Survey for Giveaway

https://forms.office.com/Pages/ResponsePage.aspx?id=HclpKknoNE6iMM34sn4ZZJZzxarkLM9OiBILxeVe6UFUNEI5TzJCNTlHV0VQTEU5Tzc5REYxM0hEUi4u

Get Cooking:

WATER BATH CANNING 101

Presented by:
Taylor Conner, MS, RD, LD
taylor.conner@okstate.edu
Family & Consumer Sciences Educator
Oklahoma County OSU Extension

Metropolitan LIBRARY SYSTEM

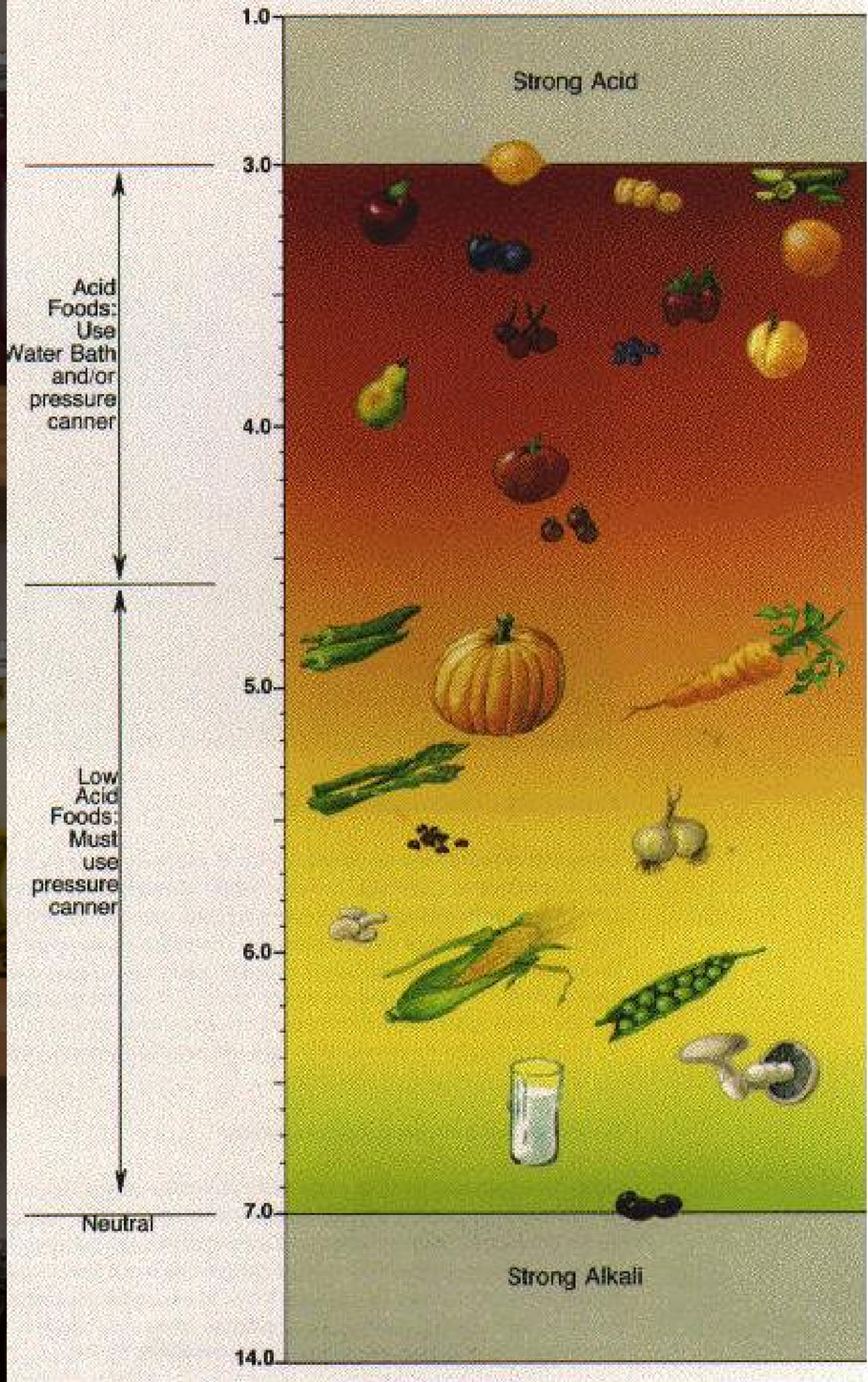
OKLAHOMA COUNTY EXTENSION

Outline

- Water Bath Canning
  - What foods can you preserve?
  - Equipment Needed
  - Canning Process
- Live water bath canning demo

What foods can you preserve with the water bath method?

