# **Cornell Cooperative Extension Saratoga County**

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### **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 canning and pickling salt
- 1/4 cup vinegar (5 percent)
- 8 cups water and one or more of the following ingredients:
  - o 2 cloves garlic (optional) dried red peppers (optional)
  - o 2 tsp whole mixed pickling spices (optional)

**Procedure:** Wash cucumbers. Cut 1/16-inch slice off blossom end and discard. Leave 1/4-inch of stem attached. Place half of dill and spices on bottom of a clean, suitable container. For more information on containers see "Suitable Containers, Covers, and Weights for Fermenting Food," below. 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°F and 75°F for about 3 to 4 weeks while fermenting.

Temperatures of 55° to 65°F are acceptable, but the fermentation will take 5 to 6 weeks. Avoid temperatures above 80°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 4 to 6 months, provided they are refrigerated and surface scum and molds are removed regularly. Canning fully fermented pickles is an option, and a better way to store them. To can them, pour the brine into a pan, heat slowly to a boil, and simmer 5 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 recommended in Table 1, or use the low-temperature pasteurization treatment described below.

The following treatment results in a better product texture but must be carefully managed to avoid possible spoilage. Place jars in a canner filled half way with warm (120° to 140°F) water. Then, add hot water to a level 1 inch above jars. Heat the water enough to maintain 180° to 185° F water temperature for 30 minutes. Check with a candy or jelly thermometer to be certain that the water temperature is at least 180°F during the entire 30 minutes. Temperatures higher than 185°F may cause unnecessary softening of pickles.

Table 1. Recommended process time for Dill Pickles in a boiling-water canner.				
		Process Time at Altitudes of		
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 6,000 ft	Above 6,000 ft
Raw	Pints	10 min	15	20
	Quarts	15	20	25

Adapted from the "Complete Guide to Home Canning," Agriculture Information Bulletin No. 539, USDA, revised 2015. Source: National Center for Home Food Preservation, <a href="http://nchfp.uga.edu/how/can-06/dill-pickles.html">http://nchfp.uga.edu/how/can-06/dill-pickles.html</a>, 9-9-14.

## **General Information**

The many varieties of pickled and fermented foods are classified by ingredients and method of preparation.

Regular dill pickles and sauerkraut are fermented and cured for about 3 weeks. Refrigerator dills are fermented for about 1 week. During curing, colors and flavors change and acidity increases. Be sure to remove and discard a 1/16-inch slice from the blossom end of fresh cucumbers. Blossoms may contain an enzyme which causes excessive softening of pickles.

Caution: The level of acidity in a pickled product is as important to its safety as it is to taste and texture.

- Do not alter vinegar, food, or water proportions in a recipe or use a vinegar with unknown acidity.
- Use only recipes with tested proportions of ingredients.
- There must be a minimum, uniform level of acid throughout the mixed product to prevent the growth of botulinum bacteria.

### **Selection of Fresh Cucumbers**

**Quantity:** An average of 14 pounds is needed per canner load of 7 quarts; an average of 9 pounds is needed per canner load of 9 pints. A bushel weighs 48 pounds and yields 16 to 24 quarts – an average of 2 pounds per quart.

**Quality:** Select firm cucumbers of the appropriate size: about 1-1/2 inches for gherkins and 4 inches for dills. Use odd-shaped and more mature cucumbers for relishes and bread-and-butter style pickles.

# Suitable Containers, Covers and Weights for Fermenting Food

A 1-gallon container is needed for each 5 pounds of fresh vegetables. Therefore, a 5-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 1- to 3-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.

Cabbage and cucumbers must be kept 1 to 2 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 2 to 3 sealed quart jars filled with water. Covering the container opening with a clean, heavy bath towel helps 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 3 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 5-gallon containers. The fermentation container, plate, and jars must be washed in hot sudsy water, and rinsed well with very hot water before use.

For more information on fermentation go to: <a href="http://nchfp.uga.edu/how/can6a\_ferment.html">http://nchfp.uga.edu/how/can6a\_ferment.html</a> or Sandor Katz web site, www.wildfermentation.com