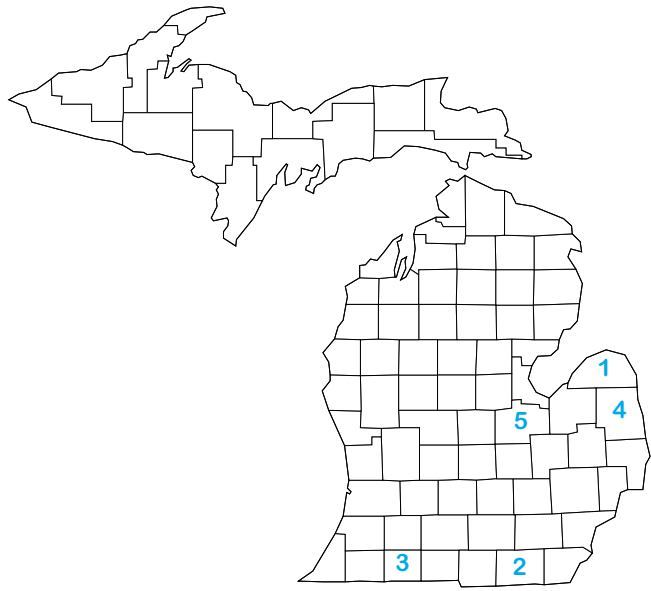
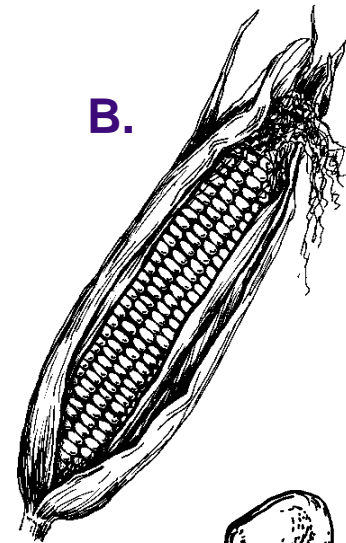


CORN



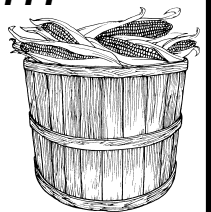
**Top 5 MI Counties
Producing Corn for Grain
(Not Sweetcorn) (2000)**

- 1) Huron
- 2) Lenawee
- 3) St. Joseph
- 4) Sanilac
- 5) Saginaw



From one bushel of corn . . .

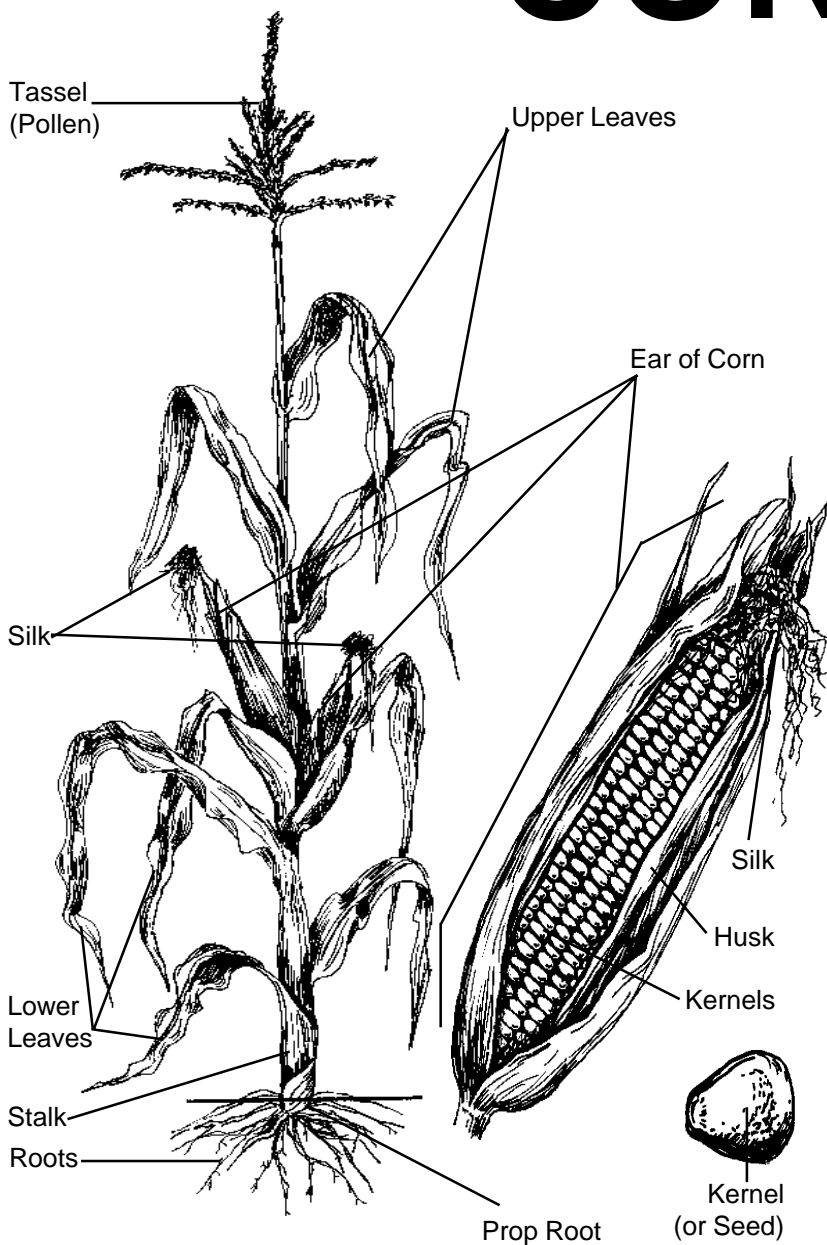
A typical bushel of corn weighs 56 pounds and contains approximately 72,800 kernels. Most of the weight is the starch, oil, protein and fiber, with some of it from natural moisture.