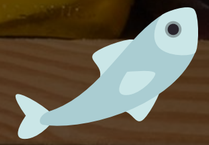
- Acid Foods
  - Fruit
- Two proven and safe methods of canning:
  - Boiling Water Method
  - Pressure Canning Method
- Processing times and methods are not interchangeable



High pH Water Bath

- apples
- berries
- peaches
- pears
- tomatoes are borderline - and must be considered a special case, with acid added!

Low pH Pressure Canned

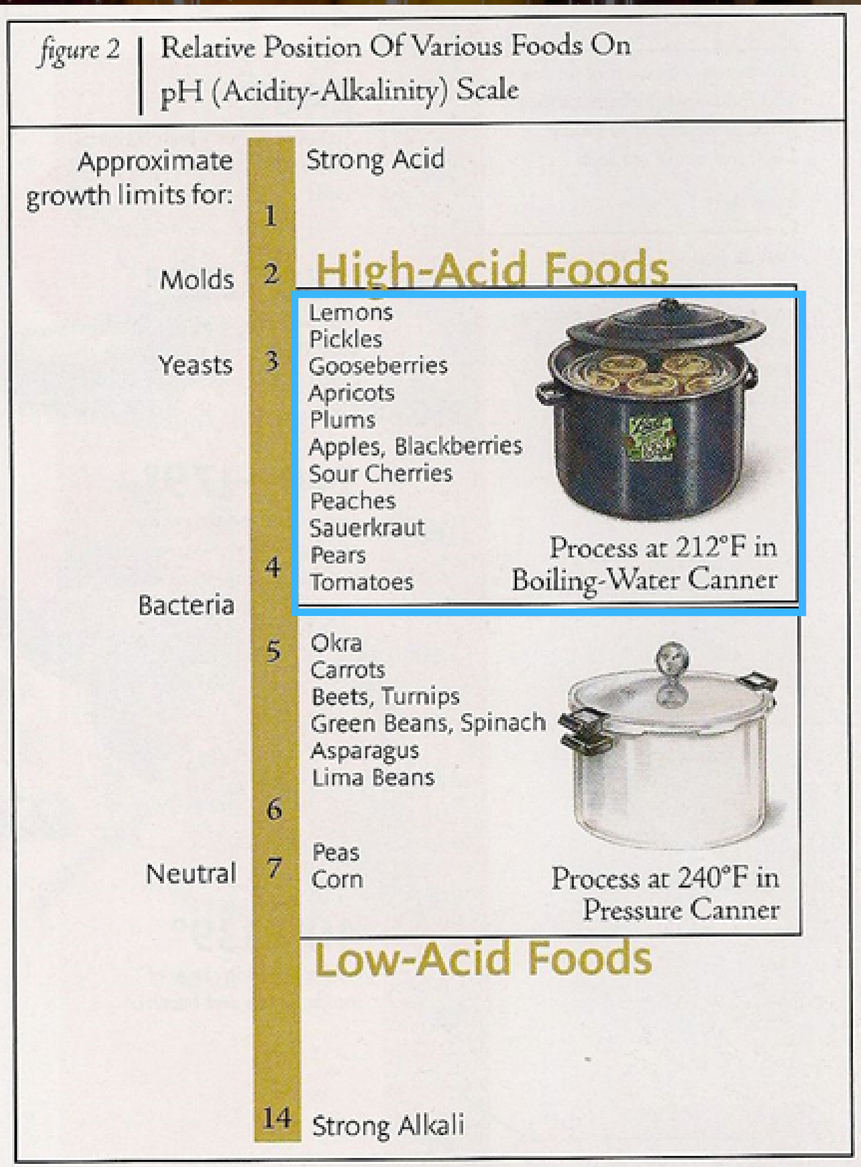


- asparagus
- beans
- corn
- cucumbers
- green beans
- greens (lettuce, kale, collards, spinach, etc.)
- peas
- pumpkins squash (summer or winter varieties)
- Meats including seafood

Equipment needed for water bath canning

Traditional Water Bath Canner ~ $20

Ball Electric Water Bath Canner ~ $150



Equipment needed for water bath canning

- Jar
- Lid
- Band (rings)
- Jar funnel
- Jar lifter
- Magnetic lid lifter
- Bubble popper/measurer
- Tongs
- Band tightener
- Thermometer

