Traditions

Food Preservation
Cover photograph: Georgia Patton of Kansas City
learned from her family to gather and preserve foods.

Back photograph: Sylvia Statton of Greeley is proud to
claim many ribbons for her canned and preserves.
THE NEED TO PRESERVE FOOD

Food preservation has been an essential activity throughout history. The very cycle of the seasons creates periods of shortage and abundance of different foods at different points of the year. This problem was only worsened with the development of agriculture as people sacrificed their mobility and came to rely on fewer sources of food, each with its own cycle or growing season. Only through human effort and ingenuity has it become possible to obtain some of these foods throughout the year.

Although some food may be damaged by chemical changes such as oxidation, most food is destroyed in storage by spoilage caused by living organisms such as molds, bacteria, and yeast. Food preservation techniques, therefore, depend upon killing or inhibiting the growth of these microorganisms.

Many of our most common means for preserving food have been with us since the beginning of history and can be found distributed in many different locations. Drying, pickling, fermenting, and smoking have all been incorporated into the foodways of cultures throughout the world. Although the methods are diverse, what they all have in common is an attempt to create an environment that is inhospitable to microorganisms such as molds, yeasts, and bacteria.

METHODS OF FOOD PRESERVATION

Drying is perhaps the oldest of all food preservation techniques. It also is one of the most simple in that it removes water, the ingredient needed for all forms of life to survive. This method has been particularly useful for meats, some fruits, and cereals. Those who are experienced with drying food rarely determine whether a product is sufficiently dehydrated by its weight. Rather they will usually judge whether it is dry by its texture and appearance. The primary disadvantage to this method is that it changes the nature and taste of the food and it requires proper storage once the drying is complete. Since moisture can form on the exterior of dried foods, ventilation must be maintained to reduce the possibility of condensation. Any moisture on the surface will make it possible for molds to grow, thereby spoiling the remainder of the food.
A good example of preserving food through drying are the pumpkin mats made by the early Pawnee and Wichita peoples of Kansas. Historically, Native Americans grew pumpkins in gardens along the river banks. Strips of pumpkin were dried and woven into mats for storage. The dried pumpkin would be used to flavor soups and other dishes. Tribes such as the Kiowa and the Comanche often traded buffalo meat to the Pawnees and Wichitas for pumpkin mats.

Most of the other forms of food preservation used prior to canning and refrigeration employed naturally produced chemicals to retard the growth of organisms that produce spoilage. The smoking of meat and fish, for example, leaves compounds in the meat that destroy microorganisms. Smoking also partly preserves the meat by lowering its moisture content. Usually meat is soaked in brine or salted for a short time before smoking. The meat is then usually rinsed with warm water and allowed to drain before it is placed in the smokehouse.

Many containers are used for smoking meat. A sealed box or barrel may be used, but at one time many farms had a proper smokehouse for the large-scale preservation of meat. Generally such a building has a series of hooks for hanging the food, a fire box to provide the smoke, and small holes to create enough ventilation to draw smoke from the fire. In most cases the fire box is connected to the smokehouse with a small tunnel to reduce the amount of heat to which the food is subjected. This is to prevent the meat from being partly cooked. The house is often heated in the winter because smoke will not penetrate meat if it is frozen. Many materials can be used to produce the smoke. Although chips from hardwoods such as hickory are often favored, bark and corn cobs are frequently used. Meat may be smoked for up to three weeks before it is properly done.

In the Croatian American community of Strawberry Hill in Kansas City, Kansas, families have traditionally made kohasica, a spicy sausage. Many houses on the hill have smokehouses in their backyards, although not all are in use today. Members of the community continue to enjoy kohasica whether it is smoked at home or at a neighborhood meat shop.

Meat also may be preserved by curing it in salt. This treatment is especially good for preserving fish. This can be done either by rubbing dry salt into the meat or by soaking it in
brine. Salt or brine may be used to preserve vegetables as well. This method was once very common in the United States, but declined with the onset of the twentieth century.

