



Let's Preserve Newsletter

Lancaster County

1383 Arcadia Road, Room 1, Lancaster, PA 17601-3184

717-394-6851
 FAX: 717-394-3962
 E-mail: LancasterExt@psu.edu

May 2006

Dear Home Food Preserver,

Welcome back to a new year of food preservation. As gardens are being planted, we anticipate a busy and productive season ahead. We started in March with our first food preservation workshop and *Creating a "Berry" Good Time* is coming up May 25th. Preparing for a berry workshop this early in the season means testing recipes using fruit frozen from last season. The recipes in this newsletter have all been tested using frozen fruit.

Why do people preserve food at home? That is a question we asked workshop participants. Here's a sampling of answers: you can control ingredients you put in the jar or freezer and you know what is in the food, the quality of the food is better, you save money, you can use excess garden produce, you have food available when you need it, you get good nutrition, and it's an enjoyable activity. Whatever your reason for being a food preserver, we hope you find this series of *Let's Preserve* useful and that you will join us for one or more food preservation workshops. Enclosed is a list of the 2006 workshops.

Another new feature of our food preservation program is taking our courses on the road. Some of the workshops can be adapted to programs for community groups. Call the extension office if your group would like a program.

Happy Preserving!

Nancy R. Wiker

Nancy R. Wiker
 Extension Educator – FCS
 Penn State Cooperative Extension

Martha Zepp

Martha Zepp
 Food Preservation Consultant
 Penn State Cooperative Extension

What's Inside...

Food of the Month: Berries

- Strawberry Syrup
- Lemon Berry Freezer Jam
- Berries are Good for You
- Be Gentle to Berries



Quick Freezer Jam with Less Sugar

Canning Basics

- Plan Ahead for Canning
- How Processing Times are Determined
- Why Are There No Canning Directions for...
- Why Didn't the Jar Seal?

Dial Gauge Testing

Pass the "Peas" Please

Zero is Better Than Ten

Freezing Eggs

Resources

Food of the Month – Berries

This taste treat is far superior to anything I've tasted from a bottled syrup. Besides topping pancakes and French toast, drizzle some over white cake or spoon puddles of syrup on a plate before placing a slice of strawberry cheesecake on top. You will think you are in the finest restaurant.

Strawberry Syrup

Strawberry, blackberry, blueberry, or raspberry syrup can be made from this recipe.

- 1 ¼ cups prepared berry juice
- 1 ½ cups sugar
- ¼ cup corn syrup
- 1 tablespoon lemon juice

To prepare juice—Select table-ripe berries. Do not use underripe berries. Wash, cap, and remove stems. Crush berries and heat to a boil. Simmer 1 or 2 minutes. To extract juice, pour the cooked berries into a damp jelly bag and suspend the bag to drain the juice. The clearest jelly comes from juice that has dripped through a jelly bag without pressing or squeezing. If a fruit press is used to extract juice, the juice should be restrained through a jelly bag.

To make syrup—Sterilize canning jars. Combine ingredients in a saucepan. Bring to a rolling boil and boil one minute. Remove from heat and skim off foam. Pour into hot half-pint jars, leaving ¼-inch headspace. Wipe jar rims and adjust lids. Process 10 minutes in a boiling water bath.

Makes 2 half-pint jars.

Source: *So Easy to Preserve*, University of Georgia

Martha's Recipe Notes: Because this syrup contains the same ingredients needed to make jelly, it is possible to overcook the syrup resulting in a jellylike consistency. Watch the timing.

It took 5 to 6 cups of berries to obtain 1 ¼ cups prepared juice.

This recipe made exactly 2 jelly jars of syrup but did not fill 2 mason half-pint jars. Because this recipe makes a small amount, you might want to double the recipe or you could refrigerate the syrup instead of processing it.

Lemon Berry Mix-Up Freezer Jam

A quick and easy jam using frozen fruit.

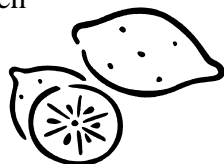
1 pouch Ball Fruit Jell® Freezer Jam Pectin

1 ½ cups sugar

3 (12 oz.) or 2 (16 oz.) bags frozen unsweetened mixed berry blend

(strawberries, raspberries, blackberries and blueberries)

Zest of 1 large lemon



Remove berries from bags and place in a large bowl. Thaw berries in the refrigerator until soft enough to crush, but some ice crystals still remain. Crush berries with a potato masher. Measure 4 cups crushed berries; set aside. Combine freezer jam pectin and sugar in a

large bowl, stirring to evenly blend. Add crushed berries and lemon zest. Stir for 3 minutes. Ladle into clean freezer jars, leaving ½-inch headspace; apply lids. Let stand until thickened, about 30 minutes. Refrigerate up to 3 weeks or freeze up to 1 year.

