

Wisely Using Canning Recipes

Sue Mosbacher, UCCE Master Food Preserver Program Representative

The internet is a great source of information and an easy source of delicious recipes. But when it comes to home food preservation, it's important to understand proper canning techniques when looking for recipes online. Following a recipe with wrong or incomplete information can increase the chance of foodborne pathogens growing in your preserved product.



Generally speaking, most bacteria and viruses that cause foodborne illness are colorless, odorless, and tasteless. At Master Food Preserver classes, we teach you research-based processes to ensure that your home preserved foods are safe, and pathogen free.



At our classes we often hear the comment, "But my grandmother didn't do it that way, and we all lived after eating her canned food." True; most of the time there aren't pathogens in food and everyone will be safe. But do you really want to risk anyone's life? I don't think so. The methods we teach have been scientifically researched and proven to be safe.

Today all canned food must be processed in one of two ways, water bath or pressure canning. There should be no steam canning, no open kettle canning (filling jars and leaving them on the counter to seal), no inverting jars, and no fussing with messy paraffin seals.

Why? Only water bath and pressure canning guarantees that the product is thoroughly heated throughout the jar to destroy pathogens. Turning a jar over after processing it can compromise the seal. Paraffin wax seals were used when most people had a root cellar that stayed at a consistent temperature. The wax can shrink and expand with temperature shifts, exposing the product.

Unfortunately, as interest in home food preservation grows, so has the amount of inaccurate online information on how to do it safely.

For example, I did a quick search on preserving fresh green beans, which must be pressure canned. (*Pickled green beans can be processed in a water bath.*) The first site I found had step-by-step instructions with pictures. Very nice, but I found several issues of concern.

1. The directions say to follow the manufacturer's instructions. How often are those booklets around if you have an old pressure canner? And the manufacturer's instructions I've read for various pressure canners don't say to **always** vent the pressure canner for 10 minutes to ensure all of the air is removed during processing. Air trapped in a canner lowers the temperature.
2. The online recipe said to start timing "once the pressure cooker reached the proper pressure (usually 11 pounds)". Usually? When is it not 11 pounds? (It's not 11

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Got a Food Preservation Question?

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pounds when you adjust for altitude.) The article doesn't say what to do if your pressure canner has a weight with just 10 and 15 pounds. Why a pressure cooker and not a pressure canner? They're different tools designed for different purposes.

3. After cooking for 25 minutes, the recipe says to carefully take the jars out of the canner. Yeah, you try to open a pressure canner as soon as your timer rings. The cool-down period is an important part of the total processing time. Trying to force the lid open or forcing it to cool down in cold water will result in under processed food or broken jars, and potential burns for the poor soul wrestling with the lid.

Even the beloved online Sunset magazine omits a critical point in its [Strawberry Raspberry jam](#) recipe: adjusting the processing time for altitude. All recipes are written assuming you are at sea-level and your water boils at 212°F. Water boils at a lower temperature at higher altitudes, so you have to boil it longer to guarantee that you destroy any pathogens present. If you lived above 1000' elevation and followed Sunset's directions and didn't process the jam for additional time, it wouldn't have cooked long enough. Oops.



Last year a local grocery store's monthly handout listed a salsa recipe that contained tomatoes, corn, peppers, onions and cilantro, with just a 1/4 cup lime juice. The recipe called for water bath processing. Wrong. Corn, peppers, onions and cilantro are all low-acid foods. The recipe did not call for enough added acid (lime juice) to process this salsa as a high acid product. Therefore, it should have been pressure canned. When you mix ingredients, you process based on the ingredients with the lowest acidity level and highest processing time.

And what about grandma's family recipes handed down for generations? Why shouldn't you blindly use them? Well, for one thing, the acidity in various foods has changed over the years, especially in tomatoes. They now require extra acid in the form of lemon juice or vinegar when canning. The percentage of acidity in bottled lemon juice is less than what it was years ago, making old recipes that called for lemon juice obsolete. Packaged pectin has changed over the years, too. Many processing methods, times and temperatures have changed as well. Canning is a safe process as long as you stick with a current recipe that has been tested for accuracy and safety.