In fermentation, the growth of specific microorganisms is encouraged. These beneficial microorganisms in turn produce chemicals that inhibit the growth of those causing spoilage. Fermentation depends on the production of alcohol in the case of wine, acetic acid in the case of vinegar, or lactic acid in the case of sauerkraut to destroy or slow the growth of microorganisms. Fermentation of the kind used to make sauerkraut depends upon the properties of salt as well as the fermentation process. Making sauerkraut combines a small amount of salt with the cabbage to prevent the growth of bacteria that cause the food to spoil immediately. The salt, however, does not prevent the growth of bacteria that cause the production of lactic acid. It is this lactic acid that prevents the growth of undesirable bacteria in the long term.

Sugar also has strong antiseptic qualities. Any substance that is composed of a minimum of 65 percent sugar is resistant to spoiling. For this reason, fruit rarely needs to be fully dried to be preserved. Rather, it must only be dried to the point that 65 percent of its weight is composed of sugar. Fruit may be preserved in sugar in its whole state, as in candied fruit, or packed in a syrup, as in marmalades and preserves. In either case, the fruit is first placed in a diluted sugar syrup to allow the sugar to fully penetrate the fruit. The concentration of sugar in the syrup is then increased until the fruit is fully saturated. Some molds will digest sugar, and for this reason, a paraffin cap is often poured over jars of jelly or preserves. The paraffin prevents the growth of these molds by depriving them of air.

CANNING

The ancient methods of food preservation remained unchallenged until the introduction of canning in the eighteenth century. The method was developed between 1795 and 1809 by Nicolas Appert of France. His research was initiated in response to a call from Emperor Napoleon Bonaparte for the discovery of a new method of food preservation to supply the army. Appert published his results in 1810 for which he received the prize of twelve thousand francs.

Appert discovered the method through a series of painstaking experiments. He never fully understood the reasons why canning worked. Since the germ theory had not been developed, he had no way of knowing that he was preventing spoilage by killing the microorganisms in the food and preventing the introduction of new organisms by sealing the containers. Rather, he thought air alone caused spoilage and that the heating of the air in the containers rendered it harmless. The total destruction of microorganisms in food was an entirely new approach to food preservation, one which made it possible to store food indefinitely.

Georgia is proud to claim knowledge of twenty-five different kinds of greens which she continues to gather in areas near her home.
At first, Appert preserved food by placing it in bottles that were heated in a pot of boiling water. Later he experimented with pressure cookers. At first canned vegetables were a curiosity for the wealthy and could only be found in the most exclusive restaurants of Paris. Commercial canning, however, was underway before 1830. At this point metal cans rather than glass were introduced to reduce cost and the problems with breakage in transport. Although food was being canned in the United States in the nineteenth century, it was the need for canned foods to feed troops in the Civil War that largely promoted its use in our country. Troops returning home saw the value of this method of food preservation that, unlike most other means used at that time, had no special storage requirements.

During the nineteenth century most home canners did not employ the full sealed container method developed by Appert. Rather they used the so-called “open kettle” method. In this technique the food is placed in liquid and boiled. It is then quickly transferred to jars that have just been boiled and are still hot. Covers are then quickly placed on the jars. In the southern United States canners often heated the food for decreasing lengths of time on three consecutive days to eliminate more of the spoilage-causing agents. The open kettle method worked fairly well for food with a high acid content such as tomatoes, rhubarb, pears, or peaches. Open kettle canning, however, frequently damages the fruits or vegetables and has a higher problem with spoilage.

The adoption of the more efficient can-cooked method for home use was dependent on two developments. The first of these was the production of pressure cookers at a cost that made this method economically feasible. Without the efforts of the agricultural extension services, however, it might have taken considerably longer before this technology was made available to the general public. One of the first efforts to disseminate this information was undertaken by the Louisiana Experiment Station in 1905. In the years that followed, home canning techniques were taught through a number of state extension services, leading to their widespread acceptance by the advent of the First World War. The need for food during wartime only served to increase the adoption of canning for home food preservation. Although time consuming, canning proved to be a much more versatile method than any used until that point. In the decades that followed, teaching canning techniques became standard in high school home economics classes. Only with the widespread use of freezers did canning encounter competition in the area of home food preservation.
As has been the case with other food-related activities, canning eventually became a competitive activity at county fairs. Often the prizes given have been provided by the canning companies themselves, and usually consist of cases of canning jars. Although agricultural extension services often taught the use of metal cans for the home, these are not generally able to compete. This is because the containers are rarely opened during competition, to do so would destroy the food. In addition, many canned foods must be cooked or prepared after being removed from the can. Tasting the raw contents, therefore, would answer few questions about the quality of the food. For these reasons, competition is usually based on the presentation of the food in the glass jars. Among the criteria used are the color and shape of the food, its distribution in the jar, and the presence or absence of fragments. Although these might seem like unimportant or superficial concerns to the uninitiated, they do relate directly to the economy and efficiency of home canning.

