



**DIVISION OF AGRICULTURE
RESEARCH & EXTENSION**

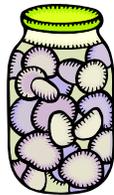
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Food Preservation Newsletter July 2013

Canning, pickling, freezing, dehydrating – these are all ways we can preserve foods. Home canning has changed greatly in the 180 years since it was introduced as a way to preserve food. Scientists have found ways to produce safer, higher quality products.



Research is continually being conducted in areas that affect food preservation recommendations. Make sure your food preservation information is always current with up-to-date tested guidelines. Most of the information contained in this newsletter is taken from the USDA “Complete Guide to Home Canning”.

Dehydrating Food

Removal of water from a food prevents growth of most microbes and slows down enzymatic deterioration. Water can be removed by sun drying, oven drying and by using a dehydrator. In our hot, humid summers, the **food dehydrator** is recommended.



When purchasing, look for double wall construction of metal or high grade plastic with enclosed heating elements. The thermostat should run from 85° to 160° F. and should have a fan or blower. A dial for regulating temperature is good and the unit should have the UL seal of approval.

Many foods can be dehydrated including meats, fruits & vegetables. Use recipes included with the unit.



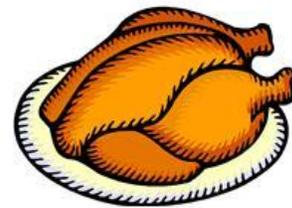
Learning to properly preserve food takes some effort and current information based on research should always be used. Three good sources include the most recent *Ball Blue Book Guide to Preserving*, available locally; *So Easy to Preserve*, available at www.soeasytopreserve.com, or at your local Extension Service Office; and the USDA site, www.homefoodpreservation.com.

Many vegetables begin losing some of their vitamins when harvested. Nearly half the vitamins may be lost within a few days unless the fresh produce is cooled or preserved. Within 1 to 2 weeks, even refrigerated produce loses half or more of some of its vitamins. The heating process during canning destroys from 1/3 to 1/2 of vitamins A and C, thiamin, and riboflavin. Once canned, additional losses of these sensitive vitamins are from 5 to 20 percent each year. The amount of other vitamins, however, are only slightly lower in canned compared with fresh food. If vegetables are handled properly and canned promptly after harvest, they can be even more nutritious than fresh produce sold in local stores.



Should I use a hot water bath canner or a pressure canner to can my foods?

High acid foods are safe to can using a water bath canner. High acid foods are those which contain enough natural acid to have a pH of 4.6 or below. Generally, all fruits are acid foods. We usually think of tomatoes as a vegetable, but botanically they are a fruit and are treated as an acid food in canning. Sauerkraut, rhubarb and foods, to which acid is added, such as pickles and relishes, are also treated as acid foods.



Pressure canning is the only recommended method for canning meat, poultry, seafood and vegetables. The bacterium *Clostridium botulinum* is destroyed in low acid foods when they are processed at the correct time and pressure in pressure canners. Using boiling water canners for these foods poses a real risk of botulism poisoning.



How Canning Preserves Foods

The high percentage of water in most fresh foods makes them very perishable. They spoil or lose their quality for several reasons:

- Growth of undesirable microorganisms – bacteria, molds and yeasts
- Activity of food enzymes
- Reactions with oxygen
- Moisture loss

Microorganisms live and multiply quickly of the surfaces for fresh food and on the inside of bruised, insect-damaged, and diseased food. Oxygen and enzymes are present throughout fresh food tissues.

Proper canning practices include:

- Carefully selecting and washing fresh food,
- Peeling some fresh foods.
- Hot packing many foods,
- Adding acids (lemon juice or vinegar) to some foods,
- Using acceptable jars and self-sealing lids.
- Processing jars in a boiling-water or pressure canner for the correct period of time.

Collectively, these practices remove oxygen; destroy enzymes; prevent the growth of undesirable bacteria, yeasts, and molds; and help form a high vacuum in jars. Good vacuums form tight seals which keep liquid in and air and microorganisms out.



All About Jars

Select standard canning jars that have been tempered to withstand high temperatures. Do not use other jars as they may break in processing and the lid may not seal well.

Jars can be wide-mouth or regular and come in 4 oz, 8 oz (half pint), 16oz (pint), 32 oz (quart). Half-gallon jars should only be used for canning juices.



Freezing is a quick, convenient and easy method of preserving foods in the home. Freezing also preserves nutritive quality as near to that of fresh foods as any food preservation method used today. Bags and sheets of moisture-vapor resistant plastic and aluminum foil are suitable for packed vegetables, fruits, meats, poultry and fish. Bags can also be used for liquid packs.



What to know more about food preservation?

We are planning two food preservation classes in August. Water Bath Canning will be covered on **Monday, August 12**. It will cover canning basics and a water bath canner will be used to can **salsa**. After taking this class, you will know how to safely can jams & jellies and tomatoes & tomato products.

The second class will be on **Friday, August 16** to learn how to safely use a Pressure Canner. Classes will run from 9:00 am through noon. The fee for each class is **\$10.00** which covers cost of materials, and each person will go home with a canning jar full of **salsa or green beans**.

Classes will be limited in size so everyone can help in the kitchen. Call our office by Monday, August 5 for the August 12 class. For the August 16 class, please call and sign up by Friday, August 9.

Questions? Give me a call or send an email.

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