



Complete Guide to Home Canning

Guide 3, Selecting, Preparing, and Canning Tomatoes and Tomato Products

(NOTE: This electronic version of the USDA Complete Guide to Home Canning was created by Utah State University Extension and reviewed by Charlotte Brennand, Extension Food and Nutrition Specialist at Utah State University, July 1995. Salsa recipes developed at Washington State University have been added as a supplement, with permission of Washington State University. The supplement on salsas is based on *Salsa Recipes for Canning*, PRN395, by Val Hillers, a food specialist, and Richard H. Dougherty, a food processing specialist, both with the Washington State University Cooperative Extension, Dept. of Food Science and Human Nutrition. They were assisted by Barry Swanson and Mike Costello in the development of the recipes.)

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General

Quality: Select only disease-free, preferably vine-ripened, firm fruit for canning. **Caution: Do not can tomatoes from dead or frost-killed vines. Green tomatoes are more acidic than ripened fruit and can be canned safely with any of the following recommendations.**

Acidification: To ensure safe acidity in whole, crushed, or juiced tomatoes, add 2 tablespoons of bottled lemon juice or 1/2 teaspoon of citric acid per quart of tomatoes. For pints, use 1 tablespoon bottled lemon juice or 1/4 teaspoon citric acid. Acid can be added directly to the jars before filling with product. Add sugar to offset acid taste, if desired. Four tablespoons of a 5 percent acidity vinegar per quart may be used instead of lemon juice or citric acid. However, vinegar may cause undesirable flavor changes.

Recommendation: Use of a pressure canner will result in higher quality and more nutritious canned tomato products. If your pressure canner cannot be operated above 15 PSI, select a process time at a lower pressure.

TOMATO JUICE

Quantity: An average of 23 pounds is needed per canner load of 7 quarts, or an average of 14 pounds per canner load of 9 pints. A bushel weighs 53 pounds and yields 15 to 18 quarts of juice—an average of 3-1/4 pounds per quart.

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.** See acidification instructions on page 3-1. Heat juice again to boiling. Add 1 teaspoon of salt per quart to the jars, if desired. Fill jars with hot tomato juice, leaving 1/2-inch headspace. Adjust lids and process.

Recommended process time for Tomato Juice 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 6,000 ft
Hot	Pints	35 min	40 min	45 min	50 min
	Quarts	40 min	45 min	50 min	55 min

Recommended process time for Tomato Juice in a DIAL-GAUGE pressure canner						
		Canner Gauge Pressure (PSI) at Altitudes of				
Style of Pack	Jar Size	Process Time	0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot	Pints or } Quarts }	20 min	6 lb	7 lb	8 lb	9 lb
		15 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Tomato Juice in a WEIGHTED-GAUGE pressure canner				
		Canner Gauge Pressure (PSI) at Altitudes of		
Style of Pack	Jar Size	Process Time	0– 1,000 ft	Above 1,000 ft
Hot	Pints or } Quarts }	20 min	5 lb	10 lb
		15 min	10 lb	15 lb
		10 min	15 lb	Not recommended

TOMATO AND VEGETABLE JUICE BLEND

Quantity: An average of 22 pounds of tomatoes is needed per canner load of 7 quarts. 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 (see page 3-1). Add no more than 3 cups of any combination of finely chopped celery, onions, carrots, and peppers for each 22 lbs 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 on page 3-1. 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 1/2-inch headspace. Adjust lids and process.

Recommended process time for Tomato-Vegetable Blend 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 6,000 ft
Hot	Pints	35 min	40 min	45 min	50 min
	Quarts	40 min	45 min	50 min	55 min

Recommended process time for Tomato-Vegetable Blend in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot	Pints or } Quarts }	20 min	6 lb	7 lb	8 lb	9 lb
		15 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Tomato-Vegetable Blend in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Hot	Pints or } Quarts }	20 min	5 lb	10 lb
		15 min	10 lb	15 lb
		10 min	15 lb	Not recommended

TOMATOES-CRUSHED (with no added liquid)

A high-quality product, ideally suited for use in soups, stews, and casseroles. This recipe is similar to that formerly referred to as "Quartered Tomatoes."

