



## UCCE Master Food Preservers of Amador/Calaveras County

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# Pickle Palooza

## Food Safety Basics

### Wash Hands Frequently

- Personal cleanliness is necessary. Wash your hands thoroughly and frequently. E. Coli resides in the human nose and intestines. Wash your hands if you rub your nose, or if you wipe your face or skin.
- Bandage any cuts or burns on hands before handling food or use disposable gloves.

### Avoid Cross Contamination

- Rinse all fresh fruits and vegetables well under running water before preparing or eating them.
- ALWAYS wash your hands, knives, cutting boards, and food preparation surfaces well with soapy water before and after any contact with raw meat, fish, or poultry.
- Run sponges through the dishwasher several times a week. Change dishcloths daily.
- Use paper towels to mop up spilled juices from meat, fish, or poultry.
- Use a disinfecting solution of 1½ teaspoons of chlorine bleach to 1 pint of water. Dispense with a spray bottle to disinfect countertops, cutting surfaces, sinks, etc. Make a new solution weekly.

### When in doubt, throw it out!

- Never taste food that looks or smells strange to see if it can still be used.
- Most bacteria that cause food borne illness are odorless, colorless, and tasteless.

### Prevent botulism by following a reputable recipe.

- There must be a minimum, uniform level of acid throughout the mixed product to prevent the growth of botulinum bacteria.
- Use a current recipe from one of the sources listed at the end of this publication. Grandma's recipe may not use the correct proportions of water and vinegar or may have assumed a higher level of acidity in the vinegar.

## Pickling

A pickle is any fruit or vegetable preserved in vinegar or brine.

- **Brined pickles** are products fermented in salt brine. Regular dill pickles and sauerkraut are fermented and cured for about 3 weeks. They may be canned or stored in the refrigerator for 4-6 months.
- **Refrigerator/Freezer pickles** are not heat processed and must be stored in the refrigerator for 4-6 months.
- **Fresh-pack or quick-process pickles** are not fermented; some are brined several hours or overnight, then drained and covered with vinegar and seasonings.
- **Fruit pickles** are fruits that are pickled in spicy, sweet-sour syrup.
- **Relishes** are prepared using chopped products and cooked in a spicy vinegar solution.

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.

## Salt

- Salts are not interchangeable. Use canning or pickling salt. Table salt contains anti-caking ingredients which can cloud the brine. Kosher salt may also contain anti-caking ingredients so check the label.
- Since flake salt varies in density (grain size), it is not recommended for making pickled and fermented foods. If you must substitute Kosher salt, it is lighter than canning salt, so you need to use the same amount of salt by weight, not volume.
- In our class experiment, **½ cup pickling salt = 1 cup plus 2 tablespoons Kosher salt.**

## Vinegar

The level of acidity in a pickled product is as important to its safety as it is to taste and texture. When pickling, always use high-quality commercial vinegars with 5% acidity or higher (also listed as 50-grain). The acidity should be listed on the label; if not, assume it is not 5%.

- Do not alter vinegar, food, or water proportions in a recipe or use vinegar with unknown acidity. Doing so may alter its preservative effect and undermine the safety of the product.
- Use only recipes with tested proportions of ingredients.
- White distilled and cider vinegars of 5% acidity are recommended. White vinegar is usually preferred when light color is desirable.
- Do not use homemade vinegar as the acidity is unknown.

## Water

- Soft water makes the best brine for pickles.
- Hard water may cause cloudiness in the brine and discolored pickles. If only hard water is available, boil and let sit for 24 hours. Skim off scum and use water from the top of the container without disturbing the sediment.
- Fluoridated or chlorinated water may contribute to soft pickles or cloudy brine; bottled distilled water is always a good choice.

## Pickles with Reduced Salt Content

When making fresh-pack pickles, cucumbers are acidified quickly with vinegar. Use only tested recipes formulated to produce the proper acidity. While these pickles may be prepared safely with reduced or no salt, their quality may be noticeably lower. Both texture and flavor may be noticeably different than expected. You may wish to make small quantities first to determine if you like them.

## Sugars

White granulated and brown sugar are used most often. Corn syrup and honey, unless called for in reliable recipes, may produce undesirable flavors.

## Spices

Use fresh whole spices for the best quality and flavor in pickles. Powdered spices may cause the product to darken and become cloudy. Pickles will darken less if you tie whole spices loosely in a clean white cloth or cheesecloth bag and then remove the bag from the product before packing the jars.

