

Daily Union Article
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Home Food Preservation – Part 1

My husband says this is the time of year when you need to start locking your car doors at our small town church. He says you never know what you'll find on your floorboard if you leave it unlocked!

Garden season is here and the vegetables and fruits are thriving. Although gardeners bask in the bounty of their work, one can eat only so many fresh tomatoes or cucumbers before a limit is reached. Eat what you can, share what you want, and get ready to process the rest to use during the winter months! This is the first of two articles about what to do with excess produce.

It may seem like a lost art, but in truth, home food preservation has become a more popular activity in recent years. Why the trend? One reason is tied to extending the household food dollar. Disregarding the cost of labor, preserving home grown fruits and vegetables could cut this part of a consumer's food bill in half. Another reason is the freshness and quality that the home preservation process offers. The amount of time between when the crop is picked and when it is preserved has a direct and significant impact on the nutritional value and quality of the final product. For example, if fresh produce is not cooled or preserved within the first few days after harvest, nearly half the vitamins may be lost. Even refrigerated produce can lose half or more of some of its vitamins after a week or two.

Home food preservation provides the consumer with a greater amount of control over the quality and added ingredients than commercially canned products provide. Even though the heating process during canning destroys from 1/3 to 1/2 of vitamins A and D, thiamin, and riboflavin, the amount of time lost between harvest and the shelf can be significantly reduced. This protects the produce from the additional nutritive loss that occurs during shipping and delivery to the commercial processing plant. Additionally, if the raw product was handled properly and canned promptly, canned foods can be more nutritious than fresh produce sold in local stores.

Food begins to deteriorate as soon as it is harvested. To maintain quality, decrease food costs, and stock the pantry, the garden bounty can be preserved in one of five ways:

Canning – This is the process by which foods are cleaned and prepared, placed in jars or cans, then heated to an appropriate temperature that kills microorganisms and enzymes. When the jar or can is heated, the cooling process then forms a vacuum seal. This vacuum seal prevents microorganisms from recontaminating the food in the processed container. Some foods, such as low acid vegetables and meats require pressure canning while higher acid foods such as fruits and tomatoes require being processed in boiling water.

Freezing – This is the process where the temperature of the food is dramatically reduced so that microorganisms cannot grow, although many will survive. The enzymatic activity (causing the product to deteriorate) is slowed, but not stopped by the freezing.

Jams and Jellies – These products contain high levels of sugar. The chemical reaction that occurs between the liquid and sugar causes the water to bond with the sugar. This makes it more difficult for

the microorganisms present to grow. To prevent contamination to the surface of the product, jams and jellies are either canned, frozen, or refrigerated.

Pickling – Foods that have gone through the pickling process can be stored at room temperature. The pickling process increases the acidic level of the food, making it difficult for most bacteria to grow. The amount of acid is key to the food's safety. Much like tomatoes, pickled products are heated in jars at boiling temperatures to destroy microorganisms.

Drying – This process removes most of the moisture the food contains. Without water, the microorganisms cannot grow and the enzymatic activity is greatly reduced. Dehydrated foods require airtight storage containers to prevent moisture from the air entering back into the product.

Several questions need answered when determining the method of food preservation to be used: 1) What are the safe guidelines recommended for the food being preserved? 2) What storage capacity and availability is there? 3) Is the food considered a low or high acid food? 4) How does the family prefer to eat the type of produce or how will this food be used later? For example, tomatoes could take the form of sauce, stewed, or juice – just to name a few. Apples can take a variety of forms as well; pie filling, fruit leather, sauce, or quartered.

As the tomato, squash, and cucumber crops start in earnest, knowing which method to use for food preservation is important. Producers need to make sure they have the right supplies and ensure the equipment being used meets the standards needed for safe food processing. They also need to make sure they are using researched recipes known to minimize the risk of food borne illness. Often times, the recipe passed down through the generations is not a researched recipe and can pose a serious health risk to those who consume it. Additionally, many of the generational recipes have been adjusted, tweaked, and modified to such an extent that no one really knows the original recipe or directions.

As canning season begins to rev up, those opting for home food preservation need to research their recipes, ensure the equipment has been checked, and begin to prepare their supplies. For more information, check out this link on the Geary County K-State Research and Extension website at: <http://www.geary.k-state.edu/home-family/food-preservation.html>, or contact me at the office at 785-238-4161. Until next time, keep living resourcefully!