Quantity: An average of 22 pounds is needed per canner load of 7 quarts; an average of 14 fresh pounds is needed per canner load of 9 pints. A bushel weighs 53 pounds and yields 17 to 20 quarts of crushed tomatoes—an average of 2-3/4 pounds per quart.

Procedure: Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Then dip in cold water, slip off skins, and remove cores. Trim off any bruised or discolored portions and quarter. Heat one-sixth of the quarters quickly in a large pot, crushing them with a wooden mallet or spoon as they are added to the pot. This will exude juice. Continue heating the tomatoes, stirring to prevent burning. Once the tomatoes are boiling, gradually add remaining quartered tomatoes, stirring constantly. These remaining tomatoes do not need to be crushed. They will soften with heating and stirring. Continue until all tomatoes are added. Then boil gently 5 minutes. **Add bottled lemon juice or citric acid to jars.** See acidification directions on page 3-1. Add 1 teaspoon of salt per quart to the jars, if desired. Fill jars immediately with hot tomatoes, leaving 1/2-inch headspace. Adjust lids and process.

Recommended process time for Crushed Tomatoes 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 6,000 ft
Hot	Pints	35 min	40 min	45 min	50 min
	Quarts	45 min	50 min	55 min	60 min

Recommended process time for Crushed Tomatoes in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot	Pints or Quarts }	20 min	6 lb	7 lb	8 lb	9 lb
		15 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Crushed Tomatoes in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Hot	Pints or Quarts }	20 min	5 lb	10 lb
		15 min	10 lb	15 lb
		10 min	15 lb	Not recommended

STANDARD TOMATO SAUCE

Quantity: For thin sauce—an average of 35 pounds is needed per canner load of 7 quarts; an average of 21 pounds is needed per canner load of 9 pints. A bushel weighs 53 pounds and yields 10 to 12 quarts of sauce—an average of 5 pounds per quart. For thick sauce—an average of 46 pounds is needed per canner load of 7 quarts; an average of 28 pounds is needed per canner load of 9 pints. A bushel weighs 53 pounds and yields 7 to 9 quarts of thick sauce—an average of 6-1/2 pounds per quart.

Procedure: Prepare and press as for making tomato juice, see page 3-1. Simmer in large-diameter saucepan until sauce reaches desired consistency. Boil until volume is reduced by about one-third for thin sauce, or by one-half for thick sauce. **Add bottled lemon juice or citric acid to jars.** See acidification directions on page 3-1. Add 1 teaspoon of salt per quart to the jars, if desired. Fill jars, leaving 1/4-inch headspace. Adjust lids and process.

Recommended process time for Standard Tomato Sauce 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 6,000 ft
Hot	Pints	35 min	40 min	45 min	50 min
	Quarts	40 min	45 min	50 min	55 min

Recommended process time for Standard Tomato Sauce in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot	Pints or } Quarts }	20 min	6 lb	7 lb	8 lb	9 lb
		15 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Standard Tomato Sauce in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Hot	Pints or Quarts }	20 min	5 lb	10 lb
		15 min	10 lb	15 lb
		10 min	15 lb	Not recommended

TOMATOES—WHOLE OR HALVED (packed in water)

Quantity: An average of 21 pounds is needed per canner load of 7 quarts; an average of 13 pounds is needed per canner load of 9 pints. A bushel weighs 53 pounds and yields 15 to 21 quarts—an average of 3 pounds per quart.

Procedure for hot or raw tomatoes filled with water in jars: Wash tomatoes. Dip in boiling water for 30 to 60 seconds or until skins split; then dip in cold water. Slip off skins and remove cores. Leave whole or halve. **Add bottled lemon juice or citric acid to jars.** See acidification directions on page 3-1. Add 1 teaspoon of salt per quart to the jars, if desired. For hot pack products, add enough water to cover the tomatoes and boil them gently for 5 minutes. Fill jars with hot tomatoes or with raw peeled tomatoes. Add the hot cooking liquid to the hot pack, or hot water for raw pack to cover, leaving 1/2-inch headspace. Adjust lids and process.