## Firming Agents

If good quality ingredients are used in pickling and up-to-date methods are followed, lime and alum are not needed for crisp pickles. If you choose to use firming agents, alum may be safely used to firm *fermented* cucumbers. Alum does not have an effect on quick-processed pickles.

- When pickling cucumbers, cut 1/16-inch slice off the blossom end and discard because enzymes in the blossom end causes soft pickles.
- Soaking cucumber in **ice** water for 4 to 5 hours prior to pickling is a safe method for making crisp pickles.
- The calcium in pickling lime does improve pickle firmness. Food-grade lime may be used as a lime-water solution for soaking fresh cucumbers 12 to 24 hours before pickling them. However, **EXCESS LIME ABSORBED BY THE CUCUMBERS MUST BE REMOVED TO MAKE SAFE PICKLES**. To remove excess lime, drain the lime-water solution, rinse and then re-soak the cucumbers in fresh water for 1 hour. Repeat the rinsing and soaking steps two more times.
- Calcium chloride for pickling is often sold where you buy canning supplies. It is usually added directly to the jars of pickles. Follow the instructions on the package.

#### Other Considerations:

- **Yellow crystals on pickled asparagus:** Sometimes pickled asparagus will form yellow crystals. Do not panic!!! When asparagus is heated with acid (such as vinegar), rutin is drawn out of the asparagus plant. It then becomes insoluble in the vinegar and crystallizes on the exterior of the asparagus stems. It is safe to it; it is only a cosmetic concern. In commercially canned asparagus, a small amount of tin salt is added to the pickling solution, which prevents the rutin from crystallizing.
- **Blue garlic:** Garlic contains anthocyanins, water-soluble pigments that can turn blue or purple in acidic environments like vinegar or pickling brine - the garlic is still safe to eat. Garlic should be fresh and at the peak of maturity. Immature or sprouting garlic can turn blue in the jar.

#### For Best Results

- Store fresh pack/quick pickles for 4-6 weeks in a cool, dry, dark place to allow the flavors to mellow and blend.
- Marinate **refrigerator** pickles (they are not processed in heat) in the refrigerator for at least two weeks before serving and use within 3 months.

#### Preventing Spoilage

Pickle products are subject to spoilage from microorganisms, particularly yeasts and molds, as well as enzymes that may affect flavor, color, and texture. Processing the pickles in a boiling-water bath or atmospheric steam canner will prevent these problems. Standard canning jars and self-sealing lids are recommended. Processing times and procedures will vary according to food acidity and the size of food pieces.

## Recipes

### Basic Quickle/Refrigerator Pickles

Yield: about 4 pint jars

Onions, cucumbers, asparagus, parsnips, radishes, and pea pods are great vegetables to start making quick refrigerator pickles.

1. Prepare Vegetables – Wash and chop vegetable into the desired shape you like for pickles. These vegetables do not require cooking prior to pickling.
2. Select Flavorings – Get creative with fresh or dry flavorings. Mix and match from the following suggested list of fresh and dried herbs and spices to add up to 2 tablespoons per jar.

#### Dry:

Bay leaves

Celery, cumin, dill, or mustard seed  
 Chili peppers  
 Peppercorns  
 Pickling spice  
 Turmeric  
Fresh:

Jalapeno or habanero pepper  
 Dill  
 Garlic  
 Oregano  
 Shallot/Onion  
 Horseradish

3. Pack vegetables – Pack prepared vegetables snugly into washed pint-sized canning jars or similar glass or heatproof plastic containers with lids.

4. Make Brine – Make either a sweet or sour brine using the following recipes. Bring brine to a boil and let boil for 2 minutes. Remove from heat.

Sour Brine:

3 cups vinegar (5%)  
 3 cups water  
 3 tablespoons canning/pickling salt  
 2 tablespoons sugar

Sweet Brine:

3 cups vinegar (5%)  
 3 cups water  
 2 tablespoons canning/pickling salt  
 1½ cups sugar

5. Fill Jars with Brine – Carefully fill the jars with brine within ½ inch of the top of the rim. Place the lids on the jars and refrigerate. Allow flavor to develop for 1-2 days before serving. Use within 2 weeks.

