



LINKS TO AGRICULTURE



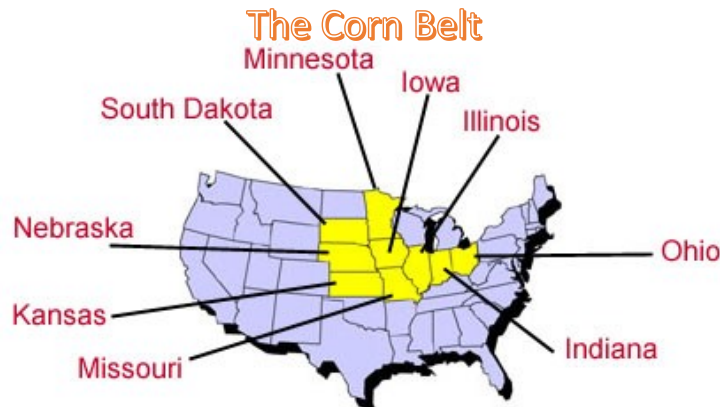
Pennsylvania Friends of
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Popcorn Capers

Farmers in the United States grow more than 90 million acres of corn each year. There are different kinds of corn grown. **Field corn** is the one you commonly see growing in fields. It is mainly used as feed for livestock but is also used to make corn chips and corn flour. **Sweet corn** has a higher sugar content than field corn and is the one people usually eat. **Popcorn** is a unique type of corn which we commonly eat as a snack. Popcorn has been around for a very long time. The Native Americans shared it with the settlers during the first Thanksgiving!

Popcorn is a healthy snack. It is a whole grain which makes it high in fiber. This makes you feel full longer. It is also low in calories. Besides being a great snack, popcorn has some unusual characteristics. Did you ever wonder why the popcorn kernels pop when they are heated? Each kernel contains moisture. When the kernel is heated the moisture inside expands. When the kernel can't stand any more pressure, it explodes through the hard, outer shell.

Today, part of the United States is called the Corn Belt. The Corn Belt is a group of states where most of our corn is grown. Four states - Illinois, Iowa, Nebraska, and Minnesota - produce 50 percent of all the corn grown in the U.S. Other major corn growing states include Indiana, South Dakota, Kansas, Ohio, and Missouri.



Use the map to help you label the Corn Belt States

Missouri Kansas South Dakota Minnesota Iowa Illinois
Ohio Indiana Nebraska



Career Corner



Biofuel Technician– Biofuel technicians carry out the laboratory work involved in producing biofuels such as ethanol and biodiesel. They work with fermenters, distillation, grain preparation, algae culture, oil chemistry, and separations technology. They can work independently, or under supervision. They can also supervise manufacturing assistants.

How Biofuel Technicians Benefit Agriculture:

- Reduce pollution
- Help against global warming

Biofuel Technicians Study:

- Chemistry
- Biology



Thank you to our major sponsors

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Experiment: Will It Pop?



1. Prepare three different samples of popcorn.
 - Sample A:** Bake 1/4 cup of popcorn in an oven set to 200° for 60 minutes.
 - Sample B:** Soak 1/4 cup of popcorn in water for 60 minutes and allow to dry overnight.
 - Sample C:** Do not do anything to the remaining 1/4 cup of popcorn.
2. Take three brown lunch bags and label them A, B, and C to match your popcorn samples.
3. Put 15 kernels from each treatment group into the correct bag.
4. Pop each bag in a microwave for the same number of minutes (with the assistance of an adult).
5. Examine your popped corn and fill in the table below to describe your findings.

Results

	Bag A	Bag B	Bag C
Most popped kernels			
Fewest popped kernels			
Most Un-popped			
Largest, Fluffiest			

Which sample had the most popped kernels? _____

Which had the fewest popped kernels? _____

Which had the largest, fluffiest kernels? _____

Conclusions

Analyze the data to decide what was done to the popcorn that had the largest kernels and the smallest kernels. Complete the sentences.

- The largest kernels _____.

- The smallest kernels _____.



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