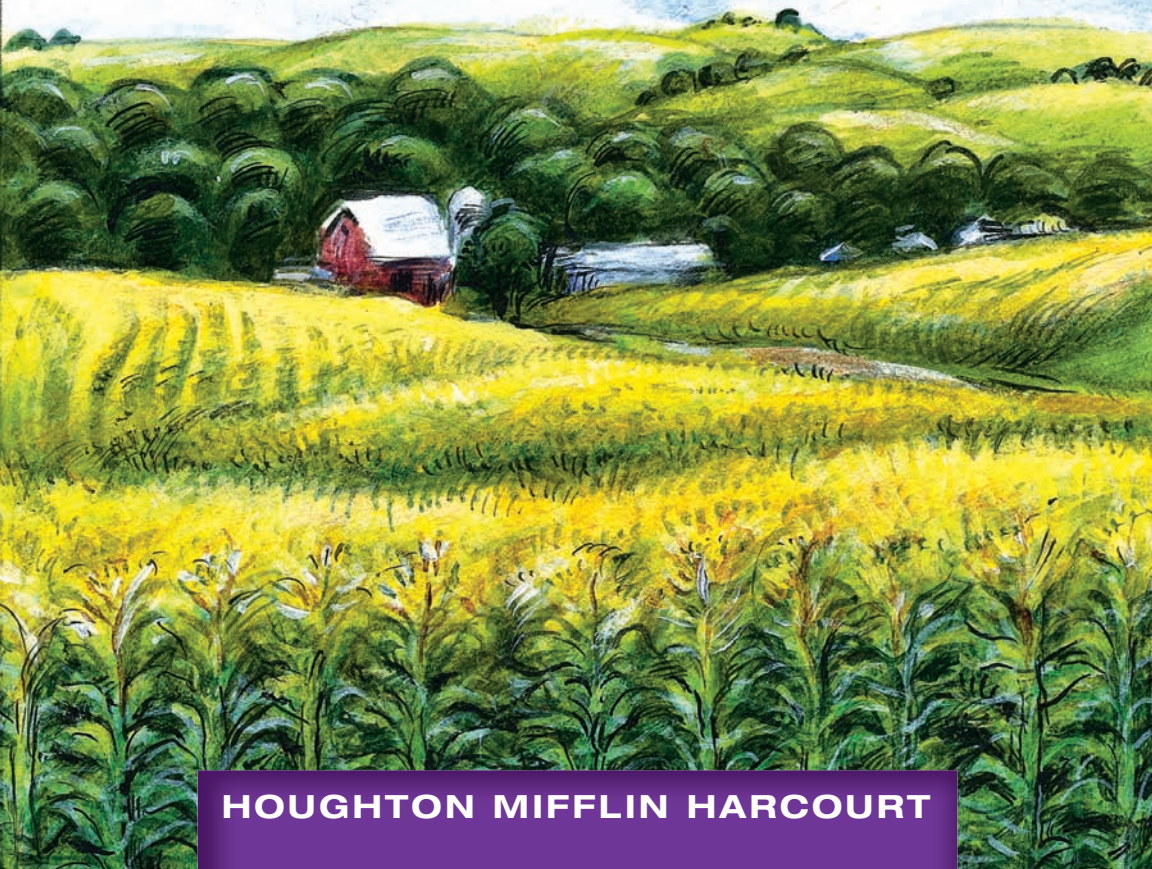




# The Power of Corn

by Julian Stone

illustrated by Joanne Renaud



HOUGHTON MIFFLIN HARCOURT

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**HOUGHTON MIFFLIN HARCOURT**  
School Publishers

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Printed in China

ISBN-10: 0-547-25379-6

ISBN-13: 978-0-547-25379-4

1 2 3 4 5 6 7 8 0940 18 17 16 15 14 13 12 11

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The cornfield stretches as far as you can see. Tall green stalks stand straight in perfect rows. Corn is one of America's most important products.

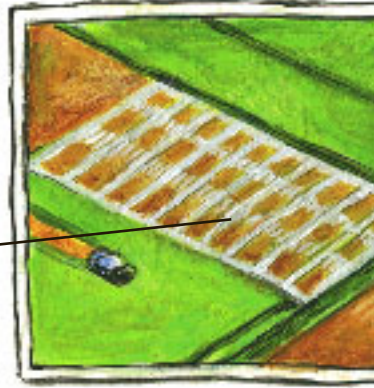


Corn is also one of the oldest crops in America. Corn fed Native Americans, and they shared it with the first settlers. Corn fed pioneers and their cattle and pigs.





