

## PRESERVING TOMATO PRODUCTS

Factsheet | HGIC 3360 | Updated: Mar 30, 2020

(Juice – Salsa – Sauces – Tomatoes with Okra)

### Canning Tomatoes & Tomato Products

Tomatoes and tomato products have traditionally been canned in a boiling water bath (212 °F). However, recent research shows that for some products, pressure canning will result in a high-quality and more nutritious product.

Directions for canning a variety of tomato products are given below. Some recipes will provide the option of canning either in a pressure canner or in a boiling water bath. Some will offer only boiling water bath times, and others will give only pressure canning times. The recipes that specify only pressure canning have so many low-acid ingredients added to them that they are only safe when canned in a pressure canner at the specified pressure.



Tomatoes freshly peeled in preparation for canning.  
Rebecca Baxley, ©2019, Clemson Extension



Removing air bubbles from hot packed tomato halves.  
Rebecca Baxley, ©2019, Clemson Extension



Tomato halves just out of the canner.  
Rebecca Baxley, ©2019, Clemson Extension

Whether you're canning tomato products in a boiling water bath or a pressure canner, be sure you're canning them safely.

### Acidifying Tomatoes & Tomato Products

Because tomatoes have pH values that fall close to 4.6, you must take some precautions to can them safely. First, select only disease-free, preferably vine-ripened, firm fruit for canning. Do not can tomatoes from dead or frost-killed vines.

To ensure the safety of whole, crushed, juiced tomatoes and some tomato products, add acid, whether they will be processed in a boiling water bath or pressure canner. To acidify these tomatoes, add 1

tablespoon of bottled lemon juice or ¼ teaspoon citric acid per pint of tomatoes. For quarts, use 2 tablespoons of bottled lemon juice or ½ teaspoon citric acid.

The acid can be added directly to each jar before filling them with the product. If this makes the product taste too acidic, add a little sugar to offset the taste.

**Note:** Four tablespoons of vinegar per quart or 2 tablespoons per pint can be used instead of lemon juice or citric acid. However, the vinegar may cause undesirable flavor changes.

## Altitude Adjustments

The processing time and pressures are given for canning tomatoes and tomato products at an altitude of 0 to 1000 feet. If you are canning at a higher altitude, make the following adjustments.

**In a Boiling Water Bath:** At altitudes of 1,001-3,000 feet, add 5 minutes to the processing time.

**In a Dial-Gauge Pressure Canner:** As the altitude increases, the processing time for each food stays the same, but the canner pressure must be increased as follows:

At altitudes of 1001-2000 feet, the pressure is not increased; process at 11 pounds pressure.

At altitudes of 2001 – 4000 feet, process at 12 pounds pressure.

**In a Weighted-Gauge Pressure Canner:** At altitudes above 1000 feet, the processing time for each food stays the same, but the food must be processed at 15 pounds pressure.

## Tomato-Vegetable Mixtures

Unless a tested recipe is used, all tomato-vegetable mixtures must be processed in a pressure canner, according to the directions for the vegetable in the mixture that has the longest processing time. Tomato-vegetable mixture recipes in this fact sheet may have shorter processing times because they have been tested for both pH and heat penetration. When the exact amounts specified in these recipes are used, these mixtures can be processed using the times given.

## Tomato Juice

**Quantity:** An average of 23 pounds of tomatoes is needed for 7 quarts of tomato juice or an average of 14 pounds of tomatoes for 9 pints of tomato juice. A bushel of tomatoes weighs 53 pounds and yields 12 to 16 quarts of juice, an average of 3¼ pounds of tomatoes per quart of juice.

**Procedure:** Wash, remove stems and trim off bruised or discolored portions. To prevent the juice from separating, quickly cut about 1 pound of fruit into quarters, and put directly into the saucepan. Heat immediately to boiling while crushing. Continue to slowly add and crush freshly cut tomato quarters to the boiling mixture. Make sure the mixture boils constantly and vigorously while you add the remaining tomatoes. Simmer 5 minutes after you add all pieces. If you are not concerned about juice separation, simply slice or quarter tomatoes into a large saucepan. Crush, heat, and simmer for 5 minutes before juicing.

Press the heated mixture through a sieve or food mill to remove skins and seeds. Add bottled lemon juice or citric acid to jars according to directions above in “Acidifying Tomatoes and Tomato Products.” Heat juice again to boiling. Add ½ teaspoon salt to pint jars or 1 teaspoon of salt per quart to the jars, if desired. Fill hot jars with hot tomato juice, leaving ½-inch headspace. Wipe jars rims. Adjust lids and process

To Process in a Boiling Water Bath (remember to make altitude adjustments if processing over 1,000 ft):

Pints.....35 minutes  
Quarts.....40 minutes

To Process in a Pressure Canner (remember to make altitude adjustments if processing over 1,000 ft):

Process pints or quarts for 15 minutes in a Dial-Gauge Pressure canner at 11 pounds pressure or in a Weighted-Gauge Pressure Canner at 10 pounds.

