



# Creating Great Flavors: Water Bath Canning

## *Canning Do's and Don'ts*

### **Process high acid foods (pH of 4.6 or lower) only.**

Water bath canning is only safe for high acid foods. High acid foods naturally resist bacteria growth. Non-acid foods must be processed in a pressure cooker in order to kill harmful organisms such as the one that causes botulism which cannot be killed by boiling. You can check pH using the test strips sold for testing pH in swimming pools.

### **Use modern jars made specifically for canning.**

Use only real canning jars. Reusing jars from the store even if they look like canning jars is not a good idea. Often the jars are just made to look like canning jars; and they may crack or break during the canning process. Another issue with reusing jars from the store is that the rim and threads on these jars may or may not match well with the lids and rims for canning jars. A mismatch can compromise or prevent a good seal.

Do not use vintage canning jars. Vintage jars have irregular sizes, may crack, and usually don't seal properly. Many vintage jars were made to use an entirely different sealing system.

Don't use decorative jars unless you are making something like refrigerator pickles that are never processed in a water bath. Decorative jars are not designed to prevent cracking or breaking in the canning process. Be sure to sterilize the decorative jars before using them.

### **Discard jars with chipped edges.**

Jars with chipped or cracked edges will not seal properly and your food will spoil.

### **Use the two-part lids sold specifically for canning.**

You can reuse the rings but not the lids. If you have lids left after a canning session, store them in a cool dry place until your next session. It is best to buy fresh lids every year to ensure proper seals.

Screw the rings on but don't over tighten them. Over tightened lids can prevent sealing.

### **Use the type of pectin called for in the recipe.**

Powdered and liquid pectin are NOT interchangeable. The amount used is different and they are added at different points in the canning process.

### **Follow the recipe exactly.**

Water bath canning depends on the food's acidity for preservation. Changing the recipe can change the acidity.

### **Use modern recipes.**

Older recipes are not as reliable. For example an old pickle recipe I tried once called for diluting the vinegar to half strength. Turns out vinegar used to be sold with a stronger acidity level than today's vinegar. The old recipe wanted the vinegar diluted to bring it to the level of acidity of today's store-bought vinegar. So when I followed the recipe with today's vinegar I actually made it too weak and my pickles spoiled.

### **Keep jars, lids, and tools VERY clean.**

The point of canning is to prevent microbes from spoiling the food. So start with everything sterile and clean and keep it that way throughout the process.

Wash your jars and then putting them into boiling water and leave them there until you are ready to fill them. I usually use the big pot of boiling water that is my water bath. I put the empty jars in, pull them out to fill them, and then return them to the pot for the required processing time.

Place your rings and lids in a separate pot of boiling water, cover and turn off the heat. Keep the pot covered except when you are extracting rings or lids to seal jars. This will keep your rings and lids sterile but cool enough to handle easily.

### **Fill the jars one at a time, not assembly-line style.**

To insure that jars are hot and sterile, pull them from the water and fill them one at a time. Setting all the jars up and then filling them could allow them to cool between steps. If you are only filling 5 or 6 jars you can pull them from the water, line them up and fill them all immediately. But if you need to fill lots of jars don't set them all up at the same time, they will cool quickly.

### **Do listen for the distinctive plink of lids sealing on cooling jars.**

Plink is the sound of the lid flexing into a concave shape. It lets you know the jar has sealed. If you have any concerns about the seal when the jars are cool, press lightly on the center of the lid. If it flexes up and down, the jar is not sealed. Put the jar in the refrigerator and use it up within a week. If the lid does not flex, you have a seal and can store it in the pantry.

Once a jar is sealed the ring can be removed and reused. If you are giving a jar as a gift, don't remove the ring. This insures that the seal is not broken during transport and handling.

### **Select perfectly ripe, unblemished fruit.**

The riper the fruit the better the flavor. For some recipes you can use frozen fruit or canned juices. If your fruit has small blemishes, you can trim them out when you process the fruit for canning.

**Use a stainless steel or enameled pot.**

High acid foods react with aluminum. The color and taste can be unpleasantly altered by cooking in aluminum.

If you are using an enamel pot, make sure there are no chips in the enamel. Chipped or cracked enamel can allow the high acid food to react with the base metal of the pot. This too can alter color and taste.

**Adjust recipes if you are canning at an altitude above 1,000 feet above sea level.**

**Blanching:** For altitudes 5,000 feet or more above seal level, add 1 more minute.

**Water Bath Times:** Water boils at lower temperatures as altitude increases. Check with your local county extension agent for information about canning at your altitude.

