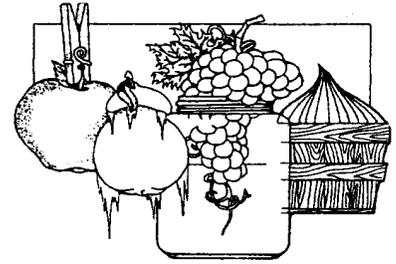


Quality for Keeps



Information for those who produce and preserve food

Be cautious using less salt and sugar

One advantage of preserving food at home is the ability to control the ingredients. This can be especially helpful for people with diabetes who are trying to control sugar intake and those with high blood pressure who are concerned about salt.

When sugar and salt are added mostly for flavor, they can be reduced or left out without concern. But some foods and some preservation techniques require sugar or salt to preserve the food and its quality. For safety's sake, consider what role these ingredients play before changing recipes. Use the guidelines below to determine when making changes is safe and when it is not. Before altering recipes, contact the county University of Missouri Extension office, or call Mary or Linda directly.

Vegetables. Salt is added to canned or frozen vegetables for flavor only. Salt may be omitted with no effect on safety. To perk up the flavor of vegetables, add herbs when preparing.

Meats. Salt may be omitted when canning or freezing meat since these small amounts are for flavor, not preservation. Salt should *never* be reduced or substituted when curing or smoking meats or when making jerky, because salt in these foods is for safety. When freezing

cured foods, use them within one month, because the high salt content causes undesirable flavor changes over time.

Pickles. Salt is an important ingredient in making pickles. It can be reduced in a *few* pickle recipes, however, the texture and flavor will be noticeably poorer.



☞ Fresh-pack pickles can be made without salt because the cucumbers are kept safe by quickly acidifying them in vinegar. Use only tested recipes formulated to produce the proper acidity. Recipes for reduced-sodium sliced dill pickles and sliced sweet pickles are available on the National Center for Home Food Preservation website and "Complete Guide to Home Canning," Agriculture Information Bulletin No. 539, USDA, revised 2009 at: http://nchfp.uga.edu/how/diet_pick.html.

☞ On the other hand, salt is vital to safety and texture when making fermented and brined pickled products, such as brined dill pickles or sauerkraut. Never reduce or eliminate salt in these recipes.

☞ Reduced-sodium salts, such as mixtures of sodium and potassium chloride, may be used in quick pickle recipes as indicated in the "Complete Guide to Home Canning". However, the pickles may have a slightly different taste than expected. Reduced-sodium salt is NOT recommended for fermented pickle recipes.

Sugar is used in many pickle recipes for flavor and texture. Large amounts also have a preservative effect, so do not reduce the amount of sugar in pickled foods. Most sugar substitutes are not recommended in pickling because heat and/or storage may cause bitterness or a loss of flavor. Sugar substitutes do not plump the pickles and keep them firm like sugar. Two recipes have been developed by the National Center for Home Food Processing using the sweetener Splenda®. They are available on the website printed above.

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Salt and sugar *(cont'd from page one)*

Fruit. Sugar gives a sweet taste to canned or frozen fruit. Sugar also helps preserve fresh color and firm texture. Thus, heavier syrups are often recommended for delicate fruit, such as peaches. Fruit may be canned or frozen without sugar, but the texture and color is not as good.

To cut back on sugar, use water, fruit juice, or a lighter syrup when canning or freezing. Canning or freezing fruit in their own juice provides the best results. Even unsweetened fruit juices contain some natural sugar. A 10% or "very light" syrup is similar to the natural sugar level in most fruit and produces a better product than plain water. A very light syrup is made from 1-¼ cups sugar in 10-½ cups water.

Sucralose (Splenda®) may be used to sweeten the water used to cover fruits when canning; however, the texture and color will not be protected as it would with sugar. Undesirable flavor changes also tend to occur during storage. The National Center for Home Food Preservation recommends trying less than a one-for-one substitution of sweetener for sugar in canning syrups. For example, in a medium syrup that is usually made with 2-¼ cups sugar in 5-¼ cups water, substitute 1 to 1-¼ cups Splenda® for the sugar. Additional sweetener may be added before serving if desired.

When freezing delicate fruit like peaches and apricots, use a pectin syrup to keep fruit plump without adding sugar. Pectin syrup

is made by combining 1 package powdered pectin in 1 cup water in a saucepan. Heat to boiling and boil 1 minute. Remove from heat and add 1-¾ cup cold water. Cool syrup before using to cover fruit in freezer containers. Add more water if thinner syrup is desired. (Source: *So Easy to Preserve*, Cooperative Extension, University of Georgia, 2006.)

Another option is to tray pack small whole fruits like berries that freeze well without sugar. Directions for this method are included in the article on page 3, "Beautiful Raspberries are fruit gems".

Jams and jellies. Sugar is very important in jams and jellies. Recipes for jams and jellies are more like chemical formulas than simple recipes. Sugar, pectin and acid must be present in the correct proportions in order to make a proper gel. Sugar is the preservative, preventing growth of spoilage microorganisms. Sugar also contributes to taste and locks in color. Never cut down on the amount of sugar in a traditional recipe. The product will not set up and instead becomes syrup. Artificial sweeteners do not work in traditional jam and jelly recipes made without added pectin.

To make reduced-sugar jams and jellies, use one of the following methods. Process and store these products as directed in the specific recipes. Some may require longer boiling water baths. Others, such as the gelatin-based or freezer types, must be stored in the refrigerator or freezer.

