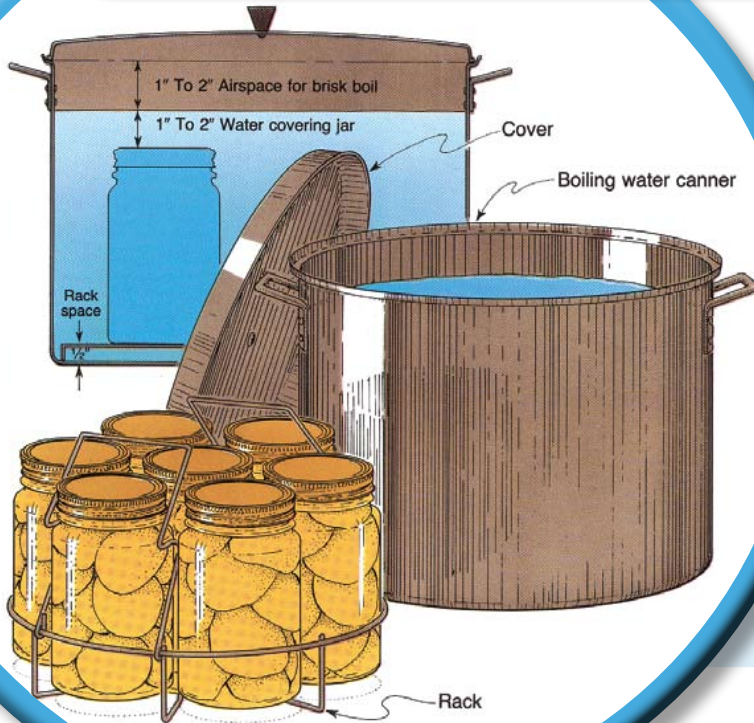


Questions and Answers About Using a

Boiling Water-bath Canner



Water-bath canning is a method of preserving high-acid foods. Fresh foods contain a high percentage of water, which makes them very perishable. High-acid foods can be preserved safely when they reach temperatures provided by a boiling water-bath canner. To kill harmful molds, yeasts and some bacteria, processing using the boiling water-bath method ensures the safety of preserved produce. However, this method does not provide high enough temperatures to destroy botulinum spores in low-acid foods such as vegetables.

What Foods Can Be Processed in a Boiling Water-bath Canner?

Water-bath canning is recommended for naturally acidic or acidified foods. These foods are naturally high in acid (with a pH level of 4.6 or lower):

- Fruits
- Pickles
- Sauerkraut
- Jams
- Jellies
- Marmalades
- Fruit butters/spreads

Tomatoes vary in their pH level. Tomatoes can be processed in a water bath canner if they are acidified with added lemon juice or citric acid.

How Do You Acidify Tomatoes?

To acidify whole, crushed or juiced tomatoes, add 2 tablespoons of bottled lemon juice or $\frac{1}{2}$ teaspoon of citric acid per quart of tomatoes. Use 1 tablespoon of bottled lemon juice or $\frac{1}{4}$ teaspoon of citric acid for pints. Four tablespoons of 5% acidity vinegar per quart may be used instead of lemon juice or citric acid. Vinegar, however, may cause undesirable flavor changes, so you may want to add sugar (or salt) to offset the acid taste, if desired. This does not affect the acidity of the tomatoes.

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What Are the Steps for Successful Boiling Water-bath Canning?

1. Fill the canner half full with clean, warm water for a canner load of pint jars. Adjust the amount of water for other sizes of jars according to the number and size of the jars. Make sure the water is 1 to 2 inches over the top of the filled jars.
2. Load filled jars, fitted with lids, into the canner one at a time, using a jar lifter.
3. Make sure the water level is at least 1 inch above the jar tops, adding more boiling water if needed. For process times in excess of 30 minutes, the water level should be 2 inches above the jars.
4. Turn the heat setting to high. Cover the canner with its lid and heat until the water boils vigorously.
5. Set a timer (after the water is boiling) for the total minutes required for processing the food.
6. Keep the canner covered for the process time. The heat setting may be lowered as long as a gentle but complete boil is maintained for the entire process time. Add more boiling water during the process, if needed, to keep the water level above the jar tops.
7. If the water stops boiling at any time during the process, turn the heat on its highest setting, bring the water back to a vigorous boil and begin the timing of the process over from the beginning (use the total original process time).
8. After the jars have been in the boiling water for the recommended time, turn off the heat and remove the canner lid. Wait five minutes before removing the jars.
9. Remove the jars one at a time using a jar lifter, being careful not to tilt the jars. Place them directly onto a towel or cooling rack, leaving at least 1 inch of space between the jars during cooling. Do not place the jars on a cold surface or in a cold draft because this could cause the jars to break.
10. Let the jars cool for 12 to 24 hours. Do not tighten the ring bands on the lids or push down on the center of the flat metal lid until the jar is completely cooled. Label jars and store in a cool, dry place out of direct light.

How Should a Boiling Water-bath Canner Be Stored?

Make sure your canner is clean and dry before storing it. Air should reach the inside of the canner to prevent a stale odor from forming. Put crumpled paper inside the canner and wrap the lid in paper or place it in a paper bag. Turn the lid upside down in the canner instead of sealing the canner shut. If storage space is available, place the lid in a paper bag and store it right side up on a shelf.

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For more information on this and other topics, see www.ag.ndsu.edu/food.

Source: National Center for Home Food Preservation at nchfp.uga.edu

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