

Preserving the Harvest

Home Food Preservation 101

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BEST PRICES

What is Food Preservation?

- Processing food in a way that stops it from decomposing
- Primary causes of food decay:
  - Microorganisms (bacteria & fungi)
  - Oxidation
- Preservation manipulates the temperature, moisture content, acidity and/or oxygen levels of the food making it inhospitable to the growth of microbes

But Why?

- Enjoy certain foods when they are out of season
- Save money
- Be more self-reliant
- Know what exactly is in our food
- Use as a ministry to others
- Stewardship
- Practice a lost art

- Anyone who has access to fresh food and some basic kitchen equipment can preserve food.
- For best results, plan to preserve food when it is at it's peak of flavor & ripeness
- Kitchen setup can be basic to advanced


HARRISON

Image source: https://www.pinterest.com/pin/180495897539271589/

Being Adventurous
52 jars at a time!

Different Methods of Preservation

- Freezing (temperature)
- Dehydration (moisture)
- Canning (temperature, acidification)
- Freeze drying (temperature & moisture)
- Fermentation (biological acid and/or alcohol production)

Freezing

(temperature)

Pros

- Easiest method
- Preserves many enzymes & nutrients
- Decreased risk of pathogens
- Peak of ripeness
- Stores indefinitely

Cons

- Limited to freezer capacity
- Need to rely on electricity

Dehydrating

(moisture)

Pros

- Simple (oldest technique)
- Less storage limitations
- Convenient to use
- Long shelf life if stored properly
- No electric storage
- Temperature control

Cons

- The time factor
- Loss of vitamins, nutrients and enzymes
- Need for specific equipment

Canning

(temperature, acidification, oxygen)

Pros

- Not limited to storage space (like freezer)
- Diversity of recipes
- Convenient to use

Cons

- Learning curve
- Loss of vitamins, nutrients and enzymes
- Equipment required
- Pathological risks

Before you Begin

- Decide which method is best for the produce available- imagine how you would use it
- Determine how much you will actually use
- Make sure you have the necessary equipment on hand

Produce Selection

Use produce that is:

- as fresh as possible
- at the peak of ripeness (or just under)
- has no signs of decay

Preparing Your Produce

- Wash all produce before you begin (this helps to remove microorganisms from the surface)
- Peel (if necessary)
- Slice and chop- varies depending upon method.

Freezing

- Many vegetables require blanching before freezing
- Place prepared produce in containers
- Flash freeze on trays before containers to avoid clumping
- Remove air from containers
- Remember to label and date

Dehydrating

- Place prepared produce on dehydrator trays in a single layer
- Lower temperatures preserve more nutrients/enzymes (<115°f)
- Drying times depend on food and temperature- Pliability is best test of doneness
- Conditioning period of ~1wk.
- Store in airtight container in cool, dry, dark location…label & date

Canning

Canning

- Know the acidity of your foods
- High acid foods inhibit growth of bacteria & spores
- Tomatoes are borderline- recommended to acidify
  - Citric Acid 1/2 tsp/qt
    1/4 tsp/pint
  - Lemon juice 2 Tbsp/qt
    1 Tbsp/pint