The summer canning season is upon us. Come to a Master Food Preserver class to learn proper science-based techniques. There are so many delicious recipes out there; we want to make sure you know which ones are ok to use as is, which need to be adjusted, and why.

El Dorado MFP Public Class Schedule and Location Updates

El Dorado County Master Food Preservers are expanding their public class offerings in hopes of reaching a wider audience throughout the county by varying the times and locations of their **weekday** classes.



Traditionally, the El Dorado County weekday classes have been Tuesday mornings at 10:00 at the UCCE office, as have our Saturday morning classes. This year, three of our first four weekday classes will be at the UCCE office on Thursday evenings from 6:30-8:30 to accommodate those who work during the day and are also unavailable on Saturday mornings.

Our Christmas in July class remains at the fairgrounds on Tuesday morning, July 24.

Beginning August 7, the weekday class moves back to Tuesday mornings at 10:00 but at the **Marshall Grange in Garden Valley**. We're excited about the larger space and commercial kitchen available at the Marshall Grange!

Our Saturday morning classes will remain at the UCCE office at 10:00, as in previous years.

Download our full class schedule at <http://ucanr.org/edmfpclasses>. Please join us!

Master Food Preservers at the Amador County Fair



The Amador County Fair runs from July 26 through July 29 in Plymouth. Stop by Pokerville Hall to see the fruits, herbs and vegetables carefully preserved and entered into the fair.

Watch the preserved food judging on Friday, July 27, starting at 10am in Pokerville Hall. Get good tips on what to do/not do for your entries next year.

Step outside to the covered patio and visit the Master Food Preservers' booth, next to our sister program, the Master Gardeners.

Cooking with Fresh Herbs

Alice Henneman, MS, RD, University of Nebraska

Joanne Kinsey, MS, Rutgers Cooperative Extension/Rutgers University

Whether you plant them or pick them up at the grocery store or farmers' market, adding fresh herbs is a quick way to transform ordinary meals into extraordinary meals.

Besides helping flavor foods when cutting back on salt, fat and sugar, herbs may offer additional benefits of their own. Researchers are finding many culinary herbs (both fresh and dried) have antioxidants that may help protect against such diseases as cancer and heart disease.

A snip of a fresh herb into a dish instantly kicks up the appearance a notch!



Many herbs, such as chives, can easily be grown in a container or garden.



Quick Tip: Cutting fresh herbs with kitchen scissors is a fast way to add herbs to foods.

Unless directed otherwise by your recipe, add the more delicate herbs — basil, chives, cilantro, dill leaves, parsley, and mint — a minute or two before the end of cooking or sprinkle them on the food before it's served. The less delicate herbs, such as oregano, rosemary, and thyme, can be added about the last 20 minutes of cooking. Experience what a difference in appearance and flavor fresh herbs can make. Better yet ... they do this without adding extra calories! For example, top a baked potato with a dollop of yogurt and a sprinkling of chives or parsley.

Substituting Fresh Herbs for Dried Herbs

A general guideline when using fresh herbs in a recipe is to use 3 times as much as you would use of dried herbs. When substituting, you'll often be more successful substituting fresh herbs for dried herbs, rather than the other way around. For example, think potato salad with fresh versus dried parsley!

When to Pick or Purchase Herbs

Purchase herbs close to the time you plan to use them. When growing herbs in your own garden, the ideal time for picking is in the morning after the dew has dried but before the sun gets hot. This helps ensure the best flavor and storage quality.

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How to Store Fresh Herbs

Fresh herbs can be stored in an open or a perforated plastic bag in your refrigerator crisper drawer for a few days. If you don't have access to commercial perforated bags, use a sharp object to make several small holes in a regular plastic bag.