*Source: North Carolina State University*

**Refrigerated Dill Slices**

Yield: about 5 pint jars

8 ¼ cups sliced trimmed pickling cucumbers (1/4 inch slices)	2 tablespoons pickling spice
2 cups white vinegar	7 ½ teaspoons dill seeds
2 cups water	5 teaspoons mustard seeds
6 tablespoons canning salt	1 ¼ teaspoons whole black peppercorns
¼ cup granulated sugar	5 cloves garlic, halved (optional)

1. Place cucumber slices in a large glass or stainless steel bowl; set aside.
2. In a medium stainless steel saucepan, combine vinegar, water, salt, sugar, and pickling spice. Bring to boil over medium-high heat, stirring to dissolve salt and sugar. Reduce heat, cover, and boil gently for 10 minutes.
3. Pour pickling liquid over cucumber slices. Cover with waxed paper and set aside until cooled to room temperature, about 30 minutes.
4. In each pint jar, place 1½ teaspoons dill seeds, 1 teaspoon mustard seeds, ¼ teaspoon peppercorns and two garlic clove halves, if using. Add cucumber slices to within a generous ½-inch headspace of top of jar. Ladle pickling liquid into jar to cover cucumbers, leaving ½-inch headspace. Apply lids.
5. For best results, allow cucumbers to marinate in refrigerator for at least 2 weeks and use within 3 months.

*Source: Ball Complete Book of Home Preserving, 2015*

**Mediterranean Refrigerator Pickles**

Yield: about 1 quart jar or 2 pint jars

Classic Mediterranean flavors from oregano or basil and citrus combine in this simple refrigerator pickle. Because they are refrigerated and not preserved for the pantry, you can get a little more creative with the vegetables and seasonings to taste.

2 pounds desired vegetables**	2 tablespoons minced fresh oregano or basil
2 cups white, red wine, or balsamic vinegar (5%) or a combination	2 teaspoons citrus zest
1 cup water	¼ teaspoon crushed red pepper
1 tablespoon sugar	4 garlic cloves, crushed
1 tablespoon pickling salt	2 small bay leaves

1. Wash, trim, and peel vegetables; leave whole (depending on size), halve, quarter, slice, or chop.
2. Bring vinegar(s) and rest of ingredients to a boil in a small stainless-steel or enameled saucepan; reduce heat and simmer 3 minutes, stirring to dissolve sugar and salt.
3. Tightly pack the vegetables into hot jar(s). Pour the hot brine over the vegetables to cover. Cover jar with lid; let stand 1 hour or until cooled to room temperature. Store in refrigerator for 3 weeks for the best flavor; consume within 3 months. (The longer the pickles stand in the refrigerator, the more flavorful they will become.)

\*\* This recipe works with any combination of the following vegetables: asparagus, button mushrooms, green beans, cauliflower, eggplant, onions, radishes, bell peppers, chili peppers, cherry or grape tomatoes, or zucchini.

*Source: Ball Canning Back to Basics*

**Refrigerated Sweet Pickled Radish**

Yield: about 1 pint

1 bunch radishes (1/2 pound), stem and root ends removed and cut into 1/8-inch slices	1 teaspoon mustard seeds
½ cup white or apple cider vinegar (5%)	½ teaspoon ground black pepper
½ cup sugar	1 bay leaf
¼ cup water	½ teaspoon dried crushed red pepper (optional)
1 teaspoon pickling salt	

1. Bring vinegar, next 6 ingredients, and, if desired, crushed red pepper to a boil in a small stainless steel or enameled saucepan.
2. Place radishes in a hot 1-pint jar.
3. Ladle hot pickling liquid over radishes. Remove air bubbles. Wipe rim with a dampened clean paper towel; adjust two-piece metal canning lid.
4. Let cool on a wire rack (about 1 hour). Chill 6 hours before serving. Store in refrigerator up to 4 months.

*Source: Ballmasonjars.com*

**Refrigerated Pickled Eggs**

There are no home canning directions for pickled eggs. The following pickled egg recipes are for storage in the refrigerator. Pickled eggs should never be at room temperature except when served. Limit time spent at room temperature to no more than 2 hours.

Each of these recipes uses 12 peeled, hard-cooked eggs. The directions for each recipe are to bring all the ingredients except the eggs to a boil, reduce the heat and simmer for 5 minutes. Pack no more than one dozen peeled, hard-cooked eggs loosely into a warm, pre-sterilized quart jar (or other similar size container which can be closed tightly). There needs to be plenty of pickling solution, and enough to completely cover the eggs. Pour the hot pickling solution over the eggs in the jar, cover, and refrigerate immediately.