Recommended process time for Water-Packed Whole Tomatoes 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 6,000 ft
Hot and Raw	Pints	40 min	45 min	50 min	55 min
	Quarts	45 min	50 min	55 min	60 min

Recommended process time for Water-Packed Whole Tomatoes in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot and Raw	Pints or Quarts }	15 min	6 lb	7 lb	8 lb	9 lb
		10 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Water-Packed Whole Tomatoes in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Hot and Raw	Pints or Quarts }	15 min	5 lb	10 lb
		10 min	10 lb	15 lb
		1 min	15 lb	Not recommended

TOMATOES—WHOLE OR HALVED (packed in tomato juice)

Quantity: See whole tomatoes packed in water (page 3-6).

Procedure: Wash tomatoes. Dip in boiling water for 30 to 60 seconds or until skins split, then dip in cold water. Slip off skins and remove cores. Leave whole or halve. **Add bottled lemon juice or citric acid to the jars.** See acidification instructions on page 3-1. Add 1 teaspoon of salt per quart to the jars, if desired.

Raw pack—Heat tomato juice in a saucepan. Fill jars with raw tomatoes, leaving 1/2-inch headspace. Cover tomatoes in the jars with hot tomato juice, leaving 1/2-inch headspace.

Hot pack—Put tomatoes in a large saucepan and add enough tomato juice to completely cover them. Boil tomatoes and juice gently for 5 minutes. Fill jars with hot tomatoes, leaving 1/2-inch headspace. Add hot tomato juice to the jars to cover the tomatoes, leaving 1/2-inch headspace.

Adjust lids and process.

Recommended process time for Juice and Whole Tomatoes 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 6,000 ft
Hot and Raw	Pints or Quarts	85 min	90 min	95 min	100 min

Recommended process time for Juice and Whole Tomatoes in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot and Raw	Pints or Quarts }	40 min	6 lb	7 lb	8 lb	9 lb
		25 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Juice and Whole Tomatoes in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Hot and Raw	Pints or Quarts }	40 min	5 lb	10 lb
		25 min	10 lb	15 lb
		15 min	15 lb	Not recommended

TOMATOES—WHOLE OR HALVED (packed raw without added liquid)

Quantity: See whole tomatoes packed in water (page 3-6).

Procedure: Wash tomatoes. Dip in boiling water for 30 to 60 seconds or until skins split, then dip in cold water. Slip off skins and remove cores. Leave whole or halve. **Add bottled lemon juice or citric acid to the jars.** See acidification instructions on page 3-1. Add 1 teaspoon of salt per quart to the jars, if desired.

Fill jars with raw tomatoes, leaving 1/2-inch headspace. Press tomatoes in the jars until spaces between them fill with juice. Leave 1/2-inch headspace. Adjust lids and process.

Recommended process time for Raw Whole Tomatoes Without Added Liquid 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 6,000 ft
Raw	Pints or Quarts	85 min	90 min	95 min	100 min

Recommended process time for Raw Whole Tomatoes Without Added Liquid in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Raw	Pints or Quarts }	40 min	6 lb	7 lb	8 lb	9 lb
		25 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Raw Whole Tomatoes Without Added Liquid in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Raw	Pints or Quarts }	40 min	5 lb	10 lb
		25 min	10 lb	15 lb
		15 min	15 lb	Not recommended

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 2-1/2 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.

