

Canning Pickles and Sauerkraut

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Provides recipes and methods for three kinds of dill pickles, including reduced-sodium as well as instructions for making sauerkraut.

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Cucumbers

Quantity: An average of 14 pounds is needed per canner load of seven quarts; an average of nine pounds is needed per canner load of nine pints. A bushel weighs 48 pounds and yields 16 to 24 quarts: an average of two pounds per quart.

Quality: Select firm cucumbers of the appropriate size: about 1 to 1-1/2 inches for gherkins and four inches for dills. Use odd-shaped and more mature cucumbers for relishes and bread-and-butter pickles.

Types: Use pickling cucumbers. Bumpless cucumbers do not make an acceptable product.

Suitable jars, containers, covers and weights for fermenting and canning

Recommended jars for canning fermented and pickled vegetables are pints and quarts, Mason-type, threaded, home-canning jars with self-sealing lids. Commercial mayonnaise-type jars result in more seal failures and jar breakage, and should never be used in a pressure canner.

A one-gallon container is needed for each five pounds of fresh vegetables. Therefore, a five-gallon stone crock is of ideal size for fermenting about 25 pounds of fresh cabbage or cucumbers. Food-grade plastic and glass containers are excellent substitutes for stone crocks. Other one- to three-gallon, non-food-grade plastic containers may be used

if lined inside with a clean food-grade plastic bag.

Caution: Be certain that foods contact only food-grade plastics. Do not use garbage bags or trash liners.

Fermenting sauerkraut in quart and half-gallon Mason jars is an acceptable practice, but may result in more spoilage losses.

When brining pickles, hard water may interfere with the formation of acid and prevent pickles from curing properly. If soft water is unavailable, hard water can be softened.

Cabbage and cucumbers must be kept one to two inches under brine while fermenting. After adding prepared vegetables and brine, insert a suitably sized dinner plate or glass pie plate inside the fermentation container. The plate must be slightly smaller than the container opening, yet large enough to cover most of the shredded cabbage or cucumbers.

To keep the plate under the brine, weight it down with two to three sealed quart jars filled with water.

Cover the container opening with a clean, heavy bath towel to prevent contamination from insects and molds while the vegetables are fermenting. Fine quality fermented vegetables are also obtained when the plate is weighted down with a very large clean, plastic bag filled with three quarts of water containing 4-1/2 tablespoons of salt. Be sure to seal the plastic bag. Freezer bags sold for packaging turkeys are suitable for use with five-gallon containers.

The fermentation container, plate and jars must be washed in hot sudsy water and rinsed well with very hot water before use.

Salts used in pickling

Use of canning or pickling salt is recommended. Fermented and nonfermented pickles may be safely made using either iodized or noniodized table salt. However, noncaking materials or iodine may discolor the pickles and brine. Flake salt varies in density and is not recommended for use.

Reduced-sodium salts like "Lite Salt" may be used in quick pickle recipes, as indicated in this guide. The pickles may, however, have a slightly different taste than expected.

Caution: Use of reduced-sodium salt in fermented pickle recipes is not recommended.

When brining pickles, hard water may interfere with the formation of acid and prevent pickles from curing

properly. If soft water is unavailable, hard water can be softened. Simply boil at 15 minutes and let set for 24 hours, covered. Remove any scum that appears. Slowly pour the water from the container so the sediment will not be disturbed.

Vinegars used in pickling

Use commercial white or dark vinegar at the recommended 5% acidity. Avoid vinegars of unknown acidity or homemade vinegars.

Warning: Never reduce the amount of vinegar in the recipe.

There should always be at least 1/4 cup of vinegar per pint jar and 1/2 cup per quart jar when the pickling solution is added to the jar.

Low-temperature pasteurization treatment

The following treatment results in better texture but must be carefully managed to avoid spoilage.

Place jars in a canner filled halfway with warm (120 to 140 degrees F) water. Then, add hot water to a level one inch above jars. Heat the water enough to maintain 180 to

185 degrees F water temperature for 30 minutes. Check with a candy or jelly thermometer to be certain that the water temperature is at least 180 degrees F during the entire 30 minutes. Temperatures higher than 185 degrees F may cause unnecessary softening of pickles. **Caution: Use low-temperature pasteurization treatment only when recipe indicates.**

FERMENTED DILL PICKLES

Use the following quantities for each gallon capacity of your container:

- 4 lbs. of 4-inch pickling cucumbers
- 2 tbsp dill seed or 4 to 5 heads fresh or dry dill weed
- 1/2 cup salt
- 1/4 cup vinegar (5%) (white or dark)
- 8 cups water and one or more of the following ingredients:
- 2 cloves garlic (optional)
- 2 dried red peppers (optional)
- 2 tsp whole mixed pickling spices (optional)

Procedure: Wash cucumbers. Be sure to cut 1/16-inch slice off blossom end. Blossoms contain enzymes that can cause softening. Leave 1/4-inch of stem attached. Place half of dill and spices on bottom of a clean, suitable container (see page 1). Add cucumbers, remaining dill and spices. Dissolve salt in vinegar and water and pour over cucumbers. Add suitable cover and weight. Store where temperature is between 70 degrees F and 75 degrees F for about three to four weeks while fermenting.

Temperatures of 55 to 65 degrees F are acceptable, but the fermentation will take five to six weeks. Avoid temperatures above 80 degrees F, or pickles will become too soft during fermentation. Fermenting pickles cure slowly. Check the container several times a week and promptly remove surface scum or mold.