Water Bath Canning Process

Trusted Recipe

↓

Prep

↓

Hot Pack vs. Raw Pack

↓

Process Jars

↓

Test Seal

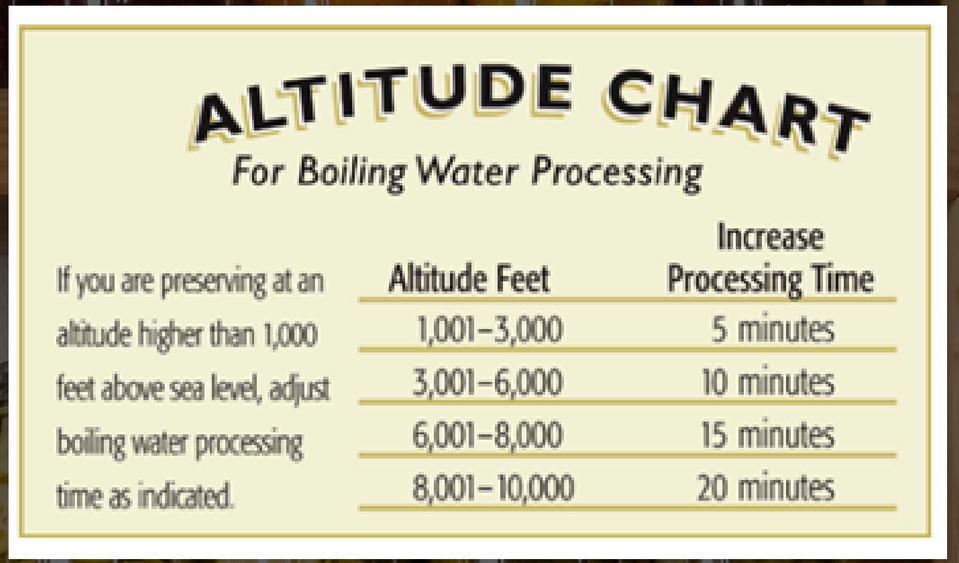
Water Bath Canning Process

- Scientist test recipes to ensure safe canning processes using a thermocouple
- Find specific instructions for what you are canning
  - Current resources dated after 1988 or newer
- Reliable source
- Adjust processing time or pressure based on altitude

**There are very few exceptions to the rule when following a canning recipe (see Fact Sheet “Canning Safety Rules”)

Adjusting for Altitude

- Most recipes are based on a 1,000ft or less in elevation
- Due to the increase in elevation, adjustments must be made to ensure the proper temperature is met



ALTITUDE CHART

For Boiling Water Processing

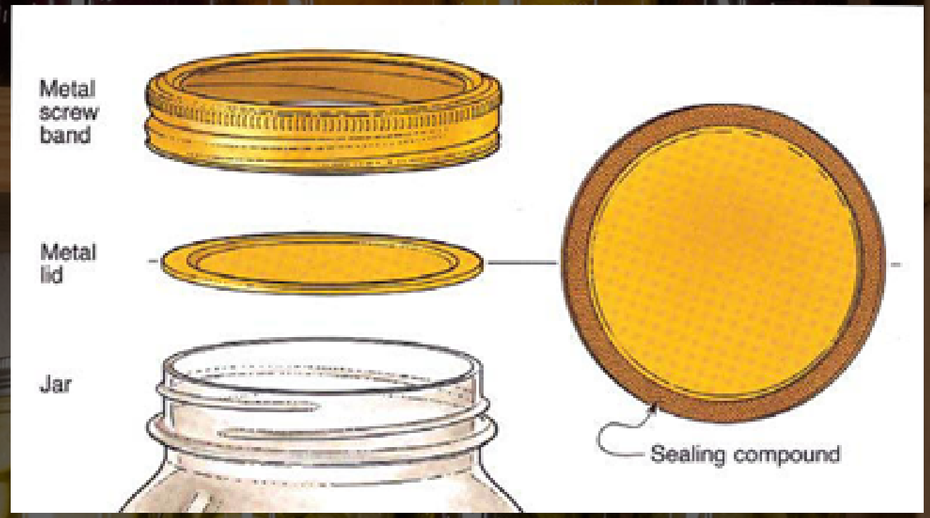
If you are preserving at an altitude higher than 1,000 feet above sea level, adjust boiling water processing time as indicated.	Altitude Feet	Increase Processing Time
	1,001–3,000	5 minutes
	3,001–6,000	10 minutes
	6,001–8,000	15 minutes
	8,001–10,000	20 minutes

6. PROCESS in a boiling water canner for 15 minutes, adjusting for altitude. Remove jars and cool. Check lids for seal after 24 hours. Lid should not flex up and down when center is pressed.

- In OKC, we're around 1,200 ft, so what would the adjustments be? How long would the process time be?

