Homegrown Tomatoes

“What’d life be without homegrown tomatoes

Only two things that money can’t buy

That’s true love & homegrown tomatoes”
(G.Clark 1983)

These song lyrics may reflect a Minnesotan’s anticipation of the first “homegrown” tomato of the season! Tomatoes are the most popular home preserved food. The variety of preservation methods and the versatility of preserving tomato juice, salsa, jam, dry tomatoes, pickled green tomatoes, relishes, and more make it a treasured treat of summer and beyond.

We think of tomatoes as “high acid”, but research tells us that the acid varies by the variety, heat, moisture, soil, and ripeness. Current canning recommendations require that acid be added to (almost) all canned tomato products whether water bath processed or pressure canned.

So, when canning ‘plain’ tomatoes:

- **Quarts**: add 2 Tablespoons bottled lemon juice or 1/2 teaspoon citric acid
- **Pints**: add 1 Tablespoon bottled lemon juice or 1/4 teaspoon citric acid

Bottled lime juice can be used in exchange for bottled lemon juice. Tomato products like salsa may use vinegar to acidify and add flavor. Acid can be added to each jar before filling or after filling, prior to applying the lid.

See the University of Minnesota Extension site for preserving tomatoes and salsa information [http://z.umn.edu/g38](http://z.umn.edu/g38).

Home-canners have been asking if **heirloom tomatoes** are acidic enough to be canned without adding acid. Horticulture researchers have concluded the acidity of heirloom tomato plants is no different from the non-heirloom varieties. In fact, there are some heirloom varieties that are more low-acid than hybrid varieties. As a result, the same recommendations apply for adding acid when canning heirloom tomatoes.

“What plant ‘em the spring eat ‘em in the summer…..All winter without ‘em’s a culinary bummer….Homegrown tomatoes
Choosing Reliable or Safe Recipes

Today, our sources of food preservation recipes may not be based on fact or research. When it comes to food preservation, it is important to ALWAYS use current research-based recipes. Safe home canning recipes are developed by researchers who repeat the entire recipe preparation and canning process 15-30 times to get accurate data. Then, microorganisms are put into the jars to make sure the processing time is sufficient to destroy them. This is why processing times cannot be pulled out-of-the-hat and why a sealed jar does not mean it is a safe jar!

Where do I find reliable recipes? The U.S. Department of Agriculture (USDA) has been the major source of research-based food preservation recommendations. These recommendations are currently housed at the National Center for Home Food Preservation http://nchfp.uga.edu/. State Extension Services that are partners with USDA are also credible sources. Plus, recent editions of Ball publications (The Ball Blue Book, Complete Book of Home Preserving) are reliable.

How do I know if a source is not providing reliable recipes? If you notice any of the following red flags, check another source:

• Be suspicious of short cuts.

• Directions for canning non-pickled vegetables and meats that do not include a pressure canner.

• The recipe is “made-up” or changed by the person providing the information.

• Directions for processing jars in the oven, dishwasher, or appliance other than pressure or boiling water canner.

• Directions for putting hot food or liquid into jars and putting on lids with no additional processing.

• If the source does not provide information about processing at different elevations. NOTE: Recipes are developed assuming you are at sea-level. Water boils at a lower temperature when you go to higher elevations. As a result, you must process food longer to destroy pathogens. Minnesota is above sea level and many areas are above 1,000 feet!

How do I know if a recipe is “reliable”?
Make sure your canning recipes follow the latest guidelines. Depending on the food, ALL canning must be either canned in a boiling water canner (high acid foods) or a pressure canner (low acid foods). Significant changes were made in 1994 that are critical (i.e. canning tomatoes, pickles, and meats) and recipes were reviewed and updated. In 2006 and 2009, canning guidelines were reviewed and revised again. Be sure your recipes are based on guidelines developed after 1994 (or later).

Where can I find out if a recipe is safe to process? If you question whether or not a recipe is safe, look for a different recipe from a reliable source. Or, “search” for your recipe on the National Center for Home Food Preservation web site or in The Complete Book of Home Preserving and compare your recipe to a research-based recipe. Please take the time to evaluate the safety of your recipe if you are not sure of the source!

Recommended Headspace

If your Ball Blue Book is dated 2010 or before, the pickling recipes recommend using 1/4-inch headspace. The 2011 copyright edition was updated to 1/2-inch headspace to correspond with USDA and National Center for Home Food Preservation advice.
End-of-Season Tomatoes

As tomato season comes to a close, know that:

- overripe
- damaged or decayed tomatoes
- tomatoes exposed to frost
- tomatoes harvested from dead or frost-killed vines
- or late-season tomatoes ripened indoors - may NOT be safe for canning.

