

A close-up photograph of a cardboard box filled with numerous ripe, red cherry tomatoes. The tomatoes are bright red with some yellow-orange highlights, indicating they are very fresh. They are packed closely together, filling most of the box. The lighting is bright, creating highlights on the smooth skin of the tomatoes. In the bottom right corner, a small portion of a label is visible, showing the words "1 Liter" and "Cartridge".

Extending the Harvest

Laura Maggos

September 18, 2012

Argonne Garden Club

Why Bother Preserving Food?

- Enjoy the fruits of your labor through the “off-season”
- Avoid waste
- Fun of learning a new skill
- Control what goes into your food
- Transform your tasty produce into something different but also tasty



Methods of Food Preservation

Canning



- Whole fruits or vegetables
- Pickled things (not just cucumbers!)
- Jams and jellies
- Sauces
- Condiments: salsas, chutneys, relishes, fruit butters, etc.

Freezing



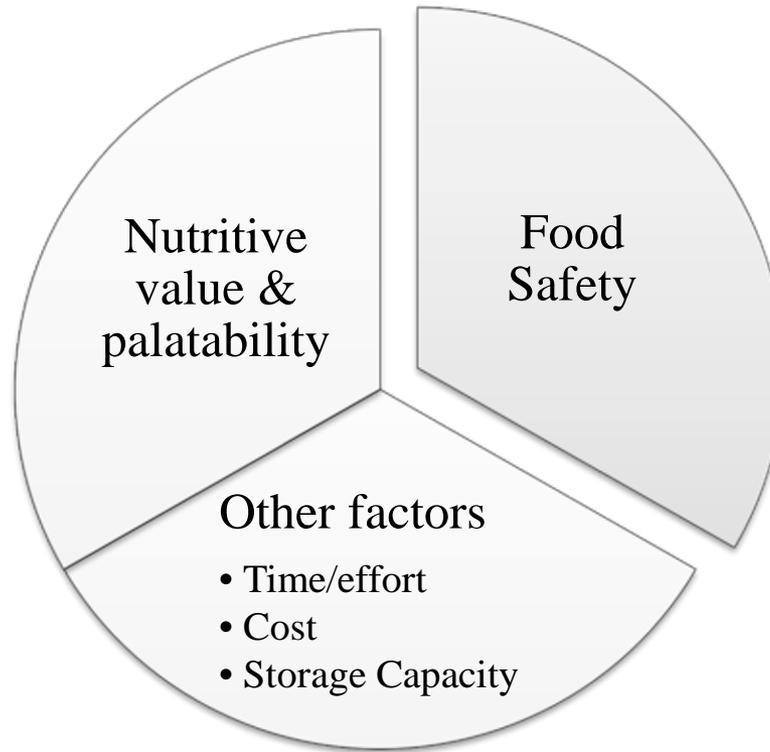
- Fruits and vegetables
- Jams and Jellies
- Sauces
- Condiments: salsas, pesto, etc.
- Frozen desserts

Drying



- Herbs
- Fruits
- Chili peppers
- Tomatoes

Choosing a Preservation Method



Bad Bug: Clostridium botulinum

- Bacteria that produces the neurotoxin responsible for botulism
- Toxin can cause serious illness, paralysis, or fatality
- Prevalent in soil & water worldwide
- Boiling kills bacteria & denatures the toxin but spores can survive
- Elevated pressure is needed to kill spores
- Spores don't pose same risk in high-acid foods



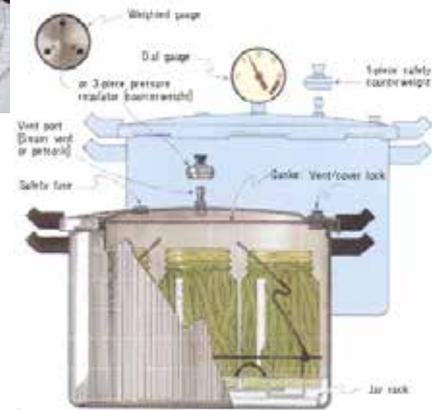
Canning

- A.k.a. “processing” or “putting up”
- Types of canning:
 - Boiling water canning
 - Pressure canning
 - Dial or weighted gauge
- Cost
 - Boiling water canner (\$30-\$70)
 - Pressure canner (\$70-\$200)



Pressure Canning

- Processes foods at elevated pressure and temperature
- Necessary for low-acid foods
- Kills toxin-producing bacteria *and* their spores
- Pressure *cooker* \neq pressure *canner*



