



UCCE Master Food Preservers of El Dorado County

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Preserve Today, Relish Tomorrow

Salsas

Adapted from UCCE Master Food Preservers of Amador/Calaveras County, "Salsas"

Use the Right Equipment

- Standard canning jars, lids, and rings must be used.
- A deep, non-reactive kettle, stainless steel, enameled, or glass, must be used for cooking the product.
- Use a reputable recipe for the best results, as these recipes have been tested for quality, flavor, and **safety**.

Open Kettle Canning

- Open kettle canning involves heating the food to boiling, pouring it into the jars, applying lids, and allowing the heat of the jar to cause the lid to seal, without further processing.
- **The USDA does not recommend this method of canning.**

Use the Best Ingredients

- Select produce of good flavor and color, but not fully ripe.
- Cane or beet sugar can be used with equal success.



Getting Ready: Be Prepared!

- Read the recipe thoroughly before you begin. Measure out all ingredients and have all needed utensils at hand. Make sure your vinegar is 5% acidity (read label).
- Do not change the quantities of produce nor vinegar in any recipe, unless specified in a tested recipe.
- Check the jar for flaws. Wash jars, lids, and rings in hot soapy water and rinse well. Place clean jars into the boiling water canner and heat the jars.
- To prepare lids, follow the manufacturer's directions on the lid package; some say to heat and some say just wash.

Fill and Seal Jars Properly

- Fill hot jars with hot mixture. Leave headspace specified in the recipe.
- Wipe the rim with a clean, damp, paper towel.
- Place lids and rings on jars. Tighten the rings only fingertip tight.
- Paraffin, as a sealing agent, is not recommended.

Boiling Water Canner Processing

- Place jars in a canner with a spacer or rack in the bottom of the canner. The jars should not sit directly on the bottom of the canner. Water should be very hot but not boiling. Add enough water to cover the tops of the jars by at least 1".
- Place lid on canner. Bring the water to a rolling boil then reduce the heat to a gentle boil. Begin to count processing time when the water comes to a boil. Process for the time indicated in the recipe.



Atmospheric Steam Canners

- Use a research tested recipe and processing time developed for a **boiling water** canner when using an atmospheric steam canner. An atmospheric steam canner may be used with recipes approved for half-pint, pint, or quart jars.
- If using a canner with a temperature sensor, begin processing time when the temperature marker is in the green zone for your altitude. If using a canner without a temperature sensor, begin processing time when a steady stream of steam, 4-6 inches long, is visible from the vent hole(s).
 - **Caution!** The gauge on atmospheric steam canner cannot be calibrated. Therefore, one should not depend on them for accuracy. Just use them as a guide. Always check the steam plume
- Set the timer for the total minutes required for processing the food, adjusting for altitude. Processing time must be limited to **45 minutes or less, including any modification for elevation**. The processing time is limited by the amount of water in the canner base. When processing food, **do not** open the canner to add water.
- Monitor the temperature sensor and/or steady stream of steam throughout the entire timed process. Regulate heat so that the canner maintains a temperature of 212°F.
 - A canner that is boiling too vigorously can boil dry within 20 minutes. If a canner boils dry, the food is considered under-processed and therefore potentially unsafe.
 - Maintain a **gentle boil**. Aside from keeping the jars from rattling around and bumping into each other and possibly breaking, there's another reason – canner belching. If it's boiling hard the lid may rise up just a little and belch out some steam. It will also suck cold air in!
- At the end of the processing time, turn off the heat, wait 2-3 minutes and remove the lid, lifting the lid away from you.

Adjusting for Altitude

- Not everybody lives at the same altitude. At sea level, water boils at 212°F. All recipes are developed using sea level as the criteria for processing times. At higher altitudes water will boil at a lower degree.
- Adjustments have to be made to ensure safe canning. If you are at a higher altitude you must adjust the processing times according to the included chart.

Altitude Chart	
Altitude in feet	Increase processing time
1000 - 3000	5 minutes
3001 - 6000	10 minutes
Above 6001	15 minutes

Food safety tips

- Wash hands and forearms frequently: after using toilet, after changing baby's soiled diaper, after touching animals, before handling food, and after touching raw meat, fish and poultry.
- 20-second rule: wash hands for 20-seconds.
- Use disposable gloves if you have a cut or sore on your hands.

When in doubt - throw it out

- DANGER - Never taste food that looks or smells strange to see if it can still be used. Just discard it.
- Generally foods that contain bacteria will look, smell, and taste normal.
- Generally speaking most bacteria that cause food borne illness are odorless, colorless, and tasteless.