After making the eggs, the eggs require some time to season (i.e., pick up the flavors from the pickling brine). Keep refrigerated at all times. If small eggs are used, 1 to 2 weeks are usually allowed for seasoning to occur. Medium or large eggs may require 2 to 4 weeks to become well-seasoned. Use the eggs within 3 to 4 months for best quality.

### RED BEET EGGS

1 cup red beet juice (from canned beets)  
1½ cups cider vinegar  
1 teaspoon brown sugar  
A few canned whole tiny red beets  
(or several slices of beets can be used)

### DARK AND SPICY EGGS

1½ cups cider vinegar  
½ cup water  
1 tablespoon dark brown sugar  
2 teaspoons granulated sugar  
1 teaspoon mixed pickling spice  
¼ teaspoon liquid smoke or hickory smoke salt  
2 teaspoons salt

### DILLED EGGS

1½ cups white vinegar  
1 cup water  
¾ teaspoon dill weed  
¼ teaspoon white pepper  
3 teaspoons salt  
¼ teaspoon mustard seed  
½ teaspoon onion juice or minced onion  
½ teaspoon minced garlic or 1 peeled garlic clove

### SWEET AND SOUR EGGS

1½ cups pasteurized apple cider  
½ cup cider vinegar  
12-ounce package red cinnamon candy  
1 tablespoon mixed pickling spice  
2 tablespoons salt  
1 teaspoon garlic salt

### CIDERED EGGS

1½ cups pasteurized apple/apple cider juice  
½ cup white vinegar  
6 thin slices of onion  
1½ teaspoons salt  
1 teaspoon whole pickling spice  
1 peeled garlic clove

### PINEAPPLE PICKLED EGGS

1 can (12 ounces) unsweetened pineapple juice  
1½ cups white vinegar  
2 medium onions, peeled, and sliced  
¼ cup sugar (omit if sweetened pineapple juice used)  
1 teaspoon salt  
1 teaspoon whole pickling spice

*Source: National Center for Home Food Preservation*

### Freezer Pickles

Yield: about 3 pints

6 cups thinly sliced cucumbers  
1 large thinly sliced white or yellow onion  
2 tablespoons pickling salt  
1 cup sugar

1 cup white vinegar  
2 cloves garlic, minced  
3 tablespoons dill seed

1. In a large bowl, combine cucumbers and onions; sprinkle with salt and let stand for 2 hours. Rinse under cold, running water and drain well.
2. In a large bowl, combine sugar, vinegar, garlic, and dill. Stir well to dissolve the sugar.
3. Add cucumbers and onion and mix thoroughly.
4. Pack into food-safe containers, leaving about 1-inch headspace at the top.
5. Freeze for up to 6 months. Defrost in refrigerator for 8 hours before serving.

Tip: Spice up your pickles by adding 1 finely diced jalapeno or ½ teaspoon red pepper flakes in step 2.

Source: *Michigan State Extension*

## Vegetable Pickles:

### **Quick Fresh Dill Pickles**

Yield: 7-9 wide-mouth pints or 4-5 wide-mouth quarts

8 pounds of 3 to 5-inch pickling cucumbers  
2 gallons water  
1¼ cups canning salt (divided)  
1½ quarts white vinegar (5%)  
¼ cup sugar

2 quarts water  
2 tablespoons whole mixed pickling spice  
about 3 tablespoons whole mustard seed  
about 14 heads of fresh dill or 5 tablespoons dill seed

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Wash cucumbers. Cut 1/16-inch slice off blossom end and discard. Leave ¼-inch of stem attached. Dissolve ¾ cup salt in 2 gallons of water. Pour over cucumbers and let stand for 12 hours. Drain.
3. Combine vinegar, ½ cup salt, sugar and 2 quarts water. Add mixed pickling spices tied in a clean white cloth. Heat to boiling.
4. Fill jars with pickles. Add 1 teaspoon mustard seed and 1½ heads fresh dill (or 1½ teaspoons dill seed) per pint jar. Cover with boiling pickling solution, leaving ½-inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot solution. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
5. Process in a boiling water bath or atmospheric steam canner:
  - a. Pints: 10 minutes at 0-1,000 feet, 15 minutes at 1,001 to 6,000 feet, 20 minutes above 6,000 feet.
  - b. Quarts: 15 minutes at 0-1,000 feet, 20 minutes at 1,001-6,000 feet, 25 minutes above 6,000 feet.
6. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