- **Modified pectins.** These pectins are labeled "light" or "less-sugar." Some can be made with artificial sweeteners while others use less sugar. Some require the use of calcium (which is included in the package) to form a gel. Follow package directions carefully as each brand may be different.
- **Gelatin recipes.** Some recipes use gelatin to thicken along with artificial sweeteners. These products must be stored in the refrigerator or freezer and are not shelf-stable.
- **Fruit purees.** Fruit pulp will thicken and resemble jam or fruit butter if boiled a long time. Directions for canning fruit purees can be found in the "Complete Guide to Home Canning," or at: http://nchfp.uga.edu/how/can_02/fruit_puree.html.





Beautiful raspberries are fruit gems

*R*uby red raspberries are gems in the world of fruit. These beauties do not keep long once picked, so they can also be a bit pricy. Look for local U-pick farms growing raspberries for the freshest quality.

Raspberries are easy to pick. Ripe fruit literally falls off the plant when gently tugged. Half-pint containers fill up quickly and reward pickers with perfectly ripe sweet berries. In addition to red, raspberries can be gold, purple and black. A mix of colors used in one dish makes for a striking presentation.

Varieties. Those recommended for Missouri include several that ripen in June—Latham, Boyne and Canby are red. Bristol, Blackhawk and Jewel are black. Brandywine and Royalty are purple. Heritage and Redwing produce red berries, which ripen in August.

Purchasing. When buying fresh raspberries, look for bright color and plump berries without stems. Inspect boxes carefully for signs of spoilage and crushed fruit.

Storage. Place raspberries unwashed in the refrigerator in a

single layer on a plate covered with plastic wrap. Use or preserve within one to two days. Although raspberries may be preserved by canning, freezing results in a much higher quality product. Raspberries make excellent jelly and jam.

Freezing. Raspberries may be frozen in sugar, syrup or unsweetened tray pack. Tray pack results in loose berries which may be poured from the package, like commercially packed unsweetened fruits.

Harvest fully ripe, firm, well-colored berries. Remove those that are immature or defective. Wash and drain.

Sugar pack. To 1 quart (1-1/3 pounds) berries, add 3/4 cup sugar and mix carefully to avoid crushing. Pack into containers, leave headspace (1/2-inch for pints, 1-inch for quarts), seal, label and freeze.

Syrup pack. Prepare 40 percent syrup (3 cups sugar dissolved in 4 cups water). Pack berries into containers and cover with syrup, leave headspace (1/2-inch for pints, 1-inch for quarts), seal, label and freeze.

Unsweetened tray pack. Spread a single layer of washed and drained berries on shallow trays and freeze. Leave in the freezer just long enough to freeze firm to prevent loss of quality. Package frozen berries in freezer bags or containers, leaving no headspace. Seal tightly, label and return to freezer.

Jam and jelly. For directions on making jam or jelly from raspberries without added pectin, see University of Missouri Extension publication GH1461 “Quality for Keeps: Jam and Jelly Basics—Tempt Your Taste Buds With Natural Sweets”. To make jam or jelly with added pectin, follow pectin package directions. Always process jars in a boiling water bath before storing at room temperature.

Sources: University of Missouri Extension, *Quality for Keeps, GH1502 Freezing Fruit*, <http://extension.missouri.edu/p/GH1502>

Quality for Keeps GH1455 Fruitful Canning, <http://extension.missouri.edu/p/GH1455>

University of Missouri Extension guide sheet: *MG6 Fruit Production*.

Freezer Raspberry Jam

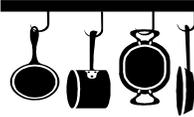
Freezer jam can be made from fresh or frozen berries. This recipe makes a small batch. It may be doubled if desired (unlike cooked jam and jelly recipes, which must never be doubled).

- 2 tablespoons instant or no-cook pectin
- 2/3 cup sugar
- 1-2/3 cup crushed raspberries

Procedure: Stir together pectin and sugar. Add fruit and stir for 3 minutes. Ladle into two 8-ounce freezer containers, leaving 1/2-inch headspace. Let stand for 30 minutes before eating or refrigerate up to 3 weeks or freeze up to one year.

Source: University of Missouri <http://www.homecanning.com> (search for “Pectin Calculator”).

THE RECIPE BOX



Raspberry Syrup

Juice from fresh or frozen raspberries (black or red), as well as blueberries, cherries, grapes and strawberries are easily made into toppings for use on ice cream and pastries.

Procedure: Select 6-1/2 cups of fresh or frozen raspberries. Wash, cap and stem fresh fruit and crush in a saucepan. Heat to boiling and simmer until soft (5 to 10 minutes). Strain hot berries through a colander and let drain until cool enough to handle. Strain the collected juice through a double layer of cheesecloth or jelly bag. Discard the dry pulp. The yield of the pressed juice should be about 4-1/2 to 5 cups.

Combine the juice with 6-3/4 cups of sugar in a large saucepan, bring to boil and simmer 1 minute. To make a syrup with whole fruit pieces, save 1 or 2 cups of the whole fresh or frozen fruit, combine with the sugar and crushed fruit and simmer as in making regular syrup. Remove from heat, skim off foam and pour into clean, half-pint or pint jars. Leave 1/2-inch headspace. Adjust lids and process in a boiling water canner for 10 minutes at altitudes up to 1,000 feet; process 15 minutes at altitudes from 1,001 to 6,000 feet.

Yield: approx. 9 half pints.

Source: University of Missouri Quality for Keeps GH1461, Jam and Jelly Basics. <http://extension.missouri.edu/p/GH1461>.

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