Boiling Water Canning

- Processes foods in boiling water at atmospheric pressure
- Used for foods with:
 - High acid (pH < 4.6)
 - High sugar/salt
(water availability < 0.85)
- Boiling kills toxin-producing bacteria and destroys the toxin as well
- High acid/sugar/salt inhibits spore growth



Tools for Boiling Water Canning

- Canner with wire rack
 - Or large pot with rack under jars & space between them
- Canning jars (standard or wide-mouth)
- Lids and bands, or wax
- Funnel, jar lifter, and tongs
- Clean cloth or paper towel
- Small saucepan
- Potholders & towel-lined tray



Boiling Water Canning Method



Food Safety Precautions

- Sterilize jars, lids, and tools
- Use tested recipes without alteration
- Allow proper headspace
- Check water depth
- Follow processing times
- Check for proper seals
 - Refrigerate unsealed jars or reprocess if within 24 hrs
- Inspect before eating – if in doubt, throw it out



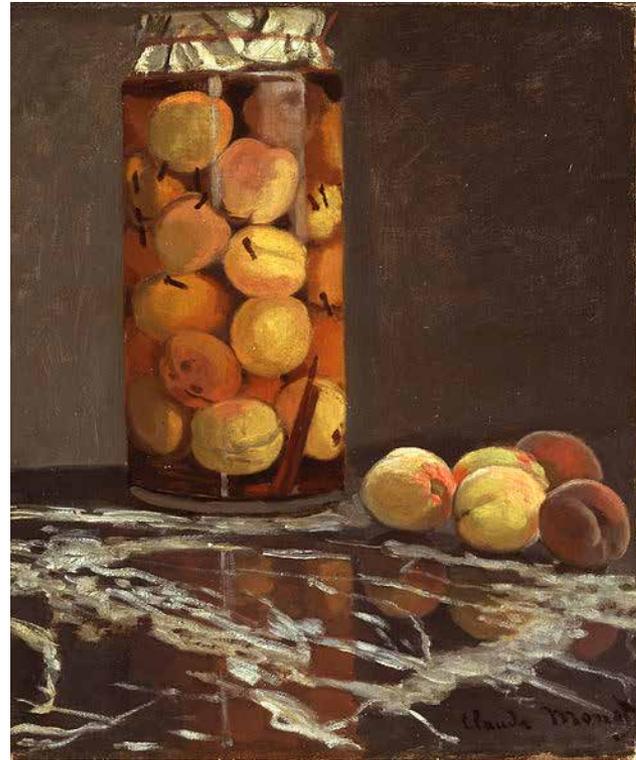
Getting a Good Seal

- Inspect jars and jar rims for cracks and/or nicks
- Do not reuse lids
- Allow proper headspace
 - Use funnel as guide
- After filling, wipe rims with clean towel
- Do not disturb! (during cooling)



Pickles!

- Cucumbers
- Peppers
- Green beans
- Beets
- Zucchini relish
- Watermelon rind
- Peaches



Freezing

Try it with:

- Tomatoes
- Green beans
- Corn
- Peppers (diced)
- Applications where texture isn't as important:
 - Veggies for soups or purées (winter squash, beets, etc.)
 - Fruits for pies (peaches, rhubarb, etc.)

Also good for:

- Pesto
- Salsa
- Herbs



Not suitable for:

- Zucchini and other summer squash
- Asparagus

Freezing Hints

- Blanching before freezing can help preserve flavor and texture
- Wrap/seal tightly and remove as much air as possible
- Pre-chill before freezing to minimize damage to cells
- Freeze in single layer, then transfer to bags



Drying

- Inhibit bacterial growth by removing available moisture
- Good for:
 - Herbs
 - Chili peppers
 - Tomatoes
 - Fruits



Where to go from here...

Resources

- National Center for Home Food Preservation (USDA-sponsored)
 - www.homefoodpreservation.com
- Clemson Cooperative Extension
 - http://www.clemson.edu/extension/hgic/food/food_safety/
- U of I Extension resources list
 - <http://web.extension.illinois.edu/jsw/1fi/753.html>
- Ball product website
 - www.freshpreserving.com

Samples

- Salsa
 - Fresh tomatillo salsa
 - Roasted tomatillo salsa
 - Fresh tomato salsa
 - Canned tomato salsa
- Bread & butter pickles
- Pesto (frozen)
- Hot pepper jelly

