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Preservation Resources

University of Minnesota Extension -
<http://z.umn.edu/ylm>

Tomatoes and Salsa -
<http://z.umn.edu/yln>

Pickling -
<http://z.umn.edu/ym3>

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

Answerline: 800-854-1678
for your home food preservation questions

Preserve Safely: Atmospheric Steam Canner

Research recently published by the University of Wisconsin indicates that an **Atmospheric Steam Canner** may be safely used for canning naturally acid foods such as peaches, pears, and apples, or acidified-foods such as salsa or pickles, as long as all of the following criteria are met:



- Foods must be *high in acid*, pH of 4.6 or below.
- A *research-tested recipe* developed for a boiling water canner must be used in conjunction with the Atmospheric Steam Canner. (The booklet accompanying the Atmospheric Steam Canner can't be relied on to provide safe canning instructions!)
- Jars must be processed in pure steam at 212 °F—meaning the canner *must be vented* prior to starting the processing time.
- Jars must be heated prior to filling, filled with hot liquid (raw or hot pack), and cooling must be minimized prior to processing. This canner may be used with recipes approved for half-pint, pint, or quart jars.
- Processing time must be limited to 45 minutes or less. The processing time is limited by the amount of water in the canner base. When processing food, the canner should not be opened to add water. 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.)

For further information: <http://z.umn.edu/ylg>

Can Electric Cookers be used for Canning?

Even though **electric pressure cooker** appliances now contain “canning” or “steam canning” buttons on their front panel and come with manufacturer’s instructions for pressure canning, note that the National Center for Home Food Preservation, and hence Extension, do not support the use of USDA canning processes in the electric multi-cookers.



For more information on canning in electric pressure cookers, please read *Burning Issue: Canning in Pressure Cookers*.

<http://z.umn.edu/ylh>

Tomatoes Need Acid

We used to assume that tomatoes were “high acid” but recent research indicates that the amount of acid varies due to weather



conditions, soil, variety and ripeness. Tomatoes are not consistently “high” in acid and today’s canning recommendations require that acid be added to ALL canned (water bath and pressure canned) tomato products.

Acid can be added directly to jars before filling jars with tomato product. Choose one:

Acid	Effect on Tomatoes or Tomato Mixtures	Amount
Citric Acid	Little change in flavor	½ tsp per quart ¼ tsp per pint
Bottled Lemon Juice	Easy to use. Can substitute bottled lime juice. Do not use fresh-squeezed lemon juice as acid levels vary.	2 tbsp per quart 1 tbsp per pint
Vinegar (5% acidity)	Noticeable change in flavor	4 tbsp per quart 2 tbsp per pint



Avoid canning tomatoes that are bruised or damaged by insects, affected by frost or with blossom end rot because these conditions reduce acidity.

Heirloom Tomatoes

Heirloom tomatoes are popular as people are looking for “new” flavors and interesting colors.



Home-canners have asked 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 canning heirloom tomatoes (see chart above).

Freezing Tomatoes

Freezing tomatoes is 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”!



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 in a food processor. Put into a freezer bag or container, leave 1 inch headspace, seal and freeze.

Tomatoes can be frozen raw or cooked. For convenience, freeze blended raw tomatoes in ice cube trays. Store “cubes” in a bag and take out as many as you need.

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. Simmer until reduced by half. Cool and freeze.

For best results, season tomatoes before serving rather than before freezing. Freezing may change the flavor of garlic, onion and herbs.

Remember that your freezer, to maintain quality frozen food, should be at 0°F or lower.

Drying Tomatoes

Even if we can’t “sun-dry” in Minnesota’s humid summers, we can dry tomatoes in a food dehydrator or oven to add a concentrated tomato flavor to pasta dishes, soups, salads, breads or pizza.



“Plum” or paste tomato varieties like Roma or Viva Italian work the best. Slice ripe, colorful tomatoes with no blemishes about ½ inch thick and dry until leathery but still pliable and not sticky. Tomatoes can be dried with skins on or removed.

Dried fruits stored in a glass jar in a cool (60°F), dry, dark area can be stored for one year.

Vinegar for Pickling

Vegetables from asparagus to zucchini can be home preserved by pickling! The key for a quality pickled product is to select a recipe that is specifically designed for the vegetable you are pickling and pickle with 5% acetic acid vinegar.

Be sure to read the vinegar bottle label when purchasing vinegar for pickling. There are 4% and even 3% acetic acid vinegars on the market shelves bottled similar to 5% vinegar. This is not a high enough acid content to produce safe pickled cucumbers, asparagus, green beans, beets or other low-acid vegetable products.



Most recipes call for distilled white vinegar. It has a mellow aroma, tart acid flavor, and does not affect the color of the light-colored vegetables or fruits.