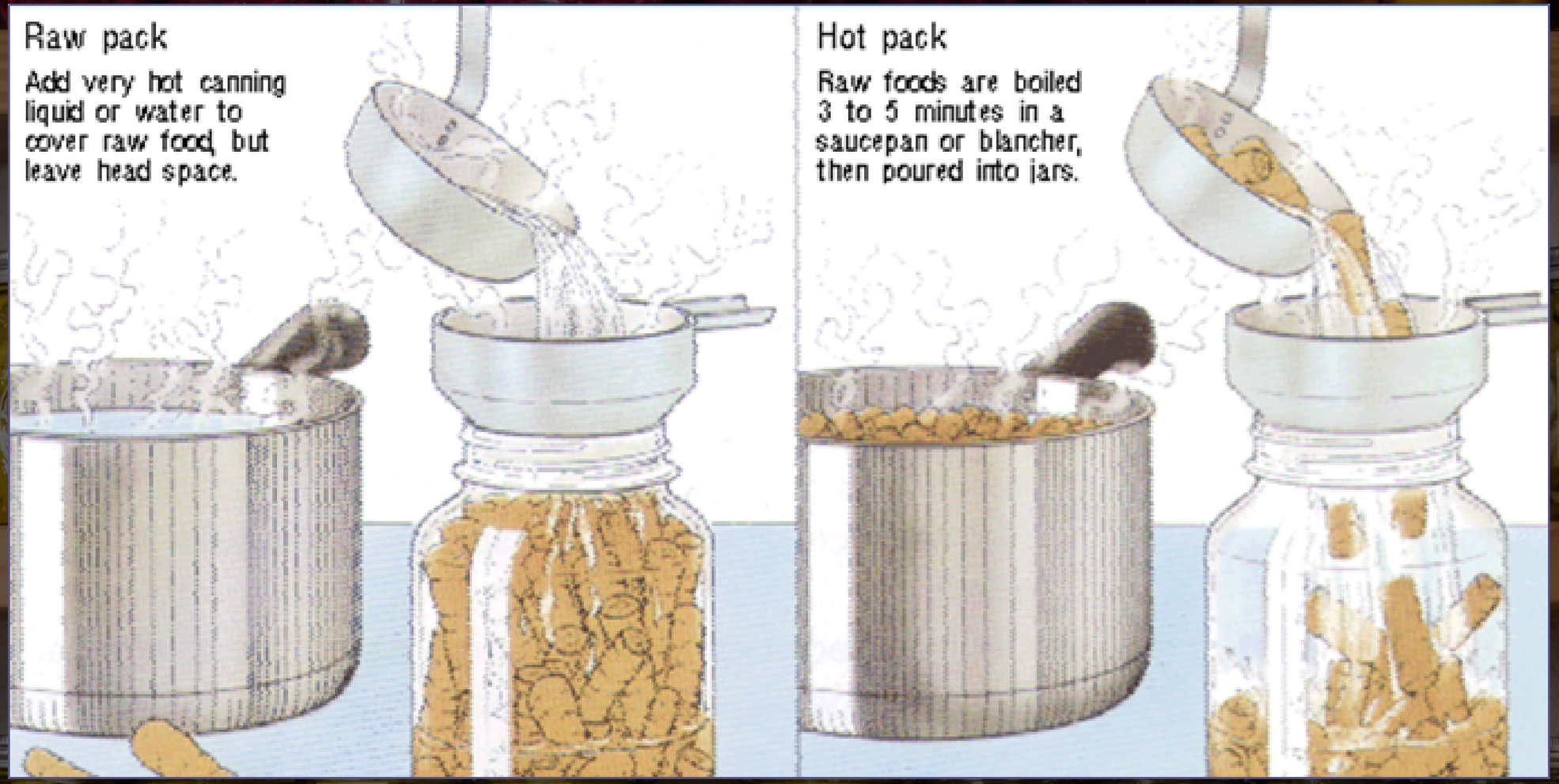
Prep

- Use clean hot jars
- Use new cleaned lids each time
- Can reuse bands if in working condition



- Clean, peel (if needed), and cut fruit into pieces, according to recipe.

Pack


Raw pack
Add very hot canning liquid or water to cover raw food, but leave head space.
Hot pack
Raw foods are boiled 3 to 5 minutes in a saucepan or blancher, then poured into jars.