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

Recommended process time for Tomatoes with Okra or Zucchini in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0–2,000 ft	2,001–4,000 ft	4,001–6,000 ft	6,001–8,000 ft
Hot	Pints	30 min	11 lb	12 lb	13 lb	14 lb
	Quarts	35 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Tomatoes with Okra or Zucchini in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0–1,000 ft	Above 1,000 ft
Hot	Pints	30 min	10 lb	15 lb
	Quarts	35 min	10 lb	15 lb

SPAGHETTI SAUCE WITHOUT MEAT

- 30 lbs tomatoes
- 1 cup chopped onions
- 5 cloves garlic, minced
- 1 cup chopped celery or green peppers
- 1 lb fresh mushrooms, sliced (optional)
- 4-1/2 tsp salt
- 2 tbsp oregano
- 4 tbsp minced parsley
- 2 tsp black pepper
- 1/4 cup brown sugar
- 1/4 cup vegetable oil

Yield: About 9 pints

Procedure: **Caution:** Do not increase the proportion of onions, peppers, or mushrooms. Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water and slip off skins. Remove cores and quarter tomatoes. Boil 20 minutes, uncovered, in large saucepan. Put through food mill or sieve. Saute onions, garlic, celery or peppers, and mushrooms (if desired) in vegetable oil until tender. Combine sauteed vegetables and tomatoes and add remainder of spices, salt, and sugar. Bring to a boil. Simmer, uncovered, until thick enough for serving. At this time the initial volume will have been reduced by nearly one-half. Stir frequently to avoid burning. Fill jars, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Spaghetti Sauce Without Meat in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0–2,000 ft	2,001–4,000 ft	4,001–6,000 ft	6,001–8,000 ft
Hot	Pints	20 min	11 lb	12 lb	13 lb	14 lb
	Quarts	25 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Spaghetti Sauce Without Meat in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0–1,000 ft	Above 1,000 ft
Hot	Pints	20 min	10 lb	15 lb
	Quarts	25 min	10 lb	15 lb

SPAGHETTI SAUCE WITH MEAT

30 lbs tomatoes
 2-1/2 lbs ground beef or sausage
 5 cloves garlic, minced
 1 cup chopped onions
 1 cup chopped celery or green peppers
 1 lb fresh mushrooms, sliced (optional)
 4-1/2 tsp salt
 2 tbsp oregano
 4 tbsp minced parsley
 2 tsp black pepper
 1/4 cup brown sugar

Yield: About 9 pints

Procedure: To prepare tomatoes, follow directions for Spaghetti Sauce Without Meat, page 3-11. Saute beef or sausage until brown. Add garlic, onion, celery or green pepper, and mushrooms, if desired. Cook until vegetables are tender. Combine with tomato pulp in large saucepan. Add spices, salt, and sugar. Bring to a boil. Simmer, uncovered, until thick enough for serving. At this time initial volume will have been reduced by nearly one-half. Stir frequently to avoid burning. Fill jars, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Spaghetti Sauce With Meat in a DIAL-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of			
			0–2,000 ft	2,001–4,000 ft	4,001–6,000 ft	6,001–8,000 ft
Hot	Pints	60 min	11 lb	12 lb	13 lb	14 lb
	Quarts	70 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Spaghetti Sauce With Meat in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0–1,000 ft	Above 1,000 ft
Hot	Pints	60 min	10 lb	15 lb
	Quarts	70 min	10 lb	15 lb

MEXICAN TOMATO SAUCE

2-1/2 to 3 lbs chile peppers
18 lbs tomatoes
3 cups chopped onions
1 tbsp salt
1 tbsp oregano
1/2 cup vinegar

Yield: About 7 quarts

Procedure: **Caution:** Wear rubber gloves while handling chiles or wash hands thoroughly with soap and water before touching your face. Wash and dry chiles. Slit each pepper on its side to allow steam to escape. Peel peppers using one of the following methods:

Oven or broiler method: Place chiles in oven (400° F) or broiler for 6-8 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. Cool and slip off skins. Discard seeds and chop peppers. 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 and remaining ingredients in large saucepan. Bring to a boil. Cover. Simmer 10 minutes. Fill jars, leaving 1-inch headspace. Adjust lids and process.

