

## **Preserving Tomato Products**

### **Juice – Salsa – Sauces – Tomatoes with Okra**

#### **CANNING TOMATOES AND 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 on the following pages. Some recipes will give you the option of canning either in a pressure canner or in a boiling water bath. Some will give 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.

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

#### **ACIDIFYING TOMATOES AND 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.

#### **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 per canner load of 7 quarts of tomato juice, or an average of 14 pounds of tomatoes per canner load of 9 pints of tomato juice. A bushel of tomatoes weighs 53 pounds and yields 15 to 18 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 juice from separating, quickly cut about 1 pound of fruit into quarters and put directly into 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 both types of heated juice through a sieve or food mill to remove skins and seeds. Add bottled lemon juice or citric acid to jars according to directions in “Acidifying Tomatoes and Tomato Products.” Heat juice again to boiling. Add 1 teaspoon of salt per quart to the jars, if desired.

Fill jars with hot tomato juice, leaving ½-inch headspace. Adjust lids and process following the instructions in Table 1, Table 2 or Table 3 according to the method of canning used.

## **TOMATO / VEGETABLE JUICE BLEND**

**Quantity:** An average of 22 pounds of tomatoes is needed per canner load of 7 quarts of juice blend. Not more than 3 cups of other vegetables may be added for each 22 pounds of tomatoes.

**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 each 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 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. Recommended process times are given in Table 1, 2 or 3.

## **TOMATOES WITH OKRA OR ZUCCHINI**

**Quantity:** An average of 12 pounds of tomatoes and 4 pounds of okra or zucchini is needed per canner load of 7 quarts. An average of 7 pounds of tomatoes and 2½ pounds of okra or zucchini is needed per canner load of 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 used.

Bring tomatoes to a boil and simmer 10 minutes. Add okra or zucchini and boil gently 5 minutes. Add 1 teaspoon of salt for each quart to the jars, if desired. Fill jars with mixture, leaving 1-inch headspace. Adjust lids and process according to the recommendations in Table 1 or Table 2, depending on the method of canning used.

**Variation:** You may add four or five pearl onions or two onion slices to each jar.

## **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 into hot jars, leaving ½-inch headspace. Remove air bubbles. Wipe jar rims. Adjust lids and 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

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

**To 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 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 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. After several minutes, peel each pepper. Remove stem and seeds from 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 chopped peppers, onions and remaining ingredients in a large saucepan.

Heat to boil and simmer 10 minutes. Fill jars, leaving ½-inch headspace. Adjust lids and process according to the recommendations in Table 3.

TABLE 1. RECOMMENDED PROCESS TIMES FOR CANNED TOMATO PRODUCTS IN A DIAL-GAUGE PRESSURE CANNER							
				CANNER PRESSURE (PSI) AT ALTITUDES OF:			
Canned Product	Style of Pack	Jar Size	Process Time (Min.)	0-2000 ft.	2001-4000 ft.	4001-6000 ft.	Above 6000 ft.
Tomato Juice and Vegetable Blend Juice	Hot	Pints or Quarts	20	6 lb.	7 lb.	8 lb.	9 lb.
Tomatoes with Okra and Zucchini	Hot	Pints	30	11 lb.	12 lb.	13 lb.	14 lb.
	Hot	Quarts	35	11 lb.	12 lb.	13 lb.	14 lb.

TABLE 2. RECOMMENDED PROCESS TIMES FOR CANNED TOMATO PRODUCTS IN A WEIGHTED-GAUGE PRESSURE CANNER					
				CANNER PRESSURE (PSI) AT ALTITUDES OF:	
Canned Product	Style of Pack	Jar Size	Process Time (Min.)	0-1000 ft.	Above 1000 ft.
Tomato Juice and Vegetable Blend Juice	Hot	Pints	20	5 lb.	10 lb.
	Hot	Pints	15	10 lb.	15 lb.
	Hot	Quarts	10	15 lb.	Not Recommended
Tomatoes with Okra and Zucchini	Hot	Pints	30	10 lb.	10 lb.
	Hot	Quarts	35	15 lb.	15 lb.

<b>TABLE 3. RECOMMENDED PROCESS TIMES FOR CANNED TOMATO PRODUCTS IN A BOILING-WATER CANNER</b>						
			<b>PROCESS TIME (MIN) AT ALTITUDES OF:</b>			
<b>Canned Product</b>	<b>Style of Pack</b>	<b>Jar Size</b>	<b>0-1000 ft.</b>	<b>1001-3000 ft.</b>	<b>3001-6000 ft.</b>	<b>Above 6000 ft.</b>
Tomato	Hot	Pints	35	40	45	50
Juice and Vegetable Blend Juice	Hot	Quarts	40	45	50	55
Salsa	Hot	Pints	15	20	20	25

For more information on home canning, contact your local Extension agent.

Sources:

1. USDA. *Complete Guide to Home Canning*. Agriculture Information Bulletin No. 539. Reviewed 1994.
2. Reynolds, Susan and Paulette Williams. *So Easy to Preserve*. Cooperative Extension Service. The University of Georgia.  
URL <http://www.foodsafety.org/ga/ga033.htm#toms>

---

This information has been reviewed and adapted for use in South Carolina by P.H. Schmutz, HGIC Information Specialist, and E.H. Hoyle, Extension Food Safety Specialist, Clemson University.

---

This information is supplied with the understanding that no discrimination is intended and no endorsement by the Clemson University Cooperative Extension Service is implied. All recommendations are for South Carolina conditions and may not apply to other areas. (New 6/99).