Guidelines for using a Steam Canner for Home Food Preservation

The University of Wisconsin-Madison conducted research showing that an atmospheric Steam Canner may be used to safely can naturally acid foods such as peaches, pears, and apples, or acidified-foods such as salsa or pickles. The atmospheric steam canner uses only ~2 quarts of water (compared to 16 quarts, or more, in a boiling water canner) so you heat less water and processing can start more quickly. Safe processing in a steam canner requires that all the following criteria are met:

- Foods must be high in acid, with a pH of 4.6 or below. Foods may naturally be high in acid (most fruits) or have added acid. Either a Boiling Water Canner or a Steam Canner may be used to safely preserve foods high in acid.

- An up-to-date, research-tested recipe is used. Approved recipes for boiling water canning may be safely adapted for use in a steam canner. Acceptable recipes are available from sources such as the National Center for Home Food Preservation: https://nchfp.uga.edu/ or, in Wisconsin, in the Safe Food Preservation series: fyi.extension.wisc.edu/safepreserving/

- Make the following adjustments to an approved recipe for a boiling water canner: at the processing step, place filled jars on the canner rack above hot/preheated water. Place the lid on the canner and heat, on high, until the canner vents. A full 6-8” column of steam will flow out of the vent holes in the canner. Once the canner continuously produces a full column of steam, start timing. Process time is based on the time for a boiling water canner. Adjust heat, as needed to ensure the canner vents during the entire process time.

- Jars are processed in pure steam at 210-212°F. Steam should flow freely from the canner vent(s) during the entire process, or the food is considered under-processed/unsafe. You may wish to insert a thermometer in the vent port to check processing temperature.

- Adjust processing time for elevation. Add 5 minutes to processing time for each 1,000 feet above sea level. Check elevation here: https://nchfp.uga.edu/how/general/find_altitude.html

- Jars must be heated prior to filling and filled with hot liquid (raw or hot pack). Jars of half-pint, pint, or quart size may be used, depending on the jar size acceptable in the recipe.

- Processing time should 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 210-212°F. A canner that is boiling too vigorously can boil dry within 20 minutes. If a canner boils dry, the food is considered under-processed and therefore potentially unsafe.

- Cool jars in still, ambient air. Jars should be cooled on a rack or towel away from drafts.

Dr. Barbara Ingham, bhingham@wisc.edu rev. February 2019