



# CANNER'S CORNER: ENJOYING SUMMER'S BOUNTY

## Issue Four

### Step-by-step canning of high-acid foods

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High-acid foods include fruits; fruit juices; jams, jellies, and other fruit spreads; tomatoes with added acid; pickles, relishes, and chutneys; tomato sauces; vinegars; and condiments.

Because they are relatively easy to preserve, high-acid foods are a popular choice for home canners. These foods provide canners the opportunity to prepare and enjoy a wide array of creative recipes, from excellent side dishes to delectable desserts.

#### Here are some tips on home canning:

1. Before starting, review the recipe and assemble equipment and ingredients. Follow guidelines for recipe preparation, jar size, canning method, and processing time.

Be sure to follow up-to-date recipes and procedures, tested by the U.S. Department of Agriculture (USDA). These research-based guidelines for home canning are found in USDA's *Complete Guide to Home Canning*. The University of Wyoming Cooperative Extension Service (UW CES) Food and Nutrition Web page at [www.uwyo.edu/cesnutrition/Food\\_Preservation.htm](http://www.uwyo.edu/cesnutrition/Food_Preservation.htm) links to on-line versions of these guidelines. Click on the UW Resources link to access Wyoming-specific versions of USDA's guidelines (see the Preserving Food in Wyoming link), or click on the Web Sites link to access the entire USDA publication.

Print versions of the USDA canning publication and the seven publications in the Wyoming series can be ordered by e-mailing the UW College of Agriculture's Resource Center at [cespubs@uwyo.edu](mailto:cespubs@uwyo.edu) or calling the center at (307) 766-2115. For more information on canning and food preservation, call a local UW CES office. Contact information is in your local phone directory and on-line at <http://ces.uwyo.edu/Counties.asp>.

2. Visually inspect home-canning jars for nicks, cracks, uneven rims, and sharp edges that may prevent sealing or cause breakage. Check bands for proper fit. Examine



lids to ensure they are not scratched and the sealing compound is even and complete. Wash jars, lids, and bands in hot, soapy water and then rinse.

3. If jars are being processed for 10 minutes or more, there is no need to sterilize the jars, but they should be clean and ready to use. See the visual illustrations and tutorials developed by the National Center for Home Food Preservation at [www.uga.edu/nchfp/multimedia.html](http://www.uga.edu/nchfp/multimedia.html) and by Jarden Home Brands at [www.freshpreserving.com](http://www.freshpreserving.com) (click on the How To link at the top of the page).
4. Prepare food as recipes direct. Call a UW CES nutrition and food safety educator to answer questions.
5. Place lids in a small saucepan. Cover lids with water. Bring to a simmer (180 degrees F); keep lids hot until ready to use. Do not boil lids as this may damage the sealing compound and cause the seal to fail.



6. Fill hot jars one at a time with prepared food, wiping the rim of the jar clean and putting on the two-piece lid before starting the next jar. Avoid using an assembly-line method because the food can cool before applying the lid. Allow proper headspace, the term used to describe the unfilled space above the food in the jar and below its lid. This space is needed for expansion of food as the jars are processed and for forming vacuums in cooled jars. Overfilling and under-filling can result in seal failure. Headspace is determined by the food type. The following are guidelines for a few food categories, but always check the recipe to make sure you leave the proper headspace:

- \* Jams, jellies, and other fruit spreads: 1/4-inch
- \* Fruits and tomatoes (to be processed via boiling water bath): 1/2-inch

The following Web sites offer visual illustrations and tutorials of safe home-canning procedures:

- \* The National Center for Home Food Preservation at [www.homefoodpreservation.com](http://www.homefoodpreservation.com) is funded, in part, by the U.S. Department of Agriculture, the source of most research-based home-canning recipes and procedures. This University of Georgia Cooperative Extension site offers several slide shows, including one on canning low-acid foods, and a free, self-paced on-line course on home canning and preservation.
  - \* The Jarden Home Brands site at [www.freshpreserving.com](http://www.freshpreserving.com) features two video clips on making freezer jam and salsa and several step-by-step slide shows, including two on canning acid foods and low-acid foods. Although most site visuals feature Ball® and Kerr® products, two of Jarden's product lines, the basic content is accurate and instructive.
7. Remove air bubbles by sliding a non-metallic spatula or rubber spatula between the jar and food; press gently on the food to release trapped air. Repeat all around the inside edge of the jar. After removing air bubbles, readjust headspace if required.
  8. Wipe the rim and threads of the jar with a clean, damp cloth to remove any food residue. Center the lid on the jar to ensure the sealing compound is next to the rim.
  9. Apply the band, screwing it down evenly and firmly, just until fingertip-tight – as snug as the band can be applied with your fingertips. This allows the lid to vent air during processing, which is necessary to form a vacuum seal.
  10. Place the jar on a rack in the canner. Repeat steps 6 through 9 for each jar. When all the jars are filled or the canner is full, lower the rack into the water. Be sure the water covers the jars by at least 1 inch; add boiling water if required. Place the lid on the canner, and turn heat to medium-high. Important: Do not fill more jars than can be processed right way.
  11. When the water returns to a full, rolling boil, begin counting the processing time. Follow the time as specified in USDA's *Complete Guide to Home Canning* or in the Wyoming-specific versions of USDA's guidelines ("Preserving Food in Wyoming" link is listed above) with separate publications on canning tomatoes, fruit, jelly, meat, pickles, vegetables, and wild berries.



12. When the specified time has elapsed, turn off heat and remove the canner lid. Allow boiling to subside, lift the jars without tilting, and place them upright on a towel to cool in a draft-free place. Do not re-tighten the bands or test for a seal while the jars are hot as this can cause the seal to fail. Cool the jars undisturbed for 24 hours.
13. After the jars have cooled, check the lids for proper seal by pressing on the center of the lids. If a lid is now concave and does not flex up or down when pressed, remove the band and slightly lift the jar by the lid. Lids that do not flex and cannot easily be removed with your fingertips have a good seal. Refrigerate or reprocess any unsealed jars.
14. Remove the bands, and then wash and dry them. When left on jars, bands can become rusty, making removal difficult. Wipe jars and lids with a clean, damp cloth, and dry them. Label and store jars in a cool, dry, dark place. For best quality, use home-canned foods within one year.

Occasionally, every home canner will have jars of food that spoil. The need for safety is especially important with canned low-acid foods that have spoiled because they can contain the powerful *Clostridium botulinum* toxin. Do not taste food from a jar with an unsealed lid or that shows signs of spoilage. Follow the procedures outlined in USDA's *Complete Guide to Home Canning* (see Web address above).

In addition to guidance on food preservation, the UW CES Food and Nutrition Web site at [www.uwyo.edu/cesnutrition](http://www.uwyo.edu/cesnutrition) provides information and links in other subject areas, including food preparation, food safety, food storage, and a number of nutrition topics. Contact a local UW CES office if you have questions.



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Some of the information for this fact sheet came from newspaper columns by Cindy Shuster, an extension educator for The Ohio State University in Perry County, Ohio, and from USDA's *Complete Guide to Home Canning*.

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