If you have more herbs than you can eat, enjoy herbal bouquets throughout your house. You can use either single herbs, combinations of herbs, or you can use the herbs as greenery mixed in with other flowers. To help preserve the aroma and color of your herb bouquets, place them out of direct sunlight.



Add a bit of color with herbal bouquets!

Popular Fresh Herb and Food Combinations

BASIL	a natural snipped in with tomatoes; terrific in fresh pesto; other possibilities include pasta sauce, peas, zucchini
CHIVES	dips, potatoes, tomatoes
CILANTRO	Mexican, Asian, and Caribbean cooking; salsas, tomatoes
DILL	carrots, cottage cheese, fish, green beans, potatoes, tomatoes
MINT	carrots, fruit salads, parsley, peas, tabbouleh, tea
OREGANO	peppers, tomatoes
PARSLEY	The curly leaf is the most common, but the flat-leaf or Italian parsley is more strongly flavored and often preferred for cooking. Natural for parsley include potato salad, tabbouleh, egg salad sandwiches
ROSEMARY	chicken, fish, lamb, pork, roasted potatoes, soups, stews, tomatoes
THYME	eggs, lima beans, potatoes, poultry, summer squash, tomato

The Curious Canner

Question: I have an excellent recipe for sweet pickles that requires soaking the cucumbers in a brine of 1 gallon water and 1 cup of unslacked lime (it makes them wonderfully crisp). Years ago my mother gave me some unslacked lime but now I need to buy more and I can not find it to purchase anywhere. Do you know where I could purchase some or an alternative that would work for my recipe? Is there a difference between unslacked lime and just plain lime? Any suggestions would be greatly appreciated.

Answer: Are you sure the recipe calls for unslacked lime and not slacked lime? There is a big difference between the two types of lime.

- *Unslacked* lime is [calcium oxide](#), often sold as agricultural, burnt, or quick lime. It is **not** food-grade and is unsafe for human consumption. Do not use it to pickle cucumbers.
- *Slacked* lime is calcium hydroxide, also known as pickling lime. You can purchase this food-grade lime in the canning and freezing sections in most grocery and drug stores.

Alum, which is sometimes used to preserve the crispness of vegetables, is hydrated potassium alumi-



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num sulfate. The National Center for Home Preservation provides [comments about the use of lime to make pickles](#):

Firming agents: Alum may be safely used to firm fermented pickles. However, it is unnecessary and is not included in many recipes. Alum does not improve the firmness of quick-process pickles. The calcium in lime definitely improves pickle firmness. Food-grade lime may be used as a lime-water solution for soaking fresh cucumbers 12 to 24 hours before pickling them. Excess lime absorbed by the cucumbers must be removed to make safe pickles. To remove excess lime, drain the lime-water solution, rinse, and then re-soak the cucumbers in fresh water for 1 hour. Repeat the rinsing and soaking steps two more times. To further improve pickle firmness, you may process cucumber pickles for 30 minutes in water at 180°F. This process also prevents spoilage, **but the water temperature should not fall below 180°F. Use a candy or jelly thermometer to check the water temperature during the 30 minute processing time.**

Note: since this processing is not at a boil, you do not need to adjust for altitude. (Linda Harris, a specialist in Cooperative Extension in the Department of Food Science and Technology at UC Davis assisted in providing the information above.)

Question: I'm trying to get ready for the canning season. I've heard some discussion about "steam canners" and wonder if they are safe for water bath canning.

Answer: There are some major problems with the use of steam canners for canning acid foods:

- Cold spots - where temperatures are below 212°F, may occur due to pockets of air trapped between jars or under the dome.
- Release of steam - this may occur if heat is maintained under the canner at too high a temperature. The increased pressure may build to a level high enough to lift the lid off, allowing much of the steam to escape and cool air to enter.
- Increased jar breakage - may occur since jars are not separated by a rack in the canner.
- Under processing - may occur because home canners may not be able to differentiate between steam and an air-steam mixture. Water begins to give off a vapor, which can be mistaken for steam, at temperatures as low as 170°F.
- Uneven heating - jars may be placed next to each other, because there is no rack to separate them, and the steam cannot equally penetrate the jars from each side.
- Steam burns - this may occur since it is difficult to remove the dome cover safely.



