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## Using Pressure Canners

Kathleen Riggs  
*Utah State University*

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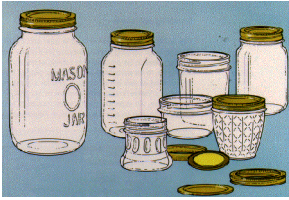
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# USING PRESSURE CANNERS



Kathleen Riggs, Family and Consumer Sciences

Iron County Office  
585 N. Main St. #5  
Cedar City, UT 84720

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## WHY CHOOSE PRESSURE CANNING TO PRESERVE FOOD?

Pressure canning is a safe and economical method of preserving *low acid* foods which has been used for decades—especially by home gardeners and others interested in providing food storage for their families where quality control of the food is in ones' own hands. Home food preservation also promotes a sense of personal satisfaction and accomplishment. Further, the guess-work is taken out of being able to provide a safe food supply at home when guidelines for operating a pressure canner are followed exactly, scientifically tested/approved recipes are utilized, and high quality equipment, supplies and produce are used.

## WHAT FOODS ARE TYPICALLY PROCESSED/PRESERVED USING A PRESSURE CANNER—AND WHY?

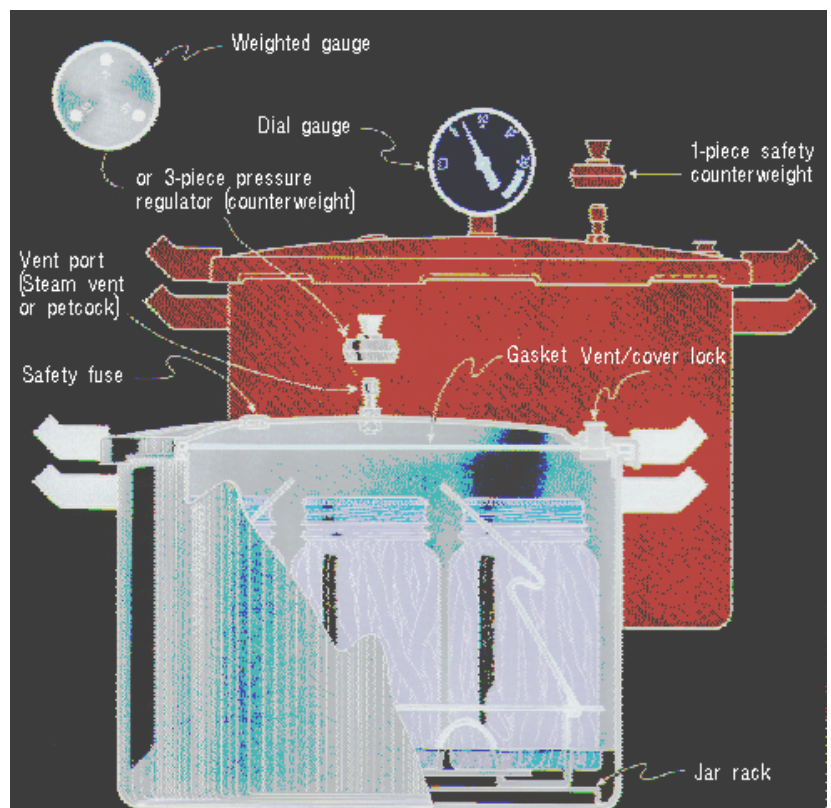
*Low acid* foods require a higher temperature when processing than can be reached by placing them in jars immersed by boiling water. To kill harmful bacteria (such as those associated with botulism) use of pressure canning ensures the safety of the preserved produce. Foods such as red meats, sea food, poultry, milk, and all fresh vegetables, with the exception of most tomatoes, fit into the *low acid* group since they have an acidity, or pH level, of 4.6 or higher. The temperature which must be reached and maintained (for a specified amount of time) to kill the bacteria is 240°F. This temperature can be reached *only* by creating steam under pressure.

