

And the Winner is....A Guide to Judging Food Preservation

Karen Blakeslee, M.S.

<http://www.rrc.k-state.edu/preservation/index.html>

April 2023



Just Because it Seals, Doesn't Mean It's Safe!

Just because Grandma canned foods her way, doesn't mean it's a safe method today! Would you want your doctor to use practices from the past? Use up-to-date food preservation methods for the safest result.



Food preservation is a science! These factors affect safety include:

- pH<4.6 = high acid foods
- pH>4.6 = low acid foods
 - Supports the growth of botulism!
- Water activity
- Heat penetration through the jar
- Thickness of the food mixture
- Size of food pieces
- Size of jar
- Raw pack or Hot pack
- Altitude of residence
- Processing time and method
- Headspace

The Basics

- **Recipes are required!**
- **READ THE FAIR BOOK RULES!!!**
- **DO NOT TASTE!!** Visual judging only!
- Use USDA processing methods with tested recipes
- Clear, standard canning jars
- High acid foods **MUST** be water bath canned
 - Jams, jellies, fruits, pickles
- Low acid foods **MUST** be pressure canned
 - Vegetables, meats, combination foods
- Tomatoes, with added acid, may be processed either way. Some fruits may be pressure canned
- **Must be labeled!**
 - Labels on 4-H website
- **NO alcohol, beer, or wine**

Trusted Recipes Sources

- USDA Complete Guide to Home Canning - @2015
- KSRE Extension publications
- Other University Extension publications
- So Easy to Preserve – Univ. of Georgia, 6th edition
- Ball Blue Book – 37th edition
- Ball Complete Book of Home Preserving - @2020
- Mrs. Wage's mixes
- Ball mixes
- Pectin package inserts



Untrusted Recipe Sources

- Recipe blogs
- Some Pinterest sites
- Old recipe books
- Recipe magazines
- Made up recipes from home

Safe Processing Methods

- Boiling Water Bath canning
- Steam canning
 - For boiling water bath recipes ≤ 45 minutes
- Pressure canning



Unsafe Processing Methods

- Dishwasher
- Oven or Microwave
- Open Kettle Canning
- Electric or stove top pressure cooker
- Sun canning
- Slow cooker
- Canning powders or aspirin



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Recommended Canning Jars

- Regular or Wide mouth canning jars
 - Ball, Kerr, Golden Harvest
- Jams, Jellies, Sweet spreads, Salsa
 - 8, 12, 16 ounce
- All other foods
 - 16, 24, 28, 32 ounce
- Clear jars only
- Clean, no damage
- No mayonnaise or other commercial jars!



Pie Filling

- Use Clear Jel® as thickener
 - Not instant Clear Jel®

Meat Jerky

- Meat must be heated to 160°F before or after drying to kill bacteria
 - This is not drying temperature
- Recipe must state the heating method

Recommended Canning Lids

- Two-piece lid and ring
- No rust
- No damage on the jar rim

Headspace (in general)

- ¼" for sweet spreads
- ½" for fruits, tomatoes and pickles
- 1" to 1 ¼" low acid foods
- See scorecards for specifics



For the Fair **AND** Home!

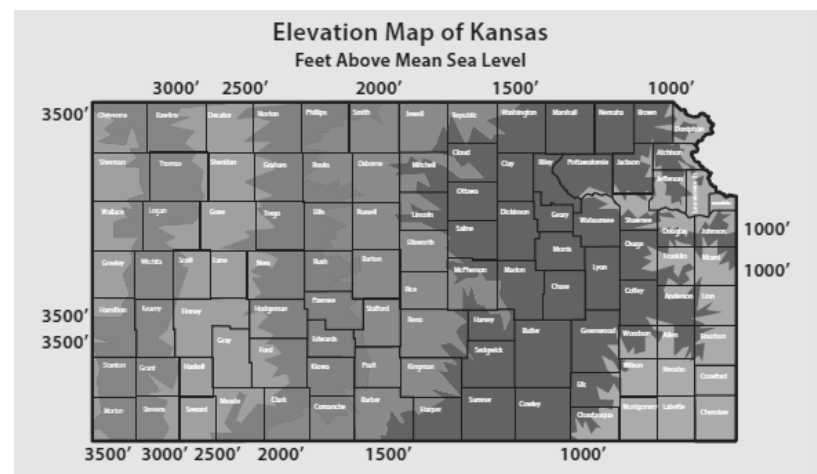
- **These tips are not JUST for the Fair!!**
- **All foods need to be canned safely for any use!**
- **Be Smart!**
- **Be Safe!**