General cleaning tips

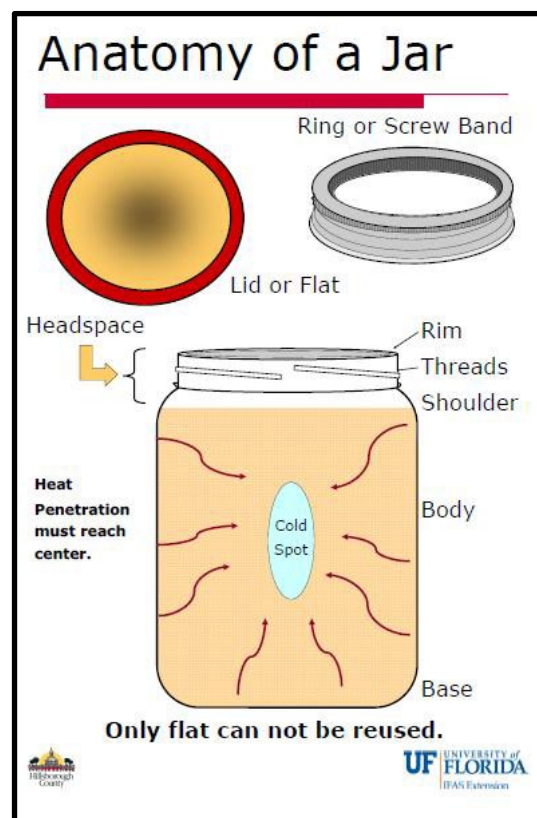
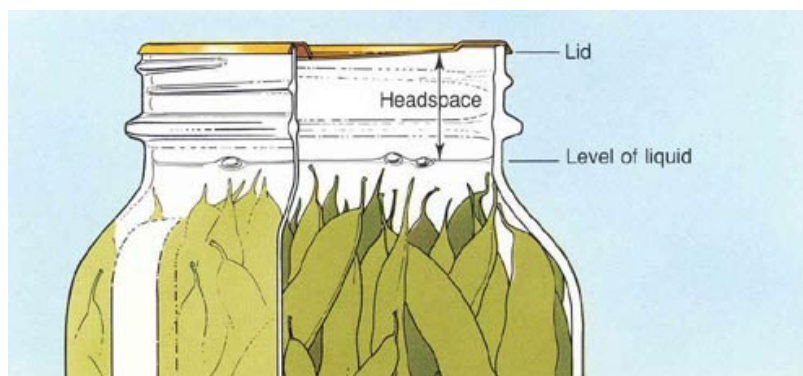
- Run sponges and pot scrubbers through the dishwasher frequently.
- Change dish cloths daily.
- Mop up spilled juices from meat, fish or poultry immediately using a disposable paper towel.
- Use a disinfecting solution consisting of 1 ½ teaspoon of chlorine bleach to 1 pint of water. Dispense with a spray bottle to disinfect countertops, cutting surfaces, etc. Make a new solution every week.
- AVOID CROSS CONTAMINATION. 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.
- Rinse all fresh fruits and vegetables well under running water before preparing or eating them. Do not soak.

Basic canning tips

- Remove the jars from the canner as stated in the recipe. When you remove the jars from the canner after processing, hold upright; do not disturb the seal. Do not retighten the rings.
- Place the hot jars on a rack or folded towel away from drafts. Keep the jars separated so they will cool evenly.
- Leave the ring bands on the jars until they have cooled thoroughly. Do not try to dump the water off the lids.
- Some canning books still recommend inverting jars after removing them from the boiling water canner. ***The USDA does not recommend this method.***
- After the jars have cooled (allow 24 hours), remove the ring bands. Look at the top of each jar. If the lid is slightly concave, it indicates a seal. Test the seal by pressing on the lid with your finger; the lid should not give. If you are not sure a jar is sealed, carefully lift the jar by the lid after removing the ring band. If not properly sealed, the lid will come off.
- Remove ring bands. Wash and dry ring bands and store for later use. Store jars without rings.
- Clean the jars to remove sticky residue.
- Label and date the jars, and store in a cool, dark, dry area.

Reprocessing

- If a jar does not seal, refrigerate and use within a few days, or reprocess it within 24 hours using a new metal lid. Check the jar for flaws. Process by the method originally advised and for the full length of time.



