

# Let's Preserve



## Sauerkraut

### Recommended Varieties

Resistant Golden Acre, Danish Ballhead, and Late Flat Head are good varieties for sauerkraut. Early varieties are lower in sugar and less desirable for making kraut.

### Quantity

A 50-pound bag of fresh cabbage makes 16 to 20 quarts of kraut.

### Quality

To make good kraut, use disease-free, firm, sweet, mature heads of cabbage from mid- and late-season crops. Prepare and start the fermentation 1 to 2 days after harvesting the cabbage.

### Containers for Fermenting Cabbage

A 1-gallon stone crock holds 5 pounds of shredded cabbage, and a 5-gallon crock holds 25 pounds. Do not use copper, iron, or galvanized-metal containers or lead-glazed crocks. If you are unsure about the safety of a container, use an alternative such as glass or food-grade plastic containers. Many restaurants receive foods and ingredients in 5-gallon plastic pails, which make ideal fermentation containers. *Do not use garbage bags or trash liners.*

### Preparation

Work with about 6 pounds of fresh cabbage at a time. Discard outer leaves. Rinse heads with cold water and drain. Cut heads in quarters, remove cores, and trim and discard worm- and disease-damaged tissue. Shred or slice cabbage to a thickness of one- to two-quarters, or  $\frac{1}{16}$  to  $\frac{1}{8}$  inch.

### Filling and Packing the Container

Place 5 pounds of shredded cabbage in the fermentation container and thoroughly mix in 3 tablespoons of canning or pickling salt. Pack it with clean hands until the level of natural juices drawn from the cabbage covers its surface. Continue preparing and packing 5-pound quantities of shredded cabbage and 3 tablespoons of salt at a time until finished, or until the fermentation container is filled within 3 to 4 inches from its top. A large, sealed, food-grade plastic bag containing  $4\frac{1}{2}$  tablespoons of salt and 3 quarts of water may be used as a weight to hold the shredded cabbage under the surface of brine during fermentation. You may also use a plate and jars of water for this purpose. Select a pie or dinner plate just small enough to fit inside the fermentation container. Place two or three clean quart jars filled with water on the plate to keep it under the brine surface. Covering the weight and container top with several layers of clean cheesecloth or muslin reduces mold growth on the brine surface.

### Fermentation Temperature, Time, and Management

Store the container at 70°F to 75°F while fermenting. At these temperatures, kraut will be fully fermented in about 3 to 4 weeks; at 60°F to 65°F, fermentation may take 6 weeks. Below 60°F, kraut may not ferment. Above 80°F, kraut may become soft and spoil. Fermentation naturally stops because the acids accumulate to such an extent that further growth cannot take place. If you weigh the cabbage with a

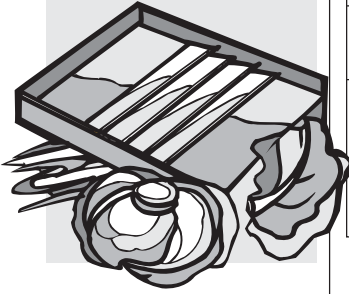
#### CAUTION

Do not use copper, iron, or galvanized-metal containers, lead-glazed crocks, garbage bags, or trash liners for fermenting cabbage.

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**Table 1. Recommended process times in a boiling water canner at designated altitudes.**

STYLE OF PACK	JAR SIZE	PROCESS TIME AT ALTITUDE OF			
		0–1,000 FT (MIN)	1,001–3,000 FT (MIN)	3,001–6,000 FT (MIN)	ABOVE 6,000 FT (MIN)
Hot	Pint	10	15	15	20
	Quart	15	20	20	25
Raw	Pint	20	25	30	35
	Quart	25	30	35	40

brine-filled bag, do not disturb the crock until the normal fermentation is complete (when bubbling ceases). If you use jars as weights, you must check the kraut two to three times each week and remove scum if it forms. Kraut should be to desired tartness, with firm texture, have brine that is not cloudy, and be free of any sign of mold or yeast growth. Do not taste if you see mold on the surface, feel a slimy texture, or smell a bad odor. Fully fermented kraut may be kept tightly covered in the refrigerator for several months, or it may be canned and frozen.

Fermenting sauerkraut in jars is not recommended because fermentation is less consistent and keeping the fermenting cabbage properly submerged under the liquid in jars is difficult.

### **FREEZING PROCEDURE**

Don't freeze more than 2 pounds of food per cubic foot of freezer capacity per day. Fill pint- or quart-size freezer bags to 3–4 inches from their tops, squeeze out air, seal, and label. Before freezing, bags may be inserted into reusable rigid plastic freezer containers for added protection against punctures and leakage.

**For additional information about food preservation**, visit the Penn State Food Safety Web site at [foodsafety.cas.psu.edu](http://foodsafety.cas.psu.edu) and select the Home Food Preservation Web site, or contact Penn State Cooperative Extension in your county.

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### **CANNING PROCEDURE**

Wash jars. Prepare lids according to manufacturer's instructions.

#### **TO MAKE A HOT PACK**

Bring kraut and liquid slowly to a boil in a large kettle, stirring frequently. Remove from heat and fill jars rather firmly with kraut and juices, leaving ½-inch headspace.

#### **TO MAKE A RAW PACK**

Fill jars firmly with unheated kraut and cover with juices, leaving ½-inch headspace.

Wipe sealing edge of jars with a clean, damp paper towel. Add lids, tighten screw bands, and process in a boiling water canner.

After processing is complete, remove jars from canner with a jar lifter and place on a towel or rack. Do not retighten screw bands. Air-cool jars for 12 to 24 hours. Remove screw bands and check lid seals. If the center of the lid is indented, wash, dry, label, and store jar in a clean, cool, dark place. If lid is unsealed, examine and replace jar if defective, use new lids, and reprocess as before. Wash screw bands and store separately. Kraut is best if consumed within a year and is safe as long as lids remain vacuum sealed.