

Canning Tomatoes & Tomato Products



Lunch & Learn
12 noon to 1 pm
July 21, 2014



LW
Extension
Cooperative Extension

Need Help with Today's Program?

- Help Desk: 800-442-4614
- Phone in to today's program
 - Toll: 630-424-2356
 - Toll Free: 855-947-8255
 - Passcode: 6774570#
- Program will be archived:

<http://fyi.uwex.edu/safepreserving/>



Resources

- Tomatoes Tart & Tasty; Canning Salsa Safely
<http://fyi.uwex.edu/safepreserving/> (see Recipes tab)
- Sensational Salsas; How Do I ...Can Tomatoes
http://nchfp.uga.edu/publications/uga/sensational_salsa.pdf,
www.uga.edu/nchfp
- Ball canning online www.freshpreserving.com
 - Antipasto relish
 - Bruschetta in a jar
 - Basil-garlic tomato sauce
 - Herbed seasoned tomatoes
 - Roasted red pepper spread
 - Tomato preserves
 - Roasted tomato chipotle salsa



Canning Tomatoes

- Tomatoes require a certain amount of acid for safe home canning
- Factors affect acid in tomatoes:
 - Climate
 - Soil
 - Variety
 - Maturity

HIGH ACID	
Boiling Water Bath (212 °F)	Pickles, citrus juices, sauerkraut, most fruits and berries, tomatoes
Pressure Canner (240 °F)	Tomatoes, peppers, figs, most vegetables, meats, eggs, poultry, fish, olives, hominy
LOW ACID	

- ➔ Acid is added to (almost) all tomato products before canning, even those that are pressure canned
- ➔ Always follow an up-to-date, research-tested recipe

Tomato Acidity

- In research by the University of Illinois, the pH of 55 heirloom tomato cultivars was tested
 - Growing season was warm early, then cool and wet
 - pH of the mature fruit ranged from 4.18-4.92
 - 27% had a mature pH of 4.6 or higher including Brandywine, Ace, Big Early Hybrid, and Big Girl
- Safe pH cut-off for boiling water canning is 4.6



Other Factors that Affect Acidity

- Tomato juices are **less acidic** than tomato solids
- Over-ripe tomatoes will have **decreased** overall acidity
- **Adding** low-acid ingredients like onions, peppers, or garlic will decrease acidity
- **Canning** itself can decrease acidity

So, when canning 'plain' tomatoes.....

Quarts: add 2 Tablespoons bottled lemon juice* or ½ tsp. citric acid

Pints: add 1 Tablespoon bottled lemon juice* or ¼ tsp. citric acid

→*Bottled lime juice can be used in exchange for bottled lemon juice

→ Juice must be bottled, with a standardized acidity, not fresh

→ Processed tomato products like salsa may use vinegar to acidify and add flavor

→ Add acid to each jar, and then fill; or add to each jar after filling and prior to applying the lid.

But I don't add acid to green beans...

One of the most asked questions about pressure canning tomatoes: *I don't have to add acid to green beans when pressure canning, so why do I have to when pressure canning tomatoes?*

➔ Because the research has not been done to support canning tomatoes without added acid. Due to the variation in tomato acidity (pH), and the complexity of the research, this hasn't been done. So we add acid to tomato products to ensure safety.

Canning: Pressurized Steam or Boiling Water

(you *Often get to* choose!)

Tomatoes – Whole or halves (raw pack with no added liquid)

(Tomatoes Tart & Tasty! p.16)

Procedure: Wash tomatoes and remove skins. Fill jars with raw tomatoes, leaving ½ inch headspace. Remove air bubbles, secure lids and process.

Jar	Boiling Water	Dial Gauge	Weighted Gauge
Pints	85 min	40 min @ 6 psi	40 min @ 5 psi
Quarts	85 min	25 min @ 11 psi	25 min @ 10 psi

- What are your options?
 - Which would you choose?
- ➔ Remember, you **may** process pints at the quart time, but you can't process quarts at the time for pints, if different.