**Jellies and Jams:** Add 1 minute of processing time for every 1,000 feet above sea level.

**Sterilizing Jars:** Boil jars for 1 additional minute for every 1,000 feet above sea level.\*

**Make sure the edge of the jar is clean before applying the lid.**

Wipe the edge with a clean, dry or slightly damp cloth to remove all traces of food or sugar syrup. A clean edge is necessary for a good seal.

**Don't set hot jars on the counter.**

Cooling jars may crack when set directly on stone, tile, or metal surfaces because these materials are good conductors and can cause the jars to cool unevenly. Set the jars on a clean, dry towel or wooden cutting board to cool.

**Leave the amount of headspace recommended in your recipe.**

Headspace is the gap between the filled level of the jar and the lid. During water bath processing jar contents expand and the air is forced out. The headspace prevents your food from overflowing during processing which would destroy the chances of a good seal.

**Don't double or triple recipes.**

Results are more reliable if you make the recipe in the amounts specified. It is better to make the recipe twice than to double the recipe and make it once. Making small batches helps prevent contamination of the end product. Be sure to clean all work surfaces between batches.

## ***Canning Equipment***

### **Water bath canner**

A large stainless steel or enameled pot with a canning rack to hold the jars is essential. The rack allows water to circulate underneath the jars. If you don't have a canning rack, you can use a flat roasting rack or cooling rack that fits your pot to lift the jars off the bottom of the pot.

### **Jar lifter**

This tool allows you to securely grip and lift hot jars from the water bath. Invest in one of these. Nothing can really take its place for safely lifting jars out of boiling water.

### **Magnetic wand lifter**

The wand lets you easily lift rings and lids out of hot water. This is very important for the lids. You do not want to damage the seal material by using a fork or knife blade to lift them out of the water.

### **Jar funnel**

This special funnel with a wide mouth helps prevent spills when filling jars. It also helps keep the rims clean. You can get them to fit both wide-mouth and regular-mouth jars. You can make one in a pinch by cutting off a plastic funnel to have a big opening at the bottom. But this homemade version will not be as stable on a jar.

### **Spatula**

Use the spatula to go around the edge of the jar and through the middle to release trapped air in the food. You don't want pockets of air trapped in your canned goods.

### **Measuring spoons**

You should have a set that measures 1 tablespoon, 1 teaspoon, ½ teaspoon, and ¼ teaspoon.

### **Ladle**

Ladles of a variety of sizes, some with perforations and some without, make it easy to transfer food from the cooking pot to jars.

### **Ruler**

A good plastic or metal ruler that can be washed clean and sterilized is a good choice. Don't just use any old ruler you have lying around. Dedicate one to kitchen use only. Use the ruler to measure the headspace in your jars.

## Measuring cups – dry and liquid

Measuring cups for liquids and for dry ingredients are different. It's good to have a set of each. For dry ingredients like sugar get a set that measures 1, 1/2, 1/3, and 1/4 cups. A large liquid measuring cup that holds 6 or 8 cups is useful for measuring large amounts of chopped or sliced produce, or liquids.



## Kitchen Towels

Use clean towels to wipe jar rims and to line the counter where hot jars are cooling. Have a stack of towels ready to go before you start canning. You will use many of them in the process. It is better to put a soiled towel in the laundry and start with a fresh towel than risk contaminating your canned goods.

## Hot Pads

Have at least one pair of hot pads. Two or three pair is better. Wet hot pads conduct heat and water bath canning virtually guarantees wet hot pads.

## Timer

A timer helps you keep track of cooking and processing times. Since you are often cooking one batch of food while processing another batch in the water bath, it is useful to have more than one timer. If you leave the kitchen, make sure you can hear your timer from elsewhere in the house or have a timer you can take with you. In a pinch, remember most cell phones have a timer somewhere in their menu options.

## Colanders and sieves

Both colanders and sieves are useful for washing and draining produce. If you need to strain juice to make jelly, line your colander or sieve with cotton cheese cloth to produce a clearer juice.

## Permanent marker

Every jar should be labeled with the contents and the date it was made. Permanent markers are great for this. For marking items you intend to give as a gift try a gold or silver paint pen. Of course you can also purchase or make decorative labels. Be sure your labels are written with permanent ink so they won't fade over time or smear if they get damp.

## Jars

Canning jars come in several sizes (quart, pint, half pint, half cup) and both regular and wide mouth varieties. The regular mouth variety is fine for soups, sauces, and juices. The wide mouth variety is best for canning food that is whole or cut into large pieces. The wide mouth also makes it easy to get the last bit of jam or jelly out of the jar. You worked hard to can your items. Make sure you can enjoy every last delicious bit.

