

**Master Gardener
Volunteer**



**SOUTH DAKOTA STATE
UNIVERSITY EXTENSION**



Preserve What you Grow

October 20, 2022

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Missouri Valley Extension Master Gardeners



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Why preserve?

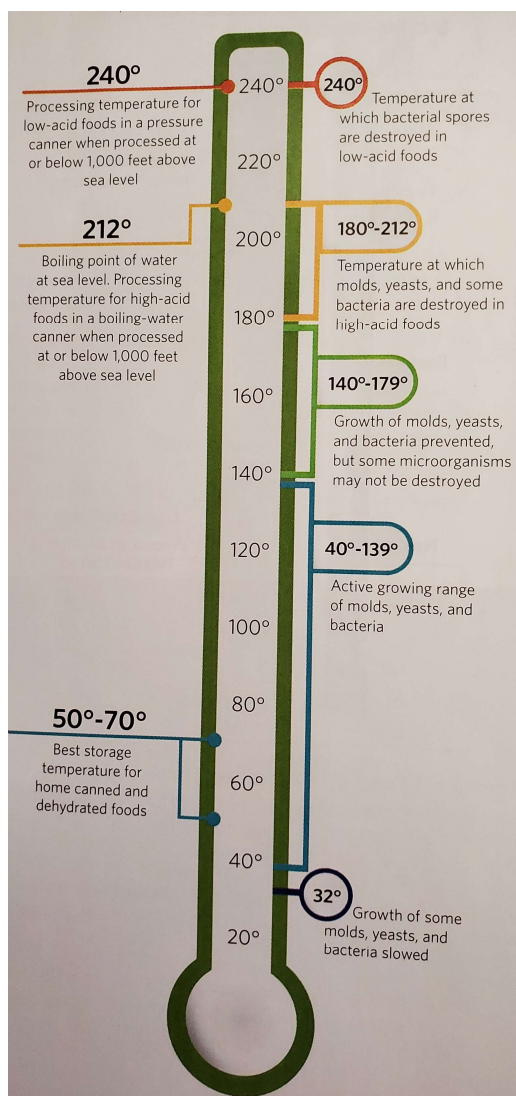
- Savor & share garden-fresh flavor all year
- Utilize excess produce
- **You** control the preservatives in your food
- Sense of accomplishment



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Keeping Food Safe



Preservation interrupts food decay

- Heat destroys microorganisms/enzymes
- Vacuum seal prevents contamination
- Freezing slows growth
- Dehydrating removes water which microorganisms need

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Types of preservation



Choose what fits your
skill and storage space

- Canning
- Freezing
- Dehydrating
- Freeze drying

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Equipment “Needed”

- Boiling water bath canner
- Pressure canner
- Dehydrator
- Freeze dryer
- Jars / freezer bags/freezer containers
- Lids & rings
- Funnel/jar lifter/bubble remover



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Canning

High-acid (pH 4.6 or less)

- Process with water bath
- Fruits
- Jams/Jellies
- Pickles
- Tomatoes with added acid (1/4 tsp. citric acid **OR** 1 T. bottled lemon juice / pt.)

Low-acid (pH higher than 4.6)

- Process with pressure canner
- Meats
- Vegetables
- Mixed ingredients (ex: salsa)



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Processing

Boiling water bath

- Place jars in canner, cover with hot water
- Bring to boil
- Process for indicated time
- Remove from heat
- Let set for 5 min, remove jars



Pressure canning

- 2" water in canner
- Put jars in canner, lock lid
- Vent for 10 min.
- Bring to indicated pressure
- Process for indicated time (monitor gauge)
- Remove from heat, let cool until pressure is 0
- Open carefully, remove jars

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Syrup for Fruit

- Add sugar to water; bring to boil
- Type of syrup is based on sugar to water ratio
- Keep hot until needed
- Quart jar will require 1 – 1 ½ C. syrup
- 1 tsp. ascorbic acid / qt. if desired to maintain fresh color



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Pickling Brine



- Use canning salt
- Vinegar needs to be at least 5% acidity
- Processing time begins when jars are placed in boiling water

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Jams and Jellies

- Jelly is fruit juice: allow cooked fruit to drip for clear jelly
- Jam is crushed fruit
- Preserves are whole fruit or uniform pieces of fruit
- Follow instructions in pectin package



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Testing jell (w/o pectin)

- Temperature test: 220° at sea level, -2° for each 1000' of elevation (Yankton is 1200', so 218°)
- Freezer test: remove jelly from heat, put small amount on plate in freezer for several minutes, done if it jells
- Sheet test: dip cool spoon into jelly, if 2 drops form together and "sheet" off the spoon, the jelly is done



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Freezing Fruits



- Dry pack: freeze clean berries on baking sheets. When solid, package
- Sugar pack: 1 part sugar: 4 parts fruit. Stir together to dissolve sugar. Pack into containers with head space.
- Syrup pack: use medium to heavy chilled syrup. Cover fruit in container with syrup. Allow head space

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Freezing Vegetables

***Require blanching to
preserve flavor***

1. Add prepared vegetables to boiling water
2. Cover & time according to blanching chart
3. Drain & chill in ice water
4. Drain & pack into containers



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Dehydrating



- Follow instructions for your dehydrator
- Oven drying is lengthy; oven must be set to 140° or “keep warm”
- Sun drying not recommended for humid South Dakota

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Preparing Foods

- Cut food in uniform sized pieces
- Fruits: soak in mixture of 1 T. citric acid & 1 T. ascorbic acid / gal. water for 2 min.; dry
- Vegetables: if smelly, consider dehydrating outside
- Store in jars, freezer containers or zip-lock bags



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Dehydrating Herbs

Drying methods

- Bundle Dried: tie stems into small bundles; hang upside down (2-4 wks)
- Rack-dried: spread on drying rack or old screen (7-10 days)
- Dehydrator: 90-110° (8-12 hrs)

Store in airtight container; cool, dry place



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Freeze Drying



- Requires specialized equipment--\$ investment
- Preserves flavor and nutrients
- Removes “all” moisture
- Can be stored for long periods of time (decades)
- Rehydrates very quickly



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Resources

- Butcher, Meredith L., ed., The All New Ball Book of Canning and Preserving. 2016
- Harrold, Judy, ed., Ball Blue Book: Guide to Preserving. 2014
- Kingry, Judi and Lauren Devine, ed., Ball Complete Book of Home Preserving. 2006.

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E-resources

- Basics of Home Canning, Penn State
<https://extension.psu.edu/lets-preserve-basics-of-home-canning>
- Canning 101, Ball
<https://www.freshpreserving.com/canning-101-getting-started.html>
- Complete Guide to Home Canning, USDA.
http://nchfp.uga.edu/publications/usda/GUIDE01_HomeCan_rev0715.pdf
- Drying Food at Home, U of MN extension.
<https://extension.umn.edu/preserving-and-preparing/methods-drying-food-home>
- Freeze Drying, Iowa State U extension.
<https://blogs.extension.iastate.edu/answerline/2021/07/27/freeze-drying-a-new-option-for-home-food-preservation>
- Vegetable Blanching, U of MN extension.
<https://extension.umn.edu/preserving-and-preparing/vegetable-blanching-directions-and-times-home-freezer-storage>

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United States Department of Agriculture

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U.S. Department of Agriculture
Office of the Assistant Secretary for Civil Rights
1400 Independence Avenue, SW
Washington, D.C. 20250-9410; or

fax:
(833) 256-1665 or (202) 690-7442;

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