Yield: about five 8-ounce jars.

Source: www.homecanning.com



Berries are Good for You

According to USDA food researchers, blueberries, cranberries, blackberries, raspberries, and strawberries are high in antioxidants. Antioxidants may help increase our immune function and protect against cancer and heart disease. Foods offer advantages over supplements in supplying antioxidants by providing other nutrients. Berries are also good sources of vitamin C, folic acid, and potassium as well as fiber.

Perhaps the best reason to eat berries—they taste good!

Be Gentle to Berries

Because berries are highly perishable, berries will lose quality quickly when left at room temperature. Pour unwashed and uncapped berries into a shallow tray and refrigerate them. When you are ready to use them, wash small amounts of berries at a time in cold water, lifting them gently out of the water with your fingers. Drain the berries, then uncap them.

Quick Freezer Jam with Less Sugar

Freezer jams have always been favorites of food preservers that love fresh flavor and don't like to stand over the stove. Freezer jams and jelly made with traditional liquid or powdered pectin call for more sugar than cooked jams. Today there are special pectins available to make freezer jam with less or no sugar. Some of these jams have a softer set, but taste testers at our extension workshops preferred the softer texture. Two products that are easy to use are the Ball Fruit Jell Freezer Jam Pectin® and Sure Jell No Cook Jam Pectin®. Both use only 1 ½ or 2 cups sugar to 4 cups of crushed fruit. Both products

keep the ingredient proportions constant for all fruits. This allows you to prepare mixed fruit jams (as in this issue's featured recipe) or add flavorings such as lemon zest. One product requires you to stir the pectin into the sugar; the other product is *gradually* stirred into warm water or over the fruit. Warning: *gradually* is important or the pectin will become lumpy and hard to dissolve.

In addition, both Ball® and Sure-Jell® have boxed low methoxyl pectins that will jell with less or no sugar. Recipes in the boxes include directions for making cooked and uncooked jams with Splenda® or other sugar substitutes. Note that aspartame (NutraSweet® or Equal®) should not be used in making any cooked jams. Some of these recipes include a can of frozen white grape or apple juice concentrate to provide sweetness and a firmer set. Jams made with frozen juice concentrates contain natural sugars and cannot be considered sugar free or calorie free.

Jams made with low or no sugar may not hold their color as well for long term storage. Sugar helps to preserve the color of fruit products.

Canning Basics

Plan Ahead for Canning

Inventory jars and lids.

- Check for nicks, cracks or chips
- Replace very old jars that can weaken with age
- Get a supply of new lids.
- Replace rusted or bent screw bands

Check canners.

- Deep enough to cover jars with 1 to 2 inches of boiling water
- Racks in bottom

Check pressure canner.

- Get pressure canner dial gauge tested yearly
- Replace hard and brittle rubber parts
- Clean vents and make sure they are open all the way through
- Check that handles and gauges are securely attached

Locate up-to-date canning instructions.

Check directions ahead of actual canning to allow time to purchase special ingredients and small equipment needed to prepared food exactly as the directions indicate.

How Processing Times are Determined

Many factors affect the time and temperature needed to process food safely. These include the consistency of the food; the acidity of the food; the presence of nutrients that encourage bacteria to grow; the shape and size of the jar; the size, shape and texture of the food pieces; the solid to liquid ratio; the temperature of the food at the beginning of the process; and the temperature inside the canner.



If a food is thick, pureed, or mashed; if there are large pieces of food in the jar; or if the food is packed too tightly; heat penetration can be slower than in more liquid or loosely packed foods. USDA processing times are calculated for each specific food and style of pack. In some cases, the thickness of the food, as in pureed pumpkin or starch based soups, may prevent adequate heat penetration for safe home processing. Use scientifically tested processing times. Refer to the USDA Complete Guide to Home Canning, extension publications, or the Ball Blue Book®. Look for editions that were published after 1994.

Why Are There No Canning Directions for...