Source: *So Easy to Preserve, Cooperative Extension, The University of Georgia, 2015*

### **Kosher Dills**

Yield: 6-7 pints

30-36 cucumbers (3- to 4-inches long)  
3 cups white vinegar (5%)

3 cups water  
6 tablespoons canning salt  
fresh or dried dill

garlic  
mustard seed

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.





frozen (whole kernel, six 10-ounce packages)	5 cups vinegar (5%)
2½ cups sweet red pepper, diced	2½ tablespoons canning/pickling salt
2½ cups green pepper, diced	2½ teaspoons celery seed
2½ cups chopped celery	2½ tablespoons dry mustard
1¼ cups chopped onions	1¼ teaspoon turmeric
1¾ cups sugar	

Fresh corn – Remove husks and silks. Cook ears of corn in boiling water for 5 minutes; remove and plunge into cold water. Drain; cut corn from cob. Do not scrape cob.

Frozen corn – Defrost in refrigerator overnight or in a microwave oven.

To make relish:

1. Combine peppers, celery, onions, sugar, vinegar, salt, and celery seed. Cover pan until mixture starts to boil, then boil uncovered for 5 minutes, stirring occasionally. Mix dry mustard and turmeric and blend with a small amount of liquid from boiling mixture. Add with corn, to boiling mixture. Return to boiling and cook for 5 minutes, stirring occasionally.
2. This relish may be thickened when the corn is added, by adding ¼ cup flour blended with ¼ cup water. Frequent stirring will be necessary to prevent sticking and scorching.
3. Pack loosely while boiling hot into hot pint jars, filling to ½ inch from the top. Remove air bubbles. Wipe jar rims. Adjust lids. Process in a boiling water bath or atmospheric steam canner. 15 minutes at 0-1,000 feet, 20 minutes at 1,001--6,000 feet, 25 minutes above 6,000 feet.

*Source: So Easy to Preserve, 6th ed. 2014*

## Pickled Green Beans

Yield: about 4 pints

2 pounds green beans	2½ cups water
1 teaspoon cayenne pepper	2½ cups vinegar (5%)
4 heads dill or 4 teaspoons dill seed	¼ cup canning/pickling salt
4 cloves garlic	

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use. If under 1,000 feet, sterilize the jars by boiling for 10 minutes. Wash and trim ends from beans and cut to 4-inch lengths.
2. Pack beans, lengthwise, into hot pint jars, leaving ½-inch headspace. To each pint, add ¼ teaspoon cayenne pepper, 1 clove garlic, and 1 dill head or 1 teaspoon dill seed.
3. Combine remaining ingredients and bring to a boil.
4. Pour boiling hot liquid over beans, leaving ½-inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids.
5. Process in a boiling water bath or atmospheric steam canner for 5 minutes at 0-1,000 feet (only in sterilized jars), 10 minutes at 1,001-6,000 feet, 15 minutes above 6,000 feet.
6. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

Let beans stand for at least 2 weeks before tasting to allow the flavor to develop.

*Source: So Easy to Preserve, 6th ed. 2014*

### Pickled Beets

Yield: about 8 pints

7 pounds of 2- to 2½-inch diameter beets	2 cups water
4 cups vinegar (5%)	2 cinnamon sticks
1½ teaspoons canning/pickling salt	12 whole cloves
2 cups sugar	4 to 6 onions (2- to 2½-inch diameter) if desired

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Trim off beet tops to 1 inch of stem and roots to prevent bleeding of color. Wash thoroughly. Sort for size.
3. Cover similar sizes together with boiling water and cook until tender, about 25 to 30 minutes. Caution: Drain and discard liquid. Cool beets. Trim off roots and stems and slip off skins.
4. Slice into ¼-inch slices. Peel and thinly slice onions.
5. Combine vinegar, salt, sugar, and fresh water. Put spices in cheesecloth bag and add to vinegar mixture. Bring to a boil.
6. Add beets and onions. Simmer 5 minutes. Remove spice bag.
7. Fill jars with beets and onions, leaving ½-inch headspace. Add hot vinegar solution, allowing ½-inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot solution. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
8. Process in a boiling water bath or atmospheric steam canner for 30 minutes at 0-1,000 feet elevation, 35 minutes at 1,001-3,000 feet, 40 minutes at 3,001-6,000 feet, 45 minutes above 6,000 feet.
9. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: USDA Complete Guide to Home Canning, 2015*