Preserving Salsas

Salsa is one of the most popular condiments in homes today. Salsas are usually mixtures of acid and low-acid ingredients; they are an example of an acidified food. In fact, for home preserving purposes, a salsa is considered a pickle because it is acidified. The specific recipe, and sometimes preparation method, will determine if a salsa can be processed in a boiling water canner, atmospheric steam canner, or a pressure canner. A process must be scientifically determined for each recipe. It is not safe to can your own original salsa recipe; refrigerate or freeze it instead. Salsa can be safely stored in the refrigerator for several weeks or frozen for months without processing. This handout includes several salsa recipes that can be safely canned using a boiling-water canner or atmospheric steam canner. Use any of the recipes included in this handout or other research-tested recipes to make a safe shelf-stable product at home.

Salsa Ingredients

Tomatoes: Use only high-quality tomatoes for canning salsa or any other tomato product. Avoid tomatoes that are overripe or from dead or frost-killed vines. These will result in a poor-quality and potentially unsafe product. Canning is never a good way to use overripe or spoiling tomatoes.

The type of tomato you use affects the quality of your salsa. For example, paste tomatoes, such as Roma, have firmer flesh and produce thicker salsas than large slicing tomatoes. Although both types make good-tasting salsas, slicing tomatoes usually yield a thinner, waterier salsa than paste tomatoes.



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. Immerse in cold water until cool enough to handle. Slip off skins and remove cores. Remove seeds if desired.

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. Tomatillos can be substituted for tomatoes in any tested salsa recipe.

Fruits: Some salsa recipes in this handout contain fruit. Fruits add another dimension of flavor to traditional salsas. When canning fruit salsas, you must follow the same safety rules as tomato-based salsas. This includes using a research-tested recipe, selecting fruits in the quantity and condition described, and preparing fruits according to the directions.

Peppers: Choose high-quality peppers. Peppers range from mild to fiery in taste. Very hot peppers are usually small (1-3 inches long), mild peppers are usually bigger (4-10 inches long). Anaheim, Ancho, and Hungarian yellow wax are mild varieties. Choose a mild pepper when the recipe calls for long green chilies.

Small, very hot peppers provide a distinct taste to salsas. Jalapeno is the most popular hot pepper. Other common hot varieties include Serrano, Cayenne, Habanera and Tabasco.

The terms *chilies*, *peppers*, and *chile peppers* are used interchangeably in this handout. Although there is no clear standard for naming peppers, in many instances, chile is used for a hot pepper, or a pepper containing capsaicin, the compound that gives the heat or burning sensation in the mouth. Chile peppers are generally classified as mild, medium, or hot. Sweet peppers, such as bell peppers, do not contain any capsaicin, or heat compounds.

Any combination of hot or mild peppers may be used as long as the quantity stated in any tested recipe is not changed.

Acids: The acid ingredients used in salsa help preserve it. The addition of acid to salsa recipes for canning is necessary because the natural level of acidity may not be adequate for safety. Commonly used acids in home canning are vinegar, lemon, and lime juices. Lemon and lime juices are more acidic than vinegar but have less effect on flavor. Use only vinegar that is at least 5% acid and only bottled lemon and lime juices. Never use homemade vinegar or freshly squeezed lemon or lime juice because the level of acidity is variable and could result in an unsafe canned product.

Salt: Pickling or canning salt is recommended when preparing salsa recipes. It contains no anti-caking agents or iodine. Non-iodized table salt can also be used in salsa recipes. Check the label on the container; the ingredient list should only have one ingredient - salt.

Spices: Spices add flavoring to salsas. Cilantro and cumin are often used in spicy salsas. You may leave them out or reduce the amount if you prefer a salsa with a milder taste. For a stronger cilantro flavor, add fresh cilantro after opening the jar, just before serving.

Caution about additional ingredients: Adding ingredients not listed in a salsa recipe may result in an unsafe product if done before canning. This includes thickeners as well as ingredients not listed in the recipe.

Do not thicken salsas before canning. Salsa can be thickened after you open the jar by pouring off some of the liquid or adding cornstarch, tomato paste, or other thickening agents.

The flavor can be enhanced with additional ingredients such as corn, black beans, or other additions just before serving. Additions before canning may result in an unsafe product.

Adjustments to Salsa Recipes

Some ingredients in salsa recipes can be adjusted to suit personal tastes. The changes are primarily limited to ingredient type. It is important not to change the amount of any ingredient, with the exception of dry spices. The table below summarizes the adjustments that can be made to the recipes in this handout without affecting the safety of your canned salsa.