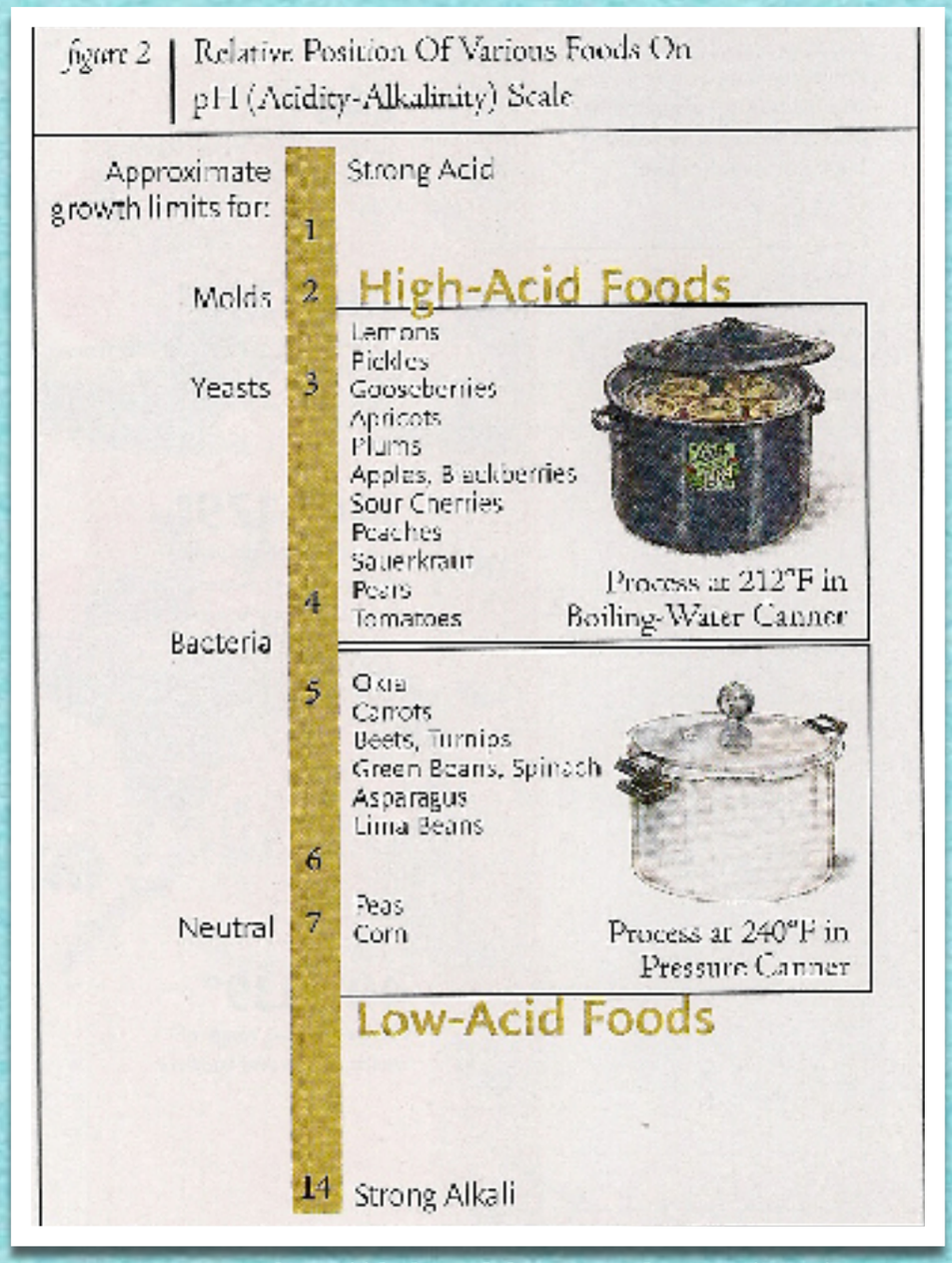


Image source: http://thekneadyhomesteader.com/canning-tomatoes-water-bath-pressure-can/

Canning

- Collect necessary equipment
  - Canning Pot or pressure canner (or steam canner) with rack
  - Jars, lids & rings
  - Tongs
  - Funnel
  - Basic kitchen items: bowls, pots, knives, etc.

Image source:https://images-na.ssl-images-amazon.com/images/I/51kQLnr1KyL._SL500_AC_SS350_.jpg, https://images-na.ssl-images-amazon.com/images/I/41j56CF1fhL.jpg, https://images-na.ssl-images-amazon.com/images/I/51kQLnr1KyL._SL500_AC_SS350_.jpg

Sterilizing the Jars

- Place jars right side up on the rack in a boiling-water canner. Fill the canner and jars with hot (not boiling) water to 1 inch above the tops. Boil 10 minutes at altitudes of less than 1,000 ft. (add 1 min. for each 1,000 ft. elevation)

- Place jars in dishwasher and use the 'sanitize' function

- Place empty jars in 225° oven for 20 minutes

When the process time for canning a food is 10 minutes or more (at 0-1,000 feet elevation), the jars will be sterilized DURING processing in the canner.

~National Center for Home Food Preservation (8/2017)