### Pickled Bread-and-Butter Zucchini

Yield: 8-9 pints

16 cups fresh zucchini, sliced	2 cups sugar
4 cups onions, thinly sliced	4 tablespoons mustard seed
½ cup canning/pickling salt	2 tablespoons celery seed
4 cups white vinegar (5%)	2 teaspoons ground turmeric

1. Wash and rinse canning jars; keep hot until ready to use. Prepare lids and bands according to manufacturer's directions.
2. Cover zucchini and onion slices with 1 inch of water and salt. Let stand 2 hours and drain thoroughly.
3. Combine vinegar, sugar, and spices. Bring to a boil. Add zucchini and onions. Simmer 5 minutes.
4. Fill jars with mixture, leaving ½-inch headspace. Fill jars to ½ inch from the top with hot pickling solution.
5. Remove air bubbles and adjust headspace if necessary. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
6. Process in a boiling water bath or atmospheric steam canner for 10 minutes, 15 minutes between 1,000 - 6,000 feet, 20 minutes above 6,000 feet.

7. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: So Easy to Preserve, 6th ed. 2014*

### **Pickled Baby Carrots**

Yield: about 4 pints

8½ cups peeled baby carrots	2 teaspoons canning salt
5½ cups white vinegar (5%)	8 teaspoons mustard seed
1 cup water	4 teaspoons celery seed
2 cups sugar	

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Wash carrots well.
3. Combine vinegar, water, sugar and canning salt in an 8-quart Dutch oven or stockpot. Bring to a boil and boil gently 3 minutes. Add carrots and bring back to a boil. Then reduce heat to a simmer and heat until the carrots are half-cooked (about 10 minutes).
4. Meanwhile, place 2 teaspoons mustard seed and 1 teaspoon celery seed in the bottom of each clean, hot pint jar.
5. Fill hot jars with the hot carrots, leaving 1-inch headspace. Cover with hot pickling liquid, leaving ½-inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot liquid. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
6. Process in a boiling water bath or atmospheric steam canner for 15 minutes at 0-1,000 feet, 20 minutes at 1,001-6,000 feet, and 25 minutes above 6,000 feet.
7. For boiling water canner, remove lid and wait 5 minutes; steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation, 2015*

### **Marinated Whole Mushrooms**

Yield: about 9 half-pint jars

7 pounds small whole mushrooms	1 tablespoon canning/pickling salt
½ cup bottled lemon juice	½ cup finely chopped onion
2 cups olive or salad oil	¼ cup diced pimento
2½ cups white vinegar (5%)	2 cloves garlic, cut in quarters
1 tablespoon dried oregano leaves	25 black peppercorns
1 tablespoon dried basil leaves	

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Select very fresh unopened mushrooms with caps less than 1¼-inch in diameter. Wash. Cut stems, leaving ¼-inch attached to cap. Add lemon juice and water to cover. Bring to a boil, reduce heat, simmer 5 minutes. Drain mushrooms.
3. Mix oil, vinegar, oregano, basil, and salt in saucepan. Stir in onions and pimento. Heat to boiling.
4. Place ¼ garlic clove and 2 or 3 peppercorns in each half-pint jar. Fill jars with mushrooms and hot, well-mixed oil/vinegar solution, leaving ½-inch headspace. Remove air bubbles and adjust headspace if needed. Wipe rims of jars; adjust two-piece metal canning lids.

5. Process in a boiling water bath or atmospheric steam canner for 20 minutes at 0-1,000 feet elevation, 25 minutes at 1,001-3,000 feet, 30 minutes at 3,001-6,000 feet, 35 minutes over 6,000 feet.
6. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: So Easy to Preserve, 6th ed. 2014*

## Fruit Pickles:

### **Spiced Apple Rings**

Yield: about 8 or 9 pint jars

12 pounds firm tart apples (maximum diameter, 2½ inches)	1¼ cups white vinegar (5%)
12 cups sugar	3 tablespoons whole cloves
6 cups water	¾ cup red hot cinnamon candies or 8 cinnamon sticks and 1 teaspoon red food coloring (optional)