Ingredients	Recipe Adjustments
Tomatoes	<ul style="list-style-type: none"> As long as tomatoes are in good condition, any variety can be used. Paste tomatoes, such as Romas, have more solid tissue and will produce a salsa with a thicker texture. Slicing tomatoes will produce a runny, more watery salsa. Under ripe green tomatoes or tomatillos can be substituted for ripe tomatoes. Although salsas are traditionally made with red tomatoes, any color of tomato can be used.
Peppers	<ul style="list-style-type: none"> One type of pepper can be substituted for another. Select any combination of hot and mild pepper to create a flavor you like, as long as you do not exceed the total amount specified. (For example, if the recipe calls for 2 cups of peppers, any mixture of hot and mild peppers can be used.) Bell peppers are an acceptable substitution for some or all of the long green chilies. Do not substitute the same number of whole peppers of a large size for the same number of peppers of a smaller size. (For example, do not use 6 bell peppers or long chilies in place of 6 jalapenos or serranos.) Canned chilies may be used in place of fresh.
Onions	<ul style="list-style-type: none"> Red, yellow, or white onions can be substituted for each other. Do not increase the total amount of onions. Green onions cannot be used in place of bulb onions. Do not use green onions in a canned salsa recipe unless they are specified as an ingredient.
Fruits	<ul style="list-style-type: none"> Use fruits in the condition described in the recipe. When a recipe calls for green or unripe fruits do not use ripe fruits. This will change the final acidity of the mixture, resulting in an unsafe product. It is not safe to substitute one type of fruit for another.
Spices Herbs	<ul style="list-style-type: none"> The amounts of dried herbs or spices can be altered. It is not safe to add or increase the amounts of fresh herbs or garlic before canning because they affect the acidity level.

Only can *tested* recipes.

Canning Salsa in a Boiling Water Canner or Atmospheric Steam Canner (Generic Recipe)

Brian A. Nummer, Ph.D., Extension Food Safety Specialist Utah State University

Ingredients	Yield
1 cup tomatoes	1 pint
1 cup onions and peppers	
1/4 cup lemon or lime juice	

Guideline Salsa Recipe ~ per pint jar (multiply quantities by desired yield)

1/4 cup bottled lemon or lime juice (60 ml)

1 cup tomatoes

- peeled, deseeded if desired
- diced to approx. 1/4-inch
- cook tomato juice and reduce volume by half for a thicker salsa

1 cup any combination of:

- onions
- sweet and hot peppers, diced to approx. 1/4"
- hot pepper seeds (heat)

Optional - 1 tsp dry spices (salt, cumin, pepper, garlic powder, or any mixture of dry spices)

Procedure: Peel tomatoes by placing them in boiling water for approximately 1 minute or until skins loosen. Plunge in cold water, then peel skins and discard them. Remove onion skins and discard them. Trim and wash peppers. Retain hot pepper seeds for desired heat level. Dice all vegetables to approximately 1/4-inch cubes. **Caution: Wear plastic or rubber gloves and do not touch your face while handling or cutting hot peppers. If you do not wear gloves, wash hands thoroughly with soap and water before touching your face or eyes.**

Hot Pack: Combine vegetable ingredients in a saucepan. Add salt and up to 1 tsp (total) dry spice as desired. Heat salsa to boiling, stirring constantly. Pour 1/4 cup bottle lemon or lime juice into each clean pint canning jar. Ladle hot salsa into jars, leaving 1/2" headspace. Remove air bubbles. Wipe jar rims clean. Place lids and rings on jars, tightening rings only finger tight. Process both pint and half-pint jars for:

0-1000 ft. = 15 minutes, 1001-6000 ft. = 20 minutes, above 6000 ft. = 25 minutes.

For boiling water canning, turn off the heat, remove canner lid and wait 5 minutes.

For atmospheric steam canning, turn off the heat, leave canner lid on and wait 2-3 minutes.