Recommended process time for Mexican Tomato Sauce in a DIAL-GAUGE pressure canner

			Canner Gauge Pressure (PSI) at Altitudes of			
Style of Pack	Jar Size	Process Time	0– 2,000 ft	2,001– 4,000 ft	4,001– 6,000 ft	6,001– 8,000 ft
Hot	Pints	20 min	11 lb	12 lb	13 lb	14 lb
	Quarts	25 min	11 lb	12 lb	13 lb	14 lb

Recommended process time for Mexican Tomato Sauce in a WEIGHTED-GAUGE pressure canner

Style of Pack	Jar Size	Process Time	Canner Gauge Pressure (PSI) at Altitudes of	
			0– 1,000 ft	Above 1,000 ft
Hot	Pints	20 min	10 lb	15 lb
	Quarts	25 min	10 lb	15 lb

TOMATO KETCHUP

24 lbs ripe tomatoes
 3 cups chopped onions
 3/4 tsp ground red pepper (cayenne)
 3 cups cider vinegar (5%)
 4 tsp whole cloves
 3 sticks cinnamon, crushed
 1-1/2 tsp whole allspice
 3 tbsp celery seeds
 1-1/2 cups sugar
 1/4 cup salt

Yield: 6 to 7 pints

Procedure: Wash tomatoes. Dip in boiling water for 30 to 60 seconds or until skins split. Dip in cold water. Slip off skins and remove cores. Quarter tomatoes into 4-gallon stock pot or a large kettle. Add onions and red pepper. Bring to boil and simmer 20 minutes, uncovered. Cover, turn off heat and let stand for 20 minutes. Combine spices in a spice bag and add to vinegar in a 2-quart saucepan. Bring to boil. Remove spice bag and combine vinegar and tomato mixture. Boil about 30 minutes. Put boiled mixture through a food mill or sieve. Return to pot. Add sugar and salt, boil gently, and stir frequently until volume is reduced by one-half or until mixture rounds up on spoon without separation. Fill pint jars, leaving 1/8-inch headspace. Adjust lids and process.

Recommended process time for Tomato Ketchup 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
Hot	Pints	15 min	20 min	25 min

COUNTRY WESTERN KETCHUP

24 lbs ripe tomatoes
5 chile peppers, sliced and seeded
1/4 cup salt
2-2/3 cups vinegar (5%)
1-1/4 cups sugar
1/2 tsp ground red pepper (cayenne)
4 tsp paprika
4 tsp whole allspice
4 tsp dry mustard
1 tbsp whole peppercorns
1 tsp mustard seeds
1 tbsp bay leaves

Yield: 6 to 7 pints

Procedure: Follow procedure and process time for regular tomato ketchup (page 3-14).

BLENDER KETCHUP

Use electric blender and eliminate need for pressing or sieving.

24 lbs ripe tomatoes
2 lbs onions
1 lb sweet red peppers
1 lb sweet green peppers
9 cups vinegar (5%)
9 cups sugar
1/4 cup canning or pickling salt
3 tbsp dry mustard
1-1/2 tbsp ground red pepper
1-1/2 tsp whole allspice
1-1/2 tbsp whole cloves
3 sticks cinnamon

Yield: About 9 pints

Procedure: Wash tomatoes and dip in boiling water for 30 to 60 seconds or until skins split. Then dip in cold water, slip off skins, core, and quarter. Remove seeds from peppers and slice into strips. Peel and quarter onions. Blend tomatoes, peppers, and onions at high speed for 5 seconds in electric blender. Pour into a 3- to 4-gallon stock pot or large kettle and heat. Boil gently 60 minutes, stirring frequently. Add vinegar, sugar, salt, and a spice bag containing dry mustard, red pepper, and other spices. Continue boiling and stirring until volume is reduced one-half and ketchup rounds up on a spoon with no separation of liquid and solids. Remove spice bag and fill jars, leaving 1/8-inch headspace. Adjust lids and follow process times for regular ketchup (see page 3-14).

CHILE SALSA (Hot Tomato-Pepper Sauce)

5 lbs tomatoes
2 lbs chile peppers
1 lb onions
1 cup vinegar (5%)
3 tsp salt
1/2 tsp pepper

Yield: 6 to 8 pints

Procedure: **Caution:** Wear rubber gloves while handling chiles or wash hands thoroughly with soap and water before touching your face. Peel and prepare chile peppers as described in making Mexican Tomato Sauce on page 3-13. 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 1/2-inch headspace. Adjust lids and process.

