

K A N S A S

CORN

IN THE CLASSROOM



A teacher resource packet for teaching about the roles of corn and agriculture in Kansas

**KANSAS CORN GROWERS ASSOCIATION**

**KANSAS CORN COMMISSION**

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# KANSAS CORN

## VOCABULARY

**ACRE:** a unit of land measure equal to 43,560 square feet (about the size of a football field).

**BUSHEL:** a unit of weight used to measure how much grain is harvested. One bushel of corn weighs 56 pounds.

**YIELD:** the amount of corn produced. Usually measured in bushels per acre.

**EAR:** the part of a corn plant that contains the kernels or seeds.

**KERNEL:** the yellow seed on an ear of corn. One ear of corn averages 800 kernels in 16 rows.

**POLLEN:** a fine powdery substance produced on the tassel of the corn plant which contains the male reproductive cells.

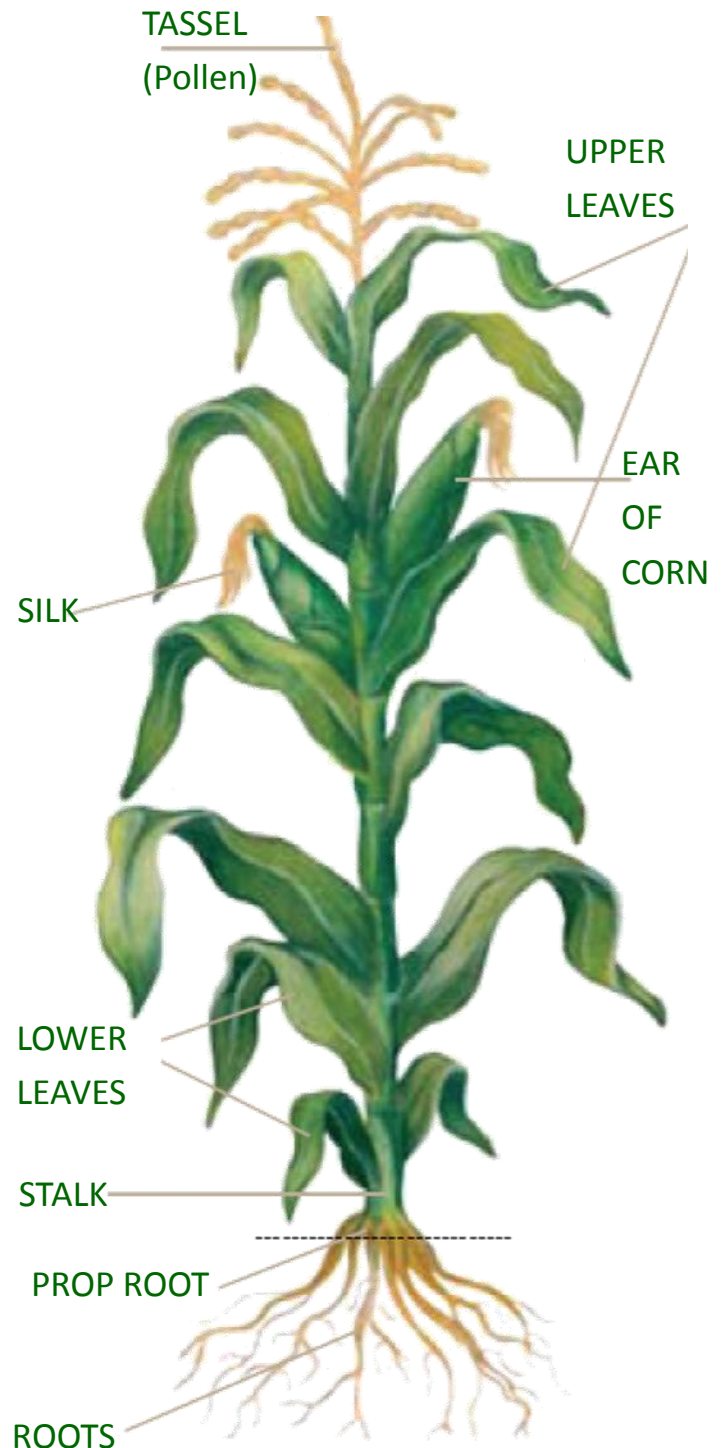
**SHUCK:** the husk or outer covering of an ear of corn. This term is also used to describe the removal of the corn husk— as in to shuck corn.

**SILK:** the long, silky “threads” at the top of an ear of corn. Each thread of corn silk delivers pollen from the tassel to create a kernel of corn.

