



ALABAMA COOPERATIVE EXTENSION SYSTEM/ LIMESTONE COUNTY OFFICE

The Garden Spot For week of June 22, 2009

Preserving Our Garden's Bounty

Now that our gardens are starting to produce, we think about HOW we can enjoy those vegetables and fruits next winter. There are many methods of preserving food: canning, freezing, pickling, making jelled products, and drying. Today's article will only discuss the highlights of canning and freezing.

The method we use to preserve food is important because of safety. Incorrect food preservation methods lead to microorganism and bacteria growth in home-preserved foods. Many of the stomach viruses and bellyaches we experience may in reality be due to food poisoning caused by improper preserved or maintained foods.

Foods normally begin to spoil very shortly after they are harvested. Spoilage results from chemical changes such as those caused by enzymes, from growth of microorganisms such as molds and bacteria, and from physical damage such as water loss and bruising. Food preservation methods do destroy some microorganisms, but primarily they only stop the spoilage process during the time that the food is sealed and stored. As soon as the canning jar or freezer package is opened, the foods begin to deteriorate again.

Canning

Let's take a quick look at home-canned foods. Home-canned foods should be processed either in a water bath cooker or pressure canner. The proper method to use depends on whether the food is a ***high acid*** or ***low acid*** product. Going back to our high school chemistry classes, high acid foods are those that have a pH of 4.6 or lower. This is usually fruits. Most vegetables are low-acid foods. Tomatoes may be canned by either water-bath or pressure methods, but will require the addition of acid if they are processed in a water bath.

When canning, use only clean, fresh, good quality fruits and vegetables that are mature. Avoid produce with bruises and insect damage. Keep in mind that canning will not improve the final product: you start with poor quality produce, and you will get a poor quality final product!

Use real canning jars – these are Mason Jars, which are manufactured to withstand the rigors of processing and protect your food. There are many brands of Mason jars. Do NOT use mayonnaise, pickle, or other light-weight glass jars.

The actual process of canning is a physics lesson. In both water bath and pressure canning, heat is used to heat both the product and the canning lids. When the product and lids cool down, it forms a vacuum that seals the jar. Water bath canners will process food at 212°. This is suitable for high-acid foods. For low-acid foods, pressure is needed to heat the product to 240° F., which is needed to kill microorganisms that would not be destroyed at 212°.

Many people routinely added salt to their home-canned foods. However, in reality, salt is not necessary. It is used only for taste.

If you're uncertain about the safety of home-canned foods, don't taste! Some of the toxins are odorless, colorless, and tasteless. Do examine your jars for leaks, bubbles, unusual colors, or any unusual growth in the jar. Low acid foods should be boiled for a minimum of 20 minutes to insure safety.

Freezing

Freezing is probably the simplest and most convenient method of preserving food at home. In many cases, frozen foods are ready to serve on short notice.

All foods contain enzymes which cause both physical and chemical changes. Enzyme action can be controlled by heating or freezing. Freezing slows enzyme activity so that many foods will keep satisfactorily with little or no further control. Heat destroys enzymes and is used to prevent changes in the food's color, flavor, and texture. For this reason, blanching is done to most products before they are actually frozen.

You'll find a good assortment of freezing products at your local store. Whether its rigid containers, zip-type bags, or paper, be sure you use Freezer Quality products. The lighter-weight products that are not designed for use in the freezer will cause the quality of your food to deteriorate quickly.

If you have specific questions on food preservation, contact the Limestone County Extension office at 232-5510. For complete information on home food preservation, the Alabama Cooperative Extension System has the book "Food Preservation in Alabama" available

at all county offices. It is sold for \$9 per copy and contains over 230 pages of instructions and recipes on canning, freezing, pickling, making jelled products, and drying.