Recommended process time for Chile Salsa 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
Hot	Pints	15 min	20 min	25 min

Supplement

SALSA RECIPES FOR CANNING

Developed by Val Hillers and Richard Dougherty, Washington State University, Cooperative Extension.

Most salsa recipes are a mixture of low-acid foods, such as onions and peppers, with acid foods, such as tomatoes. These salsa recipes have been tested to ensure that they contain enough acid to be processed safely in a boiling water canner.

INGREDIENTS

TOMATOES

The type of tomato you use often affects the quality of salsas. Paste tomatoes, such as Roma, have firmer flesh and produce thicker salsas than large slicing tomatoes. Although both types make good salsas, slicing tomatoes usually yield a thinner, more watery salsa than paste tomatoes. Salsa can be thickened by adding tomato paste.

Canning is not a good way to use overripe or spoiling tomatoes. Use only high quality tomatoes for canning salsa or any other tomato product. Do not use tomatoes from dead or frost-killed vines. Poor quality or overripe tomatoes will yield a very poor salsa and may spoil.

Where recipes call for peeled or skinned tomatoes, remove the skin by dipping tomatoes into boiling water for 30-60 seconds or until skins split. Dip in cold water, then slip off skins and remove cores and seeds. You may substitute green tomatoes or tomatillos for tomatoes in any of these recipes.

PEPPERS

Peppers range from mild to fiery in taste. Very hot peppers are usually small (1 to 3 inches long); mild peppers are usually bigger (4 to 10 inches long). Anaheim, Ancho, Colgate, Colorado and Hungarian Yellow Wax are mild pepper varieties. Choose a mild pepper when the recipe calls for long green chiles.

Small, very hot peppers provide a distinct taste to salsas. Jalapeno is the most popular hot pepper. Other varieties include Serrano, Cayenne, Habanero and Tabasco. Use rubber gloves when you cut or dice these peppers because they cause extreme irritation to the skin. Do not touch your face, particularly the area around your eyes, when you are working with hot chiles.

You may substitute bell peppers for some or all of the long green chiles. Canned chiles may be used in place of fresh.

Use only high quality peppers. Do not increase the total amount of peppers in any recipe.

However, you may substitute one type of pepper for another.

The skin of long green chiles may be tough and can be removed by heating the peppers. Usually when peppers are finely chopped, they do not need to be skinned.

Hot peppers, such as the jalapeno, do not need to be peeled, but seeds are often removed.

If you choose to peel chiles, slit each pepper along the side to allow steam to escape. Peel using one of these two methods:

Oven or broiler method—Cover hot burner, either gas or electric, with heavy wire mesh. Place peppers on burner for several minutes until skins blister.

After heading, place peppers in a pan and cover with a damp cloth. (This will make peeling the peppers easier.) Cool several minutes; slip off skins. Discard seeds and chop.

Caution: Wear plastic or rubber gloves while handling hot chiles.

TOMATILLOS

Tomatillos are also known as Mexican husk tomatoes. They do not need to be peeled or seeded, but the dry outer husk must be removed.

ACIDS

The acid ingredients used in salsa help preserve it. You must add acid to canned salsas because the natural acidity may not be high enough. Commonly used acids in home canning are vinegar and lemon juice. Lemon juice is more acidic than vinegar, but has less effect on flavor. Use only vinegar that is at least 5% acid and use only bottled lemon juice.

If you wish, you may safely substitute an equal amount of lemon juice for vinegar in recipes using vinegar. Do not substitute vinegar for lemon juice. This substitution will result in a less acid and potentially unsafe salsa.

SPICES

Spices add flavoring to salsas. The amounts of spices and herbs may be altered in these recipes. Cilantro and cumin are often used in spicy salsas. You may leave them out if you prefer a salsa with a milder taste. For a stronger cilantro flavor, add fresh cilantro just before serving the salsa.

