



A Guide to Pressure Canning

Review and Revision: Claudia Botzet, SDSU Extension Nutrition Field Specialist
Original Publication: 2018 – Megan Erickson, former SDSU Extension Nutrition Field Specialist

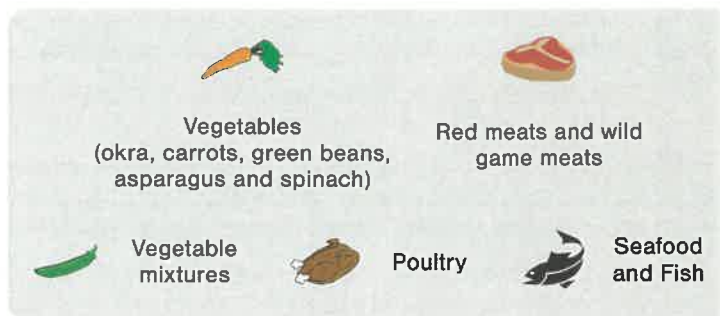
Pressure canners may have a weighted-gauge or dial-gauge, for indicating and regulating the pressure during processing.

Pressure canning is the method used for preserving low acid foods.

These foods include:

These foods:

- have a natural acidic level that is too low to prevent growth of the heat-resistant spore-forming bacteria (*Clostridium botulinum*)
- need to be processed at high enough temperatures to kill any harmful bacterial spores and their toxins



The Importance of Altitude:

Altitude affects canning recipes, just like it does when you bake. Recipes are written for altitudes up to 1,000 feet above sea level.

Check the chart for adjustments based on your altitude.

Find your altitude by downloading the Altimeter App (Free!) or visiting: whatismyelevation.com

Altitude (feet)	Dial-Gauge (pounds pressure)	Weighted-Gauge (pounds pressure)
0-1,000	11	10
1,001-2,000	11	15
2,001-4,000	12	15
4,001-6,000	13	15
6,001-8,000	14	15
8,001-10,000	14	15

Safety First!

Following a safe recipe is important. When canning foods, you should:

- Always use evidence-based recipes from sources such as:
 - Ball canning books
 - USDA Complete Guide to Home Canning
- NEVER use recipes from unsafe sources such as:
 - Pinterest
 - Blog Posts
 - Old family recipes
 - freeze homemade recipes for long-term storage instead
 - Recipes older than 1994 may be unsafe.



Steps for Successful Pressure Canning

- 1 Put rack and 2-3 inches of hot water in the canner.
- 2 Prepare food. Fill jars as directed, ensuring proper headspace. Remove air bubbles.
- 3 Clean rim & threads of jar using a clean, damp cloth.
- 4 Place lid and band on jar, screw on until finger-tip tight.
- 5 Place jars on rack in the canner and fasten canner lid securely.
- 6 Leave weight off vent port or open petcock. Heat at the highest setting until steam flows freely from the open petcock or vent port.
- 7 Maintaining high heat, let steam flow (exhaust) for 10 minutes and then place weight on the vent port or close the petcock. The canner will pressurize during the next 3-5 minutes.
- 8 Start timing according to the recipe when the recommended pressure has been reached on a dial gauge, or when the weighted gauge begins to jiggle or rock as the canner manufacturer describes.
- 9 Regulate heat under the canner to maintain a steady pressure at or slightly above the correct gauge pressure. Monitor to ensure pressure does not fluctuate. Follow the canner manufacturer's directions for how a weighted gauge should indicate it is maintaining the desired pressure.
- 10 When the timed process is completed, turn off the heat, remove the canner from heat if possible, and let the canner depressurize back to zero. Do not force-cool the canner which may result in food spoilage.
- 11 After the canner is depressurized, remove the weight from the vent port or open the petcock. Wait 10 minutes, unfasten the lid, and remove it carefully. Lift the lid away from you so that the steam does not burn your face. Let cool 5 minutes.
- 12 Remove jars from canner and set upright on a towel.
- 13 Leave jars undisturbed for 12-24 hours.
- 14 Check lids for seals. Lids should not flex up and down when the center is pressed.
- 15 Remove bands, test seals by gently pulling at the lid with your fingers.
- 16 Store in a cool, dry, dark place for up to 18 months.

Cleaning Your Canner:

- Clean the vent by drawing a clean string or narrow strip of cloth through the opening.
- Look to see if the safety valve is free of debris and operates freely. Follow the manufacturer's instructions for cleaning the valve.
- Check the rubber gasket for cracks or damage and replace if needed.
- Do not immerse the dial gauge in water when cleaning.
- Have dial gauges checked for accuracy each year. Gauges that read high cause under-processing. Gauges that read low cause over-processing. Both result in unsafe food.
- See also *A Guide To Water Bath Canning* Publication.



Sources: National Center for Home Food Preservation: nchfp.uga.edu

The All New Ball Book of Canning & Preserving, First Edition 2016

For more information: extension.sdstate.edu/food

SDSU Extension is an equal opportunity provider and employer in accordance with the nondiscrimination policies of South Dakota State University, the South Dakota Board of Regents and the United States Department of Agriculture.

Learn more at extension.sdstate.edu.

© 2022, South Dakota Board of Regents