Pressure Canning Basics

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Pressure canning is the only method recommended by the U.S. Department of Agriculture for safely canning low-acid foods such as vegetables, meats and fish. Low-acid foods must be canned at a temperature of 240 degrees F or higher and held there for the time specified in the recipe to destroy the bacterial spores naturally present in these foods. Pressure canning utilizes pressurized steam to reach this superheated temperature. This pressurized heat destroys the potentially harmful bacterial spores. As the jars cool, a vacuum is formed, sealing the food in the jars and preventing any new microorganisms from entering and spoiling the food.

Steps for successful pressure canning

1. Put 2 to 3 inches of hot water in the pressure canner. Longer processes require more water. Always follow the directions with USDA processes for specific foods. Place filled jars on the rack in the canner. Fasten the canner lid securely.

2. Leave weight off the vent port. Turn the stove burner to its highest setting and heat the canner until steam flows from the vent port.

3. Maintain the high heat setting, exhaust steam 10 minutes, and then place weight on the vent port. The canner will pressurize during the next 3 to 5 minutes.

4. Start timing the process when the pressure reading on the dial gauge or the jiggle of the weighted gauge (see manufacturer’s directions) indicates that the canner has reached the recommended pressure.

5. Regulate heat under the canner to maintain a steady pressure. If the pressure reading goes below the recommended pressure, bring the pressure back up and start the timing process again.
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6. When timed processing is completed, turn off the heat and wait until the canner has depressurized. (Refer to manufacturer’s directions.)

7. After the canner is depressurized (wait until the pressure gauge says zero or wait at least 30 to 45 minutes for weighted-gauge canners), remove the weight from the vent port. Unfasten the lid and remove it carefully. Open the lid away from you so that steam does not burn you. Leave jars in the canner for 10 minutes to keep liquid from leaking out of them.

8. Remove jars with a jar lifter, and place them on a towel or cooling rack. Do not set hot jars on a cold surface or expose them to direct breeze — either can cause the jars to break.

9. Leave jars on the counter to cool 12 to 24 hours. Do not tighten ring bands on the lids or push down on the center of the flat metal lid. After jars are cooled completely, check to be sure all lids have sealed. If a jar is not sealed, the contents must be reprocessed according to directions, or the jar must be refrigerated and the food eaten immediately.

10. Remove screw bands and check lids for secure seals. Wash, dry, label and store jars in a cool, dry place.

Safety tips

Gauges: Have dial gauges checked for accuracy before use each year, and replace any that reads high by more than 2 pounds pressure. Gauges can be checked at most Extension offices. Weighted gauges do not need to be tested. Do not put dial gauge lids in water. Wipe with a soapy cloth and then a clean damp cloth. Weighted-gauge lids may be washed in soapy water, then rinsed with clear water.

Gaskets: Handle canner lid gaskets carefully and clean according to manufacturer’s directions. Nicked or dried gaskets allow steam leaks, which prevent the pressure canner from pressurizing.

Wash, rinse and dry all parts of the canner thoroughly to remove all foreign matter after each use. Prevent odors from forming in the canner by thoroughly airing it. Store the canner in a dry place to prevent rust.

Check the manufacturer’s directions for proper care and storage of the pressure canner.

Sources


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