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DIY Canning: The Basics



When faced with an abundance of local produce, there's only one thing to do: preserve it! Whether you are making tangy peach jam or pickled summer vegetables, thick apple butter or spicy tomato salsa, the process connects you to a particular time or place. Nowadays, preserving is no longer a household necessity, of course, but putting up a season's bounty—and a season's flavors—to carry you through the year still evokes a welcome nostalgia for the past. It's also a wonderfully creative and satisfying activity for nearly everyone, from the experienced cook to the kitchen novice.

Canning Step by Step

1. Preparing the jars and lids. First, ready the jars, lids and screw bands. Jars, whether new or previously used, should be free of chips and scratches. New lids must be used for each batch, though screw bands, if in good condition, can be reused. Wash the jars, lids and bands well in hot soapy water, either by hand or in a dishwasher. Place the lids in a small saucepan with water to cover, bring to a simmer (180°F), and maintain the simmer until you are ready to use them. Avoid boiling the lids or you may compromise the seal.

If the recipe processing time is more than 10 minutes, the jars need only to be washed before use, since sterilization will occur during processing. If the recipe processing time is 10 minutes or less, however, the jars must be sterilized in the boiling-water canner before they are filled. To sterilize them, fill the canner pot two-thirds full of hot water and, using a rubber-coated jar lifter, lower the jars, one at a time, onto the rack in the water-filled pot, making sure they are covered by at least 1 inch of water. Bring the water to a boil over high heat and boil for 10 minutes. Turn off the heat and leave the jars in the hot water. Remove them with the jar lifter and dry them as needed.

Always keep the jars warm until you are ready to fill them to ensure they don't break when a hot mixture is added and that they seal properly. If you have cleaned the jars in a dishwasher and they don't need sterilization, leave them in the dishwasher with the door closed, removing them, one at a time, as needed. If you have sterilized them in the canner pot, leave them in the hot water until needed. You can also keep just-washed jars warm by immersing them in a large pan filled with boiling water and then turning off the heat, or by slipping them into a low oven.

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12 ripe freestone peaches
Juice of 1 lemon
3 cups sugar

Peach Jam

Jars of this perfect peach jam are always tucked away in the Canal House pantry. Think of them as money in the bank—a spoonful on buttered toast is just heaven.

Bring a large pot of water to a boil over high heat. Working in batches, blanch the peaches in the water for 1 minute, making sure that they are completely submerged. Drain the peaches on a kitchen towel. When cool enough to handle, slip off the skins.

Slice 6 of the peaches in ½-inch-thick slices into a jam pot or a large enameled cast-iron pot. Discard the pits. Sprinkle the slices with half of the lemon juice, tossing gently with your hands to coat the fruit to prevent it from discoloring. Evenly sprinkle 1½ cups of the sugar over the peaches. Repeat with the remaining 6 peaches, the remaining lemon juice and 1½ cups sugar. Let stand at room temperature to allow the peaches to release their juices and the sugar to melt, 1 to 3 hours.

Set the pot over medium-high heat and bring the peach mixture to a gentle boil (don't break up the slices). Cook, stirring occasionally with a wooden spoon, until the juicy liquid has reduced by half, the peaches become translucent and the temperature reaches 221°F on a candy thermometer, about 1 hour.

Meanwhile, wash 6 to 8 half-pint or 3 to 4 pint canning jars with their lids and rings in hot soapy water and rinse them, then place in a large pan or bowl and cover with boiling water. Keep them in the hot water until ready to use. Remove the jars from the water and pour out any water. Arrange the jars together for easy filling. At the same time, fill a large pot (large enough to hold the jars in a single layer) with warm water to a depth of 4 inches. A canning kettle with a rack is ideal.

When the jam is ready, use a sterilized glass measuring cup and a funnel to pour the jam into the jars, leaving ½ inch of headspace. Using a paper towel dipped in hot water, wipe the rims clean. Place the lid on each jar, then screw on the rings. Arrange the jars in the water in the pot (the water should cover the jars by 2 inches) and bring to a boil over medium-high heat. Boil 10 minutes.