Important: This recipe was designed to use 1/4 cup bottled lemon or lime juice per pint of salsa. Do not use fresh squeezed juice or vinegar or alter this acidification procedure. Doing so may not safely acidify the salsa resulting in a risk of botulism. This recipe can be personalized by altering the proportion of peppers (sweet or hot) and onions. Different varieties of onions or peppers (sweet or hot) can be used, but not green onions. It can also be personalized using a total of 1 tsp of dried spice. Some suggested dry spices to add are cumin, garlic powder, celery seeds, and coriander. **Other vegetable or herbs (not dried) are not permitted.**



RECIPE: Pineapple Papaya Chili Salsa**Makes about 6 (8oz) half pint jars****Ingredients**

- 4 cups cubed seeded peeled papaya (about 2 lb. or 2 med)
- 2 cups cubed cored peeled fresh pineapple (about half of a medium pineapple) or canned pineapple (about 1 20-oz can)
- 1 cup golden raisins
- 1 cup lemon juice
- 1/2 cup lime juice
- 1/2 cup pineapple juice
- 1/2 cup chopped seeded Anaheim peppers (poblano, New Mexico chilies or hot banana peppers may be used as a substitute)
- 2 Tbsp finely chopped green onion
- 2 Tbsp finely chopped cilantro
- 2 Tbsp packed brown sugar

1. Prepare boiling water canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set aside with bands.
2. Combine all ingredients in a large stainless-steel saucepan and bring to a boil over medium-high heat, stirring constantly. Reduce heat and boil gently, stirring frequently, until slightly thickened, about 10 minutes.
3. Ladle hot salsa into hot jars, leaving 1/2 inch headspace. Remove air bubbles. Wipe jar rim. Center lid on jar and apply band, adjust to fingertip tight. Place jar in boiling water canner. Repeat until all jars are filled.
4. Process both pint and half-pint jars for: 0-1000 ft. = 15 minutes, 1001-6000 ft. = 20 minutes, above 6000 ft. = 25 minutes.
5. For boiling water canning, turn off heat, remove canner lid, wait 5 minutes, then remove jars, cool, and store. For atmospheric steam canning, turn off the heat, leave canner lid on, wait 2-3 minutes, then remove jars, cool, and store.

Source <https://www.ballmasonjars.com/blog?cid=pineapple-papaya-chili-salsa>

RECIPE: Zesty Salsa**Makes about 6 pints of 12 1/2 pints****Ingredients**

- 10 cups chopped cored peeled tomatoes (about 25 medium)
- 5 cups chopped seeded green bell peppers (about 4 large)
- 5 cups chopped onions (about 6 to 8 medium)
- 2-1/2 cups chopped seeded chili peppers, such as hot banana, Hungarian wax, serrano or jalapeño (about 13 medium)
- 1-1/4 cups cider vinegar
- 3 cloves garlic, finely chopped
- 2 Tbsp finely chopped cilantro
- 1 Tbsp salt
- 1 tsp hot pepper sauce, optional

1. Prepare boiling water canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set aside with bands.
2. Combine tomatoes, green peppers, onions, chili peppers, vinegar, garlic, cilantro, salt and hot pepper sauce, if using, in a large stainless-steel saucepan. Bring to a boil over medium-high heat, stirring constantly. Reduce heat and boil gently, stirring frequently, until slightly thickened, about 10 minutes.
3. Ladle hot salsa into hot jars, leaving 1/2-inch headspace. Remove air bubbles. Wipe jar rim. Center lid on jar and apply band, adjust to fingertip tight. Place jar in boiling water canner.
4. Repeat until all jars are filled.
5. Process both pint and half-pint jars for: 0-1000 ft. = 15 minutes, 1001-6000 ft. = 20 minutes, above 6000 ft. = 25 minutes.
6. For boiling water canning, turn off heat, remove canner lid, wait 5 minutes, then remove jars, cool, and store. For atmospheric steam canning, turn off the heat, leave canner lid on, wait 2-3 minutes, then remove jars, cool, and store.

Source: *Ball Complete Book of Home Preserving*, 2006/2012

RECIPE: Corn and Cherry Tomato Salsa**Makes about 6 pints**

Salsa is delicious any time of year and this recipe is a real classic! Our Corn and Cherry Tomato Salsa is a festive favorite that's sure to brighten up your day with ripe cherry tomatoes and fresh corn kernels mixed with jalapeño and zesty lime juice.

