztkbk5czkKtBYur/view?usp=sharing) method to get students to participate in discussions.

More ways to continue adding in beef content to the classroom, is by adding in new resources such as books. Reading aloud to students the book [“Levi’s Lost Calf” by: Amanda Radke](https://www.amazon.com/gp/product/1463514425/ref=ox_sc_saved_image_4?smid=ATVPDKIKX0DER&psc=1) is a great way to promote students making new connections within the beef industry.



Source: CalPoly.edu

*For more information and additional lessons visit*

*https://msfb.org/ag-in-the-classroom/lesson-plans/.*