



## HOME FOOD PRESERVATION

# Activity - Safe Canning Methods

*Determine which canning method is the acceptable and safe way to preserve a variety foods.*

**Younger participants:** Help all to know which categories food fits into (fruit, vegetable, etc.).

**Experienced canners:** Show the graphic on page 2 with the pH scale and foods.

Discuss **ACID** and **TEMPERATURE** as the 2 main factors in the method used for canning.

*Note: Tomatoes* pH is in the middle. Acid needs to be added to all home canned tomatoes. They can be canned in a boiling water canner or a pressure canner.

**Attendee activity:** Place picture of pressure canner and boiling water canners at opposite ends of room.

Give each student a food picture card (print & cut pages 7-10). For younger participants, have them tell if they have a fruit, vegetable or meat. Once they know what they have, instruct them to go stand by the correct canning method.

Have participants share their picture cards with the entire class, explaining why they have selected the canning method they did.

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## Safe methods for canning foods at home.

Stopping the growth of *Clostridium Botulinum* is important to keep canned foods safe to eat. This is accomplished by adjusting **ACID (pH) in or added to the food and by the TEMPERATURE we heat the food to.**

### METHOD 1

Boiling Water Canner

**High Acid + Boiling Water Temperature**

#### Foods with high acid

- Fruits (apples, applesauce, peaches)
- Pickled (pickles, pickled beets, sauerkraut)
- Jams & Jellies (peach jam, jelly)
- Tomatoes - when we add acid (tomatoes, salsa)

### METHOD 2

Pressure Canner

**Low Acid + Water Temperatures Above Boiling**

#### Foods low in acid

- Meat (beef, fish, chicken, spaghetti sauce with meat, game meat)
- Vegetables (asparagus, carrots, corn, green beans, mixed vegetables)
- Beans (beans)

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**Sources:** National Center for Home Food Preservation <https://nchfp.uga.edu>, K-State Research and Extension

**Photos:** Nebraska Extension Food Preservation Team, National Center for Home Food Preservation <https://nchfp.uga.edu>, and Freepik Premium account.

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Preserve It Fresh,  
Preserve It Safe

# The Canner Counts!



## High Acid Foods

Naturally high in acid or have added acid



Water Bath Canner



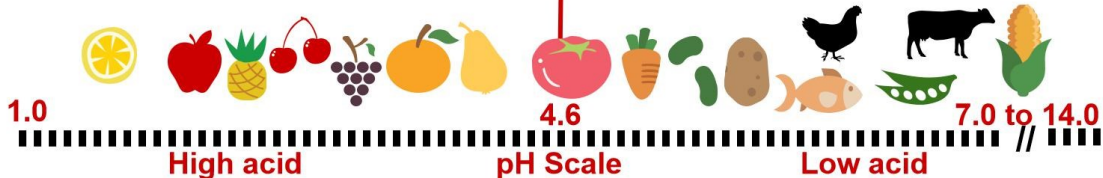
Steam Canner

## Low Acid Foods

Naturally low in acid



Pressure Canner



Home-canned vegetables are the most common cause of botulism outbreaks in the United States.

**2015**

The largest outbreak of botulism, in nearly 40 years, occurred with improperly home-canned potatoes causing 29 illnesses and 1 death.

Source: CDC

Learn more at:

<http://www.bookstore.ksre.ksu.edu/pubs/MF3241.pdf>  
<http://www.bookstore.ksre.ksu.edu/pubs/MF3242.pdf>



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HOME FOOD PRESERVATION  
**Safe Canning Methods**

