Oklahoma M(ag)azine

The Magazine of Oklahoma Ag in the Classroom

SOWS, Boars & PIGLETS
Oh my!

SCRAMBLED EGGS
Check out this activity inside.

CORN-Y JOKES
Agriculture is Everywhere!

Can you live without Agriculture?

From the time you brushed your teeth until you walked out the door to meet the school bus, you had hundreds of run-ins with agriculture.

The soap in your shower was made from cottonseed and soybean oil. Fat from cattle also was used in making that soap.

Did you have eggs, toast, waffles, cereal, milk, bacon or juice for breakfast? You guessed it - all from agriculture.

You probably finished your homework by writing on paper. That paper represents another southeastern Oklahoma agricultural crop - trees.

Look around your desk at school. How many things are products from agriculture? Are you holding a pencil? Have you used glue in a recent project? Is your desk made of wood? All of them are agriculture, too.

Can you have an ag-less day? There's just no way!

Circle the activities on your list that can be traced to agriculture.

Q. What gives milk and has one horn?

A. A milk truck

Q. How many soybeans can you put in an empty bag?

A. One - because after that it won't be empty!

Write your own corn-y joke in the space below!

Q. This vegetable's outside is thrown away so the inside can be cooked. But the outside of the inside is eaten, and the inside of the inside is thrown away.

A. A potato

For detailed instructions visit: www.agclassroom.org/ok
Settling the Big Pasture Area

This is the story of the Pattons, a century-old farming family. Read on to learn more!

Imagine this: a young man riding across the Big Pasture area of the Oklahoma Territory. A bandana tied to the wheel of his covered wagon measures off the square mile on which he plans to build his future. The land looks green and promising for the young farmer. The year is 1906, and Albert Sidney Patton, at 23 years old, is staking off what will become the Patton family farm for more than three generations.

In 1906, land that had been reserved for Indian tribes in southwest Oklahoma Territory - known as the “Big Pasture Area” - was opened up for settlement. Drawings were held for the Big Pasture lands, which contained approximately 500,000 acres, and land was sold in 160 acre tracts to the highest bidders.

Mr. Patton, the highest bidder on a quarter section of land five miles south of Chattanooga, moved his family to their homestead on April 7, 1907. When they arrived, the green and promising land the young farmer had seen a year earlier was gone. Instead, the Patton homestead was dry, dusty and overflowing with prairie dogs. But Mr. Patton was not discouraged.

The young couple, A.S. and Lexie, lived in two covered wagons until they could afford to build a half-dugout - which cost $35. During the early years of life on the prairie, the Pattons had to compete with prairie dogs, hailstorms, and the Dust Bowl for the crops they carefully had planted. Good crops eventually came, and the Pattons were able to acquire more land for farming. As the size of the farm grew, so did the size of the family! A.S. and Lexie had eight children - Othel, Era, Aubrey, Lloyd, Woodrow, Paul, Donnie, and Colleen. In later years, A.S. and Lexie owned purebred beef and dairy cattle.

The land that belonged to A.S. and Lexie is still being farmed by the Patton family. Lynndell Albert Patton (son of Albert Leston, son of Aubrey Albert, son of A.S.), with his wife, children and grandchildren, run the family farm, which is now located in Faxon, Okla. The Pattons continue to farm the land by planting cotton and wheat.

Lynndell also has continued a later tradition of his great-great-grandfather’s - raising cattle. His children and grandchildren have continued this legacy by showing livestock at the county fair.

Farming has changed through the years as equipment, fertilizer and seed have improved. The horses, oxen and tractors of old have been replaced with larger, heavier machinery. Thanks to good climate, soil, water, and technology, American farmers are among the best producers the world has ever known. In fact, they’re still getting better! At the time of the American Revolution, one farmer could feed three people. By 1900, that number was seven. Today, only two percent of the U.S. population farms, and these farmers feed the entire nation and export food to the rest of the world!

A century of farming...

FACT:
Oklahoma has more than 44 million acres of land - 35 million acres of that is in agricultural production.

Dust Bowl Days

During the Dust Bowl era, the landscape looked vastly different from what it does today. Because the air was so filled with dust, lights were left on during the day so settlers could see. Dirt piled inside houses and schools, businesses closed, vehicles were left parked. During this time, many people got lung infections. Dust killed crops and farm animals, and it forced people to flee their homes. Dust clouds could be seen for hundreds of miles. It was a tragic time for not only Oklahoma, but also the Great Plains states.

