

Steam Canners: Use and Precautions

Naturally high acid foods (pH 4.6 or lower) may be processed in either a boiling water canner or a steam canner; i.e., fruits, jams, jellies, and pickles. Steam canners come with a shallow bottom, a wire rack, and a dome lid. For years steam canners were not recommended but recent research has provided directions for their safe use.

NOTE: *Do not use the instructions that may have come with your steam canner, they are not based on current research tested methods and may lead to under processing.*

CONSIDERATIONS

Steam canners are limited by the amount of water in the canner base. Because of their shallow base, they run the risk of boiling dry, so **only use with current, research-tested boiling water canner recipes with a processing time of 45 minutes or less. This includes time adjustments made for altitude.**

Steam canners require less water than boiling water canners and so take less time to reach boiling temperature. This also means that a filled steam canner will not be as heavy as a boiling water canner; making it easier to remove from the heat after processing is complete.

Steam canners are only recommended for processing using 1/4-pint, 1/2-pint, pint, or quart jars. They can be used fully loaded with jars, half-loaded, or with a single jar.

Jars must be processed in pure steam at 212°F. Temperature should be monitored with a thermometer placed in the vent port. **DO NOT** remove the lid at any time during processing. Some canners come with a built-in temperature sensor in the dome-lid that, in lab testing, appear to be accurate.



Victorio® Steam Canners with built-in temperature gauge. Image used with permission: victorio.info

BEFORE YOU BEGIN

- Experience suggests better success with pints than quarts
- Canner will be very hot—keep jars in very hot water while preparing jar contents or risk shattering the bottom of the jars when adding to the steam canner and/or underprocessing if contents have cooled
- If the canner boils dry, you must start over again

RESEARCH BASED CANNING INSTRUCTIONS FOR USE WITH A STEAM CANNER

These publications, and more, can be located at <https://extension.oregonstate.edu/food/preservation>

- PNW 199, Canning Fruits
- PNW 355, Pickling Vegetables
- National Center for Home Food Preservation, nchfp.uga.edu

Canning Timer & Checklist App—This free OSU app provides abbreviated checklists and a timer to guide users in canning vegetables, fruits, meats and fish. Intended for people with previous canning experience, the app provides reminders of essential steps in the canning process. Available for iOS and Android smartphones.



DIRECTIONS

1. Jars must be heated prior to filling. Keep hot jars hot, fill only with hot liquid and limit any cooling prior to processing. Use only current, research-tested boiling water canner recipes. *Note the research-based references on front.*
2. Place rack in bottom of canner, fill with water to just over the top of the rack. Move to heat and preheat water. Load canner and place dome lid on canner.
3. The steam canner must be vented prior to processing. Once a full and steady column of steam (6 to 8 inches) is seen coming from the vent, begin processing time. Temperature should be monitored throughout processing. Some canners come with a built-in thermometer in the lid. If not, a thermometer should be placed in a vent port. Temperature should remain between 210°F—212°F.

NOTE *If using an open flame burner, be careful as you check temperature with thermometer, as it could melt.*

4. Do not allow the canner to boil too vigorously or it will boil dry, creating an under-processed and potentially unsafe product. Never open the lid during processing to add water. Regulate the heat so the canner maintains a temperature between 210°F—212°F.
5. When processing time is completed, remove from heat source and let stand for 5 minutes before removing the lid. Tilt the lid away from you (this will avoid steam burns).

CAUTION *Use extreme care while using the steam canner as the steam and water can cause serious burn injuries.*

6. Use hot pads or a jar lifter to remove jars from canner. Cool jars on a rack or cloth at room temperature, allowing air to circulate freely around them. Avoid cold drafts or fans.
7. Do not retighten screw bands after processing. Retightening of hot lids may cut through the gasket and cause seal failure. Allow to cool 12—24 hours.
8. Check seal, remove bands, and wipe jars. Label with the date, contents of the jar, and processing information. Store jars in a cool, dark, and dry place. For best quality and nutritive value, use within one year.

SOURCES

Inghram, B. Guidelines for Using an Atmospheric Steam Canner for Home Food Preservation. University of Wisconsin Extension. 2011.

P. Willmore et al. 2015. Home Processing of Acid Foods in Atmospheric Steam and Boiling Water Canners. Food Protection Trends. 35:150-160.

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