## Tomato-Vegetable Juice Blend

**Procedure:** Crush and simmer tomatoes as for making tomato juice. Add no more than 3 cups of any combination of finely chopped celery, onions, carrots, and peppers for every 22 pounds of tomatoes. Simmer mixture 20 minutes. Press hot, cooked tomatoes and vegetables through a sieve or food mill to remove skins and seeds. Add bottled lemon juice or citric acid to jars. (See acidification directions in this fact sheet.) Add ½ teaspoon of salt per pint jar or 1 teaspoon of salt per quart to the jars, if desired. Reheat tomato-vegetable juice blend to boiling and fill immediately into jars, leaving ½-inch headspace. Wipe jar rims. Adjust lids and process.

### To Process in a Boiling Water Bath:

Pints.....35 minutes

Quarts.....40 minutes

To Process in a Pressure Canner:

Process pints or quarts for 15 minutes in a Dial-Gauge Pressure Canner at 11 pounds pressure or in a Weighted-Gauge Pressure Canner at 10 pounds pressure.

## Tomatoes with Okra or Zucchini

**Quantity:** An average of 12 pounds of tomatoes and 4 pounds of okra or zucchini is needed to make 7 quarts. An average of 7 pounds of tomatoes and 2½ pounds of okra or zucchini is needed for 9 pints.

**Procedure:** Wash tomatoes and okra or zucchini. Dip tomatoes in boiling water 30 to 60 seconds or until skins split. Then dip in cold water, slip off skins and remove cores and quarter. Trim stems from okra and slice into 1-inch pieces or leave whole. Slice or cube zucchini if it is used. You may also add four or five pearl onions or two ¼-inch thick onion slices to each jar.

Bring tomatoes to a boil and simmer 10 minutes. Add okra or zucchini and boil gently 5 minutes more. Add 1 teaspoon of salt for each quart to the jars, if desired. Fill hot jars with hot mixture, leaving 1-inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids and process

**Process:** In a Dial-Gauge Pressure Canner at 11 pounds pressure or in a Weighted-Gauge Pressure Canner at 10 pounds pressure.

Pints.....30 minutes

Quarts.....35 minutes

## Stewed Tomatoes

(about 3 pint jars)

2 quarts chopped tomatoes  
¼ cup chopped green peppers  
¼ cup chopped onions

2 teaspoons celery salt  
2 teaspoons sugar  
¼ teaspoon salt

**Hot Pack:** Combine all ingredients. Cover and cook 10 minutes, stirring occasionally to prevent sticking. Pour hot mixture into hot jars, leaving ½-inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids and process.

Process: In a Dial-Gauge Pressure Canner at 11 pounds pressure or in a Weighted-Gauge Pressure Canner at 10 pounds pressure:

Pints .....15 minutes

Quarts.....20 minutes

## Chili Salsa

(about 6 to 8 pints)

### Ingredients:

5 pounds tomatoes  
2 pounds chili peppers  
1 pound onions  
1 cup vinegar (5 percent acidity)  
3 teaspoons salt  
½ teaspoons pepper

**Note:** An equal amount of **bottled** lemon juice may be safely substituted for the vinegar, but do not use freshly squeezed lemon or lime juice because the acidity can vary and may not be safe enough. Sugar can be added to taste to overcome the tartness of the acid if desired.

**Caution:** Wear rubber gloves while handling chilies or wash hands thoroughly with soap and water before touching your face or eyes.

**Prepare Chili Peppers:** Wash and dry chilies. Slit each pepper on its side to allow steam to escape. Peel peppers using one of the following methods: *Oven or Broiler Method* – Place chilies in the oven (400 ° F) or broiler for 6 to 8 minutes until skins blister. *Range-Top Method* –Cover hot burner, either gas or electric, with heavy wire mesh. Place chilies on the burner for several minutes until skins blister. Allow peppers to cool. Place in a pan and cover with a damp cloth. This will make peeling the peppers easier. Cool several minutes, then peel each pepper. Remove stem and seeds from peppers. Chop peppers.

**Procedure:** Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water, slip off skins and remove cores. Coarsely chop tomatoes and combine with chopped peppers, onions, and remaining ingredients in a large saucepan. Heat to boiling and simmer 10 minutes. Fill hot salsa into hot jars, leaving ½-inch headspace. Remove air bubbles. Wipe jars. Adjust lids and process.

**Process:** In a boiling water bath for 15 minutes for pints.

**IMPORTANT:** Do Not Can Other Salsa Recipes unless they have been properly researched for safety. Other recipes may be frozen or stored in the refrigerator instead. For more salsa recipes that may be canned, contact your local Extension service, or SC residents may contact the Home and Garden Information Center at 1-888-656-9988.

**Sources:**

1. Reynolds, Susan and Paulette Williams. *So Easy to Preserve*. Reviewed and reprinted 2018 by Elizabeth Andress and Judy Harrison. Cooperative Extension Service. The University of Georgia.
2. USDA. *Complete Guide to Home Canning*. Agriculture Information Bulletin No. 539. Reviewed 1994. Revised 2015.

If this document didn't answer your questions, please contact HGIC at [hgic@clemson.edu](mailto:hgic@clemson.edu) or 1-888-656-9988.

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