Raw Pack

- Best for delicate foods
- Uncooked whole or cut food
- Hot brine, syrup, fruit juice, or water is added just to cover as stated

Hot Pack

- Removes air from food
- Shrinks food
- Stronger seal
- Improve shelf life

Headspace

- Room between top of food & bottom of flat. In general headspaces are:
  - Fruits, tomatoes, pickles
    - 1/2 inch
  - Jams, jellies, preserves
    - 1/4 inch or less

Preparing Jars

1. Use nonmetallic spatula to remove air bubbles
2. Wipe rim and sides of rim with damp cloth
3. Center lid on jar, followed by band and tighten until fingertip-tight

Processing

1. Fill canner halfway with water.
2. Preheat water to 140F for raw packed, 180F for hot-packed
3. Load filled jars with lids, into canner rack, use handles to lower rack into water; or fill canner one jar at a time, with jar lifter

Processing

4. Add more boiling water, if needed to ensure 1-2 inches above jars.
5. Turn heat to highest position until water boils vigorously
6. Set timer for the minutes required for processing

Processing

7. Cover with canner lid & lower heat setting to maintain gentle boil throughout process schedule

8. Add more boiling water, if needed, to keep water level above jars

Processing

9.When jars have processed for recommended time, turn off heat & remove canner lid

10.Wait 5 minutes to remove jars

11.Use jar lifters to remove jars & place when on towel, leaving at least 1-inch space between jars during cooling (do not touch for 12-24 hours).

Testing Seals: 12-24 Hours Later

No Seal?

SCREWBANDS OFF FOR STORAGE

- Reprocess within 24 hours
  - Use new lid
- Refrigerate & use within a few days
- Freeze
  - May need to adjust headspace

Keeping Yourself Safe when Canning at Home:

1. Use proper canning techniques
    - Follow research-based recipe, specifically those that follow the USDA Complete Guide to Home Canning
    - Do not follow recipes and cookbooks that do not follow the steps in the USDA guide, even if you got these items from a trusted friend or family member.

Keeping Yourself Safe when Canning at Home:

2. Use the right equipment for the kind of foods you are canning

- Do not use a boiling water canner for low-acid foods because it will not protect against botulism. Do not use an electric, multi-cooker appliance, even if it has a “canning” or “steam canning” button on the front panel.

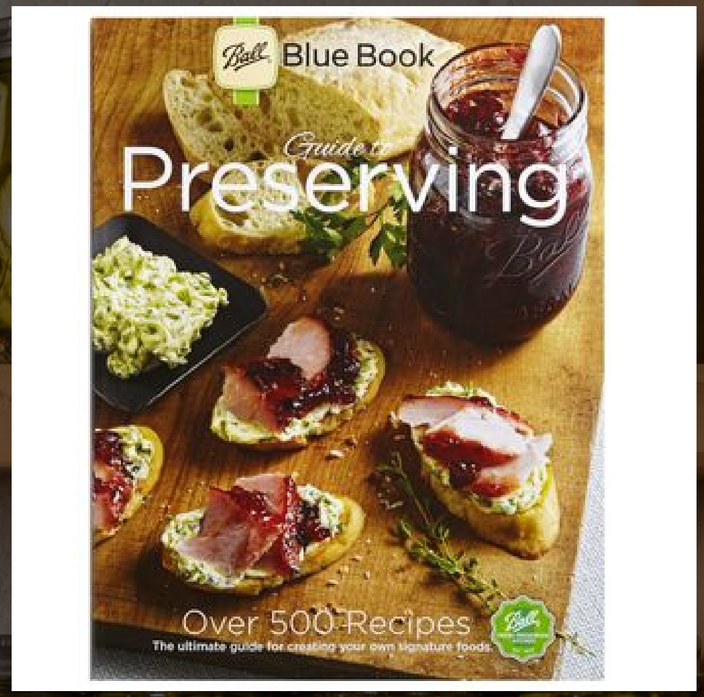
Keeping Yourself Safe when Canning at Home:

3. When in doubt, throw it out!
    - If the container or the food inside has any signs of contamination, throw it out! Look for:
        - the container is leaking, bulging, or swollen
        - the container looks damaged, cracked, or abnormal
        - the container spurts liquid or foam when opened
        - or the food is discolored, moldy, or smells bad.

    - Never taste food to determine if it is safe.

Reputable Resources

- For further information on water bath canning, pressure canning, freezing vegetables & fruit, or other home food preservation recommendations visit:
  - https://nchfp.uga.edu/
- Ball Blue Book
  - https://www.freshpreserving.com/home
- Local Extension office



References

Home Canning and Botulism. (June, 2020). Centers for Disease Control and Prevention. https://www.cdc.gov/foodsafety/communication/home-canning-and-botulism.html

National Center for Home Food Preservation. (2020). https://nchfp.uga.edu/publications/uga/using_bw_canners.html