Determining safe processing times for a specific product involves heat penetration experiments done in a properly equipped laboratory. The food must be prepared by specific procedures and packed into jars that are connected with heat measuring devices that go into the food at one end and are connected to a monitor at the other end. This allows the temperature in the food to be recorded throughout the time the canner comes up to the processing temperature and during at least some of the cooling period. The heat measuring devices must be placed in several areas of the jar

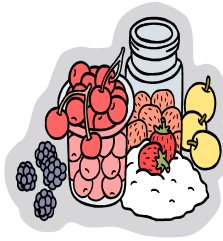
to determine the “cold spot” or slowest-heating location of the jar. Once the cold spot is located, more data is collected to have enough information to calculate the process time for the food under specific conditions such as size of the jar or canner type.

In the case of low-acid foods, the processing time needs to ensure that the minimum temperature and time combination to destroy botulism spores is reached so that the food will be safe when stored on the shelf. In the case of acid foods, minimum processing times must target microorganisms that are likely to make someone sick or spoil the food.

This process has to be done separately with each food, as well as any variation that alters acidity, consistency, texture, distribution of solids and liquids, or other factors that result in a “new” product. Experimentally determining safe processing times for home-canned foods is a lengthy, expensive and time consuming process. This is why there are fewer home-canning recipes available than many people would like. There is no easy formula to work out processing times without experimentation and analysis that take into account how each food product heats in a particular canning situation. Source: National Center for Home Food Preservation.

Why Didn't the Jar Seal?

- Failure to follow manufacturer's directions for preparing and using lids. (Most lids must be heated in simmering water (180°F) for 10 minutes before use. Do not boil.)
- Sealing edge not wiped clean—food particles prevent seal formation.
- Chips or cracks on lip of jar.
- Dented or rusty screw bands.
- Screw band not screwed tightly against sealing edge before processing. (Should be fingertip tight—firm and tight, but not as tight as you can make it.)
- Food particles forced up into sealing region when liquid is lost during pressure fluctuation or during rapid cooling of canner.



- Unsealing of sealed jars due to rapid cooling of canner which causes a greater drop in pressure in the canner than in the jars.
- Raw packed foods were insufficiently heated.
- Open kettle canning—food not hot enough to create a seal. **Not safe, don't use open kettle methods.**
- Use of mayonnaise-type jars with a thin sealing rim.
- Cooling unsealed jars too close together—heat transfer is so slow that a vacuum never develops. Slow cooling also increases the chance of food spoilage.
- Reusing lids—don't reuse lids.
- Fat on jar rim when canning meats.
- Lifting jars by tops or inverting jars while hot. Use a jar lifter and grasp below lip of jar.

Adapted from Susan Brewer, University of Illinois Extension, Solutions Series.

Dial Gauge Testing

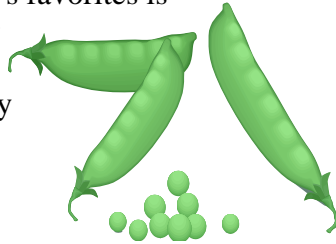
If you have a canner with a dial-type gauge, it should be tested for accuracy every year. We have a testing device in the Extension Office and will be happy to check your canner. Simply come in between 10:00 a.m. and 2:00 p.m. on a Wednesday. (It's a good idea to call ahead just in case I might be out of the office.) Call to make an appointment if other times suit you better. Dial gauge testing takes about 10 minutes. Bring the lid only.

Pressure canners with a weighted gauge do not have to be tested for accuracy because they cannot go out of calibration.

Pressure gauge should be checked every year.

Pass the “Peas” Please

One of early summer’s favorites is peas. Crisp, tender sugar peas combined with new potatoes make a tasty dish that signals the beginning of a bountiful garden. English or hull peas are equally delicious. With careful processing, peas can be preserved to be enjoyed throughout the year.



English or hull peas, snow peas, and sugar snap peas are the most readily available in this area. All can be frozen and the hull peas may be successfully canned in the pressure canner. Peas will have the best quality if canned or frozen the same day as they are harvested.

Snow peas should have a firm crisp pod that is flat with the seeds inside being small and immature. If the peas inside the pods are fat and visible, the pods will be tough and stringy. Remove the tips and the string on the side just before freezing.

Sugar snap peas differ from the snow peas in that the pods look like the green hull peas and the peas inside are fully developed. Sugar snap peas have two strings that should be removed before cooking.

When freezing snow or sugar snap peas, work quickly preparing small batches at a time. Sort peas by size because the blanching time is dependant on the size of the pod. Blanch peas to fix color and to preserve flavor and nutrients. Blanch small podded peas 1 to 1 ½ minutes, medium peas 2 minutes. Blanch one pound in one gallon of rapidly boiling water. If it takes more than one minute for the water to return to a boil after adding the peas, you need more water or less food. The peas will cook and be less crisp if it takes longer for the water to return to boiling.

