

## Introduction to Corn

Why is corn such a valuable crop? How does corn grow, pollinate, and produce kernels? What farming techniques are important to increase corn yield?

Corn is a grass, native to the Americas. Evidence in central Mexico suggests corn was used there about 9,000 years ago. Various Native American tribes shared their knowledge of corn, known as maize, with early European settlers, saving many from starvation. Early American colonists ground dried corn as meal for flour to use in porridge, cake, and bread. Sweet corn, served as “corn on the cob,” was not developed until the 1700s.

Along with wheat and rice, corn is one of the world’s major grain crops. It is the largest grain crop grown in the United States. About 9 percent of all the corn is used to produce food for humans: corn meal, cooking oils, margarine, corn syrups, and sweeteners (fructose). About 64 percent of all corn is used for livestock feed.

Corn is harvested for either grain or silage, with most of the grain going to dairies, animal feeding operations, and poultry operations. Corncobs have been used in the manufacturing of nylon fibers as well as being a source for producing biodegradable plastics. Ethanol, made from corn, is a renewable fuel used in today’s cars.

Corn is pollinated by wind and is typically planted in 30-inch rows. A single seed, or kernel, of corn may produce a plant that yields more than 600 kernels of corn per ear. Approximately 22,000 to 35,000 individual plants may be grown on an acre of land. Hybrid corn is developed to produce from one to two ears per plant. More than 80 million acres of the heartland are planted in corn each year. That’s almost as big as 60 million football fields!

After corn is harvested, farmers begin to prepare the soil for the next season by mixing in nutrients, such as potassium and phosphorus, with some form of tillage (breaking up soil) to incorporate them. In the spring, farmers will do a light tillage pass to create smooth bedding for planting. When the ground temperature is ready (50°F and expected to rise), farmers will plant the corn seeds. Farmers will then add fertilizer, two inches deep and two inches to the side of the kernels to help the seeds get a healthy start. After the seed is planted, most farmers will spray a pre-emergent herbicide to prohibit weed growth. When seedlings emerge and grow, farmers will inject the soil with some form of nitrogen fertilizer before the V8 (eighth leaf development) stage. This spring fertilizer will allow for the plant to “green-up” and establish good photosynthetic activity through harvest.

Farmers will continue to scout the crop through maturity for any additional pests. Farmers will harvest the crop when it is ripe in the fall.