

GUIDE 3: Selecting, Preparing, and Canning Tomatoes and Tomato Products¹

United States Department of Agriculture Extension Service

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 two tablespoons of bottled lemon juice or 1/2 teaspoon of citric acid per quart of tomatoes. For pints, use one 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 described earlier in this section. 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.

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. 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 described earlier in this section. Add 1 teaspoon of salt per quart to the jars, if desired. Reheat tomato-vegetable

1. This document, is Section 3 of the "Complete Guide to Home Canning," Agriculture Information Bulletin 539, United States Department of Agriculture. For more information contact your county Cooperative Extension Service office. Revised 1994.

Recommended process time for Tomato Juice in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 3,000 ft	3,001 - 6,000 ft	Above 6,000 ft
Hot	Pints	35 min	40	45	50
	Quarts	40	45	50	55

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	20 min	6 lb	7 lb	8 lb	9 lb
	or Quarts	15	11	12	13	14

Recommended process time for Tomato Juice in a weighted-gauge pressure canner				
			Canner Gauge Pressure (PSI) at Altitudes	
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	10	15
		10	15	Not Recommended

Recommended process time for Tomato-Vegetable Blend in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 3,000 ft	3,001 - 6,000 ft	Above 6,000 ft
Hot	Pints	35 min	40	45	50
	Quarts	40	45	50	55

Recommended process time for Tomato-Vegetable Blend 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	6 lb	7 lb	8 lb	9 lb
	or Quarts	15	11	12	13	14

Recommended process time for Tomato-Vegetable Blend 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	10	15
		10	15	Not Recommended

juice blend to boiling and fill immediately into jars, leaving 1/2-inch headspace. Adjust lids and process.

**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 described earlier in this section. 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.

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 sauce--an average of 6-1/2 pounds per quart.

Procedure: Prepare and press as for making tomato juice. 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 described earlier in this section. Add 1 teaspoon of salt per quart to the jars, if desired. Fill jars, leaving 1/4-inch headspace. Adjust lids and process.

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 described earlier in this section. 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.

TOMATOES--WHOLE OR HALVED (packed in tomato juice)

Quantity: See whole tomatoes packed in water.

Recommended process time for Crushed Tomatoes in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 3,000 ft	3,001 - 6,000 ft	Above 6,000 ft
Hot	Pints	35 min	40	45	50
	Quarts	45	50	55	60

Recommended process time for Crushed Tomatoes 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	11	12	13	14

Recommended process time for Crushed Tomatoes 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	10	15
		10	15	Not Recommended

Recommended process time for Standard Tomato Sauce in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 3,000 ft	3,001 - 6,000 ft	Above 6,000 ft
Hot	Pints	35 min	40	45	50
	Quarts	40	45	50	55

Recommended process time for Standard 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 or Quarts	20 min	6 lb	7 lb	8 lb	9 lb
		15	11	12	13	14

Recommended process time for Standard Tomato Sauce 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	10	15
		10	15	Not Recommended

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 described earlier in this section. 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.

TOMATOES--WHOLE OR HALVED
(Packed raw without added liquid)

Quantity: See whole tomatoes packed in water.

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 described earlier in this section. 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 Water-Packed Whole Tomatoes in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	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	50	55
	Quarts	45	50	55	60

Recommended process time for Water-Packed Whole Tomatoes 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 and Raw	Pints or Quarts	15 min	6 lb	7 lb	8 lb	9 lb
		10	11	12	13	14

Recommended process time for Tomato Juice and Whole Tomatoes in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	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	95	100

Recommended process time for Water-Packed Whole Tomatoes 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 and Raw	Pints or Quarts	15 min	5 lb	10 lb
		10	10	15
		1	15	Not Recommended

Recommended process time for Tomato Juice and Whole Tomatoes 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 and Raw	Pints or Quarts	40 min	6 lb	7 lb	8 lb	9 lb
		25	11	12	13	14

Recommended process time for Tomato Juice and Whole Tomatoes in a weighted-gauge pressure canner				
			Canner Gauge Pressure (PS) at Altitudes of	
Style of Pack	Jar Size	Process Time	0 - 1,000 ft	Above 1,000 ft
Hot and Raw	Pints	40 min	5 lb	10 lb
		25	10	15
	Quarts	15	15	Not Recommended

Recommended process time for Raw Whole Tomatoes Without Added Liquid in a boiling-water canner					
		Process Time at Altitudes of			
Style of Pack	Jar Size	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	95	100

Recommended process time for Raw Whole Tomatoes Without Added Liquid 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
Raw	Pints or Quarts	40 min	6 lb	7 lb	8 lb	9 lb
		25	11	12	13	14

Recommended process time for Raw Whole Tomatoes Without Added Liquid 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
Raw	Pints or Quarts	40 min	5 lb	10 lb
		25	10	15
	Quarts	15	15	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.

SPAGHETTI SAUCE WITHOUT MEAT

30 lbs tomatoes
 1 cup chopped onions
 5 cloves garlic, minced
 1 cup chopped celery or green pepper
 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.

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. 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.

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 chilies or wash hands thoroughly with soap and water before touching your face. 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 degrees 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.

TOMATO KETCHUP

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

Recommended process time for Tomatoes with Okra or Zucchini 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	30 min	11 lb	12 lb	13 lb	14 lb
	Quarts	35	11	12	13	14

Recommended process time for Tomatoes with Okra or Zucchini 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	30 min	10 lb	15 lb
	Quarts	35	10	15

Recommended process time for Spaghetti Sauce Without Meat 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	11	12	13	14

Recommended process time for Spaghetti Sauce Without Meat 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	20 min	10 lb	15 lb
	Quarts	25	10	15

Recommended process time for Spaghetti Sauce With Meat 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	60 min	11 lb	12 lb	13 lb	14 lb
	Quarts	70	11	12	13	14

Recommended process time for Spaghetti Sauce With Meat 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	60 min	10 lb	15 lb
	Quarts	70	10	15

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	11	12	13	14

Recommended process time for Mexican Tomato Sauce 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	20 min	10 lb	15 lb
	Quarts	25	10	15

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. Combine spices in a spice bag and add to vinegar in a 2-quart saucepan.

Bring to boil. Cover, turn off heat and hold tomato mixture 20 minutes. Then, 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.

COUNTRY WESTERN KETCHUP

24 lbs ripe tomatoes
5 chile peppers, sliced and seeded
1/4 cup salt
2-2/3 cups vinegar (5 percent)
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.

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 percent)
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

Recommended process time for Chile Salsa in a boiling-water canner				
		Process Time at Altitudes of		
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 6,000 ft	Above 6,000 ft
Hot	Pints	15 min	20	25

Recommended process time for Tomato Ketchup in a boiling-water canner				
		Process Time at Altitudes of		
Style of Pack	Jar Size	0 - 1,000 ft	1,001 - 6,000 ft	Above 6,000 ft
Hot	Pints	15 min	20	25

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.

CHILE SALSA
(Hot Tomato-Pepper Sauce)

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

Yield: 6 to 8 pints

Procedure: Caution: Wear rubber gloves while handling chilies or wash hands thoroughly with soap and water before touching your face. Peel and prepare chile peppers as described in making Mexican Tomato Sauce. 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.