Maybe you’ve heard your great grandparents or older people talk about the Dust Bowl era of the 1930s. How did such a thing happen? Not knowing it would cause a problem, ranchers spent many years grazing large herds of cattle, and farmers plowed the plains for croplands. The soil was slowly destroyed. Drought and winds meant disaster. As the soil eroded, the Great Plains became the Dust Bowl.
Mooo-ve it...

Cattle are an important source of food – it’s a fact! Beef, dairy products, and milk all come from the “cow.” But, did you know that cattle are also used in sports equipment, vehicles, and medicine?

Cattle have been used for much more than food for centuries. Oxen were used to plow fields and provide transportation in the early days of the Oklahoma settlers.

Read on to find out more about cattle... after all, they provide more than just a cheeseburger!

Did you know:

- Oklahoma has 4.85 million beef cattle and ranks 5th in the nation in cattle and calf production.
- It may not be a “cow”!
  - Heifer: young female from the time she is born to just before she has a calf
  - Cow: female after she has had a calf
  - Bull: male
  - Steer: neutered male
  - Polled: without horns
  - Wean: process of removing a calf from nursing on milk
  - Feedlot: a fenced-in area where cattle are fed for the last 300-400 pounds of their growth

**U.S. Beef Statistics**

Cattle are raised in every state. Cattle and calves are the largest agricultural commodity. There are about 92 million head of cattle in the U.S. The top 10 cattle producing states are Texas, Nebraska, Kansas, California, Oklahoma, Missouri, South Dakota, Iowa, Wisconsin, and Colorado.

**Common beef breeds:**

- **Angus** - black breed that is naturally polled
- **Hereford** - red breed with a white face, underbelly, feet, tail and mane
- **Charolais** - large white breed that is thickly muscled and large boned
- **Limousin** - golden-red breed that is heavily muscled
- **Brahman** - breed with a lot of drooping skin and a large hump on its neck

**Calf Scramble Crossword**

**Down:**
1. Young female beef animal, no calf
2. Without horns
4. Cattle & calves are the _______ U.S. agricultural commodity
6. Breed of cattle with droopy skin
7. Mature female beef animal, with calf
8. Black breed of cattle

**Across:**
3. There are about 92 _______ head of cattle in the United States
5. Neutered male beef animal
7. White breed of cattle
9. Male beef animal

Q. What do cows wear in Hawaii?

**Moo-moos**
Do you get up in the morning and eat a bowl of cereal?
Do you add milk from a carton or a plastic jug?
Do you ever wonder how the milk got from the cow into the carton?

Milk comes from dairy cows. Cows spend about 6 1/2 hours eating every day and eat about 90 pounds of food in that time. A cow’s body uses part of the food she eats to grow and stay healthy. Her body uses another part of the food to make milk in the udder.

The cows go to the milking parlor where the dairy farmer washes their teats. A milking machine with four teat cups is attached to the cow. The milk is cooled to 38 degrees and stored in refrigerated storage tanks.

A milk truck comes to pick up the milk daily and take it to the processing plant. The truck driver tests a sample of the milk before pumping it into the truck to make sure it’s safe to drink.

Milk trucks have very large metal tanks to carry the milk. Each truck has a special feature to keep it cool, it’s like a thermos on wheels... it’s insulated.

At the processing plant, raw milk is sampled and checked again and then pumped from the milk truck into a storage tank. Next, the milk is sent to be homogenized and pasteurized.

Homogenized means it is the same all the way through. In this step, the butter fat is broken up and mixed into the rest of the milk. Pasteurization is quickly heating the milk to 160 degrees Fahrenheit, which kills any bacteria that are in the milk.

Milk is then poured into containers, or made into a variety of dairy products. It takes about two days from the time milk leaves the cow until the time it reaches the grocery store. At the grocery store, milk is kept refrigerated at 40°F or lower.

Milk has nine essential nutrients: calcium, vitamins A, D, and B12, protein, potassium, niacin, riboflavin, and phosphorus.

Milk was named Oklahoma’s official state beverage on November 2, 2002.

DID YOU KNOW?

Getting three servings of low-fat or fat-free, nutrient-rich dairy foods every day helps to promote bone health, healthy blood pressure and a healthy weight.

Oklahoma dairy cows produce 61 million gallons of milk annually.


Meet the Foster Mothers

The seven major dairy breeds in the United States are Ayrshire, Brown Swiss, Guernsey, Holstein, Jersey, Milking Shorthorn and Red and White.

Can you name the dairy breeds based on their photo and description?

