



Pressure Can It Right!

Tips for Safely Using a Stovetop or Electric Pressure Canner

Pressure canning is the only safe way to preserve low-acid vegetables (such as green beans, corn and carrots), meats and most mixtures of foods. As water boils to steam in a sealed pressure canner, the temperature increases to 240 F or higher, temperatures necessary to destroy the spores of *Clostridium botulinum*.

Temperature and Pressure

Temperature and pressure go hand in hand when pressure canning. In a sealed canner, as steam builds pressure, the water temperature in the canner rises. At sea level, water boils at 212 F. Water in a pressurized canner will boil at 227 F under 5 pounds of pressure (psi), at 239 F under 10 psi, and at 250 F under 15 psi.

The higher temperatures achieved in a pressure canner are necessary to destroy harmful bacterial spores. Most importantly, it destroys spores of *Clostridium botulinum*, while still preserving quality and nutrition.

Venting is an important step in pressure canning. Venting removes air from the canner. Air acts as an insulator, interfering with the temperature increase inside the canner. When pressure canning, it is important to have an environment of pure steam surrounding the jars.

Elevation is an important factor for safe canned foods. As elevation increases, the temperature at which water boils to steam decreases, and the temperature in a sealed canner also decreases. Home canners who live at elevations above 1,000 feet make adjustments by processing foods at higher pressure. A research-tested recipe will guide you in making the proper adjustments. Check elevation at <https://www.advancedconverter.com/map-tools/find-elevation-of-address>.

Dial Gauge and Weighted Pressure Canners

A traditional pressure canner monitors **pressure inside the canner** using a dial gauge or a weight. The needle on a dial gauge canner responds to pressure, registering the pressure in the canner; a canner weight jiggles or rocks when the canner is at pressure (5, 10 or 15 psi).



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The needle on a *dial gauge* canner registers the pressure inside the canner. Once venting is complete, the needle will rise as pressure (and temperature) increases in the canner. **A dial gauge should be checked every year against a calibrated gauge to ensure the dial is registering accurately.** Contact your state Extension program or Presto Industries (800-877-0441) for information on dial gauge testing.

The weight or weight regulator on a *weighted canner* will rock gently or jiggle when the canner is at pressure, keeping pressure inside the canner at a constant level. Weights come in different styles. Pictured is a weight that regulates 5 psi, 10 psi or 15 psi, depending on the orientation of the weight on the vent port. Regardless of the style of weight, a canner must be able to regulate pressure at 5 psi, 10 psi or 15 psi. Read your manufacturer's directions, or contact the manufacturer directly, to know how a particular weight should register pressure.



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One type of canner, the All-American Pressure Canner, has a unique lid-locking system and has *both* a weight regulator and a dial gauge. **All-American canners are weighted canners with a dial gauge as a reference.** This brand of canner relies on the weight regulator for processing food safely; these canners are not used as dial gauge canners. All-American canner dial gauges are not calibrated annually. Contact All-American (Wisconsin Aluminum Foundry, Consumer Products Division) for more information on their brand of canners (920-682-8286).

Modern pressure canners come equipped with removable racks, a vent pipe, cover lock and a safety fuse. Pressure canners must be large enough hold at least 4 quart jars and be able to regulate pressure at 5, 10 and 15 psi (weighted gauge) or up to 20 psi (dial gauge). For more information see [Preserving Food: Using Pressure Canners](#) from the National Center for Home Food Preservation. Regardless of the type of pressure canner that you use, be sure to adjust for elevation.



Resources

How Do I Can Foods? National Center for Home Food Preservation. <https://nchfp.uga.edu/how/can>

Presto Precise Digital Pressure Canner. Fact sheet. 2021. National Presto Industries, Inc. http://www.gopresto.com/downloads/canning/Digital_Canner_Facts_and_FAQs_v22d.pdf

Using Pressure Canners. National Center for Home Food Preservation. https://nchfp.uga.edu/papers/factsheets/Preserving_Food_Using_Pressure_Canners.pdf

USDA Complete Guide to Home Canning, 2015. <https://nchfp.uga.edu/resources/category/usda-guide>

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Electric Pressure Canners

Presto has developed an electric canner – the Presto Precise® Digital Pressure Canner. While traditional pressure canners sense and respond to **pressure**, the Presto Digital canner senses and responds to **temperature**.

Food manufacturers who can tomatoes, green beans, corn and meats found in grocery stores are required to use equipment that monitors and records **temperature** during the canning process. The same technology is used in the Presto Precise® appliance.

When used at higher elevations, the Presto Precise® Digital Pressure Canner will automatically adjust to maintain process temperature.

Always follow canner instructions if using the Presto Precise® Digital Pressure Canner. As with traditional dial gauge and weighted canners, the Presto electric pressure canner should be used with tested recipes available from sources such as the [National Center for Home Food Preservation](#) or your [state Extension program](#).

Multicookers and other types of pressure cookers are not recommended for home canning. See [Burning Issue: Canning in Electric Multi-Cookers](#) from the National Center for Home Preservation.

See www.ag.ndsu.edu/food for more information.

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