## BECOMING FAMILIAR WITH THE PARTS OF A PRESSURE CANNER (See illustration →)

Older model pressure canners (made before 1970)

were heavy-walled kettles with clamp-on or turn-on lids fitted with a dial-type gauges. A vent port, in the form of a petcock or counterweight, and a safety fuse were also present. Modern pressure canners are lightweight, thin-walled kettles and most have turn-on lids. They usually have a perforated metal rack or basket with handles, rubber gasket, a dial or weighted gauge, an automatic vent/cover lock, a vent port (steam vent) to be closed with a counterweight or weighted gauge, and a safety fuse.

**Note:** When purchasing a used pressure canner, make certain all parts are accounted for and in good condition. It is nearly impossible to find replacement parts for older models.



## SELECTING THE CORRECT PROCESSING TIME AND PRESSURE

To ensure the safety of food processed in the pressure canner, use processing times listed for scientifically-tested

recipes (dated 1988 or later) and adjust for altitude using the chart below. Keep in mind that failing to follow proper processing times and pressure recommendations may result in spoiled food (mold, bacteria, and other microorganisms) and possibly fatal food poisoning.

STEAM-PRESSURE CANNER ALTITUDE CHART					
<i>The steam-pressure method is used for low-acid foods. Normally, the pressure given for low acid foods in canning guides is for weighted-gauge canners at altitudes at or below 1,000 feet above sea level. At altitudes of 1,001 feet or above, adjust the processing pressure according to the STEAM-PRESSURE CANNER chart for the type of steam-pressure canner being used.</i>					
Altitude (feet)	Weighted Gauge	Dial Gauge	Altitude (feet)	Weighted Gauge	Dial Gauge
0 - 1,000	10	11	4,001 - 6,000	15	13
1,001 - 2,000	15	11	6,001 - 8,000	15	14
2,001 - 4,000	15	12	8,001 - 10,000	15	15

## STEPS FOR SUCCESSFUL STEAM-PRESSURE CANNING

- Put 2 –3 inches of hot water in canner. Place filled jars on the rack, using a jar lifter. Fasten canner lid securely.
- Leave weight off vent port or open petcock. Heat at the highest setting until steam flows from the petcock or vent port.
- Maintain high heat setting, exhaust steam 10 minutes, and then place weight on vent port or close petcock. The canner will pressurize during the next 3 to 5 minutes.
- Start timing the process when the pressure reading on the dial gauge indicates that the recommended pressure has been reached, or when the weighted gauge begins to jiggle/ rock.
- Regulate heat under the canner to maintain a steady pressure at or slightly above the correct gauge pressure. **If the pressure reading goes below the recommended pressure, you must bring the pressure back up and start the timing process over again from the beginning.**
- When timed processing is completed, turn off the heat, remove canner from heat (if electric range), and let the canner “depressurize” at room temperature (dial needle moves back to “0” or no steam sounds when weight is gently nudged). **Do not force-cool the canner.** Releasing pressure from a partially opened vent or placing the canner under cool water will result in under-processing. It may also cause unsealed jars and loss of liquid from the jars. Quick-cooling can also warp the canner lid of older model canners.
- After the canner is depressurized, remove the weight from the vent port or open the petcock. Wait 2 minutes,

unfasten the lid, and remove it carefully. Lift the lid away from you so that the steam does not burn your face.

- Remove jars with a lifter, and place on towel or cooling rack, if desired. Do not set on a cold surface or expose to breezy conditions.

## ADDITIONAL SAFETY/OPERATING TIPS

**Gauges:** Check dial gauges for accuracy before use each year and replace if they read high by more than 1-2 pound pressure. Gauges may be checked at most county Cooperative Extension offices. Replacement gauges and other parts for canners are often available at stores offering canning equipment or from canner manufacturers. When ordering parts, it will be helpful to know the model number of your canner.

**Gaskets:** Handle canner lid gaskets carefully and clean them according to the manufacturer’s directions. Nicked or dried gaskets will allow steam leaks during pressurization of canners and should be replaced. Keep gaskets clean between uses. A lid which is difficult to remove after cooling may indicate a gummy, or dry gasket and is reason to replace it.

**Sources:** Adapted from information in the USDA *Complete Guide to Home Canning* and *Ball Blue Book*, Guide to Home Canning, Freezing & Dehydration.

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