Research on steam canners has found that foods canned in a steam canner are not heated to as high a temperature as when the same food is canned in a boiling water bath. This lower temperature results in less killing of bacteria, under processing and considerable risk of spoilage. The use of steam canners for home canning is not recommended.

Happy canning and preserving to all!

Jams & Jellies: Not Just for Spreading on Toast!

Do you still have a big stash of homemade jams and jellies from last year? (Or the previous year?) It's time to start using them with gusto before you start making more! There's so many more ways to use jams and jellies than spreading them on toast for breakfast. Here are a few ideas.

- Think outside the box and use jams instead of sugar whenever you think their flavor will complement your dish. Examples: salad dressings, sauces, glazes for meats, etc.
- Spread chunky jam on bread with some cheddar cheese and make a grilled cheese sandwich.
- Mix the jam into ice cream, especially homemade ice cream.



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CDC's Veggie of the Month: Garlic

This month, the CDC's offering for [veggie of the month](#) is garlic. I've noticed that we use a lot more garlic lately, as we try to cook wholesome foods with out adding a lot of processed, ready to eat stuff to the meal. Spice things up a bit with fresh garlic and enjoy! Here is the excerpt from the CDC website:



For years garlic has been the topic of much folklore. In ancient times, its pungent odor was believed to supply strength and courage to those who ate it. Garlic has been used for numerous things including embalming, warding off evil spirits, and curing everything from the common cold to tuberculosis and broken bones.

Even in modern times garlic is still being promoted as a health food with medicinal properties. Though garlic is a nutritious food, many of the claims surrounding it are not backed up by research.

Garlic is a member of the Allium genus and classified as Allium sativa. The garlic bulb is covered with a loose, white, crackly outer skin and comprised of individual sections called cloves. Each clove is covered in a white sheath.

Garlic is very popular in the Middle East and Mediterranean countries, India and China. In America, 250 million pounds of garlic are consumed per year and its use is growing.

Garlic is characterized by its strong flavor and smell, stemming from its sulfur compounds. It makes a great flavoring agent for a variety of dishes.

Varieties

There are approximately 300 varieties of garlic grown throughout the world. In the United States about 90% of the garlic is grown in California and most comes in two types, early and late.

Early garlic is white or off-white in color and harvested in mid-summer. Late garlic is off-white on the outside.

- **American:** white-skinned with a strong flavor.
- **Chileno:** reddish-colored, sharp tasting garlic grown in Mexico
- **Elephant:** not a true garlic, but a relative of the leek; its flavor is very mild and it is characterized by larger heads.
- **Green Garlic:** Young garlic before it starts forming cloves. Green garlic looks like a baby leek with a long green top and small white bulb. Its flavor is much milder than that of mature garlic.
- **Italian:** mauve in color with a somewhat milder flavor.

Availability, Selection, and Storage

Garlic is available year-round frozen or fresh. When buying fresh garlic, choose from plump, dry heads that feel firm.



Avoid soft, mushy or shriveled cloves. American garlic should be white to off-white. Garlic should be stored in a cool, dark place (though not a refrigerator) and can be kept for several weeks. Many people use small clay garlic holders to keep their garlic as fresh as possible. Cloves that have sprouted can still be used but they will not be as strong in flavor as fresher cloves. The sprouts themselves can be cut up like scallions and chives and used in dishes.

Preparation

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To remove individual garlic cloves, peel outer layers from the bulb and snap out each clove from the base. Cloves can then be peeled very easily. For a more mild flavor, whole cloves can be added (unpeeled for an even more subtle taste) to food while it cooks or marinates and then discarded before serving the meal. Another trick for imparting a mild garlic flavor in your dish is to spear a garlic clove with a fork and stir your dish with it — discarding the garlic when stirring is complete.