Using tongs, remove the jars from the water and place on a tray lined with a kitchen towel. Let the jars cool undisturbed for 12 hours. If the jars have sealed properly, the lids will be slightly indented and not springy to the touch. If a jar did not seal properly, either repeat the water bath process or refrigerate and use the jam. Makes 6 to 8 half-pints or 3 to 4 pints.

Recipe by Canal House Cooking.

4 cups raspberries
4 cups blackberries
4 cups blueberries
3 cups sugar
¾ cup fresh lemon juice

Mixed Berry Jam

You can experiment with the ratio of berries in this recipe and, if you like, substitute 2 cups hulled and halved strawberries for 2 cups of the raspberries. The blackberries and blueberries give the jam lots of body as well as an intense berry flavor. .

Have ready 6 hot, sterilized half-pint jars and their lids.

In a large nonreactive saucepan, gently stir together the berries, sugar and lemon juice. Bring to a boil over medium-high heat, reduce the heat to medium and cook, uncovered, stirring frequently, until the jam has thickened, about 15 minutes. It will continue to thicken as it cools.

Ladle the hot jam into the jars, leaving ¼ inch of headspace. Remove any air bubbles and adjust the headspace, if necessary. Wipe the rims clean and seal tightly with the lids. Process the jars in a boiling-water bath for 10 minutes. The sealed jars can be stored in a cool, dark place for up to 1 year. If a seal has failed, store the jar in the refrigerator for up to 1 month. Makes 6 half-pint jars.

Adapted from *The Art of Preserving*, by Lisa Atwood, Rebecca Courchesne & Rick Field (Weldon Owen, 2010).

2. Filling and Processing the Jars. If you have sterilized the jars in the water canner, the rack will already be in place. If you have not, before filling the jars, insert the rack into the canner. Fill the canner about two-thirds full with water and bring to a boil over high heat. At the same time, bring a tea kettle full of water to a boil and then adjust the heat to maintain a simmer, in case you need additional boiling water to cover the filled jars once they are in the canner.

Working with one warm, dry jar at a time, place a funnel over the opening. Depending on the recipe, use a ladle, slotted spoon or other utensil to fill the jars, leaving the amount of headspace called for in the recipe. To determine the headspace, measure the space between the top of the jar and the top of the food or liquid in the jar. Run a thin, nonmetallic spatula or a chopstick around the inside edge of the jar to release any air bubbles trapped inside, and then adjust the headspace if necessary. Wipe the rim with a clean, damp cloth to remove any errant droplets that can prevent a proper seal.

Use nonmetallic tongs or a magnetic wand to remove a hot lid from the simmering water, and dry with a clean kitchen towel. Top the jar with a dry, warm lid. Then screw a band over the lid just until it is secure. Do not turn the band too tightly, as the seal must allow air to escape from the jar during processing.

Immediately arrange the jars in the canner, using the jar lifter to lower them onto the rack. Do not let the jars cool before exposing them to boiling water, or they may crack. Make sure the jars are covered by at least 2 inches of water. Cover the pot with the lid and begin timing the processing after the water has returned to a rapid boil.

Once the time is up, use the lifter to remove the jars from the boiling water. Place the jars on a kitchen towel or rack, spacing them well apart to allow air to circulate, and let cool completely. You may hear the “ping” of the jar lids being sucked into a vacuum seal within minutes of removing them from the water, or it may take hours for the seal to occur.

3. Testing the Seal. When the jars have cooled completely, test the seal by gently pressing on the top of each lid. It should be taunt and rigid to the touch and slightly indented. If the lid bounces back and makes a clicking noise when you press it, the seal is not good. To test it further, unscrew the band and gently lift the lid with your fingertips. If you are able to pick up the entire jar by holding the edges of the lid, the seal is good. If the lid slips easily from the jar rim, the seal is insufficient. Store any jar that does not have a good seal in the refrigerator for the time specified in individual recipes.

