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Basics of Pressure Canning



Pressure canning, using a dial gauge or weighted gauge pressure canner, is the *only* method recommended by the U.S. Department of Agriculture (USDA) 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 uses pressurized steam to reach this superheated temperature. This pressurized heat destroys the potentially harmful bacterial spores, which can cause botulism. 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 according to manufacturer's directions. Always follow research-based recipes 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 forcefully from the vent port. The steam makes a V-shape or funnel shape as it leaves the canner.
3. This next step is critical to safe pressure canning. Maintain the high heat setting, set a timer and exhaust steam for 10 full minutes to vent the canner. After venting, place the weight on the vent port and 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.
6. When timed processing is completed, turn off the heat and wait until the canner has depressurized. (Refer to manufacturer's directions.) Do not force cool the canner.

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7. After the canner is depressurized (wait until the dial gauge says zero or wait at least 30 to 45 minutes for weighted-gauge canners), remove the weight from the vent port. Wait an additional 10 minutes before opening the lid. Unfasten the lid and remove it carefully. Open the lid away from you so that steam does not burn you.
8. Using a jar lifter, remove jars and place them on a towel or cooling rack. Do not tilt the jars to remove any water. This might break the seal that is forming on the jar. The water will evaporate. 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 for 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 research-based recipe guidelines, refrigerated, and the food eaten immediately or frozen.
10. Remove screw bands and check lids for secure seals. Wash, dry, label, date and store jars in a cool, dry place.

(National Center for Home Food Preservation, 2009)

Care of the Canner

Gauges: Have dial gauges checked for accuracy before use each year, and replace any dial gauge that reads high by more than 2 pounds pressure. Dial gauges can be checked at many Michigan State University Extension offices. Weighted gauges do not need to be tested.

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

pressure canner from pressurizing, and should be replaced. You can purchase new gaskets from various retailers.

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

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.

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.

Store the canner in a dry place to prevent rust.

References

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