1. Black and white breed; came from Holland in 1621
2. Red and white with broad muzzle, strong jaw; developed in the Netherlands
3. Fawn color with black nose and feet; came from an isle in the English Channel in 1850s
4. Solid brown, varying from light to dark; came from Switzerland in 1869
5. Light to deep cherry red with white; came from Scotland in 1822
6. A shade of fawn with white markings; came from an isle in the English Channel in 1831
7. Reddish-brown with small white spots; came from England in 1783

NAME THAT BREED


What is all cow’s favorite movie?

Q: The Sound of Moo-sic

A: Did you know that Oklahoma was named the Official State Beverage on November 2, 2002?

Dairy cows are referred to as the foster mothers of the human race because they produce most of the milk that people drink.

Oklahoma dairy cows produce 81 million gallons of milk annually.
Dear Diary,

We learned SO much in school today. An ag teacher named Mr. Pearce came to speak to us about pigs (he sometimes called them hogs.) He also talked about the breeds of pigs; there were 5 major breeds that we learned about. He said any kid who’s at least 9-years-old can show these animals. Kind of like you would show a dog but without the leash! I’m not really sure how they do that! Mr. Pearce also talked about the different terms that you use to describe pigs. He said that a female hog that has had babies is called a sow and the babies are called piglets. When babies are born, you call the whole group a litter. He told us that a male hog is called a boar, but after it is neutered you call it a barrow. Mr. Pearce also said a female pig that has not had piglets is called a gilt. He gave us a ton of information...I don’t know how I remembered it all!

Miranda
There are more breeds of sheep than breeds of any other livestock species. Worldwide, there are more than one thousand distinct sheep breeds. In the US, there are more than 40 breeds. Some sheep are raised mainly for meat, and others primarily for their wool. Most of the sheep in Oklahoma are meat breeds.

Sheep are very gentle animals and are easily frightened. They flock together for protection because they can’t really protect themselves. The sheep has many natural predators, animals that hunt and kill sheep for food. They include coyotes, wolves and domestic dogs. Sometimes larger animals, like mules or llamas, are kept in the pastures with the sheep to scare off possible predators.

Lambs are ready for market when they weigh somewhere between 90-120 pounds. Lamb as food is an outstanding source of vitamins and minerals, and is one of the easiest to digest. The meat from a young sheep is called mutton and that from a young sheep is called lamb.

DID YOU KNOW?
Sheep would rather walk up-hill than down and would rather drink running water.

There are more than 210 breeds of goat. Of the 450 million goats in the world, 6 to 8 percent of them are in North America. Can you estimate how many goats are in North America?

The main products associated with goats are milk, cheese, meat, mohair, and cashmere. Goat milk is used for drinking, cooking and baking. It can successfully replace cow milk in diets of those who are allergic to cow milk.

The meat from a young goat is called “cabrito.” Meat from more mature goats is “chevon.” Most goat meat producers are also the consumers. For that reason, goat is not one of the top imports or exports.

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Historians believe the first chickens related to today’s egg layers were brought to America by Columbus’ ships. The laying hens first supplied eggs and then chicken meat for the hungry crew. Read on to learn more about chickens in the United States!

Early poultry production consisted of many households having backyard flocks. These chickens supplied eggs and an occasional chicken for Sunday or holiday dinner.

Feed mills, hatcheries, farms and processors were all separate businesses in the early poultry industry. During this time, chickens were typically raised specifically for its meat. The commercial broiler industry began its economic boom. By 1952, broilers passed farm chickens as the No. 1 source of chicken meat. “Vertical Integration” also occurred, meaning that a single company owned every stage of production, processing, and marketing.

Major companies began using TV and print media to market chickens under brand names.

Today, 95% of broilers sold at grocery stores carry a brand name.

The average laying hen lays 257 eggs a year.

How long do chickens work?

How may hours does it take a hen to lay a single egg?

To answer the question, you need to do these math problems:

365 (days per year) x 24 (hours per day) ___ (hours per year)

+ 257 (eggs per year) ___ (hours per year)

= answer = hours per year

The pecan is a kind of hickory nut native to the United States. It originated in the Mississippi River Valley and was a valuable food to early settlers there. Pecans are high in polyunsaturated fat, the kind of fat that is not bad for you. They are also a good source of vitamins, calcium, phosphorus and iron.

The name “pecan” is a Native American word of Algonquin origin that was used to describe “all nuts requiring a stone to crack.” There are over 1,000 varieties of pecans. Many are named for Native American Indian tribes, including Cheyenne, Mohawk, Sioux, Choctaw and Shawnee.

Pecan trees like to grow together in clusters, or groves. They can grow from 70 to 100 feet tall, and their branches will spread from 50 to 100 feet wide. Their roots grow deep. Pecan trees are most significant as a nut crop, but the wood from the tree is also used in agricultural implements, baseball bats, hammer handles, furniture, wall paneling, flooring, religious carvings and firewood.