4. Storing. Most jars with proper seals can be stored for up to 1 year. Label the jars with their contents and the date on which they were sealed and then store in a cool, dark place, as excessive heat or light can discolor the contents. Each time you open a new jar, check the contents for signs of spoilage. Be wary if the aroma is especially sour or musty. Also, dispose the contents of any jar with visible mold or discoloration at the top or around any air pockets, or with tiny bubbles, a sign the contents have fermented. Finally, discard the contents of any jar that does not appear to have maintained a tight seal throughout its storage.

Altitude Adjustments

The recipes in most canning cookbooks and in this brochure have been formulated for canning at sea level. High altitudes require a longer processing time, because the higher the elevation, the lower the temperature at which water boils. In general, add 1 minute to the processing time for every 1,000 feet in altitude, or 2 minutes per 1,000 feet if the original processing time is more than 20 minutes. For altitudes higher than 5,000 feet, consider using a steam-pressure canner, which will allow for accurate processing time without overcooking the food.

Home-Canning Essentials

An age-old art, preserving allows you to capture the essence of fruits and vegetables at their flavorful prime—and enjoy that freshness year-round. The term “home canning,” despite the implied use of cans, refers to preserving foods in specially designed glass jars.

Basic home canning requires just a few items to get started: a large canning pot fitted with a metal jar rack, a cover for the pot, a funnel for filling jars, a jar lifter and a spatula.

Boiling-Water Canner: Using a boiling-water canner is the best way to ensure jars are sealed safely. Commonly made of porcelain-coated steel or aluminum, each canner comes with a tight-fitting lid and a removable metal rack. The rack usually holds up to seven 1-pint jars and allows an even flow of boiling water around the jars. It sits low enough in the canner so that the tops of the jars can be covered by at least 2 inches of water. Handles on the rack allow you to lower the jar-filled rack into the water and secure the rack to the rim of the pot.

Home-Canning Jars: Glass jars specifically designed for canning foods are the safest to use, and are available with regular or wide-mouthed openings in a variety of sizes. The most common have a two-piece dome cap: a self-sealing lid and a metal screw band that secures the lid to the jar. Others feature a glass lid with rubber ring and stainless-steel clamps or a simple screw-top lid with built-in gasket. Jars in good condition with no cracks or chips can be used repeatedly.

Canning Tools: A jar lifter, resembling large tongs, has a rubber-coated clamp that securely grasps jars under the rims so the jars can be safely lowered into and lifted out of boiling water. A wide-mouthed funnel allows the jars to be filled neatly, with minimal spillage. A magnetic lid wand or nonmetallic tongs assist in removing metal jar lids (if using that type) from the simmering water used to sterilize them. A thin nonmetallic spatula or plastic chopsticks are useful for running around the inside edge of filled jars to release air bubbles. A jelly bag, which is typically made from cheesecloth or other porous material and is suspended from a simple metal frame, is useful for straining fruit juice for jelly.

Estimating Fruit and Vegetable Yields		
Product	Quantity per lb.	Yield
Apples	3 medium	3 cups sliced per lb.
Apricots	8 to 10 medium	2 to 3 cups sliced per lb.
Asparagus	1 bunch (16 to 20 spears)	3 cups sliced per lb.
Bell peppers	1 or 2 large	1¼ cups chopped per lb.
Berries	3 to 4 cups	2 cups per pint
Cherries	3¼ cups	
Cucumbers	1 medium	2 cups sliced per lb.
Cucumbers, pickling (Kirby)	10 to 14	3 cups sliced per lb.
Figs	10 to 12 medium	
Lemons/juice	3 or 4 medium	2 to 3 Tbs. juice per lemon
Limes/juice	5 to 7 medium	1 to 2 Tbs. juice per lime
Onions	3 or 4 medium	2½ cups chopped per lb.
Oranges/juice	2 or 3 medium	½ cup juice per orange
Peaches	2 or 3 medium	2¾ cups sliced per lb.
Pears	3 medium	2½ cups sliced per lb.
Plums	4 or 5 medium	2½ cups sliced per lb.
Quinces	1 or 2 medium	
Rhubarb	6 to 8 stalks	3 cups chunks per lb.
Tomatoes	3 to 5 medium	2 to 3 cups chopped per lb.
Zucchini	3 or 4 medium	3 cups sliced per lb.