http://nchfp.uga.edu/publications/nchfp/factsheets/sterilizing.html

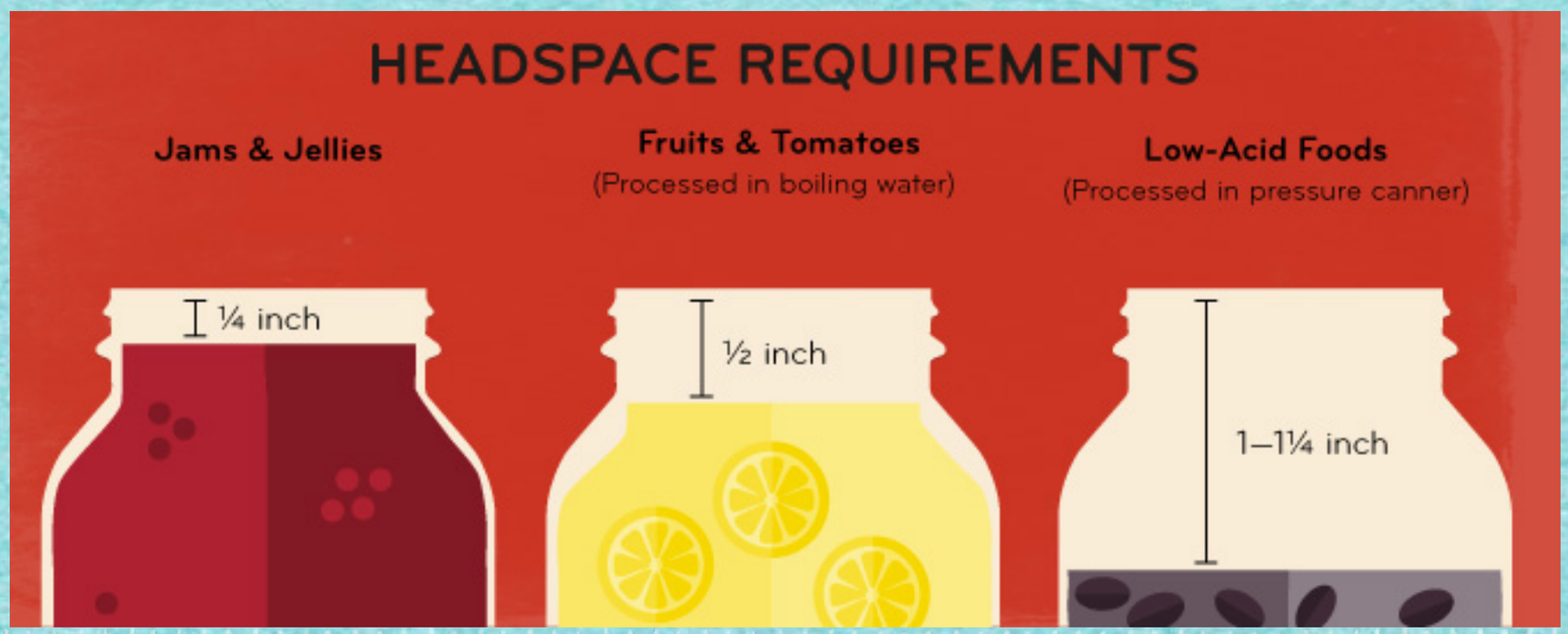
Filling Your Jars

- Raw/cold Pack
  - Place prepared, uncooked produce in jars
  - Fill with hot water or syrup
  - Primarily for pressure canning
- Hot Pack
  - Boil prepared produce for 2-3 minutes in water or syrup
  - fill jars with boiled contents
  - Primarily for water bath canning

Image source: http://nchfp.uga.edu/how/general/images

Headspace

- Refers to the amount of space between the bottom of the lid and the level of the liquid inside the jar
- The food should always stay below the level of the liquid



https://www.fix.com/assets/content/15431/canning-confidential-003.png

Sealing the jars

- Wash lids
- After filling jars, wipe the rims with a clean cloth to remove debris

