

Canning to Preserve the Harvest by Mark S. Brunell



Quart jars of tomato sauce being processed in a boiling-water canner.

When the summer food garden is at its peak and the harvest is coming in fast and furious, it is difficult to use or give away all of this produce before it spoils, so many gardeners would like a way of preserving it. Also, the gardener may want to eat home grown green beans in January or pickled beets in September. Furthermore, the gardener may want to create unique, home-made gifts to give to friends and family. All of these are reasons to try home canning.

Before starting canning, purchase a good canning book, or consult reliable internet resources such as the National Center for Home Food Preservation, <http://nchfp.uga.edu>, which contains the free USDA Complete Guide to Home Canning. Canning protocols from these publications must be followed carefully to ensure safety.

Some equipment is required. A boiling-water canner is essentially a large pot and a rack that fits into the bottom. The pot must be at least three inches deeper than the height of the jars. Usually, the pot and rack are purchased together as a package, and other useful items such as a canning funnel, a jar lifter, and a magnetic wand are often included or sold as a separate kit. For more adventurous canners, a pressure canner can be purchased. This device has a locking lid and a pressure regulating device; it is not the same as a pressure cooker. Pressure canners are more expensive than boiling-water canners and are harder to find in stores.

Also needed are canning jars, often called mason jars, which can be purchased commercially in cases of a dozen, and come in half-pint, pint, quart, and half-gallon sizes. Before purchasing, review recipes to determine which size jars are needed, and don't increase the size above that which is recommended. Prices for jars vary widely between stores, so comparison shopping is definitely warranted. Other jars (pasta sauce and mayonnaise jars) can be used for canning as long as they are in good condition and the closure will fit properly. All jars must have a smooth, chip-free rim so that the lids will form a good seal. Two-piece closures are included with new canning jars and consist of a screw band and a lid with sealing material. Carefully follow instructions for adjusting the closures. Lids are used only once and are then discarded; boxes of replacement lids are widely available.

Foods are classified as either high- or low-acid. The level of acidity, or pH, affects the spoilage microorganisms in the food, and dictates which heat processing method will be used to preserve the food. Foods with a pH of 4.6 or

lower are classified as high-acid and can be processed in a boiling-water canner, reaching 212°F. Under these pH and temperature conditions, spoilage microorganisms are destroyed. Examples of high-acid foods are fruits, tomatoes, and pickles. Foods with a pH above 4.6 are low-acid foods and must be processed in a pressure canner, reaching 240°F. Vegetables other than tomatoes, and meats and dairy products are low-acid foods. Tomatoes and figs are just acidic enough to be considered high-acid but are on the borderline, so for safety acid in the form of vinegar, lemon juice, or citric acid is added to lower the pH. Pickles are high-acid because vinegar is added. Most jams and jellies are made from high-acid fruits. In some canning recipes, high- and low-acid foods are blended, which can make the mixture low-acid. Again, modern up-to-date recipes should be followed carefully otherwise improperly canned produce can lead to food-poisoning like botulism. Never substitute ingredients or alter proportions of ingredients, which could change the acidity of the food, making a formerly safe recipe into a dangerous one.

Canning activity is closely connected with harvest activity, and since most food gardeners grow warm-season crops, most of the canning is done in late summer and fall. Canning may take place during other times if cool-season crops are grown, or if produce is purchased.

Home canning is a rewarding, fun, and economical way to preserve the harvest and the rows of gleaming jars in the pantry can be an enduring source of pride for any food gardener.