Trees are amazing! They provide beauty, shade, oxygen, clean air and water, fruit, nuts and wood products such as paper, furniture and housing. These benefits are well known. But did you know that literally thousands of products are made from trees? Many are surprising! From the medicine L-Dopa for treating Parkinson’s Disease, to film in your camera, forest products are all around us.

Complete the word search puzzle to find these ten tree products:

Did you know nearly 10 million acres of land in Oklahoma is forested? That’s about 25 percent of land in our state!

Oklahoma is home to a wide range of trees as a result of the diversity of our landscape. The majority of Oklahoma forestland is oak-hickory. Oak-hickory forests provide food, cover and nesting sites for numerous wildlife species.

Commercially, our most valuable wood is generated from southern oak-pine forests, which are in the far southeastern corner of Oklahoma on more than five million acres extending into five counties.
Fun and Fruity

Oklahoma is a great place to grow vegetables. We have a long growing season and good soil. Many communities around the state have active farmers markets from April through October where you can purchase locally grown vegetables. Some markets even operate year-round. Locally grown vegetables are also available from roadside stands and “pick-your-own” farms.

1. Name a fruit that starts with “A.” It is white on the inside and can be red, yellow, or green on the outside.

2. Name a sweet fruit that grows in bunches on vines. It starts with “G.”

3. You can cook fruit with sugar to make a sweet spread that tastes good on bread. What is this spread called? It starts with “J.”

4. Name small round fruit that grows on a flowering shrub or a trailing vine. They can be black, dark red, or yellow. It starts with “B.”

5. Name three sweet fruits that start with the letter “P” and grow on trees.

6. What do you get when you dry a plum? It starts with “P.”

7. What do you get when you dry a grape? It starts with “R.”

8. Name a sweet, red fruit that starts with “S.” Its seeds are on the outside.

9. Name a soft, red fruit that starts with “T.” It is not sweet.

10. Name a sweet fruit that starts with “W.” It is green on the outside and pink on the inside.

Oklahoma designated the strawberry as official state fruit in 2005. Strawberries are high in Vitamin C and A, and supply eight percent of the recommended daily allowance for iron. One cup of fresh berries has only 60 calories and zero grams of fat.
In 1804 a Yankee clipper ship brought soybeans to the United States. When leaving China, sailors loaded the ship with soybeans as inexpensive ballast. When they arrived in the US they dumped the soybeans to make room for cargo.

In 1829, US farmers first grew soybeans. They raised a variety for soy sauce. During the Civil War, soldiers used soybeans as coffee berries to brew coffee when real coffee was scarce. In the late 1800s farmers began to grow soybeans as forage for cattle.

In 1904, George Washington Carver began studying the soybean. His discoveries changed the way people thought about the soybean; no longer was it just a forage crop, it became a valuable source of protein and oil.

Today, more soybeans are grown in the US than anywhere else in the world. Farmers in more than 30 states grow soybeans. Some of the better known soybean products include soy meal, soy flour, soy milk, tofu, meat substitutes, tempeh, soy sauce, infant formula, biodiesel fuel and animal feed. Soybeans also find their way into candles, cleaning products and hair-care products.

Gary is an Oklahoma soybean farmer. He farms his soybeans and sells them to the grain elevator after harvest. Gary needs to know the weight of his crop in order to determine how much he will be paid. Soybeans are weighed by the bushel. One bushel of soybeans weighs 60 pounds.

If Gary harvested 40 bushels, how many pounds of soybeans did he have?

The grain elevator agreed to pay Gary $9.50 per bushel for his 40-bushel crop of soybeans. How much money was he paid?

If Gary had two times the amount of soybeans, 80 bushels, how much money would the grain elevator pay him for his crop? How many pounds of soybeans did he have?
Before you eat, think about what and how much food goes on your plate or in your cup or bowl. Over the day, include foods from all food groups: vegetables, fruits, whole grains, low-fat dairy products, and lean protein foods.

Look at the lunch menu for today. Into which food groups do each of the items on the menu fit? List the items and their food group in the space to the right. Remember that foods like pizza and hamburgers will fit into several groups.

1. 
2. 
3. 
4. 
5. 
6. 
7. 
8. 

CONTACT US:
Cheri Long
(405) 249-9234
cheri.long@ag.ok.gov

Audrey Harmon
(405) 740-0160
audrey.harmon@ag.ok.gov

Melody Aufill
(405) 795-0121
melody.aufill@ag.ok.gov

Pat Thompson
(405) 744-8889
pat.thompson@okstate.edu

www.agclassroom.org/ok