



SAFE CANNING FOR FOOD VENDORS & OPERATORS

The following is provided as guidance for food vendors and operators to ensure canning and preserving is conducted safely and to ensure compliance with food safety legislation.

Farmers Markets and food premises which are not exempt from the Ontario Food Premises Regulation 493/17 are required to make/prepare canned foods in an inspected facility. All facilities are expected to produce canned food in a manner to prevent potential health hazards.

Failure to take proper precautions in the preparation of canned foods can cause botulism (a deadly form of food poisoning caused by the *Clostridium botulinum* (*C. botulinum*) bacteria) or cause other food borne illnesses.

WHAT ARE THE RISKS?

Botulism outbreaks have been associated with canned food products, especially low-acid foods like vegetables and meat.

Improper processing methods or unsanitary conditions during food preparation, allows *C. botulinum* bacteria to germinate after the canning process is complete.

METHODS OF CANNING

High Acid

High-acid foods with a pH of less than 4.6 are resistant to the growth of bacteria. A boiling water canner that heats food according to the recipe is sufficient to use for processing high-acid foods.

Acidified Foods

Acidified foods are low-acid foods to which acid or naturally acidic foods are added, have a pH of 4.6 or less and a water activity greater than 0.85. To reduce the risk of acidified canned food, the product must be heat treated at 100°C for a period of time as indicated in the validated recipe. Fermented foods are not considered acidified.

Low Acid

Low-acid foods have a pH greater than 4.6 and a water activity greater than 0.85. Low-acid foods such as most vegetables, meats, and seafood must use a validated recipe and a pressure canner capable of reaching 116° to 121°C/ 240° to 250°F for 20-100 minutes. Time and temperature must be monitored and recorded.

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PRODUCING SAFE CANNED FOOD

Start with a validated recipe

A validated recipe is a process that has been scientifically determined to be adequate in ensuring a shelf-stable product that is free from pathogens and controls the risk of spoilage. The use of a validated canning recipe assists in production of a safe product by identifying the temperature, processing time, and acidification requirements to effectively inactivate the *C. botulinum* spores.

A validated recipe includes:

1. Container type and size
2. Ingredients
3. Acidity (pH)
4. Time and temperature requirements

***Note that validated recipes are required to be used for low acid and acidified foods.** An operator may choose to have their own recipes validated. Prior to selling products using their own recipes, operators must work with an accredited research laboratory to **prove that both the process and the final product are safe.** Documentation must be provided to the PHI.

CREATE A HAZARD ANALYSIS CRITICAL CONTROL POINTS (HACCP) PLAN & DOCUMENTATION

Utilize a HACCP-based process that includes documenting all critical control points (temperature, water activity and acidity) in order to control or eliminate the growth of microorganisms of concern. An adequate implementation and documentation of the HACCP system reduces the probability of error during the canning process.

LABELLING REQUIREMENTS

All products must be clearly labelled with lot numbers and labels indicating source. See CFIA's website for more information on labelling requirements.

Your Public Health Inspector may conduct any of the following actions when finding canned products for sale:

1. Request any of the following documentation: HACCP plan, canning date, validated recipes, quantity of canned product produced etc.
2. Under the Health Protection and Promotion Act, seize and destroy the product if it is believed to be a health hazard.
3. Request the removal of a product from sale until accredited laboratory documentation is provided by the operator with adequate pH and water activity of the product.
4. Seize samples of canned product for laboratory testing by Public Health Laboratories.

SUMMARY OF REQUIREMENTS:

	HACCP Plan?	Validated Recipe?	Pressure Canner?	Labelling?
High Acid Foods	✓	*		✓
Acidified Foods	✓	✓		✓
Low Acid Foods	✓	✓	✓	✓

*Strongly Recommend using validated recipe.

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RESOURCES

Sources for Validated Recipes

USDA Complete Guide to Home Canning http://www.uga.edu/nchfp/publications/publications_usda.html

Bernardin Recipes <http://www.bernardin.ca/pages/recipes/3.php>

Ball Recipes <https://www.ballmasonjars.com/>

University of Wisconsin Maddison <https://fyi.extension.wisc.edu/safefood/recipes/>

Accredited Laboratories

Accredited laboratories in Ontario may be located through the Standards Council of Canada website, <https://www.scc.ca/en/search/laboratories>

Other Resources

SWPH HACCP Plan Template <https://www.swpublichealth.ca/en/community-health/resources/CANNING-PROCESS-HACCP-PLAN.pdf>

Public Health Ontario Home Canning Information <https://www.publichealthontario.ca/-/media/documents/H/2014/home-canning.pdf?la=en>

OMAFRA Botulism Information <http://www.omafra.gov.on.ca/english/food/inspection/botulism-2011.htm>

CFIA Food Labelling Information <https://www.canada.ca/en/health-canada/services/food-nutrition/food-labelling.html>

If you have any questions, talk to your Public Health Inspector, or contact Southwestern Public Health at 519-421-9901 (Woodstock), 519-631-9900 (St. Thomas), or 1-800-922-0096.