IMPORTANT: Follow the directions carefully for each recipe. Use the amounts of each vegetable listed in the recipe. Add the amount of vinegar or lemon juice listed. You may change the amount of spices, if desired. Do not can salsas that do not follow these or other research tested recipes. (They may be frozen or stored in the refrigerator.) Do not thicken salsas with flour or cornstarch before canning. After you open a jar to use, you may pour off some of the liquid or thicken with cornstarch.

FILLING THE JARS

Follow manufacturer's directions for pretreating lids. Fill hot clean jars with the hot salsa, being careful not to leave any salsa on the rims. Wipe jar rims with a clean, damp paper towel. Put on lids and screw on metal bands.

PROCESSING

Processing in a Boiling Water Canner

1. Use a rack to keep jars from touching canner bottom and to allow heat to reach all sides of the filled jars.
2. Put jars into a canner that contains simmering water.
3. Add boiling water if needed to bring water 1-2 inches above jar tops. Don't pour water directly on the jars. Place a tight-fitting cover on canner. (If you use a pressure canner for water bath canning, leave the cover unfastened and the petcock open to prevent pressure buildup.)
4. Bring water back to a rolling boil. Set a timer for recommended processing time. Watch closely to keep water boiling gently and steadily. Add boiling water if necessary to keep jars covered.
5. Remove the jars from the canner immediately after timer sounds. The food could spoil later if jars are left in hot water too long.

Cooling Jars

Put jars on a rack or cloth so air can circulate freely around them. Don't use a fan and avoid cold drafts.

Do not retighten saew bands after processing.

Testing for Seal

Test each jar for a seal the day after canning. Jars with flat metal lids are sealed if:

1. Lid has popped down in the center.
2. Lid does not move when pressed down.
3. Tapping the center of the lid with a spoon gives a clear, ringing sound (this is the least reliable method).

If a jar is not sealed, refrigerate the contents and use soon or reprocess. Reprocess within 24 hours. When reprocessing, the salsa must first be heated to a boil before packing in hot jars. Wipe jar rims clean. Use a new lid and process for the full time listed.

Storing

Wipe jars. Label with the date and the contents of the jar. Remove the screw bands to avoid rust.

Store jars in a cool dark place. For best eating quality and nutritive value, use within one year. Heat, freezing temperatures, light, or dampness will decrease the quality and shelf life of canned food.

Before Using

Before opening each jar, look for bulging lids, leaks or any unusual appearance of the food. After opening, check for off-odor, mold or foam. If there is any sign of spoilage, destroy the food.

RECIPES

Tomatillo Green Salsa

5 cups chopped tomatillos
1 1/2 cups seeded, chopped long green chiles
1/2 cup seeded, finely chopped jalapeno peppers
4 cups chopped onions
1 cup bottled lemon juice
6 cloves garlic, finely chopped
1 tablespoon ground cumin*
3 tablespoons oregano leaves*
1 tablespoon salt
1 teaspoon black pepper

Combine all ingredients in a large saucepan and stir frequently over high heat until mixture begins to boil, then reduce heat and simmer for 20 minutes, stirring occasionally. Ladle hot into pint jars, leaving 1/2-inch headspace. Adjust lids and process in a boiling water canner 15 minutes at 0-1,000 feet altitude; 20 minutes at 1,001-6,000 feet; 25 minutes above 6,000 feet.

Yield: 5 pints

*Optional, see page 18.

You may use green tomatoes in this recipe instead of tomatillos.

Tomato/Green Chile Salsa

3 cups peeled, cored, chopped tomatoes
3 cups seeded, chopped long green chiles
3/4 cup chopped onions
1 jalapeno pepper, seeded, finely chopped
6 cloves garlic, finely chopped
1 1/2 cups vinegar
1/2 teaspoon ground cumin*
2 teaspoons oregano leaves*
1 1/2 teaspoons salt

Combine all ingredients in a large saucepan and heat, stirring frequently, until mixture boils. Reduce heat and simmer for 20 minutes, stirring occasionally. Ladle hot into pint jars, leaving 1/2-inch headspace. Adjust lids and process in a boiling water canner 15 minutes at 0-1,000 feet altitude; 20 minutes at 1,001-6,000 feet; 25 minutes above 6,000 feet.

