

Daily Union Article
Saturday, August 18, 2018
Title: Home Canning Safety

It was great to see an increase in the number of food preservation entries at the Geary County Free Fair last month. The judge was careful to read the recipe, test the seal, look at and through the jar, and comment on adjustments needed for altitude. Perhaps those criteria might not be what you would look for in home canned foods, but they help assure the food is not only tasty but safe, as well.

As more and more people return to home canning or explore canning for the first time, it's appropriate to recap some of the steps needed to preserve food safely. Too often, folks try to take shortcuts and choose the wrong type of processing or length of processing. When home canned food is canned improperly, you run a deadly risk of botulism poisoning from consuming these foods (see inset).

Low-acid vegetables (asparagus, green beans, beets, corn, potatoes, some tomatoes*), all meats, poultry, fish and seafood require the use of a pressure canner. The spores that cause botulism, *Clostridium botulinum bacteria*, is found naturally in soils and are very, very heat resistant. Placing canning jars in boiling water, even if boiled for hours, is not going to kill the spores. The bacteria especially like the conditions inside closed jars of low-acid foods that sit at room temperature for storage. The spores must be killed during the canning process to allow for safe storage. Adding pressure increases the heat inside the pressure canner which is critical for safe home canning of low-acid food.

There are two types of pressure canners available: weighted gage canners and dial gauge canners. Dial gauge canners use a dial to indicate or show the pressure inside the canner. It is necessary to have the dial gauge tested for accuracy before each canning season or after dropping or banging it. The Geary County K-State Research and Extension office provides free testing of dial gauge canners. Just drop the lid (which gauge intact) by the office and we will get it tested within 48 hours. Testing the gauges on dial gauge pressure canners should be an annual routine step in preparation for the new canning season. As lids are handles, bumped, or simply used, the calibration of the dial gauge can become inaccurate. It is wise to test the gauge on new canners or replacement gauges before they are used for the first time, just as a precaution. Too much pressure can be dangerous and too low a pressure is a safety issue, as well:

- If the dial gauge tests off by less than 2 pounds, you will need to adjust the pounds of pressure you use when processing the foods.
- If a gauge tests off by more than two pounds, replace the dial gauge. In addition, replace a gauge if it is cracked or the glass cover is missing.

- When your dial gauge is tested, the condition of the gasket, pressure plug, and safety lock will be examined if the canner lid is available.

There are several styles of weighted gauge canners in the marketplace; these have weights on the open vents that let you choose 5, 10 or 15 pounds pressure for processing. Whether using a dial gauge or a weighted gauge pressure canner, using handed down recipes can be risky. Older methods of home canning have found to have a higher risk for improper sealing and/or increased risk in the area of food safety.

The National Center for Home Food Preservation is housed in the Cooperative Extension Service with the University of Georgia. This center explains why it is important to use research kitchen tested recipes: *"Using up-to-date canning instructions from a reliable source is essential. Scientific knowledge and equipment have changed since earlier generations were canning foods at home. People using boiling water canners or not using pressure canners correctly that did not have their food spoil or make them sick were just lucky. You might not be so lucky and the reality is that you could end up with botulism poisoning or at the least, throwing out a lot of spoiled food. See the USDA home canning procedures at the National Center for Home Food Preservation website at: <https://nchfp.uga.edu/>.*

Source: https://nchfp.uga.edu/tips/summer/can_vegetables_safely.html

Test Your Equipment: Before you begin a new season for canning, it is a good idea for you to make sure it is working properly before you put jars full of food in your canner. To test your equipment, put several inches of water in your pressure canner, and pressurize it as if canning. Monitor the pressure as it gets to the level needed for the type of food you are canning. Make sure the pressure will hold and that the canner is not leaking around the seal. This is also a good time to practice de-pressurizing the canner to avoid any kitchen accidents. To do this, turn off the heat, lift the canner away from the heat (electric burner) and let the canner cool naturally. Do not force cool the canner for food safety reasons.

For more information of safe home canning, contact me at the Geary County K-State Research and Extension office at 785-238-4161. Until next time, keep living resourcefully!

[inset on botulism]

Botulism is a rare but potentially deadly illness caused by a poison most commonly produced by a germ called *Clostridium botulinum*. The germ is found in soil and can survive, grow, and produce a toxin in certain conditions, such as when food is improperly canned. The toxin can affect your nerves, paralyze you, and even cause death.

You cannot see, smell, or taste botulinum toxin—but taking even a small taste of food containing this toxin can be deadly. Symptoms include:

- Double vision
- Blurred vision
- Drooping eyelids
- Slurred speech
- Difficulty swallowing
- A thick-feeling tongue
- Dry mouth
- Muscle weakness

Source: Centers for Disease Control – Home Canning and Botulism