Ingredients

- 5 lbs. cherry tomatoes roughly chopped
- 2 cups corn kernels (about 2 large ears fresh, but frozen thawed is fine)
- 1 cup red onion finely chopped
- 2 teaspoons salt
- ½ cup bottled lime juice
- 2 jalapeño peppers seeded and minced
- 1 tsp. chipotle chili powder, optional
- ½ cup chopped fresh cilantro
- 6 (16 oz.) pint glass preserving jars with lids and bands



1. Prepare boiling water canner/atmospheric steam canner. Heat jars in simmering water until ready for use. Do not boil. Wash lids in warm soapy water and set aside with bands.
2. Bring all the ingredients to a boil in a large stainless-steel or enameled saucepan. Reduce heat and simmer 5-10 minutes, stirring occasionally.
3. Ladle the hot salsa into a hot jar, leaving 1/2-inch headspace. Remove air bubbles. Wipe the jar rim. Center the lid on the jar. Apply the band and adjust to fingertip tight. Place the jar in the boiling water canner. Repeat until all the jars are filled.
4. Process both pint and half-pint jars for:
0-1000ft. = 15 minutes, 1001-6000 ft. = 20 minutes, above 6000 ft. = 25 minutes.
5. For boiling water canning, turn off heat, remove canner lid, wait 5 minutes, then remove jars, cool, and store. For atmospheric steam canning, turn off the heat, leave canner lid on, wait 2-3 minutes, then remove jars, cool, and store.

Source <https://www.ballmasonjars.com/corn-and-cherry-tomato-salsa.html>

RECIPE: Peach Salsa**Yield: about 6 pints**

- ½ cup white vinegar
- 6 cups chopped pitted peeled peaches
- 1 ¼ cups chopped red onion
- 4 jalapeño peppers, finely chopped
- 1 red bell pepper, seeded and finely chopped
- ½ cup loosely packed, finely chopped cilantro
- 2 Tbsp liquid honey
- 1 clove garlic, finely chopped
- 1 ½ tsp ground cumin
- ½ tsp cayenne pepper

Prepare canner, jars and lids. In a large stainless-steel saucepan, combine vinegar and peaches; add onion, peppers, cilantro, honey, garlic, cumin, and cayenne. Bring to a boil over medium-high heat, stirring constantly. Reduce heat and boil gently, stirring frequently, until slightly thickened, about 5 minutes. Remove from heat. Ladle hot salsa into hot pint jars, leaving ½ " headspace. Remove air bubbles, wipe rim, and place two-piece lids on jars, adjusting 'til fingertip tight.

Process pint jars in a boiling-water canner or atmospheric steam canner for 15 minutes at 0-1000 ft, 20 minutes 1001-6000 ft, 25 minutes above 6000 ft.

For boiling water canning, turn off the heat, remove canner lid and wait 5 minutes.

For atmospheric steam canning, turn off the heat, leave canner lid on and wait 2-3 minutes.

Allow jars to cool on a wire rack or kitchen towel, undisturbed, for 12-24 hours so seals can properly set.

Source: *Ball Blue Book Guide to Preserving*, 2012

RECIPE: Tomatillo Salsa**Yield: about 5 pints****Ingredients**

- 5 cups chopped, cored, husked tomatillos
- 1-1/2 cups seeded, chopped, long green chiles
- 1/2 cup seeded, finely chopped jalapeño peppers
- 4 cups chopped onion
- 1 cup bottled lemon or lime juice
- 6 cloves garlic, finely chopped
- 1 tablespoon ground cumin (optional)
- 3 tablespoons dried oregano leaves (optional)
- 1 tablespoon salt
- 1 teaspoon black pepper

Caution: Wear plastic or rubber gloves and do not touch your face while handling or cutting hot peppers. If you do not wear gloves, wash hands thoroughly with soap and water before touching your face or eyes.

1. 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.
2. Ladle hot salsa into hot jars, leaving 1/2-inch headspace. Remove air bubbles and adjust headspace, if necessary, by adding hot salsa. Wipe rims with a dampened clean paper towel; adjust two-piece metal canning lids.
3. Process in a boiling water or steam canner for 15 minutes at 0- 1,000 feet elevation, 20 minutes at 1,001-6,000 feet, 25 minutes above 6,000 feet.
4. For boiling water canning, turn off the heat, remove canner lid and wait 5 minutes.
For atmospheric steam canning, turn off the heat, leave canner lid on and wait 2-3 minutes.

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

IMPORTANT: The only other change you can safely make in this salsa recipe is 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. Do not substitute vinegar for the lemon juice.

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

**Resources**

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

Complete Guide to Home Canning. 2015. http://nchfp.uga.edu/publications/publications_usda.html

Also available in paper copy from Purdue Extension (online store is located at https://mdc.itap.purdue.edu/item.asp?item_number=AIG-539)

So Easy to Preserve, Sixth Edition. 2014. Bulletin 989. Cooperative Extension/The University of Georgia/Athens

Ball Blue Book Guide to Preserving. 2014. Jarden Corporation.

Ball Complete Book of Home Preserving, 2020. Jarden Corporation.

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