**TASSEL:** the tuft at the top of the corn plant that contains the pollen.

**COMBINE:** piece of machinery used to harvest grain.

**COMMODITY:** something of value that you can buy, sell or trade. It is usually an unprocessed or partially processed good, such as fruits, vegetables, grains and livestock.



# KANSAS CORN

## FIELD CORN



## SWEET CORN

### WHAT IS FIELD CORN?

Field corn is not the type of corn you eat on the cob. It is a special type of corn that remains in the field until it is dry. This corn is a grain with a hard outer shell and is full of starch. It is processed to make products you use every day. Processing means changing field corn into different products through a series of events. The corn is soaked and milled (ground) so that the germ oil, starch, gluten and hulls can be separated. These items are then made into livestock feed, cornstarch, cooking oil, sweeteners, high fructose corn syrup, cereal, beverages and fuel. That is only the beginning— In fact, there are over 4,200 uses for corn products!

CORN FED

beef



poultry



pork



dairy



A bushel of corn fed to livestock produces 5.6 pounds of retail beef, 13 pounds of retail pork, 19.6 pounds of chicken or 28 pounds of catfish. Feed for these animals continues to be the largest market for field corn.

### WHAT IS SWEET CORN?

Sweet corn is a variety of corn that people purchase fresh, frozen or canned. It is consumed as a vegetable. Unlike field corn, which is harvested as a grain when the kernels are dry and fully mature, sweet corn is picked when immature. It also has a higher sugar content than field corn. There are roughly 600,000 planted acres of sweet corn, compared to about 91 million planted acres of field corn.

### FIELD CORN



# VS

### SWEET CORN



## STUFF YOU MAY NOT REALIZE WAS MADE WITH CORN

paints  
candles  
fireworks

drywall  
plastics  
adhesives

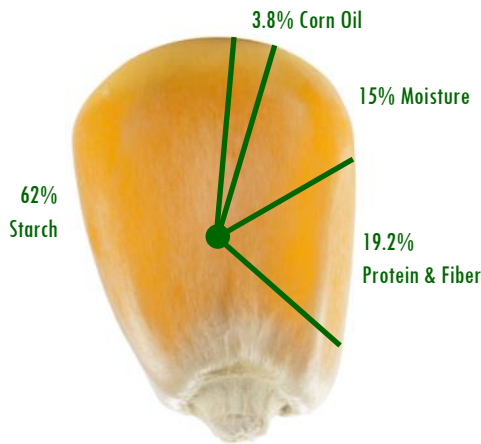
antibiotics  
textiles  
soaps

shoe polish  
sandpaper  
dyes

rubber tires  
carpeting  
fiberglass

# KANSAS CORN

## Components of Yellow Dent Corn



*What can be extracted from a bushel of corn?*

**32 Pounds of Starch**

**OR**

**33 Pounds of Sweetener**

**OR**

**2.5 Gallons of Fuel Ethanol**

**OR**

**11.4 Pounds of Gluten Feed**

**OR**

**3 Pounds of Gluten Meal**

**AND**

**1.6 Pounds of Corn Oil**

## CORN TIMELINE

**CIRCA 5,000-4,000 B.C. —**  
Fossilized corn cobs and pollen found in Mexico suggest that the corn planted across the Americas in the 21st century was first domesticated by early Mesoamerican farmers between 6,000 and 7,000 years ago.

**1609 —**  
Taking cues from their native neighbors, colonists settling in Virginia in 1609 planted 30 acres of what they termed "Indian corn." By 1631, the new settlers had cultivated enough corn to have a surplus of the crop ready for export.

**CIRCA 900-1250 A.D. —**  
By the 13th century A.D., corn had become a staple crop not only among native tribes of the American Midwest, but also among the Iroquois nation of the area now known as New York, Cape Cod and Martha's Vineyard.

**1847 —**  
Robert Reid, an Illinois farmer, stumble upon a new breeding method when he and his son bred Gourdseed corn with a yellow flint variety to produce a higher yielding hybrid cross: Yellow Dent. This allowed for higher yields and disease resistant traits.

**1968 —**  
High-fructose corn syrup was first produced for commercial use.

**1973 —**  
The Agriculture and Consumer Protection Act of 1973 was signed into law by President Richard Nixon.

**1998 —**  
Monsanto introduced the first genetically enhanced corn seed to U.S. farmers.

**TODAY —**  
Thanks to higher yields, U.S. corn farmers now harvest between 13 and 14 billion bushels of corn on less land!