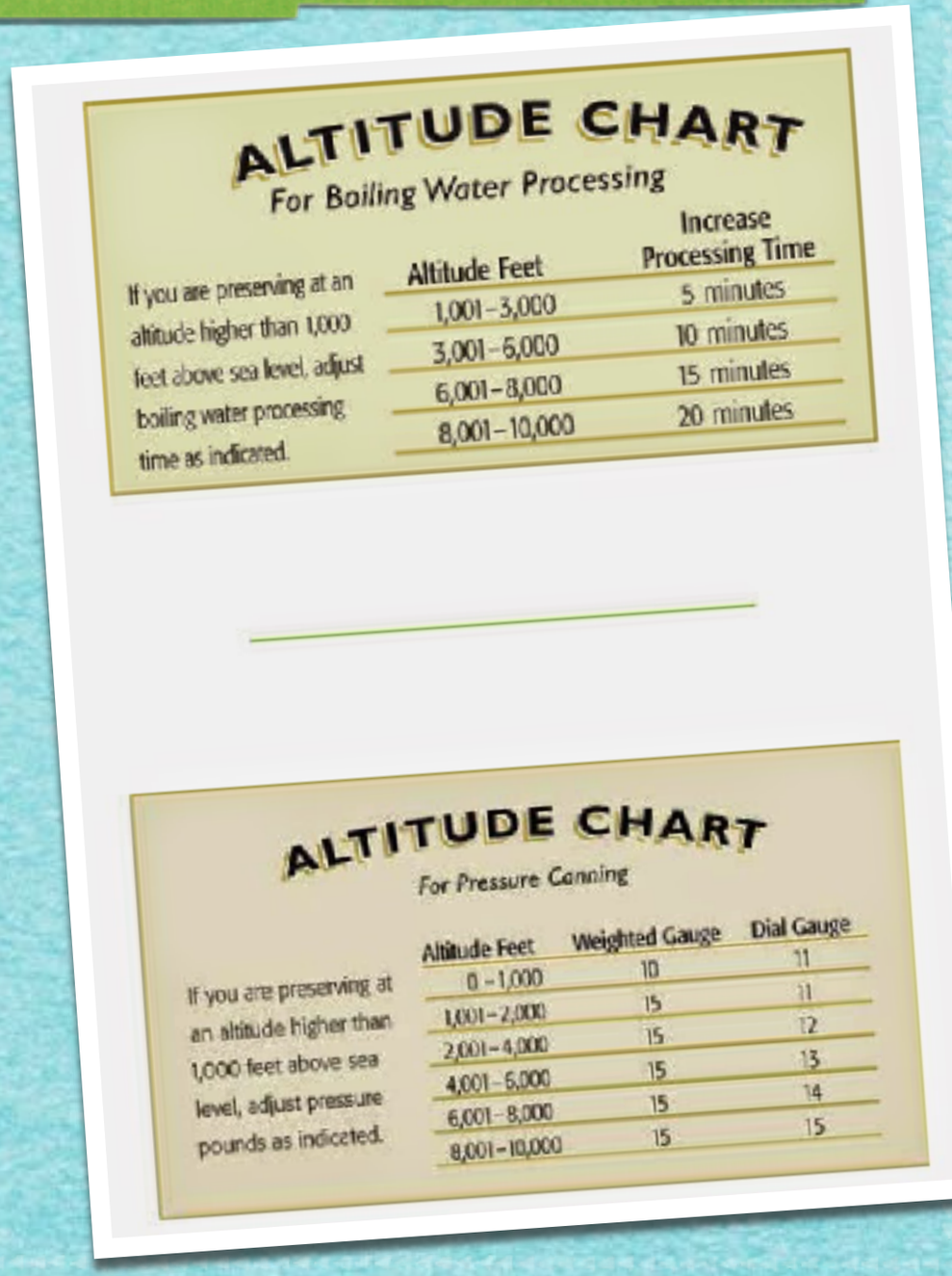
- Place flat lid firmly on jar and secure with ring
- Rings can be re-used, but lids should not be (unless Tattler brand)

http://web.extension.illinois.edu/cottage/images/lids.jpg

Turn up the Heat

Water Bath Canner

- Place jars into canner making sure lids are covered with 1-2 inches of water
- Water temperature matters
- Start timer when a complete boil is achieved
- Processing time varies depending on what you are canning and your elevation (see handout)



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

ALTITUDE CHART
For Pressure Canning

If you are preserving at an altitude higher than 1,000 feet above sea level, adjust pressure pounds as indicated.

Altitude Feet	Weighted Gauge	Dial Gauge
0–1,000	10	11
1,001–2,000	15	11
2,001–4,000	15	12
4,001–6,000	15	13
6,001–8,000	15	14
8,001–10,000	15	15

Image source: https://www.freshpreserving.com/altitude-adjusting.html

Turn up the Heat

Pressure Canner

- Place jars into canner with 2-3 inches of water (longer processing times require more water)

- Place lid securely on canner and place over high heat, allow steam to vent for 10 minutes before closing petcock/gauge/etc.

- Start timer when pressure is reached

★ Make sure this pressure/boil is maintained throughout processing time, otherwise the timer must be restarted.

Never leave a pressure canner unattended.

Cool Down

- If pressure canning, allow canner to vent or depressurize for at least 10 minutes
- Carefully remove jars from the pot with tongs
- Place on a towel or cooling rack leaving at least 1 inch between jars
- Leave undisturbed to cool for 12-24 hours

Mission Accomplished!

Wipe clean, Label and Store!!

Have Fun
Eat Well!!