**CONCLUSION**

In the years that followed World War II, the American public practiced home food preservation less frequently. This is partly the result of the movement from farming to other occupations. Once the food used for preservation had to be purchased, it was economical to simply buy food that had already been preserved. Food preservation has declined among agricultural families as well. This is due in part to the declining cost of commercially preserved food. As is the case with most families, those living in rural areas also are feeling the pressure of increased responsibilities that demand more time from family members. This has significantly reduced the time that can be invested in activities such as canning.

In recent years, however, there has been a resurgence of interest in traditional food preservation. This is due in part to concerns for higher quality food and for health benefits from food free of synthetic preservatives. These concerns have created a new market for those who preserve food locally. This development ensures that home food preservation will continue to be a part of the American culture into the next century.

**FURTHER READINGS**


Pumpkin Mat

Ingredients:
3 to 4 medium size pumpkins

Directions:
1. Cut off pumpkin at both ends so you can get seeds out.
2. Peel the pumpkin, using a sharp knife. To peel, make a sawing motion starting at the top of the pumpkin and ending at the bottom (See Fig. 1). Repeat until entire pumpkin is peeled.
3. Make a long spiral strip approximately 1 inch wide (See Fig. 2) or slice pumpkin crosswise and slit rings to hang. Hang strip to dry for one or two days (longer if indoors).
4. Place dried strips on hard surface and pound flat with smooth side of wooden mallet. Place half of the strips in a row, close together.
5. Weave, using the remaining strips, by lifting every other strip (See Fig. 3). To start another piece, simply overlap and continue to weave. When the mat is completed, secure by tucking the ends under. When the mat is woven, pound it lightly. It will dry completely in about a week.

— from Food in Kansas: A Cookbook for Young Kansans
Kobasica

Ingredients:
- 10 Ounces Table Salt
- 3 Ounces Fresh Ground Garlic
- 5 Ounces Ground Peppercorns
- 60 Pounds Pork, ground once through 1/4 inch or 1/2 inch grinder

Directions:
1. Mix all ingredients together. Stuff mixture into 2 inch beef casings. Every 14 inches tie with string (at both ends).
2. Hang sausage in smoke house on racks. Use only hickory wood to smoke. Smoke at 35 - 45 degrees.
3. Smoke for 14 days. Every second day smoke for only 3 hours.
— from Joseph Zugicic, Kansas City

Sauerkraut

Ingredients:
- 2 Heads Cabbage
- 2 Tablespoons Salt, noniodized

Directions:
1. Wash cabbage heads and take off outer leaves. Save the leaves.
2. Slice cabbage very fine into a bowl. Sprinkle on the salt. Pound the mixture until juicy.
3. Pack into jars or a stone crock. Press down on the cabbage so that it is covered with juice. Cover kraut with a cabbage leaf. Loosely put the lids on the jars or the wooden lid on the crock and allow the cabbage to ferment. Sauerkraut is ready to serve in 3 to 4 weeks.
4. After the kraut has fermented the jars should be sealed. To make certain kraut does not spoil, the jars should be boiled for 15 minutes in a water bath, then tightly sealed.
— from Melting Pot of Mennonite Cookery

Rose Hip Jam

Ingredients:
- Water
- Rose Hips (Wash and snip the bud ends off with scissors)
- Sugar
- Cinnamon

Directions:
1. Place rose hips and water in saucepan. Use 1 cup of water for each pound of rose hips. Simmer mixture for 20 minutes.
2. Push the cooked pulp through a sieve. Add 1/2 pound of sugar for each pound of pulp. Add a dash of cinnamon.
3. Simmer the mixture until it is thick.
4. Pour into sterilized jars. Cover jam with a thin layer of paraffin.
— from Georgia Patton, Kansas City