# **BOILING WATER CANNER**



**METHOD 1**  
*High Acid +  
Boiling Water  
Temperature*



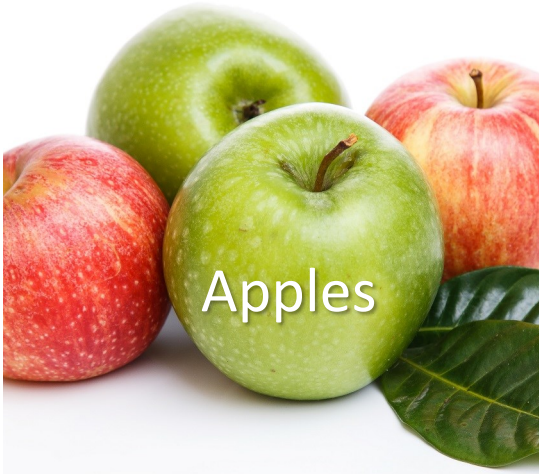
HOME FOOD PRESERVATION  
**Safe Canning Methods**

# **PRESSURE CANNER**

**METHOD 2**  
*Low Acid +  
Water  
Temperatures  
Above Boiling*



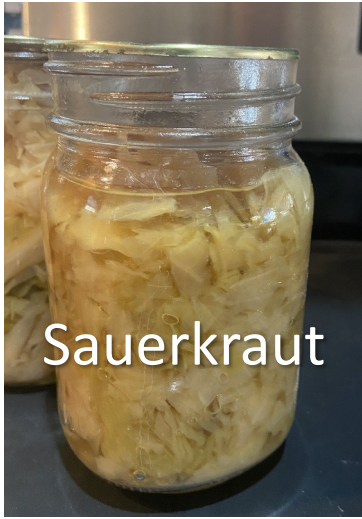
HOME FOOD PRESERVATION Activity - Safe Canning Methods



Wild  
Game



# HOME FOOD PRESERVATION Activity - Safe Canning Methods



Sauerkraut



Tomatoes



Pickled Beets



Pickles



Salsa



Salsa

# HOME FOOD PRESERVATION Activity - Safe Canning Methods



Carrots



Corn



Green Beans



Mixed Vegetables



Spaghetti Sauce with Meat



Asparagus

# HOME FOOD PRESERVATION Activity - Safe Canning Methods



Beans



Fish



Beef



Tomatoes



Beef



Chicken



# HOME FOOD PRESERVATION

## Safe Canning Methods

### *Answers - BOILING WATER CANNER*



#### METHOD 1

#### Boiling Water Canner & Steam Canner

#### *High Acid + Boiling Water Temperature*



#### Foods with high acid

- Fruits (apples, applesauce, peaches)
- Pickled (pickles, pickled beets, sauerkraut)
- Jams & Jellies (peach jam, jelly)
- Tomatoes - when we add acid (tomatoes, salsa)



# HOME FOOD PRESERVATION

## Safe Canning Methods

### *Answers - PRESSURE CANNER*

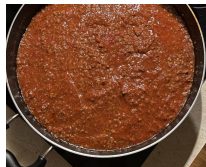


#### **METHOD 2**

Pressure Canner  
***Low Acid +  
Water Temperatures  
Above Boiling***

**Foods low in acid**

- Meat (beef, fish, chicken, spaghetti sauce with meat, wild game)
- Vegetables (asparagus, carrots, corn, green beans, mixed vegetables,
- Beans (beans)



**Wild  
Game**



# HOME FOOD PRESERVATION

## Safe Canning Methods

# STEAM CANNER



### METHOD 1

#### *High Acid + Boiling Water Temperature*

Atmospheric steam canners surround the jars with steam instead of water. Steam canners can only be used with high acid foods. Processing time is limited to 45 minutes or less because of the amount of water in the base.

*Use for high acid foods like fruits, tomatoes, jams & jellies, pickles, and fermented foods.*

Recently, the University of Wisconsin tested atmospheric steam canners for home canning of acid foods.

The only 2 types of steam canners tested were, a **Back to Basics**<sup>®</sup> canner and a **Victorio**<sup>®</sup> model, other canners have not been tested and are not recommended at this time.

Read and follow instructions carefully when using atmospheric steam canners. Step by step instructions can be found at: <https://food.unl.edu/home-canning-equipment>