Caution: If the pickles become soft, slimy or develop a disagreeable odor, discard them. Fully fermented pickles may be stored in the original container for about four to six months, provided they are refrigerated and surface scum and molds are removed regularly.

Canning fully fermented pickles is a better way to store them. To can them, pour the brine into a pan, heat slowly to a boil, and simmer five minutes. Filter brine through paper coffee filters to reduce cloudiness, if desired. Fill jar with pickles and hot brine, leaving 1/2-inch headspace. Adjust lids and process as below, or use the low-temperature pasteurization treatment described at left.

Recommended process time for dill pickles in a boiling-water canner

Style of Pack	Jar Size	Process Time at Altitudes of		
		0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Raw	Pints	10 min	15	20
	Quarts	15	20	25

QUICK FRESH-PACK DILL PICKLES

8 lbs of 3- to 5-inch pickling cucumbers
 2 gals water
 1-1/4 cups canning or pickling salt (divided)
 1-1/2 qts vinegar (5%) (white or dark)
 1/4 cup sugar
 2 qts water
 2 tbsp whole mixed pickling spice
 3 tbsp whole mustard seed (1 tsp per pint jar)
 14 heads of fresh dill (1-1/2 heads per pint jar) or
 4-1/2 tbsp dill seed (1-1/2 tsp per pint jar)

Yield: 7 to 9 pints

Procedure: Wash cucumbers. Be sure to cut 1/16-inch slice off blossom end. Blossoms contain enzymes that can cause softening. You can leave 1/4-inch stems attached. Dissolve 3/4 cup salt in two gallons water. Pour over cucumbers and let stand 12 hours. Drain. Combine vinegar, 1/2 cup salt, sugar and two quarts water. Add mixed pickling spices tied in a clean white cloth. Heat to boiling. Fill jars with cucumbers. Add one teaspoon mustard seed and 1-1/2 heads fresh dill per pint. Cover with boiling pickling solution, leaving 1/2-inch headspace. Adjust lids and process as below or use the low-temperature pasteurization treatment described on page 2.

Recommended process time for quick fresh-pack dill pickles in a boiling-water canner

Style of Pack	Jar Size	Process Time at Altitudes of		
		0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Raw	Pints	10 min	15	20
	Quarts	15	20	25

REDUCED-SODIUM SLICED DILL PICKLES

4 lbs (3- to 5-inch) pickling cucumbers
 6 cups vinegar (5%) (white or dark)
 6 cups sugar
 2 tbsp canning or pickling salt
 1-1/2 tsp celery seed
 1-1/2 tsp mustard seed
 2 large onions, thinly sliced
 8 heads fresh dill

Yield: About 8 pints

Procedure: Wash cucumbers. Be sure to cut 1/16-inch slice off blossom end. Blossoms contain enzymes that can cause softening. Cut cucumbers in 1/4-inch slices. Combine vinegar, sugar, salt, celery and mustard seeds in large saucepan. Bring mixture to boiling. Place two slices of onion and 1/2 dill head on bottom of each pint jar. Fill jars with cucumber slices, leaving 1/2-inch headspace. Add one slice of onion and 1/2 dill head on top. Pour hot pickling solution over cucumbers, leaving 1/4-inch headspace. Adjust lids and process.

Recommended process time for reduced sodium sliced dill pickles in a boiling-water canner

Style of Pack	Jar Size	Process Time at Altitudes of		
		0-1,000 ft	1,001-6,000 ft	Above 6,000 ft
Raw	Pints	15 min	20	25

SAUERKRAUT

25 lbs cabbage
 3/4 cup canning or pickling salt

Quality: For the best sauerkraut, use firm heads of fresh cabbage. Shred cabbage and start kraut between 24 and 48 hours after harvest.

Yield: About 9 quarts

Procedure: Work with about five pounds of cabbage at a time. Discard outer leaves. Rinse heads under cold running water and drain. Cut heads in quarters and remove cores. Shred or slice to a thickness of a quarter.

Put cabbage in a suitable fermentation container (see page 1), and add three tablespoons of salt. Mix thoroughly, using clean hands. Pack firmly until salt draws juices from cabbage. Repeat shredding, salting and packing until all cabbage is in the container. Be sure it is deep enough so that its rim is at least four or five inches above the cabbage. If juice does not cover cabbage, add boiled and cooled brine (1-1/2 tablespoons of salt per quart of water).

Add plate and weights; cover container with a clean bath towel. Store at 70 to 75 degrees F while

fermenting. At temperatures between 70 and 75 degrees F, kraut will be fully fermented in about three to four weeks; at 60 to 65 degrees F, fermentation may take five to six weeks. At temperatures lower than 60 degrees F, kraut may not ferment. Above 75 degrees F, kraut may become soft.

If you weigh the cabbage down with a brine- or water-filled filled double-bag, do not disturb the crock until normal fermentation is completed (when bubbling ceases). Bags with brine are safer than water in case the bags break. If you use jars as weight, you will have to check the kraut two to three times each week and remove scum if it forms. Fully fermented kraut may be kept tightly covered in the refrigerator for several months or it may be canned as follows:

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 1/2-inch headspace. Adjust lids and process.

Raw pack—Fill jars firmly with kraut and cover with juices, leaving 1/2-inch headspace. Adjust lids and process.

Recommended process time for sauerkraut in a boiling-water canner

Style of Pack	Jar Size	Process Time at Altitudes of			
		0-1,000 ft	1,001-3,000 ft	3,001-6,000 ft	Above 6000 ft
Hot	Pints	10 min	15	15	20
	Quarts	15	20	20	25
Raw	Pints	20	25	30	35
	Quarts	25	30	35	40



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