"Making Kobasica"

Marjana Groznic of Kansas City paints her memories of growing up in the Croatian American community of Strawberry Hill. In describing the process of kobasica making, she explains, "After the meat is ground, spices are added. The sausage is stuffed into casings. They are cut and tied with strings to make them into sausage forms. They are put on a long pole in the smokehouse and smoked."
Strawberry Jelly

Ingredients:
- Strawberries
- 5 Cups Sugar
- 1 Box Pectin

Directions:
1. Wash the strawberries and put them in a pan. Cover with water and cook until soft.
2. Strain mixture through a cloth, collecting the juice.
3. Measure 4 cups of juice to 1 box of pectin and mix together. Bring mixture to a boil and add 5 cups of sugar. Stir until sugar is dissolved. Boil hard until the liquid forms a jell consistency.
4. Remove foam and pour jelly into glass jars. Seal jelly with melted paraffin.
— from Georgia Patton, Kansas City

Gooseberry Jelly

Ingredients:
- 4 Quarts Gooseberries
- 6 Cups Water
- 1 Package of Pectin
- 5 Cups Sugar
- 1 Teaspoon Cooking Oil

Directions:
1. Wash and stem gooseberries. Cook gooseberries in water. Strain juice through several thicknesses of cheesecloth.
2. Put 4 cups of the juice and pectin into kettle. Stir pectin until dissolved in juice. Bring to a full rolling boil. Add cooking oil to keep down the foam. Stir in sugar until dissolved. Cook 2 minutes or until 2 beads form on the side of a wooden spoon.
3. Skim off the top and pour jelly into jars. Seal with paraffin.
— from Sylvia Sutton, Greeley

Beet Pickles

Ingredients:
- Beets
- 5 Cups Water
- 3 3/4 Cups Sugar
- 2 1/2 Cups Cider Vinegar
- 2 Teaspoons Salt
- 2 Tablespoons Pickling Spice

Directions:
1. To prepare beets cut tops 3 inches from beets. Wash beets thoroughly. Place beets in large kettle and cover beets with water. Boil and cook 45 to 60 minutes, then cool.
2. Place beets in hand and using thumb, remove the skins. Cut beets in two or quarter if the beets are large.
3. Combine sugar, vinegar, salt, and pickling spice. Bring mixture to a boil.
4. Put beets in jars and pour hot liquid over beets (1/4 inch from the top).
5. Boil lids for 5 minutes. Screw the lids on tight.
6. Process jars in hot water bath (15 minutes for pint jars and 20 minutes for quart jars). Remove and cool and lids will seal.
— from Sylvia Sutton, Greeley

Dill Pickles

Ingredients:
- Cucumbers
- 2 Cups Cider Vinegar
- 1/2 Cup Salt

Directions:
1. Cut cucumbers 1/2 inch from the vine. Wash and brush cucumbers with a vegetable brush. Rinse and place in jars.
2. Place a sprig of dill in each jar.
4. Boil lids for 5 minutes. Screw on tight and process in water bath for 15 minutes on low heat (too long a process will shrivel pickles).
— from Sylvia Sutton, Greeley
TRADITIONS

Kansas has a rich and diverse folk art heritage. Within the state, artists continue to practice art forms that are passed on from parent to child, worker to worker, and neighbor to neighbor. Knowledge is taught by word of mouth or by example. Our folk arts are traditional in that they are part of an unbroken thread that can be traced back through time. No set time period is necessary, however, for a particular behavior to become part of our folklore. Instead, an art form must have existed long enough to enable variations to develop. Once something is "in tradition" it no longer exists in a standardized form. Instead local variants can be found.

Folk art is community bound. We all belong to many groups or communities throughout our lifetimes. Ethnic, religious, occupational, and familial are but a few of the communities in which we maintain memberships. To provide continuity in our lives, some communities extend over time and distance thereby creating a traditional culture. The folk arts of a group have been selected and supported by a number of people within the community. A folk art is the product of a series of choices made by individuals which in turn have been accepted by the group. Folk culture therefore represents the sum total of a community's choices, linking the present to the past.

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