**DATE:** February 1, 2021

**Food Preservation through Canning: Water bath vs. pressure.** A few weeks ago, I discussed the basic science behind proper canning and the importance of testing your pressure canner dial gauge annually. This week, I will provide an overview of the two most common methods of food preservation, water bath and pressure canning. Understanding the difference in the two methods and knowing which to use for the product you are preserving will help safeguard those consuming the finished product. While I will not discuss detailed instructions for each process, as that is best done in person in a hands-on learning environment, this introductory information can help you prepare as you explore food preservation through canning.

Water bath canning uses boiling water (212° at sea-level). to preserve food. If you plan on processing acidic foods, such as fruits (jellies, jams, preserves, marmalades, and butters) tomatoes, pickles, and relishes, water bath is the recommended method. Microorganisms that cause acidic foods to spoil are destroyed by the heat produced from the boiling water.

Pressure canning uses pressure to process foods at a higher temperature (usually 240°) than water bath canning. If you plan on preserving low acidic foods, you want to use the pressure canning method. Examples of low acidic foods are vegetables, meats, poultry, and fish. Pressure canning will provide enough heat to kill bacteria that cause botulism and other types of spoilage. Although botulism is considered rare, it very serious and can be fatal. When using a pressure canner to preserve foods, it is important to read and follow the manufacturer’s instructions.

If canning in altitudes above 1000 feet, adjustments will need to be made as this changes the temperature at which water boils. Luckily, Rains and surrounding counties are far enough below 1000 feet to avoid this issue, but it is something to keep in mind if in another location. Additionally, each food has a specific processing time based on extensive research to determine food safety. Processing times must be followed exactly to avoid food safety and quality issues.

If you are interested in additional information on canning, please contact the Rains County Texas A&M AgriLife Extension office. If you like to do your own research, I recommend reviewing a copy of *So Easy to Preserve[[1]](#endnote-1)*, a University of Georgia Extension publication. First released 1984, this publication is one of the most complete resources available on canning. In addition to step-by-step instructions, in-depth information, and problem solving, the 388-page book offers more than 185 recipes tested by highly trained Extension faculty.

As a reminder, it is important to test your dial gauge annually. The Rains County Texas A&M AgriLife Extension provides free dial gauge testing (for most dials). Please call (903) 473-4580 or email sarah.latham@ag.tamu.edu to set up a test time. Following your dial gauge test, you will receive written test results with instructions to adjust the pounds of pressure for proper cooking as well as information on replacement parts, if needed. Additionally, gaskets and plugs will be inspected. Overtime, rubber seals may become worn or brittle and need replacing. If needed, information on replacement parts will be provided.

In the meantime, if you have questions or concerns, please contact me, (903) 473-4580 or email Sarah.Latham@ag.tamu.edu. You may also read more about this and many more topics on my blog, http://agentsarah.blogspot.com/. To view upcoming events or additional information please visit https://rains.agrilife.org/ or follow Rains County AgriLife on Facebook.

1. Andress, E. & Harrison, J. (2020). *So easy to preserve* (6th Edition). University of Georgia Extension. [↑](#endnote-ref-1)