Guidelines of using an Atmospheric Steam Canner for Home Food Preservation

The University of Wisconsin-Madison has published research which indicates that an Atmospheric Steam canner may be used for home canning of naturally acid foods such as peaches, pears, and apples, or acidified-foods such as salsa or pickles, **as long as all the following criteria are met**:

- Foods must be **high in acid**, with a pH of 4.6 or below. Either a Boiling Water Canner or an Atmospheric Steam Canner can be used to safely preserve foods high in acid.
- A research tested recipe developed for a boiling water canner must be used in conjunction with the Atmospheric Steam Canner. Approved recipes are available from sources such as the National Center for Home Food Processing and Preservation: <u>nchfp.uga.edu</u> Standard canning jars with 2-piece metal lids must be used. The **booklet** accompanying an Atmospheric Steam Canner **can't be relied on** to provide safe canning instructions.
- Jars must be processed in **pure steam at 212°F**. The canner must be vented prior to starting the processing time until a full column of steam appears. A full column of steam (6-8 inches) should be observed venting from the hole(s) in the side of the canner during the entire timed process. Ideally, temperature should be monitored with a thermometer placed in the vent port, but the placement of jars in the canner may make this difficult. Some appliances come with a built-in temperature sensor in the dome lid and these appear to be accurate.
- Jars must be **heated prior to filling**, and filled with hot liquid (raw or hot pack). An Atmospheric Steam Canner can be used with recipes approved for **half-pint**, **pint**, **or quart jars**.
- **Processing time** must be modified for elevation as required by a tested recipe. Elevation for any address can be checked here: <u>http://www.daftlogic.com/sandbox-google-maps-find-altitude.htm</u>
- Processing time must be limited to 45 minutes or less, including any modification for elevation. The
 processing time is limited by the amount of water in the canner base. When processing food, the canner should
 not be opened to add water. Regulate heat so that the canner maintains a temperature of 212°F. A canner that
 is boiling too vigorously can boil dry within 20 minutes. IF a canner boils dry, the food is considered underprocessed and therefore potentially unsafe.
- Cooling of jars must occur in **still**, **ambient air**. Cooling is important for safety. Jars should be cooled on a rack or towel away from drafts. Jars should not be force-cooled.

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





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

Source: Permission to use this information was granted from Barbara Ingham, Professor, Food Science Extension Specialist, University of Wisconsin-Madison

Disclaimer: Reference to any specific commercial products, process, service, manufacturer, or company does not constitute its endorsement or recommendation.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

K-State Research and Extension is an equal opportunity provider and employer. Issued in furtherance of Cooperative Extension Work, Acts of May 8 and June 30, 1914, as amended. Kansas State University, County Extension Councils, Extension Districts, and United States Department of Agriculture Cooperating, John D. Floros, Director. June 2015





Back to Basics Steam Canner Image credit: nchfp.uga.edu