A bushel of corn weighs 56 pounds.



An acre is about the size of a football field.



An acre grows between 140 and 180 bushels of corn.



Today corn is more important than ever. About 80 million acres of corn are grown every year in the United States. Farmers pick about nine billion bushels. That's more than twice as much as any other grain crop.



Americans make more things from corn than you ever imagined. More than three thousand different products come from corn.



Of course, you can eat corn just as it is, but there is corn in other things you eat, too. Peanut butter, salad dressing, cookies, baby food, soup, and many other foods have corn products in them.



You also drink corn. Fruit juices and soda use corn syrup to make them sweet. Some new types of tires are made from corn. Fuel made from corn can be added to gas for cars and trucks.



Many products are made from corn.



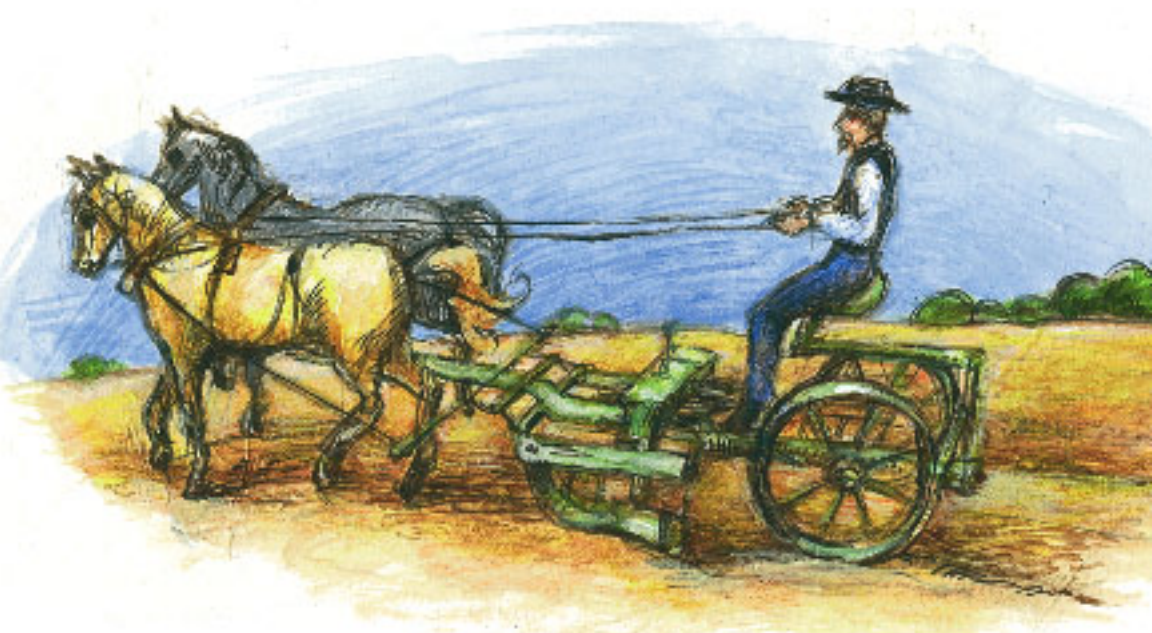



Corn was not always the plant that it is today. More than seven thousand years ago, Native Americans ate grains of a plant called maize. Maize was different from today's corn. Maize plants were shorter. The grains were smaller. Early farmers saved the best and biggest grains to plant each year. Over many hundreds of years, the plants and grains got bigger and became the corn we know today.




Native Americans planted maize.






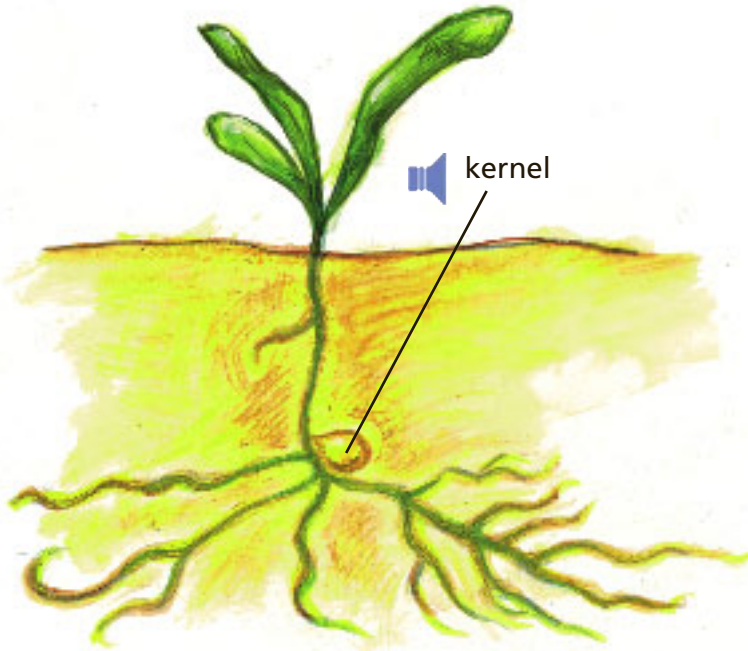
 Early machines helped farmers plant corn.