Food safety experts recommend not using them for canned tomatoes or juice because they can become dramatically lower in acid than tomatoes ripened on the vine in the garden. These tomatoes may be preserved by freezing, or eaten fresh or cooked.

Freezing Tomatoes

Freezing tomatoes can be a great option when you are short of time and energy - or - you're at the end of the gardening season, when you may simply be "tomatoed-out".

Freeze them raw or cooked. For convenience, freeze tomatoes in ice cube trays. Store “cubes” in a bag and take out as many as you need.

To freeze tomatoes, dip them in boiling water for 30 seconds to 1 minute to easily remove the skins. Core and peel. You can quarter, chop, or puree the tomatoes. Put into a freezer bag or container, leave 1 inch headspace, seal and freeze.

**Freeze tomato sauce** as a base for many recipes. Wash, core, quarter and seed tomatoes (peel or not peel). Cook until soft. Stir often to prevent sticking. Puree in food processor or food mill. Heat and simmer until reduced by half. Cool and freeze.

For better results, season tomatoes just before serving rather than before freezing. Freezing may change the flavor of seasonings such as garlic, onion and herbs.

Freezing tomatoes is an easy preservation method. And, they liven-up winter soups, chili, or casseroles. You can also cook them into sauce at a later time—a real time saver!

Tomatillos

Tomatillos make tasty green salsa! If you are not familiar with them, they are the green tomato shaped fruit with a papery husk (a giant ground-cherry!)

Harvest the bright green fruit when it fills the husk, or nearly so. To prepare, remove husks—you do not peel or remove seeds.


Tomatillos are the base for authentic Mexican salsa verde, enjoyed with chicken or pork.

Tomato-Vegetable Mixtures

When adding vegetables to tomatoes, you lower the acidity. Unless you use a research-tested recipe, tomato-vegetable mixtures MUST be processed in a pressure canner. Use directions for the vegetable in the mixture that has the longest processing time. Example: process pints of a tomato-whole kernel corn mixture for 55 minutes because corn takes longer to process than tomatoes.
**Tomato Salsa FAQ’s**

*How long do I process salsa in quart jars?* At this time, there are NO approved recipes for canning quarts of salsa.

*How do I can my salsa in the pressure canner?* Most approved recipes for salsa are canned in a boiling water canner. The National Center for Home Food Preservation developed Mexican Tomato Sauce that can be pressure canned but it is not chunky [http://bit.ly/14G6cTj](http://bit.ly/14G6cTj).

*I want to add corn and black beans to my salsa before canning. How do I can it?* Corn and black beans will change the acidity level of your salsa. There are no approved recipes for salsa with corn and beans. You can make it and eat it fresh; freeze it; or can your approved salsa recipe and add corn and beans just before you serve it.

**Salsa Tips**

- The “heat” of hot peppers is concentrated in the veins and seeds. To reduce the “heat”, remove seeds and veins.
- You can substitute one kind of pepper for another, measure-for-measure, without affecting the safety of the final product.
- After chopping tomatoes, place them in a colander to drain off excess liquid.
- Salsa flavors develop over time. You will get the best flavor after 3-4 weeks.

**Frequently Asked Questions**

*I've seen canning jars “Made in China” and wonder if they are safe to use?*

At this time, we do not know the standards used for manufacturing canning jars made in other countries. We do know the sizes are a little different from American-made jars. When you are shopping for jars, inspect them closely and do not always use price as your deciding criteria!

*Can I use an outdoor gas burner, camp stove or turkey fryer for canning?*

Recently, pressure canner manufacturers, Presto and National Canner, are warning consumers to NOT use pressure canners on LP gas burners over 12,000 BTU’s. The main reason is that the high heat can damage pressure canners (e.g. warping, fusing or melting the canner to the stove). The other issue may be that the water boils out too quickly and will lead to warping.

*I've read where you can only can tomato juice in pint jars?*

Tomato juice can be canned in pint or quart jars and either water bath processed or pressure canned. Be sure to follow the acidification recommendation on page 1. Always follow research-based resources.

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**For more food safety information visit our website:** [www1.extension.umn.edu/food-safety/](http://www1.extension.umn.edu/food-safety/).