September 2008

FN/FoodSafety/2008-01

Canning Salsa in a Boiling Water Canner Generic Recipe

Brian A. Nummer, Ph.D., Extension Food Safety Specialist



Ingredients	Yield
1 cup tomatoes	
1 cup onions & peppers	1 pint
½ cup lemon or lime juice	

Most tomato-based salsa recipes mix low-acid foods, such as onions, sweet and/or hot peppers, with acid foods, such as tomatoes. USU Extension only recommends research-tested salsa recipes that provide evidence of safe acidification to inhibit Clostridium botulinum growth. The USDA Complete Guide to Home Canning (2) has only one salsa recipe. Research by Hillers and Dougherty (1) created six more salsa recipes for home canning and these have been attached to the USDA Complete Guide to Home Canning by Utah State University as an addendum to Guide 3 (2). Hillers and Dougherty (1) note the only safe changes a home food preserver can make to their listed recipes is to substitute bottled lemon or lime juice for vinegar or to change the amount of spices and herbs. A research project completed at the University of Georgia National Center for Home Food Preservation (3) by this author has developed a guideline recipe for salsa that allows for minor variations in low-acid ingredients, while maintaining a safe level of acidification from tomatoes and lemon juice.

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

- ½ cup bottled lemon or lime juice (60 ml)
- 1 cup tomatoes
 - peeled, deseeded if desired
 - diced to approx. 1/4"
 - 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 ¼ 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) of dry spice as desired. Heat salsa to boiling, stirring constantly. Pour ¼ cup bottled lemon or lime juice for each clean pint canning jar. Pour in hot salsa ingredients leaving ½ inch headspace. Attach two-piece canning lid. Invert jar several times to mix salsa and lemon/lime juice. Process, following the recommendations given in Table 1.

Table 1. Recommended process time for Generic Salsa in a boiling water canner.

Hot Pack	Process Time (Minutes) at Altitudes of (ft)		
Jar Size	0 - 1,000	1,001 - 6,000	6,000+
Half Pints and Pints	15	20	25
Quarts	Not available at this time		

Important: This recipe was designed to use ¼ cup bottled lemon or lime juice per pint 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. It can also be personalized using a total of 1 tsp of dried spices. Some suggested dry spices to add are cumin, garlic powder, celery seeds, and coriander. Other vegetables or herbs (not dried) are not permitted.

References

- 1. Hillers, V.A., and R. Dougherty. 1996 (revised 2000). Salsa Recipes for Canning. Washington State University Cooperative Extension Service.
- 2. USDA. 1994. USDA Complete Guide to Home Canning. Agriculture Information Bulletin No. 539. Available at: http://www.uga.edu/nchfp/publications/usda/utah_can_guide_00.pdf.
- 3. B. A. Nummer, M. Thacker, E. M. D'Sa, and E. L. Andress. Studies on safe acidification of salsa for home boiling water canning. University of Georgia, Available at: http://www.uga.edu/nchfp/papers/2004/04ift-tomatosalsaPoster combined.html. Accessed 15 May 2008.



Questions about home food preservation? Find us on the Web at http://extension.usu.edu

Utah State University is committed to providing an environment free from harassment and other forms of illegal discrimination based on race, color, religion, sex, national origin, age (40 and older), disability, and veteran's status. USU's policy also prohibits discrimination on the basis of sexual orientation in employment and academic related practices and decisions.

Utah State University employees and students cannot, because of race, color, religion, sex, national origin, age, disability, or veteran's status, refuse to hire; discharge; promote; demote; terminate; discriminate in compensation; or discriminate regarding terms, privileges, or conditions of employment, against any person otherwise qualified. Employees and students also cannot discriminate in the classroom, residence halls, or in on/off campus, USU-sponsored events and activities.

This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University.