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Michigan Fresh

Basics of Steam Canning

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What Is Steam Canning?

The National Center for Home Food Preservation and the United States Department of Agriculture has approved steam canning as a safe method of home food preservation. A steam canner is a shallow pan with a dome cover, large enough to fit over quart-sized canning jars. This method uses a small amount of water that produces steam within the canner and around the jars. Only use steam canning to preserve high-acid foods such as fruits, acidified tomatoes, pickled products, jams, jellies and preserves. Always use current research-based* water bath canning recipes when using a steam canner. **For foods to be preserved in a steam canner, the recipes must have a processing time of 45 minutes or less. Processing foods in a steam canner beyond 45 minutes is unsafe because of the small amount of water the canner base will hold**. The majority of high-acid foods are processed in 45 minutes or less.

Advantages of Steam Canning

There are many advantages in using a steam canner when processing high-acid foods.

- Steam canners are made out of lightweight aluminum, whereas boiling-water bath canners are usually made of heavy porcelain-covered steel. In addition, boiling-water bath canners made out of aluminum still weigh more than steam canners.

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- A steam canner does not heat up a kitchen as much as a boiling-water bath canner.
- Steam canners take approximately 2½ quarts of water compared to the gallons needed for a boiling-water bath canner – significantly less water is used.
- The small amount of water needed for a steam canner makes it considerably easier to fill, handle and empty than a boiling-water bath canner.
- Due to the small amount of water in steam canners, time and energy is saved in reaching the 212 °F processing temperature. It also takes much less energy to maintain steam than boiling water.

Steps for successful steam canning

1. Fill the base of the steam canner with the amount of water recommended in the instruction manual.
2. Wash canning jars and keep hot until processing.
3. There are two methods of packing food into canning jars:
   a. **Raw pack** is the process of packing raw, washed, prepared (peeled, cut-up, pitted or other) food into clean, hot canning jars, according to the recipe directions.
   b. **Hot pack** is the process of heating food and then promptly packing the food into clean, hot canning jars, according to the recipe directions.
4. Cover raw or hot-packed food with boiling water, hot liquid, syrup or juice. Use a plastic spatula, bubble freer or wooden spoon around the inside of the jars to remove air bubbles. Air bubbles can keep the jar from sealing.
5. Leave the amount of **headspace** at the top of the jar, according to recipe directions. Headspace is the space between the top of the jar and the food or liquid. Headspace allows food to expand when heated.
6. After food is packed into jars, wipe jar rims with a clean, damp cloth or paper towel to secure an airtight seal. Place the canning lid with the sealing compound on the jar rim. Screw the metal band down fingertip-tight to hold the lid in place. Do not overtighten.
7. Place filled jars in preheated steam canner. The water in the canner base should be 140 °F for raw-packed foods and 180 °F for hot-packed foods.
8. Place the dome of the steam canner over the jars and turn the stove burner up until a full, steady column of steam appears out of the vent hole.
9. Slowly lower the heat to maintain the recommended temperature inside the canner. Refer to the instruction manual.
10. Follow processing times from research-tested* recipes.
11. When processing time is complete, turn off the heat and tilt the dome away from you when opening to avoid steam burning. Let jars stand for 5 minutes before removing from the canner. Extreme temperature differences can cause jar breakage.
12. Cool jars 12 to 24 hours on a rack or towel away from drafts. After jars have cooled completely, check to be sure all lids have sealed. Remove screw bands and check lids for secure seal. Wash, dry, label and store jars in a cool, dry place.

Safety Tips

- Since the amount of water in the canner base limits the processing times to 45 minutes or less, do not process beyond 45 minutes.
- Do not open the canner to refill the water while processing foods.
- Adjust processing time according to your elevation following a research-based recipe.*
- Use lids only once; you may reuse screw bands that are in good condition.
- Cool hot jars at room temperature away from drafts. Never rush the cooling process.

*Find research-based recipes developed for water bath canning, which can be used for steam canning, at the National Center for Home Food Preservation (http://nchfp.uga.edu/), University of Georgia Extension's *So Easy to Preserve* (http://setp.uga.edu/), the USDA *Complete Guide to Home Canning* (http://nchfp.uga.edu/publications/publications_usda.html) and in recent Ball Blue Books.

References and Resources:

Ingham, B. (2017, Oct. 24). *Safe preserving: Using a steam canner. Safe and Healthy: Preparing and Preserving Food at Home*. University of Wisconsin–Extension. Retrieved from https://fyi.uwex.edu/safepreserving/2017/10/24/safe-preserving-using-a-steam-canner/

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