



Sun-Drying Corn

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Native Americans have been drying food for thousands of years. Sun-drying fruits, vegetables, and meat helped families through the harsh winter months.

Most of the moisture is removed in sun-drying. The food did not spoil because microorganisms and enzymes which cause spoilage require water to be active. After drying, food was lighter and smaller and could be more easily stored or carried from camp to camp.

Today, we still need only minimal equipment and natural energy for sun-drying. Following are instructions for sun-drying corn using traditional Native American methods used by members of the Sisseton Wahpeton Oyate in northeastern South Dakota.

Selecting corn for drying

- Sweet corn can be purchased from local grocery stores, farmers, or farmer's markets.
- For best results select mature corn because the kernels are easily removed from the cob for drying.

Blanching corn

- Remove the husk and all the silk from the cobs.
- Place the corn in a large pot, cover with water, bring to a boil and boil for at least 10 minutes. Boiling the corn stops an enzyme process that can leave an off flavor. It also prevents loss of color during drying.
- Remove the corn from the water; place the cobs on paper towels or clean cloth towels until cool to the touch. To avoid cross-contamination, be certain towels are clean and have not been used for other tasks while working with the corn.

Removing the kernels from the cob

- Use a tablespoon to work one row at a time. With the tip of the spoon push under a kernel to remove it from the cob. Place the kernels in a bowl as you work. With experience, you can remove (pop) kernels from the cob while keeping them intact.



Placing corn on the screen

- Equipment needed to sun-dry is two large screens of equal size, a piece of sheer fabric a little larger than the screens and rocks or other heavy objects to secure the screens. Screens should be made of a material that is safe for contact with food: stainless steel, Teflon-coated fiberglass, or plastic. Before use, wash screens with hot, soapy water, thoroughly rinse, and dry.
- Place the screens in an area away from roads to reduce the amount of dust and air contamination. Set on blocks to raise the screens off the ground and to provide additional air flow. To prevent intruders or contamination, do not leave screens unattended.

- Evenly spread the kernels of corn on one drying screen. The corn should be in one layer on the screen, not in piles. Lay the fabric on top of the screen and set the second screen on top of the fabric. Set clean rocks or other heavy objects around the edges of the screen to secure. Covering the screens will help prevent insects and dust from coming in contact with the corn.



Drying process

- To allow for even drying, stir or turn the corn with a spatula or large spoon at least once every 2 hours.
- Favorable weather conditions would be wind, temperatures of 80-90°F, and lots of sunshine. These conditions would ensure the corn will be dry in 3-4 days. If the conditions are not ideal, the drying process can still be completed but may take longer.
- In the evening, put the corn in an air-tight container and store in the refrigerator to prevent spoilage until the next drying day.

Testing for dryness

Squeeze a kernel between two fingers; it should be hard, with no visible moisture. When hit with a hammer, the kernel will crumble.

Reducing the risk of a food-borne illness

Clean

- Wash hands with warm water and soap for at least 20 seconds before and after handling food and any other activities while working with the corn.
- Wash cutting boards, utensils, countertop, and drying screens with hot soapy water before and after working with the corn.

Separate

- To avoid cross-contamination, wear disposable gloves while removing the kernels of corn from the cob. Gloves should be used for only one task, dispose of gloves after use.

Cook

- Boiling the corn for 10 minutes will stop the ripening process.
- Recommended drying temperature is at least 80°F.
- Dry corn until 90% dry, no visible moisture.

Chill

- At night corn needs to be refrigerated to prevent spoilage.
- If necessary, store unhusked corn in the refrigerator until ready to prepare for drying.

Storage

Store dried corn in pillow cases which allow for continued aeration or in a glass jar. Dried corn can be stored for years and later used in soups or as a snack.

Additional resources

“So Easy to Preserve”, Cooperative Extension Service, University of Georgia

Disposable Gloves: Guidelines for Food Handlers, extension.sdstate.edu/disposable-gloves-guidelines-food-handlers

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