

# Corn in the Classroom



MissouriCorn  
PLANTING OPPORTUNITY



# Corn Facts

## Combine:

a large machine that harvests grain crops. It cuts down the stalks, removes the ears from the stalks, removes the kernels from the ear and distributes stalks back on the field for fertility and ground cover. The combine also collects the kernels in its storage bin until it can be emptied into a truck or wagon.

## Kernel:

seed of the corn plant. Corn seeds have a hard outer shell and a starchy inside.

## Ear:

considered the "fruit" of the corn plant. The ear forms within many layers of leaves known as husks. Pollen from the tops, or tassels, of the corn plants fall onto the corn silks. Once the pollen travels down the silk, a kernel is formed. One corn plant usually only grows one or two ears.

## Cob:

the part of the corn plant that holds the kernels together. One cob may have 800 kernels attached to it.



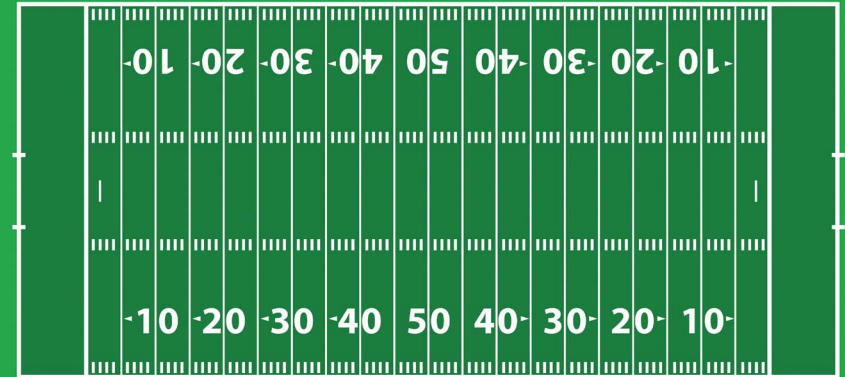


## Ethanol:

a type of alcohol that can be made from corn or other starchy plants. The alcohol can be used as a fuel for cars and trucks. This type of fuel is good for the environment because it reduces air pollution when used in place of gasoline.

## Acre

a unit of measurement for land area. An acre is 4,840 square yards, or slightly less than the size of a football field.



## Did You Know?

Almost all farms (96%) in the United States are family farms.



## Bushel:

the unit corn is measured in. A bushel is equivalent to 56 pounds, roughly the size of a large bag of dog food.





# Sweet Corn Versus Field Corn



## Field Corn:

type of corn most commonly grown for animal feed and ethanol production. It can also be used in human food once it is processed. The starch and oil from a field corn kernel can be used in many different non-food products. Over 99% of the corn grown in the U.S. is field corn.

