

The Abundance of Summer

by Diane Keller, Fairfax Master Gardener

The abundance of summer's harvest of fresh fruit and vegetables is a great time of year to take advantage of canning and freezing. This process will enable you to enjoy the fresh taste of summer all year long. The process of canning or freezing is easy and can be done in a few simple steps to ensure that food is safe to consume. By canning or freezing fruits and vegetables you are locking in flavor and nutrients of peak ripeness. You are canning products that have been grown without pesticides. You are freezing and canning fruits and vegetables that have been picked within a day or two versus purchasing from a store where they may have been picked weeks before. And most importantly, the preserving of your summer harvest allows you to eat healthier food and feel the pride and accomplishment of growing your food and preserving it for later use.



photo: Kristina Snowasp, Pexels

Canning

According to the University of Georgia's National Center for Home Food Preservation, the canning process involves placing foods in jars or cans and heating them to a temperature that destroys microorganisms that could be a health hazard or cause the food to spoil. Canning also inactivates enzymes that could cause the food to spoil. Air is driven from the jar or can during heating and as it cools a vacuum seal is formed. This vacuum seal prevents air from getting back into the product bringing with it microorganisms to re-contaminate the food.

There are two types of canning fruits and vegetables, and the best is determined by what is being canned. A boiling water bath is good for high acid produce such as fruits and some vegetables. High acid foods are those with a pH of 4.6 or less.



photo: Alabama Extension

Appropriate canning jars

The easiest method to can fruits and vegetables is to use glass canning jars. Choose and wash the fruit or vegetables that you would like to can, and then remove stems and any bruised or marred fruits or vegetables. Decide how you would like to can (water, vinegar-pickle, syrup). Follow the food safety charts to make sure that your product will be safe to eat. The easiest method to freeze vegetables is to blanch them first. To blanch, briefly immerse the vegetable in boiling water and then immediately transfer it to an ice bath to stop the cooking process. This will "improve flavor, color, texture and nutrient retention. Blanching also stops the action of enzymes in the ripening process, cleans the surface of dirt and organisms and brightens the color of green vegetables.

The boiling method uses the power of boiling water to kill potential harmful bacteria in the foods. The acid in the produce also does its job by preventing the growth of spores of the bacteria *Clostridium botulinum* which cannot be killed by boiling. This bacteria causes botulism, or food poisoning and is a toxin that can be deadly to humans.

Boiling to preserve fruits and vegetables is done in tempered glass jars packed with produce. Boiling should also be done to sterilize the jars prior to canning. Regular glass jars that come with food from the grocery store should not be used since they lack the strength for a boiling water bath. The jars are placed on a metal rack, and then submerged in a boiling water bath deep enough to allow about two inches of water above them.

They stay submerged in boiling water for 5 to 60 minutes. Timing depends on the type of produce, the way jars are packed, and the size of the jar. A tight seal is essential on the jar when completed. Rubber-rimmed lids can be bought in most stores and used once.

Examples of High-Acid Foods

Apples	Pears
Applesauce	Pickled beets
Apricots	Plums
Berries	Rhubarb
Cherries	Tomatoes
Cranberries	Tomato juice
Peaches	

The pressure method is best for low acid produce such as most vegetables. The pH of these vegetables is too low to prevent the growth of *Clostridium botulinum*. Since the spores of this bacteria are not affected by boiling water, the only way to kill them is under pressure.

The pressure method uses a specialized metal canning containers designed to trap steam and allow pressure to build. There are relief and safety valves and gauges to measure the pressure in the container.

Again, only tempered glass canning jars capable of withstanding the heat and cold without breaking are used. Tomatoes can be considered a low acid vegetable in some instances due to variety of harvesting conditions. Adding some lemon juice, vinegar, or citric acid can help lower their pH when canning. Pickling low acid vegetables with ample vinegar also increases the acidity to a point where pressure canning is not required.

Examples of Low-Acid Foods

Asparagus	Carrots
Mushrooms	Potatoes
Beans	Corn
Okra	Spinach
Beets	Squash (winter)
Peas	



Pressure canning pot

photo: Penn State Extension, Jon Cofer

Pressure canning is similar to boiling water, except the jars are placed in pressure canning equipment instead of simple boiling water. Pressure canning also takes longer as the pressure in the equipment must build first and then depressurize after completed.

Freezing

Freezing fruit is even easier. Wash and discard any unsightly or marred fruit and cut out any bruised areas. Dry your fruit thoroughly and set it on a tray inside the freezer. When frozen, pack the frozen fruit in a jar, seal and freeze. You can also freeze your fruit in a syrup or just mixed with sugar before freezing.

For freezing, select young tender vegetables or well-ripened fruits. Drying them keeps any residual water from freezing on the produce. Most all vegetables, except onions and peppers, should be blanched before freezing. This will destroy the enzymes in the produce that cause spoilage.



photo: Penn State Extension

Plastic freezing containers

Blanching involves dipping vegetables in boiling water for a short time. Place them in a metal strainer, and dip into a saucepan of boiling water for up to three minutes, depending on the amount of produce, the vegetables, and the size they have been cut into. Then cool by plunging the produce into an ice bath to cool. This prevents the produce from cooking, helps keep it firm, and retains its color and nutrients.

Freezing fruit sometimes works better if it is frozen in sugar syrup or a dry sugar. This helps coat the fruit and protects it from enzymes that act to change the color and ruin its firmness. Small berries can, however, be frozen without any sugar coatings without too much loss of quality.

Containers for freezing should be airtight and not made of glass. Allow a small space above the fruit, especially for any liquid covering the fruit to freeze and expand. If stored in bags, remember to burp the bag to remove as much air as possible. Bags are flexible so expansion can better be accommodated during freezing.



photo: Madriz, Freepik

Freezing fruit in bags

One of my (and especially my husband's) favorite recipes for jar canning is corn salad. Corn on the cob is at peak season right now. Take a dozen ears of corn and let them parboil for about two minutes and then cool. Use a knife and cut the corn kernels off of the cob and place them in a large bowl. In the meantime, sauté two large onions (red, yellow or white) along with three or four peppers (any color) until soft. This is the point in the recipe where you can add any preferred vegetables to the mix. Sometimes I add zucchini or yellow squash along with garlic. Combine the sautéed vegetables with the corn. In a separate bowl add a quarter cup of mustard, two cups of vinegar and a quarter cup of maple syrup. Combine well and add to the corn salad mixture. Scoop the corn mixture into sterilized canning jars and process.

Another easy process to use the last of summer tomatoes is to freeze them. Dip washed tomatoes in boiling water to loosen the skin. Let the tomatoes cool and peel them. Freeze the tomatoes whole or cut up. Pack in containers leaving about an inch of head space and freeze.

There are many recipes, books and websites that will give you advice on how to preserve your summer harvest. The most important thing to remember is to follow the USDA guidelines so that your produce is safe to eat and enjoy.

References

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