

HOME CANNING – HOW TO SAFELY PRESERVE YOUR BOUNTIFUL SUMMER HARVEST

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As summer rolls in and your garden starts to produce a plentiful amount of vegetables, you may start to consider ways you can save some of your tomatoes, green beans, cucumbers, and other veggies for use throughout the year. One of the most common ways to limit the waste of excess veggies coming from your garden is to preserve them by canning them. Canning is a method of preserving food by placing the items in a jar with a lid that makes an air-tight, vacuum seal, and heating the product up to a temperature that will destroy all bacteria. The air-tight seal will then ensure that bacteria cannot get inside the jar and grow, due to the lack of oxygen within the jar. At first thought, canning may seem scary, but if done properly, it can be a very rewarding endeavor.

It is very important to know that the canning process MUST be done correctly and safely. If the product is not properly processed, the food within the jar could start to spoil, and bacteria, yeasts, and molds can start to grow, which can make you very sick. One of the most known illnesses that can be caused by improper canning techniques is botulism. This illness is caused by the toxins produced by the bacteria *Clostridium botulinum*, and can be deadly. This is why it is very important to only use recipes from reputable sources, such as the United States Department of Agriculture (USDA) and the National Center for Home Food Preservation (NCHFP), and use the proper equipment for the type of food that you are preserving.

There are different techniques you should use for low-acid foods and high-acid foods. Low-acid foods include, but are not limited to, most vegetables, some fruits, milk, all meats, and seafood. These foods are the most common sources of botulism, linked to home-canned products, because the acidity levels are not high enough to prevent the growth of the botulinum bacteria. The only recommended method for canning these products is pressure canning, and canning in a boiling water bath is not recommended. You should also be boiling the product for a specific time, which may have to be altered depending on the elevation. According to the USDA, when using a pressure canner with a dial gauge, the pressure in the canner must be increased by 1lb of pressure for each 2,000 feet above sea level. If you are using a pressure canner with a weighted gauge, you must use the 15lb weight when at all altitudes above 1,000 feet. See below chart if using a dial gauge.

Pressure Required to Reach 240 °F

Altitude	Pressure Required
Sea Level to 2,000 feet	11 lb.
2,001 to 4,000 ft.	12 lb.
4,001 to 6,000 ft.	13 lb.
6,001 to 8,000 ft.	14 lb.
8,001 to 10,000 ft.	15 lb.

Chart from article 'High Altitude Cooking' by the USDA.

There are obviously far too many recipes to thoroughly explain how each item should be canned, whether you should add more acidity to those items before canning, what ingredients to add to increase the flavor, and much more. The USDA and the NCHFP have partnered to create a home canning recipe book, *The Complete Guide to Home Canning: Current Printing / Official U.S. Department of Agriculture Information Bulletin No. 539 (Revised 2015)*, with step-by-step instructions for how to can your favorite foods, plus invaluable information about equipment you should use, how to use the equipment safely, and all of the other ins and outs of home canning. The book can be bought on Amazon at the following link: <https://www.amazon.com/Complete-Guide-Home-Canning-Agriculture/dp/B086L53NVN>.

So, you've purchased the book, read all of the information it provides, and you have followed the recipes to produce a safe and shelf-stable product. After checking that all of the lids have sealed, and all are completely cooled, now it's time to store them. The jars should be stored in a clean, cool, and dark place, between the temperatures of 50°F and 70°F. All jars should be labeled with the contents and the date that they were canned. The jars should also not be stacked more than 2 jars high, due to the possibility of the seals getting damaged. Now you can enjoy your garden veggies past the summer season, and throughout the year.

To a beginner, canning and preserving food at home may seem daunting, but if done correctly, is very rewarding. When starting to research for information, ensure that you are getting it from reputable sources, especially from those agencies who have done extensive research in safe canning practices.

For more information about home canning, please visit the following websites:

<https://nchfp.uga.edu/how/can/general-information/how-canning-preserves-foods/>

<https://blogs.cdc.gov/publichealthmatters/2021/07/home-canning/>

https://www.cdc.gov/botulism/prevention/home-canned-foods.html?CDC_AAref_Val=https://www.cdc.gov/foodsafety/communication/home-canning-and-botulism.html

<https://www.fsis.usda.gov/food-safety/safe-food-handling-and-preparation/food-safety-basics/high-altitude-cooking>