Altitude Adjustment

- Boiling Water Bath processing foods
 - Increase time
- Pressure canning processing
 - Increase pressure
- **Altitude of canning location must be indicated on label or recipe**

Tomatoes and Tomato Products

- Must be acidified
 - Both Water bath and pressure canning
- No pressure canning recommendations for salsa
- Salsa in pints or smaller **ONLY! NO Quarts!**



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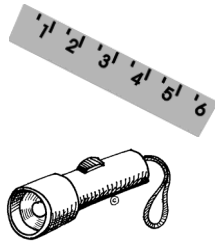
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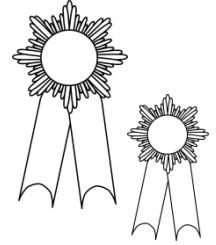
Tools for Judging Food Preservation

- Cloth towels and washcloths
- Ruler to measure headspace
- Flashlight to see inside jars
- Water
- Resources
- Hand sanitizer or disinfectant wipes



Reasons for Lowering a Ribbon Placing

- Not following fair book rules
- No recipe
- Different color rings/ bands
- Messy jars, rusty rings
- Not enough liquid
- Improper headspace
- Wrong color (artificial color added if not in recipe)
- Food over mature
- Uneven sized food pieces
- Using colored jars
- Brands of jar/lids not the same
- Food above liquid
- Fancy pack, if not stated in recipe
- Foreign material
- Sediment in jars
- Using iodized salt
 - Can cause cloudiness in liquid
- Using wrong pectin



Judging Steps

- **Review recipe and label information**
- Check lid seal
- Examine jar appearance
- Remove ring, check for residue
- Measure headspace
- Examine contents with flashlight
- Rotate jar, lean on its side to check food consistency
 - Look for defects
 - Refer to judging scorecards for details
- Provide comments, how to improve
- Award ribbon placing

Reasons for Disqualification

- Jar unsealed
- No label, missing information
- Wrong processing method
- Underprocessing
- Jerky not heated to 160°F
- Jar size bigger than recipe states
- Added thickeners, rice, pasta
- Moving bubbles
- Not acidifying tomatoes
- Mashed or pureed pumpkin/winter squash
- Paraffin wax on sweet spreads
- Contains alcohol
- Untested recipe source



Showmanship Tips

While not critical for food safety or quality, these can affect final ribbon placing.

- Use same color rings and lids
- Using the same brand of jars and lids
- Hard water residue present on jar surface should be removed
- Sticky label residue on the reused jars should be removed
- Rings should be free of rust
- Remove rings, check for sticky residue
- No fabric lid covers or other décor

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Food Preservation Judging Scorecards, Labels, and Judging Criteria

- <http://www.kansas4-h.org/events-activities/fairs/kansas-state-fair/index.html>
- Scroll down to “Food Preservation”

Food Safety Recommendations for Food Preservation Exhibits

- <http://www.bookstore.ksre.ksu.edu/pubs/4H712.pdf>

Judging Home Preserved Foods

- University of Georgia
- http://www.uga.edu/nchfp/publications/nchfp/tech_bull.html



Do your homework! Be an informed judge to help educate youth about food preservation!

How-to Guide to Water Bath Canning and Steam Canning

- <http://www.bookstore.ksre.ksu.edu/pubs/MF3241.pdf>
- <http://www.bookstore.ksre.ksu.edu/pubs/MF3241S.pdf> - Spanish

How-to Guide to Pressure Canning

- <http://www.bookstore.ksre.ksu.edu/pubs/MF3242.pdf>
- <http://www.bookstore.ksre.ksu.edu/pubs/MF3242S.pdf> - Spanish

10 Tips for Safe Home Canned Foods

- <http://www.bookstore.ksre.ksu.edu/pubs/MF3170.pdf>
- <http://www.bookstore.ksre.ksu.edu/pubs/MF3170S.pdf> - Spanish

Sassy Safe Salsa at Home

- <http://www.bookstore.ksre.ksu.edu/pubs/MF3171.pdf>
- <http://www.bookstore.ksre.ksu.edu/pubs/MF3171S.pdf> - Spanish

What's Your Elevation?

- <http://www.bookstore.ksre.ksu.edu/pubs/MF3172.pdf>
- <http://www.bookstore.ksre.ksu.edu/pubs/MF3172S.pdf> - Spanish

Dry Meat Safely at Home

- <http://www.bookstore.ksre.ksu.edu/pubs/MF3173.pdf>
- <http://www.bookstore.ksre.ksu.edu/pubs/MF3173S.pdf> - Spanish

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