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Wash apples. To prevent discoloration, peel, and core one apple at a time. Immediately cut crosswise into ½-inch rings and immerse in an anti-darkening solution.
3. To make flavored syrup, combine sugar, water, vinegar, cloves, cinnamon candies (or cinnamon sticks and food coloring) in a 6-queart saucepan. Heat to a boil, stirring constantly. Simmer 3 minutes.
4. Remove apples from anti-darkening solution and drain well. Add to hot syrup and cook 5 minutes.
5. Fill half-pint or pint jars (preferably wide mouth) with apple rings, leaving ½ inch headspace.
6. Fill jars to ½ inch from top with hot syrup. Remove air bubbles. Wipe jar rims. Adjust lids.
7. Process in a boiling water bath or atmospheric steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001-6,000 feet, and 20 minutes above 6000 feet.
8. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: So Easy to Preserve, 6th ed. 2014*

### **Cantaloupe Pickles**

Yield: about 4 pint jars

5 pounds of 1-inch cantaloupe cubes (about 2 medium underripe cantaloupe)	1 teaspoon ground ginger
1 teaspoon crushed red pepper flakes	4½ cups cider vinegar (5%)
2 one-inch cinnamon sticks	2 cups water
2 teaspoons ground cloves	1½ cups white sugar
	1½ cups packed light brown sugar

On the first day:

1. Select cantaloupes that are full size but almost fully green and firm to the touch in all areas including the stem area. Wash cantaloupe and cut into halves; remove seeds. Cut into 1-inch slices and peel. Cut strips of flesh into 1-inch cubes. Weigh out 5 pounds of pieces and place in large glass bowl. Place red pepper flakes, cinnamon sticks, cloves, and ginger in a spice bag and tie the ends firmly.
2. Combine vinegar and water in a 4-quart stockpot. Bring to a boil, then turn heat off. Add spice bag to the vinegar-water mixture, and let steep for 5 minutes, stirring occasionally. Pour hot vinegar solution and spice

bag over melon pieces in the bowl. Cover with food-grade plastic lid or wrap and let stand overnight in the refrigerator (about 18 hours).

On the second day:

3. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
4. Carefully pour off vinegar solution into a large 8-to-10-quart saucepan and bring back to a boil. Add sugars; stir to dissolve. Add cantaloupe and bring back to a boil. Lower heat and simmer until cantaloupe pieces turn translucent (about 1 to 1¼ hours).
5. Remove cantaloupe pieces into a medium sized stockpot, cover and set aside. Bring the remaining liquid to a boil and boil an additional 5 minutes. Return cantaloupe to the liquid syrup and bring back to a boil.
6. With a slotted spoon, fill hot cantaloupe pieces into hot pint jars, leaving 1-inch headspace. Cover with boiling hot syrup, leaving ½ inch headspace. Remove air bubbles and adjust headspace if needed. Wipe rims of jars with a dampened clean paper towel.
7. Adjust lids and process in a boiling water bath or atmospheric steam canner for 15 minutes at 0-1,000 feet elevation, 20 minutes at 1,001-6,000 feet, and 25 minutes above 6,000 feet.
8. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: So Easy to Preserve, 6th ed. 2014*

### **Peach Pickles**

Yield: about 6 pint jars

8 pounds peeled peaches (small to medium size, 1 to 1½" diameter)	2 tablespoons whole cloves, crushed
6¾ cups sugar	1 tablespoon ginger
4 sticks cinnamon (2 inches long)	1 quart vinegar (5%)

On the first day:

1. Wash and peel peaches with a sharp knife and drop into cold solution of ½ teaspoon ascorbic acid and 2 quarts water.
2. Dissolve sugar in vinegar in saucepot and put on range to heat. Boil 5 minutes and skim. Add spices (tied loosely in cheesecloth).
3. Drain peaches. Place drained peaches into boiling syrup and cook until they can be pierced with a fork, but not soft. Remove from range and allow peaches to set in syrup overnight in the refrigerator to plump.

On the second day:

4. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
5. Bring to a boil and pack into hot jars, leaving ½ inch headspace. Cover with syrup, leaving ½ inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids.
6. Process in a boiling water bath or atmospheric steam canner for 20 minutes at 0-1,000 feet elevation, 25 minutes at 1,001-3,000 feet, 30 minutes at 3,001-6,000 feet, and 35 minutes above 6,000 feet.
7. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: So Easy to Preserve, 6th ed. 2014*

**Cherry Pickles**

Yield: about 4 pint jars

2½ pounds sweet cherries, with stems and pits, if desired	2 sticks cinnamon, broken in half
3 cups white vinegar (5%)	2½ teaspoons whole cloves
1½ cups water	1 teaspoon whole allspice
3½ cups sugar	1 teaspoon black peppercorns, or to taste (optional)
	4 strips lemon, lime, or orange peel (optional)

Note: If using unpitted cherries, prick skins on opposite sides with a clean needle or toothpick to prevent splitting. If using pitted cherries, place them in an ascorbic acid solution to prevent stem-end discoloration.

