



Play it Safe: Changes and Substitutions to Home Food Processing Recipes

The safety of the food that you preserve for your family and friends is important to you. The University of Wisconsin-Extension supports using up-to-date, research-tested recipes so that you know that the food that you preserve is both safe and high in quality. Here are a few quick tips on changes and substitutions that will keep your home preserved food safe to eat.

Canning Fruits

Sugar is added to canned fruits help preserve color, help firm texture, and for flavor.

- ⇒ Choose a light fruit juice such as white grape juice for canning if you wish to **reduce sugar** in home-canned fruit.
- ⇒ You may safely **eliminate sugar** altogether when canning fruits at home, if you prefer. However, fruit canned in water is generally considered unappealing, and will spoil more quickly once opened.
- ⇒ There are no tested recipes for using sugar substitutes such as Sucralose® in home canning. Refer to the manufacturer for directions for home canning using a sugar substitute.

Canning Meat

Meat is low in acid and must be canned in a pressure canner.

- ⇒ You may add **a small amount of seasoning, onions, or garlic** when home-canning meat without changing the processing time.
- ⇒ Canned meat products must **never** be thickened with flour or cornstarch; rice, pasta or barley must **never** be added; and fat must **not** be added – any of these changes can result in an unsafe product.
- ⇒ Only add meat when called for in a tested recipe. For example, don't add meat to spaghetti sauce unless the recipe allows this addition.

Canning Salsa

Salsa is a mixture of high-acid ingredients such as fruit or tomatoes, and low-acid ingredients like peppers and onions.

- ⇒ You may **substitute** sweet peppers for hot peppers, and vice versa, measure for measure when preparing home-canned salsa. You may also substitute colored peppers for green ones!
- ⇒ You may **add tomato paste** to thicken any tested salsa recipe without changing the processing time. [Hint: if salsa is thinner than you like, simply drain prior to serving!]
- ⇒ You can **reduce** the sugar or salt in any tested salsa recipe.
- ⇒ You may **reduce** the amount of low-acid ingredients such as onion, celery, or green peppers in a tested salsa recipe. But you may **not substitute** corn, black beans, etc. for ingredients that are being reduced.
- ⇒ You may **not change or reduce** the type (or amount) of acid in a tested recipe. Add a bit of sugar if the salsa is too tart.
- ⇒ You may **refrigerate or freeze** a salsa recipe that can't be safely canned. If refrigerated, store for up to 2 weeks.

Canning Tomatoes

Tomatoes are the most popular home-canned item. Acid is added to home-canned tomatoes to ensure safety. Many tested recipes allow you to choose either pressure canning or boiling water/steam canning for tomatoes.

- ⇒ Add ¼ teaspoon **citric acid**, or 1 Tablespoon **bottled lemon juice** to each pint of home-canned tomatoes. Add ½ teaspoon citric acid, or 2 Tablespoons bottled lemon juice per quart. Add a bit of sugar, if desired, to offset any changes in flavor.
- ⇒ You may safely reduce or eliminate salt in all home canned tomato recipes.
- ⇒ Where instructions are given for canning pints at 5 or 6 psi and quarts at 10 or 11 psi, you may safely **process pints at the higher pressure** for the length of time given for quart jars.

Canning Tomatoes (continued)

- ⇒ **Don't add low-acid ingredients** such as peppers, onions, or celery to home-canned tomato products unless specifically allowed in a tested recipe.
- ⇒ **Never thicken** tomato products with flour or cornstarch in an attempt to create a condensed soup.

Canning Vegetables

Vegetables are low in acid and must be canned in a pressure canner.

- ⇒ You may create **vegetable mixtures** as long as there is a tested recipe for each vegetable that you are combining **and** you follow the processing time for the vegetable that has the longest time listed.
- ⇒ You may add a **small amount of garlic** (up to 1 clove per jar) to canned vegetables without impacting the processing time.
- ⇒ **Do not thicken** canned vegetables with flour or cornstarch, or add rice, pasta or other starchy ingredient, an unsafe product will result.

Homemade Pickles & Relishes

One of the fastest growing areas of the food industry is in pickled products. The time is now to try making some of these tasty products yourself! Pickles are processed in a boiling water or steam canner.

- ⇒ You may safely **reduce sugar or salt** in any tested quick-process pickle. The amount (and type) of salt listed in a recipe for sauerkraut or genuine dill (crock) pickles can not be changed!
- ⇒ You can **rinse sauerkraut** prior to serving and reduce the amount of sodium by 30-40%.
- ⇒ You may safely **substitute** grocery store cider vinegar (5% acetic acid) for white vinegar (5% acetic acid), and vice versa. Do not use other types of vinegar such as wine vinegar or homemade vinegar.
- ⇒ You may **add a clove of garlic or a small dried hot pepper** to any pickle recipe without impacting the processing time.
- ⇒ You may **substitute zucchini or summer squash** for cucumber in any relish recipe. You may substitute English or grocery store cucumbers for pickling cucumbers, but the quality of the product may be inferior.
- ⇒ You may **refrigerate** a pickle recipe that can't be safely canned. If refrigerated, store for up to 2 weeks. See *Homemade Pickles and Relishes* for recipes for **refrigerator or freezer pickles** that are a tasty treat. This bulletin also contains recipes for low-sodium, and low- or no-sugar added pickles.

Making Jams and Jellies

Nothing says 'summer' like the delicious taste of homemade jam and jelly. Jams and jellies are processed in a boiling water or steam canner.

- ⇒ You may **safely add** a small amount (1 teaspoon or less) of herb or other flavoring to a fruit jam or jelly recipes; e.g. when making basil strawberry jam or vanilla cherry jelly.
- ⇒ **Substitute** peaches for nectarines, or apples for pears with the same tasty results.
- ⇒ You may use **unsweetened**, frozen or canned fruit in place of fresh in any jam or jelly recipe. Do not use pre-sweetened fruit.
- ⇒ You may use **honey** in making jams or jellies. In product made with pectin, replace up to 1 cup sugar with 1 cup honey for every 6-pint recipe; be sure to adjust the amount of liquid in the recipe. In recipes with **no added pectin**, honey can replace up to ½ the sugar; decrease the amount of liquid by the amount of honey added.
- ⇒ Use **6 Tablespoons bulk pectin** for every box!
- ⇒ Follow a recipe tested for the **type** of pectin (regular, low-sugar, no-sugar) and **form** (powdered or liquid) that you have. Don't try substitutions, the product will fail to set.
- ⇒ **Don't double** jam and jelly recipes....unless you like syrup! If you want to make larger batches, try using Clear-gel (modified corn starch) as a thickener rather than pectin.
- ⇒ Don't worry about failures! Unset jam or jelly makes great pancake or ice cream topping, or can be used in cooking as a meat glaze, etc. OR recook instructions are on p. 15 of *Making Jams, Jellies & Fruit Preserves (B2909)*.