 When settlers arrived in America, they had never seen maize. Native Americans showed them how to grow it.

 Over the years, farmers kept learning how to grow better corn. They learned how to make it grow faster. They learned how to grow more per acre. They learned how to **store** the corn over the winter. They built new machines to help plant and harvest the corn.

 Today's corn may look different from maize, but it still needs water, good soil, and good weather. It still starts as a small kernel, or seed. New corn plants grow from corn kernels.





A kernel of corn contains the food supply for the plant to get started. The kernel soaks up water, swells, and bursts. Then the roots begin to grow down. The roots **absorb** water and food for the plant.

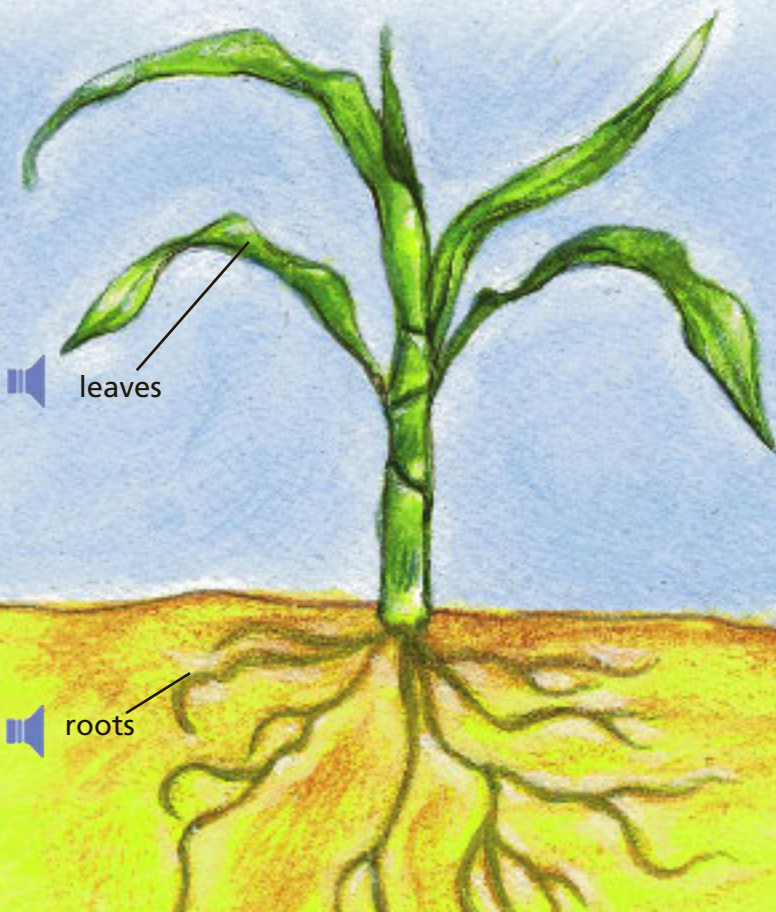


Next the corn plant sprouts above ground. A single green stalk appears. New corn stalks in a field look like **spines**. Inside each stalk, the shoot will soon grow. The shoot is the part of the plant that will become the ear. For now, the stalk protects the shoot.



The plant begins to grow quickly. The leaves absorb sunlight and air to help the plant make its own food.

The roots are growing, too. Some roots grow down into the soil. They pull up water and minerals.