For a stronger flavor, used chopped, crushed, pressed or pureed garlic in dishes. The more finely garlic is chopped, the stronger its flavor will be. To chop garlic, cut in half lengthwise (remove the green core if there is one — it is bitter). Make several lengthwise cuts and then cut crosswise. A garlic press can be used also though these can be a bit tricky to clean.

To remove garlic odor from hands, use salt or lemon juice and then wash your hands with soap.

Cooking Garlic

Cooking garlic decreases the strength of its flavor making it much milder. The longer it is cooked, the milder it tastes.

Be careful not to sauté garlic too long at too high a temperature, it will brown very quickly and can become bitter.

To bake garlic, place whole, unpeeled bulbs rounded side down in a shallow baking dish, drizzle with oil, cover with foil and bake for 1 1/2 hours at 325°F.

Roasted Squash with Potatoes & Garlic

Makes 8 servings

Each serving equals 3/4 cup of fruit or vegetables

Source: Wegmans

Ingredients

1 unpeeled acorn squash (about 1 to 1½ lbs), washed, halved, seeded and cut into 12 equal pieces

4–5 medium (about 2 lbs) butter potatoes, unpeeled, washed and quartered,

4 cloves garlic, peeled and crushed

3 Tbsp olive oil

1 large sprig rosemary

Preheat oven to 425°F. Combine squash, potatoes and garlic in 9 x 13-inch shallow baking pan. Drizzle with oil. Salt and pepper to taste. Top with rosemary sprig. Bake 45–50 minutes, turning once after vegetables are browned on one side.

Option: Squash may be peeled if desired.



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- Instead of buying fruit-flavored yogurt, buy plain and add about a teaspoon of jam/jelly per serving.
- Use jelly/jam instead of sugar or simple syrup to sweeten up mixed drinks and cocktails.
- Add to a muffin mix or place a dollop of jam in the middle of a muffin.
- Add to pancake or waffle batter or top with fruit.
- Spread jam and cream cheese between prepared French toast for a stuffed French toast.
- Add a dollop of jam in the middle of puff pastry dough, fold it over and bake it for a jam turnover.
- Whip ½ cup heavy cream in a blender and fold ½ cup jam into the whipped cream for a delicious “strawberry fool”.



Strawberry Fool

Search the web for “recipes that use jam or jelly” and have fun!

July Food Mythbuster

Many “truths” about food turn out to be mostly “fish stories.” The Produce for Better Health Foundation issued the following myth busting news, which can be found on the [Stone Hearth News website](#), sponsored by the [Produce for a Better Health Foundation](#). Here is the myth for July:

Myth 1: Fresh is best.

Not one form—fresh, frozen, canned, dried, and 100% juice—of fruit or vegetable is better for you than another! Fruits and vegetables in all forms are full of essential nutrients. Whether you like fresh or dried, the most important thing is that you eat your fruits & veggies!



Master Food Preserver Services

- Free public classes
- Food preservation hotline
- Free pressure canner testing
- Speakers for custom training for your organization
- Regular articles in local newspapers

To get information about our program, visit our website at: http://cecentralsierra.ucanr.org/Master_Food_Preservers/.

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Know someone who would like to receive our newsletters and notifications on classes and events?
 Sign up at <http://ucanr.org/mfpenews>.

July MG Classes & Events



Join our fellow educators at Master Gardener classes and events. [Click here](#) for full class descriptions and directions.

Amador County

14: Composting and Vermiculture

El Dorado County

- 14: Salsa Gardening
- 21: Making Worms Work for You
- 28: Bees and Butterflies

Calaveras County

28: Open Garden: “Turn off the Tap”

Tuolumne County

12, 19, 26: Information Booth at Orchard Supply Hardware & Walmart



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