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Combine vinegar, water, sugar, and spices in a non-reactive saucepan. Bring to a boil, then reduce the heat, cover the pan, and simmer the brine about 30 minutes. Add the cherries and return to a boil.
3. Add 1 piece of cinnamon stick and 1 citrus strip (if using) into a hot jar. Ladle hot cherries into jar. Add hot brine to cover, leaving ½-inch headspace. Remove air bubbles. Wipe jar rim. Center lid on jar. Apply band and adjust to fingertip tight. Place jar in boiling water or steam canner. Repeat until all jars are filled.
4. Process in a boiling water bath or steam canner for 15 minutes at 0-1,000 feet elevation, 20 minutes at 1,001-3,000 feet, 25 minutes at 3,001-6,000 feet, and 30 minutes above 6,000 feet.
5. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

Source: National Center for Home Food Preservation

**Watermelon Rind Pickles**

Yield: about 4 or 5 pint jars

3 quarts (about 6 pounds) watermelon rind (unpared)	3 cups white vinegar (5%)
¾ cup salt	3 cups water
2 quarts (2 trays) ice cubes	1 tablespoon (about 48) whole cloves
9 cups sugar	6 cinnamon sticks, 1-inch pieces
	1 lemon, thinly sliced, with seeds removed

1. Wash and rinse canning jars, lids, and rings; keep jars hot until ready to use.
2. Trim the pink flesh and outer green skin from thick watermelon rind. Cut into 1-inch squares or fancy shapes as desired. Cover with brine made by mixing the salt with 3 quarts cold water. Add ice cubes. Let stand 3 or 4 hours. Drain; rinse in cold water. Cover with cold water and cook until fork tender, about 10 minutes (do not overcook). Drain.
3. Combine sugar, vinegar, water, and spices (tied in a clean, thin, white cloth). Boil 5 minutes and pour over watermelon; add lemon slices. Let stand overnight in refrigerator.
3. Heat watermelon in syrup to boil and cook slowly 1 hour.
4. Pack hot pickles loosely into clean, hot pint jars. To each jar add 1 piece of stick cinnamon from spice bag; cover with boiling syrup, leaving ½-inch headspace. Remove air bubbles and adjust headspace if needed. Wipe rims of jars; adjust two-piece metal canning lids.

6. Process in a boiling water or steam canner for 10 minutes at 0-1,000 feet elevation, 15 minutes at 1,001--6,000 feet, 20 minutes above 6,000 feet.
7. For boiling water bath canner, remove lid and wait 5 minutes; for atmospheric steam canner, wait 5 minutes before removing lid. Remove jars from canner. Let cool, undisturbed, 12-24 hours and check for seals. Remove rings, clean and label jars. Store sealed jars in a cool, dry, dark location.

*Source: National Center for Home Food Preservation, 2024*

### **Sources**

National Center for Home Food Preservation: <http://nchfp.uga.edu/>

Core Canning Techniques: [https://ucanr.edu/sites/mfp\\_of\\_cs/files/387202.pdf](https://ucanr.edu/sites/mfp_of_cs/files/387202.pdf)

USDA Complete Guide to Home Canning, 2015

So Easy to Preserve, Cooperative Extension, University of Georgia, 2015:

<https://www.fcs.uga.edu/extension/so-easy-to-preserve>

Ball Complete Book of Home Preserving, 2020

Ball Blue Book Guide to Preserving. 2020. Jarden Home Brands.

North Carolina State University: <http://go.ncsu.edu/readext?684156>

Freshpreserving.com, 2019: <https://ucanr.edu/sites/default/files/2020-09/335051.pdf>

Michigan State Extension:

[https://www.canr.msu.edu/grand\\_traverse/uploads/files/online%20recipe%20card\\_freezer%20pickles.pdf](https://www.canr.msu.edu/grand_traverse/uploads/files/online%20recipe%20card_freezer%20pickles.pdf)

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