Cider vinegar made from fermented apple juice is a good choice for many pickles. It has a mellow, fruit flavor that blends well with spices. However, it will darken most vegetables and fruits.



Do not use wine vinegars or other flavored vinegars when you make pickles unless you are sure of their acetic acid content.

When you make pickles, do not dilute the vinegar unless the recipe specifically directs you to add water to a 5% strength vinegar.

Pickled Beets

Farmers' Market vendors tell us pickled beets are a requested pickled product.

You may have memories of holiday dinners with grandma's pickled beets making the mashed potatoes on your plate pink! (Or, was that the Jell-O?)

Haven't had pickled beets for a while... give this recipe a try...the holidays are coming!

<http://z.umn.edu/8q0>



Plan Ahead: Preserve Soup Now

Freeze or can homemade soup to create a healthy food by reducing the amount of added salt.

(Commercial soups tend to be high in sodium.)



Freezing: When preparing soup, use less liquid. Do not add potatoes because they become mushy after freezing - add them when you reheat soup before serving. Cool soup quickly by placing the soup pot inside a larger container filled with ice and stir often. After cooling, package soup in containers leaving 1-inch headspace.



Canning: Canned soup must be processed in a pressure canner. Choose vegetables and prepare as you would for hot-pack canning. If desired, add cooked meat or poultry.

Cover ingredients with hot water, broth or tomatoes and juice and boil 5 minutes. Rehydrate dried beans or peas before using them. **DO NOT ADD THICKENERS, FLOUR, MILK, CREAM, NOODLES, PASTA, or RICE** - add these ingredients when soup is heated for serving. Add salt and other spices to taste. Fill canning jars halfway with solid mixture. Continue filling jars with hot liquid, leaving 1-inch headspace. Process pints for 60 minutes; quarts for 75 minutes. Use 11 pounds pressure for dial gauge canner or 15 pounds pressure for weighted gauge canner.

To Heat or Not to Heat

For many years, we were told to heat lids to soften the sealing compound.

Today, Ball® home economists are saying that heating is optional. Wash the lids and set aside until you are ready to put them on filled jars. Ball® no longer includes directions for heating lids on the box. If you want to continue to heat lids, it is okay. Keep them in water below boiling.



Gifts from the Garden



Thinking about holiday gifts? This busy food preservation time can be a great time to think about, plan for,

and set aside some jars of the jams, pickles, or peaches you've preserved to be given as holiday gifts.

Home preserved foods can be a welcome gift to many folks on your gift list. Remember how Uncle Joe liked Aunt Sally's raspberry jam? Now that he lives alone, what a memorable gift, your jam with a box of biscuits. The elderly are often difficult to buy gifts for—we say they have everything. Yet, it may have been many years since they've had chow-chow, spiced apple rings, or pickled beets like they used to “put-up”.

Jars of homemade salsa, jelly, dill pickles or dried apples packed in a basket will be a winter treat for the college student in your life.

Relishes, chutneys, pickled asparagus or herb vinegars make the perfect gift for the experimental cooks on your list.

A few gift ideas for busy families are jellies, jams, canned fruits, juices, pickles, salsa and dried fruits.

Whenever you give a food gift to someone, food safety comes first! Be sure your kitchen could pass inspection and you are following researched-based procedures and recipes.

Remember the elderly, children and people with a compromised immune system can be most affected by foodborne illness. Be sure to label and date all food.

Take pride in your accomplishments and take heart in the joy they will bring others.

Frequently Asked Questions

I can't find a processing time for salsa in quart jars?

At this time, there is no research or tested recipes for canning salsa in quarts. As a result, salsa must be canned in pint jars.

Fruit and tomato slices stick to the dehydrator trays. How can I prevent this?

Gently lifting food with a spatula after one hour of drying helps. Or, lightly spray trays with cooking spray. With tomatoes slicing the tomato just a little bit thicker may make removal of the dried slice easier.

How do I prevent home-canned tomato juice from separating during storage?

Bring a small amount of tomatoes to a boil quickly; gradually add remaining tomatoes while maintaining the boil. Quick heating of tomatoes destroys the enzymes that cause juice separation before they have a chance to be activated.

What should I do if the lids seal before I get the jars into the canner for processing?

If lids seal (pop or ping) before jars go into the canner, the jars must still undergo the normal processing required for the product. A “seal” that forms before processing is very weak and the exhausting of air and a complete vacuum has not occurred. To help eliminate the problem of a seal forming before processing, work as fast as possible to get filled jars into the canner. Try to fill and cap one jar at a time.

Photos: National Food Preservation Center

For more food safety information visit our website:
extension.umn.edu/food-safety.

If you would like to stop receiving the Home Food Preservation newsletter, please email
schmi374@umn.edu.