What can be extracted from one bushel of corn?

- 31.5 pounds of starch
OR
- 33 pounds of sweetener
OR
- 2.5 gallons of fuel ethanol
AND
- 10.9 pounds of 21% protein feed
AND
- 2.6 pounds of 60% gluten meal
AND
- 1.6 pounds of corn oil

CORN



ON THE FRONT

A. Corn Plant

Corn is an annual plant that grows seven to ten feet tall. Strong roots called prop roots help support the cornstalk. A tassel, the male part, grows at the top of each cornstalk and contains hundreds of small flowers (anthers) that produce pollen. Long, swordlike leaves grow from each joint on the stalk and end in a pointed tip.

B. Ear of Corn with Kernels

Ears of corn grow where the leaves join the stalk. A plant normally has only one or two ears. Special leaves, called husks, protect each ear. An ear consists of a corncob covered with rows of kernels. An ear may have 10 to 18 or more rows of kernels (always in pairs). Typical ears have 300 to 600 kernels.

C. Single Kernel or Seed

Each corn kernel has what looks like thread that runs from the kernel up the row, and sticks out of the husk at the end of the ear. This thread is called the corn silk, or stigma and style, and is connected to the ovary or female part of the plant. Each silk needs to be pollinated with pollen from the tassel to produce a kernel of corn. There are about 1,200 seeds per pound.

Corn

Most of the corn grown in the United States is produced in the Corn Belt, which includes Iowa, Illinois, Minnesota, Indiana, Nebraska, Ohio, Missouri and South Dakota. In 1999, Michigan ranked eleventh nationally in producing corn for grain. Producers in the United States feed the largest part of the corn crop to cattle, hogs, sheep and poultry. The rest is used for processed food or industrial products such as cornstarch, plastics and ethanol.

The different types of corn include dent corn, waxy corn, sweet corn, flint corn, popcorn and flour corn. Dent corn is commonly called "field corn" and is primarily fed to animals. Sweet corn, popcorn, flour and flint corn are used primarily for human food.

Field of Corn

Producers use hybrid seeds to grow crops each year. Hybrid corn is made by crossing two or more inbred lines of corn to produce vigorous corn seed. Corn is planted in the early spring using a planter. The machine drops the kernels into rows and then presses the soil around each kernel. A producer cultivates the corn when it is still small. This is similar to hoeing a garden. It helps get rid of the weeds that compete with the corn plants for water and nutrients.

The Growing Factor

Corn grows after soil temperatures go above 50°F, and it loves summer temperatures of 75°F to 85°F during the day, and 65°F at night. Corn is planted in rows at about 24,000 to 32,000 plants per acre.

Before a producer plants the corn seeds, fertilizer is placed in the soil, which helps feed the corn plant. The rest is up to the weather. Rain is extremely important because the corn plant needs a lot of water to grow. Corn also needs many "sun days" during the summer for best results.

Sometime between late September and November the corn will be dry enough to be picked, or harvested. Corn is harvested by a large combine. The machine removes the ear of corn and separates the kernels from the corn cob. Parts of the corn plant (residue) are left in the field to protect the soil for the next year. Due to weather factors and the onset of winter, much corn is harvested at a moisture level that is too high for safe storage, so it has to be artificially dried to prevent mold growth on the grain.

Food and Product Line

The corn kernels will go to a processing plant to be made into food. Corn makes oil, syrup, cereal, starch and more than 1,000 other products you can buy at the grocery store.

Corn kernels are used to make fructose, a liquid sugar used to sweeten soda pop and bakery goods. Corn starch is also made from corn. It can be used to produce biodegradable packaging "peanuts" which help protect the environment. Ethanol is made from corn and is used as fuel for cars, trucks and buses. Corn grown in the United States also is shipped to other countries such as Japan, Russia, Mexico, Taiwan, Egypt and Canada. Michigan is currently working on a number of value-added programs, including production of a plastic made from corn, an ethanol plant and the mapping of corn's gene.

Did you know . . .

- Long before Columbus arrived, Native Americans were growing corn or **maize**. Scientists believe corn was first developed from a wild grass called **teosinte** in the areas that we know as Mexico and Central America. By the time Columbus arrived, corn grew from Canada to the southern tip of South America. It was such an important food crop that many villages and cities were built around corn.
- In 1850, about 75 to 90 hours of labor and several acres were required to produce 100 bushels of corn. Today, about two hours of labor and one acre of land are required to produce at least 100 bushels of corn.
- Almost half of all corn grown on earth is grown in the United States.
- Each ton of paper produced uses 28 pounds of cornstarch.

