Canning Food Safely

September is National Food Safety Education Month, a great time to explore ways to promote safe food handling and prevent foodborne illnesses. If you are canning or preserving food, protect yourselves and your loved ones by using updated, scientifically research-based recipes found at your Extension Office, the USDA, the National Center for Home Food Preservation or from an updated Ball Blue Book. An excellent source of information can be found at K-State’s Rapid Response Center: https://www.rrc.k-state.edu/preservation/

I know that there were more gardens planted this year as compared to the past year and some gardens are producing great crops. When all those tomatoes are ripe at the same time, what do you do? Preserve them!

Karen Blakeslee with K-State’s Rapid Response Center shares that home canning of foods is done using two processing methods based on the type of food being canned. Low acid foods, such as vegetables and all meats, must be pressure canned. High acid foods, such as most fruits, tomatoes, pickled foods, jams and jellies, are processed using a boiling water bath. This is based on the acidity, or pH, of the food. The dividing point is a pH of 4.6. Any food above 4.6 is a low acid food. Any food below 4.6 is a high acid food.

A change from what you may remember from the past is that it is a requirement to add acid to home canned tomatoes. This used to be an unnecessary step in canning tomatoes, but tomatoes available in today’s market are not as acidic as they used to be. This is for water bath and pressure canned tomatoes. Tomatoes that are acidified for canning are done so to prevent the
botulism poisoning and other bacterial concerns by a combination of heat and acid. The prevention control in vegetables, meat and other naturally low-acid foods is by heat alone.

Tomatoes can have a natural pH above 4.6 (at least up to 4.8). But rather than develop a pressure-only process as if they were all low-acid, since they are close to 4.6, USDA decided instead to recommend adding a small amount of acid so they can be treated as a food with a pH less than 4.6 for home canning. Therefore, they are suitable for boiling water when the acid is added.

Tomatoes can be waterbathed, but you must add two tablespoons of bottled lemon juice or 1/2 teaspoon of citric acid per quart of tomatoes. For pints, use one tablespoon bottled lemon juice or 1/4 teaspoon citric acid. Acid can be added directly to the jars before filling with product. Add sugar to offset acid taste, if desired.

One additional thing to remember is to adjust processing times for altitude. Many think Kansas is flatter than a pancake, but Kansas altitudes can range from below 1,000 feet to just over 4,000 feet. Not adjusting for altitude will lead to under-processed food because water boils at lower temperatures in higher altitudes. If you live over 1,000 feet, then you must adjust your canning recipe to compensate for the higher altitude. Information on elevation can be found at the website listed above.

You can always just search for Rapid Response Center at K-State and you will find the information you need. Karen has also produced a selection of videos that will help you through the food preservation process. Good luck with preserving your garden produce and if you have additional questions, call the Extension Office in Hays or Great Bend.

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