Canning Fact Sheet

What is home canning?

Home canning refers to a method of food preservation where food is treated with heat alone, or in combination with pH and water activity, then stored in hermetically sealed containers. Home canning traditionally occurred at home but is now also performed by small-scale operations who sell to the public at food establishments and farmers' markets.

Who does this requirement apply to?

The following requirements apply to all food businesses operating in Northwestern Health Unit (NWHU) catchment area. These requirements apply to premises that fall under the *Ontario Food Premise Regulations (O. Reg 493/17)* as well as premises operating at exempt farmers' markets under the *Health Protection and Promotion Act (S. 13, Health Hazards)*.

What are the risks with improperly canned foods?

Canned foods require several steps to be completed properly to ensure that the product is safe. If home-canned foods are not prepared or bottled properly, they can cause botulism. Botulism is a serious and sometimes fatal illness you can get from eating improperly prepared, canned, or bottled food. Botulism is caused by a toxin produced by the bacteria Clostridium botulinum. These bacteria thrive in moist, oxygen-free environments, so improper canning can provide ideal conditions for it to multiply.

What types of home-canned foods are permitted to be offered for sale?

Only high-acid or acidified home-canned food products will be permitted to be prepared and sold to the public. Any recipe that is intended to be used to prepare canned food for the public must be validated (more details under Validated Recipes section). Operators are required to submit a satisfactory food safety plan to the NWHU before the home-canned products can be sold. A food safety plan template is available on the NWHU farmers' market information webpage; however, other food safety plan formats may also be accepted.

High-acid foods are foods that have a natural equilibrium pH of 4.6 or less. Examples include:

- Apples (pH 2.90-3.84)
- Red cherries (pH 3.29-3.32)
- Grapes (pH 2.80-3.80)
- Peaches (pH 3.30-4.05)
- Pineapple (pH 3.20-3.64)
- Raspberries (pH 3.62-3.95)
- Strawberries (pH 3.30-3.35)
- Blueberries (pH 3.12-3.33)
- Rhubarb (pH 3.10-3.40)

Acidified foods are low-acid foods to which acid or acid foods are added so they have an equilibrium pH of 4.6 or less and a water activity greater than 0.85. Equilibrium pH is the pH of a food after all components of the food have achieved the same acidity.

- Tomatoes were historically a higher-acid food item, but over time, their acidity has changed as they have evolved. Tomatoes require acidification due to this change.
- Pickles, relishes, chutneys and salsas are examples of acidified foods.

See over...

Revised 01/30/2025

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What types of home-canned foods are not permitted to be offered for sale?

Low-acid home-canned food items are not permitted to be prepared and sold to the public due to the high risk of botulism from improper processing.

Low-acid foods are any foods with a finished equilibrium pH of greater than 4.6 that do not have other naturally prohibitive growth factors such as a water activity of less than 0.85. Examples Include:

- Melons (pH 6.60-9.50)
- Corn (pH 5.90-6.44)
- Beets (pH 5.23-5.90)
- Cabbage (pH 5.40-6.00)
- Cucumber (pH 5.18-5.70)
- Onions (pH 5.32-5.85)
- Peppers (pH 5.20-5.93)
- Carrots (pH 5.18-5.22)
- Various meat and fish products

What canning process is approved to be used for home canning?

Boiling water bath is the preferred process to be used for high-acid and acidified foods. Botulism spores are not destroyed by this process; low pH is the controlling factor. Pressure canning is not permitted.

What is a validated recipe?

Validated recipes are recipes that have been scientifically proven to meet the processing requirements to make a safe, shelf-stable product. Validated recipes include specific instructions that must be followed. Validated recipes will specify the processing time and temperature, container type and size, as well as specific ingredients. Head space allowance in the jar will also be indicated, as well as what type of processing is required.

Please note that most recipes in our region will require an additional 5 minutes of boiling time to ensure safety of the product due to our region's altitude. Please confirm the altitude for your area to determine the proper boiling time.

Where do I find validated recipes?

Ball Corporation, USDA, Bernardin, National Centre for Home Food Preservation as well as many U.S. university extension websites.

What if I want to use my own recipe?

Operators that would like to use their own recipe must have their recipe validated by working with a private laboratory that does product development, formulation and/or quality assurance for food preservation and processing.

Next steps as a home canner...

- ☐ Find a validated recipe for a high-acid or acidified food
- ☐ Complete a food safety plan for each canned food item you plan to sell
- ☐ Submit your recipe and food safety plan to your local public health inspector for review