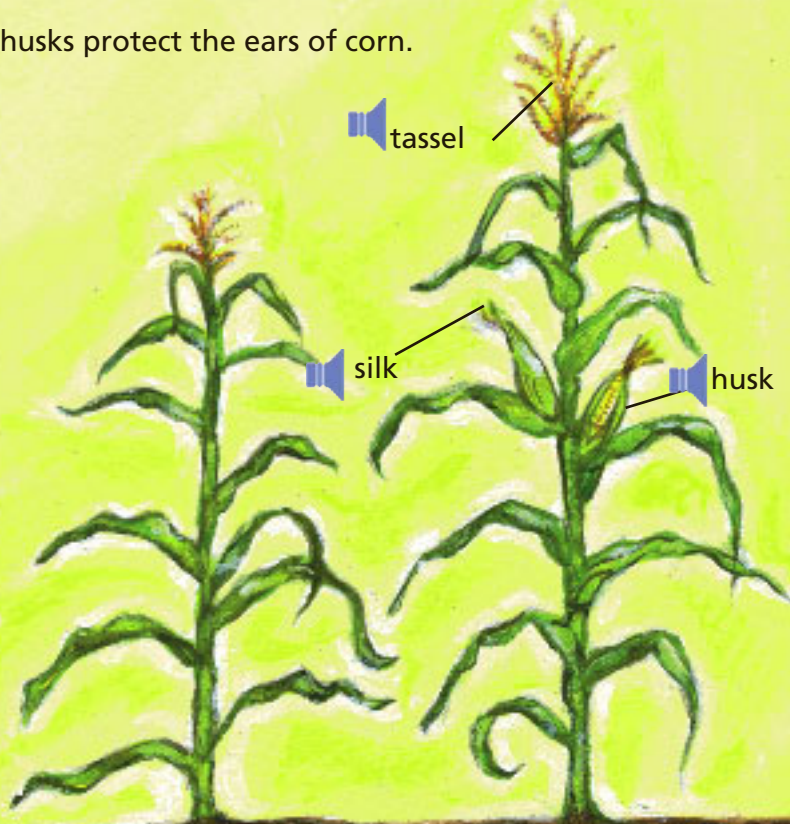
The corn plant grows taller in the summer sun. As it grows, it begins to make a tassel on top. It also makes small **coverings** called husks that protect the ears of corn as they grow.



After about two months, the corn plant is ready to make kernels on the ear. Thin strings called silks grow from the husks. Bits of **pollen** from the tassels of other corn plants fall on the silks. Once pollen lands on the silks, the kernels begin to grow inside the husk. It takes another two months for the kernels to finish growing.



The husks protect the ears of corn.







Today huge machines are used to harvest corn.



Today's machines make harvesting, or picking, corn easier. Machines cut the stalk and pull the ear from the plant. Then they strip the husk from each ear. **Clumps** of stalks, husks, and cobs go back on the field. They slowly **dissolve** into the soil and make the soil healthier. The kernels go into a tank until they are unloaded into a truck.



Cows are fed corn to make them grow.



What happens to corn next depends on what is to be made from it. Most corn becomes food for animals. Cows, pigs, sheep, chickens, ducks, turkeys, and even fish are fed corn as they grow. Other corn is ground up and goes into the thousands of corn products you use.

There are four main kinds of corn. Sweet corn is the kind you eat.

Flint corn is sometimes called Indian corn. Its kernels come in many colors.

Field corn is used for feeding animals and making products. Sometimes field corn is planted in a maze. Then visitors can walk through the passages to find their way out.

Popcorn is one kind of flint corn. When it is heated, it pops!



sweet corn



flint corn



field corn



popcorn





In many ways, the story of our country is the story of corn. It was here with the first people. It helped the settlers who came later. It feeds people and animals in both cold and hot, **tropical** climates.



Today, corn is still very important **throughout** the United States and much of the rest of the world. New uses for corn are invented every day. Of course, most people's favorite use for corn is eating corn on the cob every summer!



## Responding



### **TARGET SKILL** Text and Graphic

**Features** The author uses text and graphic features to explain facts about corn. Copy this chart. Then write two more features. Under each feature, explain that feature's purpose.

<b>Feature</b> diagram	<b>Feature</b> ?	<b>Feature</b> ?
<b>Purpose</b> shows how roots grow	<b>Purpose</b> ?	<b>Purpose</b> ?



### **Write About It**

**Text to Text** Think about a science book you have read about a food crop. Describe a problem about growing the crop. Explain how farmers or scientists solved the problem.



### TARGET VOCABULARY

absorb

clumps

coverings

dissolve

passages

pollen

spines

store

throughout

tropical

### EXPAND YOUR VOCABULARY

acres

husks

kernel

maize

settlers



### TARGET SKILL

### Text and Graphic Features

Tell how words and art work together.



### TARGET STRATEGY

### Question

Ask questions before you read, while you read, and after you read.



**GENRE** **Informational text** gives factual information about a topic.



**Level:** P

**DRA:** 38

**Genre:**

Informational Text

**Strategy:**

Question

**Skill:**

Text and Graphic Features

**Word Count:** 1,091

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