Canning Safe, High Quality Tomatoes

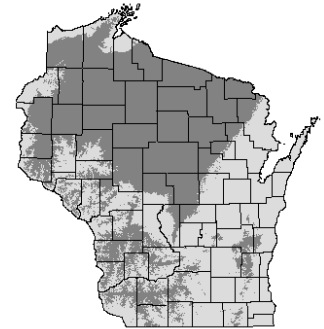
- Process using the hot-pack method
 - Using the cold-break method or raw-packing can lead to excessive separation in the jar
- Consider processing tomatoes separately from low-acid ingredients. Do **not** add low-acid ingredients like onions or peppers **unless directed to do so**.
- Add meat **only where directed**.
- Don't add flour, rice, pasta, cornstarch or other thickeners before processing, an **unsafe** product may result.



Don't Forget

- Use an up-to-date, tested recipe. **Now is not the time to be creative!**
- Follow the recipe carefully, including all steps.
- Adjust for elevation.

*Note: darker areas on the state map have an elevation above 1,000 feet. Increase time when boiling water canning; increase pressure when pressure canning.



➔ A double-stack canner, with 2 layers of **pint** jars separated by a rack, might be your 'ticket' for success.

Salsa: Main Ingredients

Salsa is a mixture of high-acid and low-acid ingredients

- Tomatoes: Ripe, undamaged tomatoes (paste or slicing varieties)
- Tomatillos, also known as Mexican husk tomatoes (or substitute green tomatoes)
- Peppers, onions and garlic for that added spice!
 - You can substitute one kind of pepper for another, measure for measure, without affecting the safety of the final product!



Other Ingredients



- Added acid: key for safety.
 - 5% acid vinegar (white or cider)
 - Bottled lemon or lime juice (use interchangeably)
- Spices and herbs add special zing, but don't add more than in the recipe.
- Fruit!
 - Spicy cranberry salsa (UWEX)
 - Peach apple salsa (UWEX)
 - Mango salsa (UWEX)
 - Pineapple chili salsa (www.freshpreserving.com)
- What about prepared mixes such as the Ball Fiesta Salsa Mix?



FAQ: Salsa

- Am I able to can the salsa recipe in my favorite cookbook?
- The salsa is too thin, may I thicken it with flour or cornstarch before canning?
- I like my salsa fiery hot, may I add more peppers?
- A pint of salsa isn't nearly enough for my family, how long do I process quart jars?
- I would rather pressure can salsa. How do I do that?

FAQ: Salsa

- Am I able to can the salsa recipe in my favorite cookbook? Unless the recipe comes from an approved source, it hasn't been tested for canning. So resist the urge to can the product. Try making a fresh salsa, or storing in the refrigerator or freezer instead.
- The salsa is too thin, may I thicken it with flour or cornstarch before canning? If salsa is too thin, you can always add tomato paste to thicken, even before canning. But don't thicken with flour or cornstarch before canning. Thicken with these ingredients when preparing to serve. OR....drain the salsa before serving to remove liquid.

FAQ: Salsa

- I like my salsa fiery hot, may I add more peppers? You can't add more peppers. Instead replace sweet peppers with those that are fiery hot. And don't be tempted to add more onion, or to add black beans or corn or sugar. You can however, decrease the sugar in any recipe.
- A pint of salsa isn't nearly enough for my family, how long do I process quart jars? There are no approved recipes for canning quarts of salsa.
- I would rather pressure can salsa. How do I do that? Approved Extension recipes for salsa are almost all canned in a boiling water canner. There is one recipe for Mexican tomato sauce developed by the National Center that can be pressure canned.

Your Questions?



- The National Center for Home Food Preservation recommend leaving jars in the canner for 5-10 minutes after processing and before removing them from the canner. Why? **This is to reduce the risk of jar breakage. Removing jars at the end of processing will still yield a safe product.**
- I have heard that lemon juice is now diluted and not acceptable for home canning. Is this true? **No. Be sure to use a standardized lemon juice such as ReaLemon or frozen Minute Maid 100% Juice, not lemonade or a lemon drink.**
- Others questions.....

More Resources

- Video review of canning tomatoes (Ball Canning):
 - www.youtube.com/watch?v=uMUFIkg39oM
- Salsa canning recipes from the National Center, now in Spanish!
 - http://nchfp.uga.edu/how/can_salsa.html
- Step-by-step canning of tomato-pepper salsa (ppt) (University of Georgia)
 - http://nchfp.uga.edu/publications/uga/TomatoSalsa_web.ppt