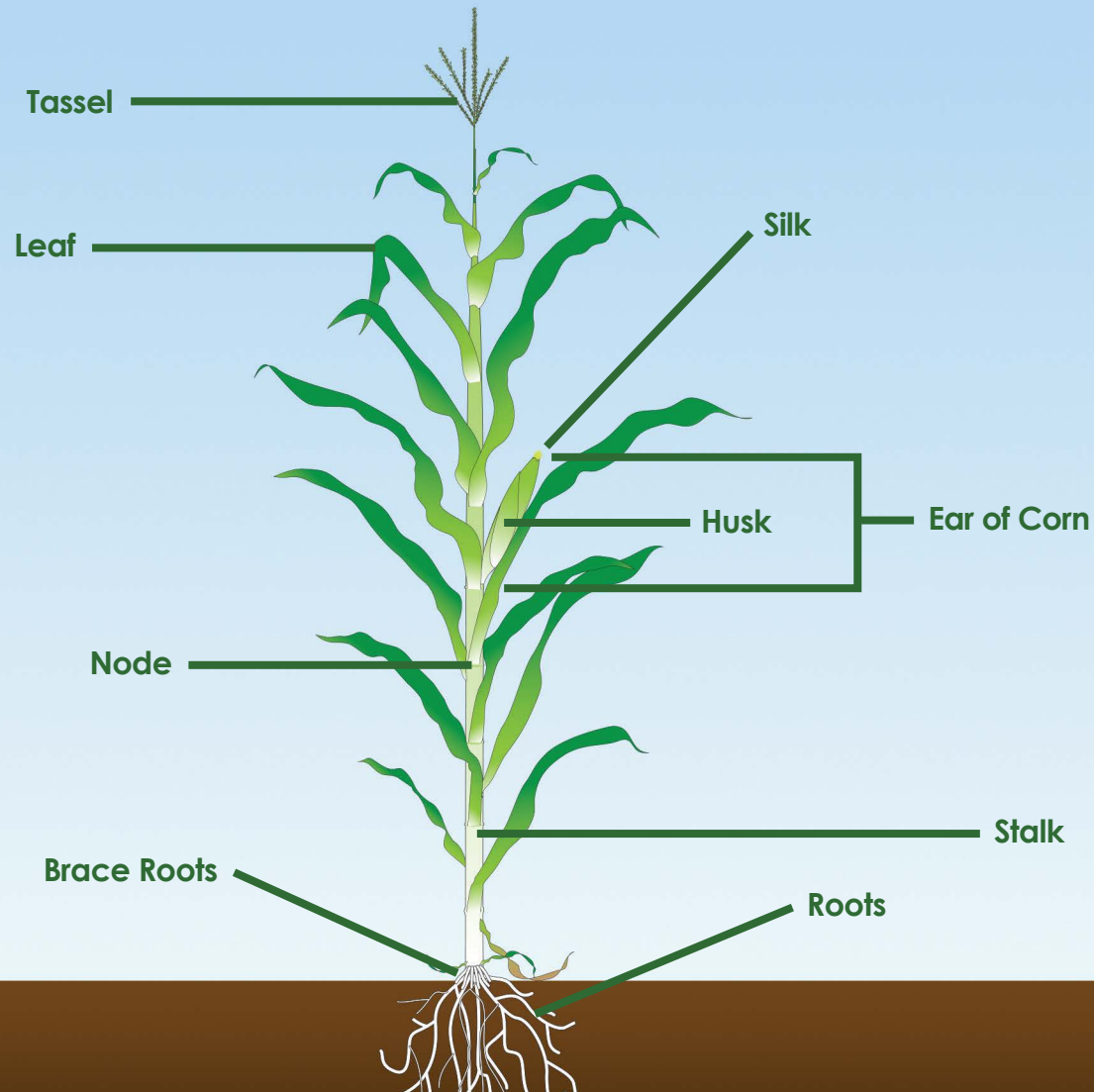
## Sweet Corn:

type of corn that is harvested when the kernels are still moist and the stalks and leaves are green. Sweet corn is eaten on or off the cob.





# Parts of a Corn Plant



**Did You Know?**  
Each ear has roughly  
800 kernels!



# Helping Corn Grow – Water, Soil, Sun



Corn needs heat from the sun, and it needs water to grow. Farmers wait until the soil is warm to plant corn. If the soil is too cold, the corn seed will not germinate. Water is also needed for the seed to germinate and for the plant to sprout. Through the growing season, the amount of water the corn plant receives helps to determine how much corn will be produced. Nutrients in the soil and heat from the sun help the corn plant grow and produce an ear.



## Did You Know?

Farmers always worry about the weather. If the weather is too hot or too cold, or if the weather is too dry or too wet, corn won't grow as well. Storms can hurt crops with wind, hail or flooding.





# Life Cycle – Planting, Growing, Harvest



## Planting:

In the spring, Missouri farmers plant seeds, or kernels of corn in the fields. Using tractors and tools like computers and satellites, farmers know exactly where to plant in the field to ensure each kernel gets the nutrients, moisture, and space it needs to germinate and grow.



## Growing:

Through the summer months, the leaves of the plant soak up heat and sunlight, while the roots absorb nutrients and water, allowing the plant to grow tall and form ears. Each ear has hundreds of silks that connect to the ears. Once pollinated, each silk develops a kernel on the ear.

## Harvest:

In the fall, when the kernels dry and the plant turns brown, farmers use combines to harvest the corn, cutting it from the stalk and removing the kernels from the ear. After farmers unload the corn into a truck or wagon, it can be sold or stored in a bin.





# Where Corn Is Grown



**STEM Fact:**  
Corn originated in North America. Its ancestor was a grassy plant called teosinte. Over thousands of years, people have improved the corn plant so it can produce corn as we know it today. Corn can now be grown in many parts of the world.

Teosinte





# Map Of The Continents



Corn is produced on every continent but one. On the lines (below), write the name of the continent that matches each number. Color each continent that produces corn green.

- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_
- 7 \_\_\_\_\_





# Identifying States in the Corn Belt



## Math Puzzler:

A farmer will plant about 30,000 corn seeds in one acre.  
How many seeds would be planted in a 100-acre corn field?  
(answer page. 15)

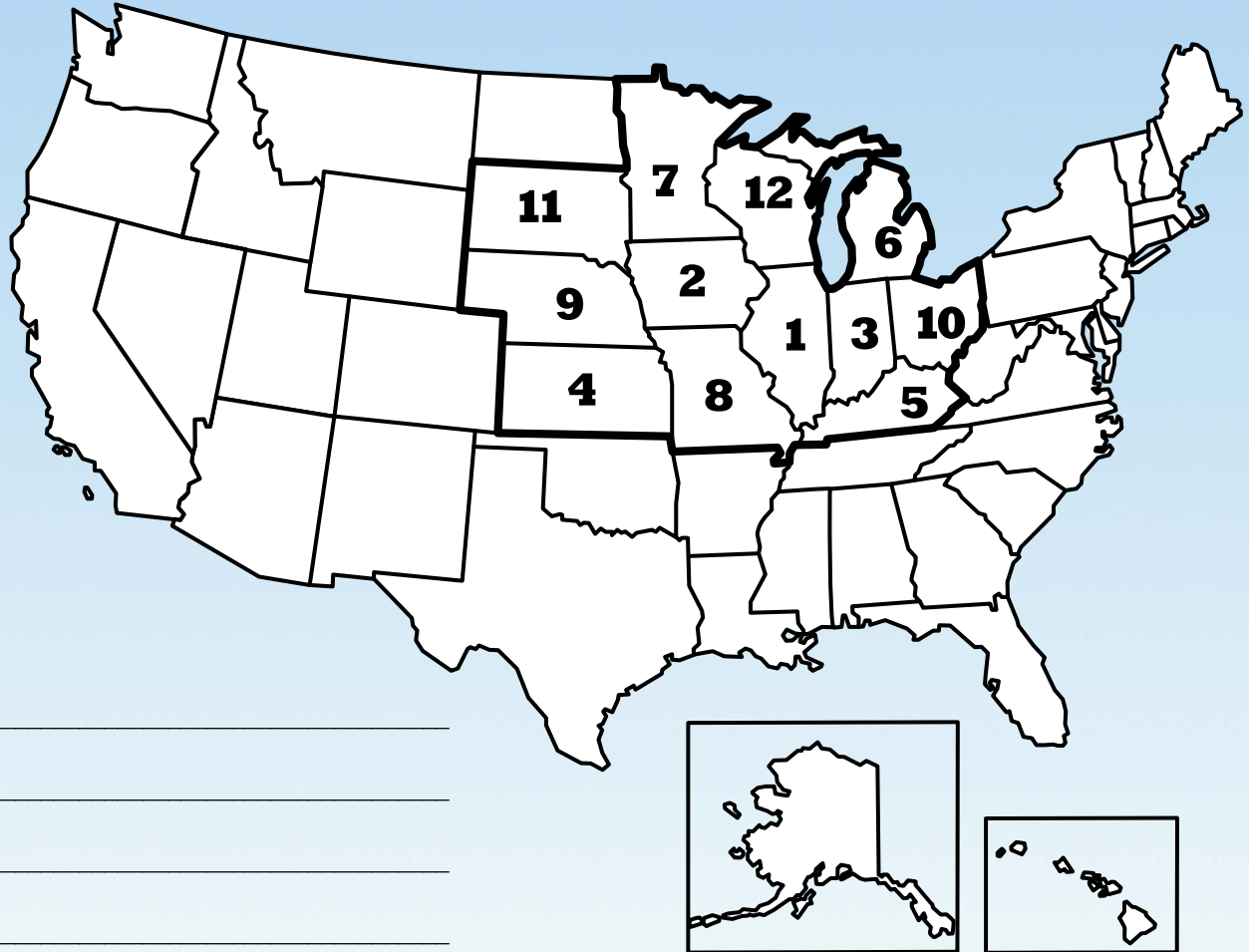




# Map Of The United States



Twelve states produce the majority of the country's corn and make up a region known as the "Corn Belt." On the lines provided, identify each state in the Corn Belt, labeled with the matching number on the map.



- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_
- 4 \_\_\_\_\_
- 5 \_\_\_\_\_
- 6 \_\_\_\_\_
- 7 \_\_\_\_\_
- 8 \_\_\_\_\_

- 9 \_\_\_\_\_
- 10 \_\_\_\_\_
- 11 \_\_\_\_\_
- 12 \_\_\_\_\_



# Uses – Livestock

Livestock such as cows, pigs, and chickens, are the top consumers of Missouri corn. Livestock also consume distillers grains, the parts of the kernel left over after ethanol is produced.



## Did You Know?

Beef cattle consume more than 1.25 billion bushels of corn across the U.S.







Another top use of Missouri corn is ethanol. Farmers can sell corn to one of the state's six ethanol plants. The plant grinds the corn and uses a complex process to create fuel that is used in vehicles.



## Did You Know?

Most gas sold in Missouri contains some ethanol. Ethanol is a clean fuel that is good for the environment.



PSM  
Process  
Safety  
Management  
Area



# Uses - Exports



## Did You Know?

The United States is the number one producer of field corn.



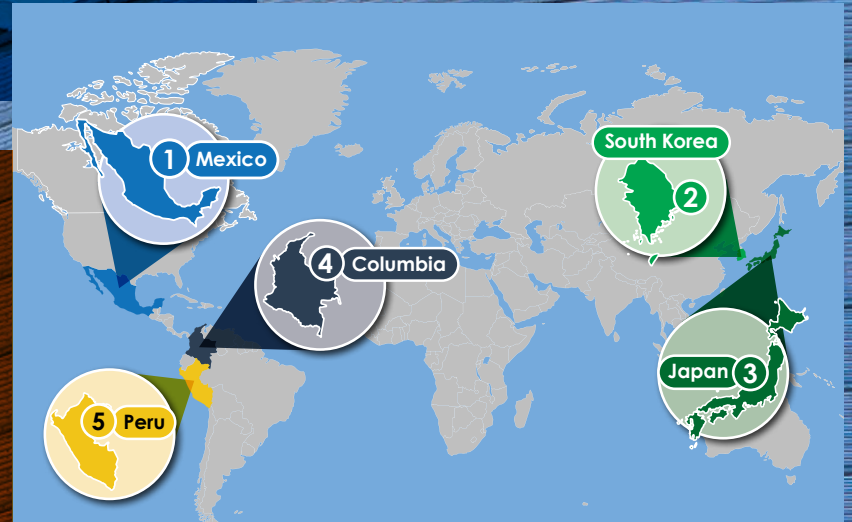
In fact, we grow more than we can use, so we sell, or export, our corn to other countries. In Missouri, we can send corn by rail to countries like Mexico, or load it on barges to be sent down the Mississippi River to big ships that deliver all over the world. These ships can hold over a million bushels of corn!



## Fun Fact:

Our corn goes all over the world! Here are five countries that buy the most U.S. corn:

1. Mexico
2. South Korea
3. Japan
4. Colombia
5. Peru







## The Many Uses of Corn

Many of the items we use daily are made with corn. In the word search puzzle, find the following products that contain corn. They may be found written vertically, horizontally or diagonally.

### Words to find:

ethanol	soap	ink	pudding
gum	crayons	paper	trash bag
paint	cereal	packing peanuts	cosmetics
glue	diapers	corn oil	salad dressing
soda	ketchup	medicine	fireworks

W W P J C R A Y O N S N I Q V P V C O G S  
 E M P A C K I N G P E A N U T S W A I E A  
 F C M R T L D S N R D C K P L F L J M G L  
 U G V N A T S O H O I G C D X P G U H P A  
 F D I E H R G G S T W S O O I D G S C A D  
 K A R E E N A Q I C F I R E W O R K S A D  
 P E U P I B E S L O W P N K E D L P M O R  
 C L A D H A B O Q T U I O U W O Q D H V E  
 G I D S R M H A C H C Q I X N J N B B K S  
 D U A E G Y G P C I N A L A U I E O K L S  
 P R P D Y D V T D Y L M H Q E C U E L E I  
 T A O B E X E E N N N T F M Y R G S J I N  
 P O K D H K M O F U E C O S M E T I C S G

### Math puzzler answer:

From page 10: A 100-acre field would have 3,000,000 seeds.



## Learn More!

To view the educational video and download online resources for Corn in the Classroom visit:

**[www.mocorn.org/resources](http://www.mocorn.org/resources)**

**Facebook: [www.facebook.com/MissouriCorn](https://www.facebook.com/MissouriCorn)**

**Instagram: [www.instagram.com/Missouri\\_Corn](https://www.instagram.com/Missouri_Corn)**



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