Yield: 3 pints

*Optional, see page 18.

Tomato Salsa (using paste tomatoes)

7 quarts peeled, cored, chopped tomatoes
4 cups seeded, chopped long green chiles
5 cups chopped onion
1/2 cup seeded, finely chopped jalapeno peppers
6 cloves garlic, finely chopped
2 cups bottled lemon juice
2 tablespoons salt
1 tablespoon black pepper
2 tablespoons ground cumin*
3 tablespoons oregano leaves*
2 tablespoons fresh cilantro*

Combine all ingredients except cumin, oregano and cilantro in a large pot and bring to a boil, stirring frequently, then reduce heat and simmer 10 minutes. Add spices and simmer for another 20 minutes, stirring occasionally. Ladle hot into pint jars, leaving 1/2-inch headspace. Adjust lids and process in a boiling water canner: 15 minutes at 0-1,000 feet altitude; 20 minutes at 1,001-6,000 feet, 25 minutes above 6,000 feet.

Yield: 13 pints

*Optional, see page 18.

This recipe works best with paste tomatoes. Slicing tomatoes require a much longer cooking time to achieve a desirable consistency.

Tomato Taco Sauce

8 quarts peeled, cored, finely chopped paste tomatoes
2 cloves garlic, crushed
5 cups chopped onions
4 jalapeno peppers, seeded, chopped
4 long green chiles, seeded, chopped
2 ½ cups vinegar
2 tablespoons salt
1 ½ tablespoons blackpepper
1 tablespoon sugar
2 tablespoons oregano leaves*
1 teaspoon ground cumin*

Combine ingredients in a large saucepan. Bring to a boil, then reduce heat and simmer, stirring frequently until thick (about 1 hour). Ladle hot mixture into pint jars, leaving 1/2-inch headspace. Adjust lids and process in boiling water canner: 15 minutes for 0-1,000 feet altitude; 20 minutes at 1,001-6,000 feet; 25 minutes above 6,000 feet.

Yield: 11 pints

*Optional, see page 18.

This recipe works best with paste tomatoes, as slicing tomatoes will yield a thin watery salsa. If you only have slicing tomatoes available, use the Tomato/Tomato Paste Salsa recipe.

Tomato/Tomato Paste Salsa

3 quarts peeled, cored, chopped slicing tomatoes
3 cups chopped onions
6 jalapeno peppers, seeded, finely chopped
4 long green chiles, seeded, chopped
4 cloves garlic, finely chopped
2 12-ounce cans tomato paste
2 cups bottled lemon juice
1 tablespoon salt
1 tablespoon sugar
1 tablespoon ground cumin*
2 tablespoons oregano leaves*
1 teaspoon black pepper

Combine all ingredients in a large saucepan. Bring to a boil. Reduce heat and simmer for 30 minutes, stirring occasionally. Ladle hot into pint jars, leaving 1/2-inch headspace. Adjust lids and process in a boiling water canner. 15 minutes at 0-1,000 feet altitude; 20 minutes at 1,001-6,000 feet, 25 minutes above 6,000 feet.

Yield: 7 pints

*Optional, see page 18.

Chile Salsa (Hot Tomato-Pepper Sauce)

10 cups peeled, cored, chopped tomatoes
6 cups seeded, chopped chili peppers*
4 cups chopped onions
1 cup vinegar
3 teaspoons salt
½ teaspoon pepper

Combine ingredients in a large saucepan. Heat to a boil and simmer 10 minutes. Ladle hot into pint jars, leaving 1/2-inch headspace. Adjust lids and process in a boiling water canner: 15 minutes at 0-1,000 feet altitude, 20 minutes at 1,001-6,000 feet; 25 minutes above 6,000 feet.

Yield: 6 to 8 pints

*Use mixture of mild and hot peppers.

IMPORTANT:

The only changes you can safely make in these salsa recipes are to substitute bottled lemon juice for vinegar and to change the amount of spices and herbs. Do not alter the proportions of vegetables to acid and tomatoes because it might make the salsa unsafe.