After blanching long enough for heat to penetrate to the center of the peas, remove quickly and immerse in ice water just till chilled. Avoid soaking the peas. Drain thoroughly on toweling. Individually quick freezing works best

to keep this type of pea crisp. Spread in a single layer on a tray and freeze until solid. Then package in a moisture, vapor proof container. Snow or sugar snap peas frozen in mass will take longer to thaw and cook, and will loose the crispness usually desired with this vegetable. Label and freeze up to one year at 0°F.

Green hull or English peas should be harvested when pods are filled with young, tender peas that have not become starchy. Wash and shell the peas; blanch for 1 ½ minutes in boiling water; drain and chill in ice water. Drain well. Package, leaving ½-inch headspace. Seal and freeze.

Canning peas. If peas are canned, they must be processed in a pressure canner. Because peas are dense, pack them loosely (either raw or boiled) into hot jars and cover with boiling water allowing 1-inch headspace. Process pints and quarts 40 minutes at 11 pounds pressure in a dial gauge pressure canner or at 10 pounds in a weighted gauge pressure canner. Large peas over 1/3-inch need to processed 10 minutes longer.

Zero is Better Than Ten



Set your freezer at 0°F or lower to maintain the highest quality in frozen foods. A freezer thermometer is the best way to determine the actual temperature of your freezer.

Storing frozen foods at temperatures higher than 0°F increases the rate at which deterioration can take place and can shorten the shelf life of frozen foods. For example, the same loss of quality in frozen beans stored at 0°F for one year will occur in three months at 10°F, in three weeks at 20°F and in five days at 30°F.

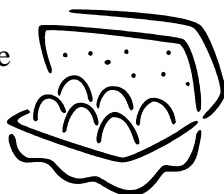
Keep the freezer temperature as constant as possible. Why do freezing directions give the general guideline--freeze only 2 pounds of food per cubic foot of freezer space per 24 hours? Fluctuating temperatures can cause the ice in the foods to thaw slightly and then refreeze. Each time this happens, the smaller ice crystals form

larger ones, further damaging cells and creating a mushier product.

Fluctuating temperatures can also cause water to migrate from the product. You will also see this in commercially frozen foods which have been handled improperly.

Freezing Eggs

Recently, we have had several questions about freezing eggs. One person had several dozen whites and yolks left after emptying the shells for decorations. Although eggs are seldom frozen because of their long refrigerated shelf life, it can be done. They can be frozen as whole eggs or separated as yolks and whites.



Select fresh uncracked eggs and break each separately into a clean saucer. Examine each for freshness and remove any pieces of shell before mixing with other eggs.

To freeze whole eggs, mix yolks and whites. Do not whip in air. To prevent graininess in the yolks, add 1 ½ tablespoons sugar, 1 ½ tablespoons corn syrup or ½ teaspoon salt per cup whole eggs, depending on intended use. Strain through a sieve or colander to improve uniformity. Package, allowing ½-inch headspace. Seal and freeze. Another option is to measure 3 tablespoons of egg mixture into each compartment of an ice cube tray and freeze. Frozen cubes should be removed from trays and packaged in moisture-vapor resistant containers. Three tablespoons of egg mixture equals about one whole egg.

To freeze egg yolks, stir yolks gently. Add sugar, corn syrup, or salt and follow directions above.

To freeze egg whites, gently mix whites and strain through a sieve. No sugar or salt is needed. Two tablespoons of egg white mixture equals one egg white.

Resources

The National Center for Home Food Preservation <http://www.uga.edu/nchfp/>
This web site includes recent research on food preservation plus most of the USDA tested recipes.

The University of Georgia Cooperative Extension has developed “So Easy to Preserve” video series. The video contains the most up-to-date recommendations for canning tomatoes, vegetables, and fruits; freezing fruits and vegetables; drying fruits and vegetables; pickling; making jams and jellies; and a show devoted to the canned specialties of hot chili, salsa, mango chutney, and spicy jicama relish. The video can be ordered from the National Center for Home Food Preservation web site.

“Preserving Food at Home” is a free, self-paced, online course for those wanting to learn more about home canning and preservation. It can also be accessed through the National Center for Home Food Preservation web site.

Penn State encourages persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Nancy Wiker at 717-394-6851 in advance of your participation or visit.

Where trade names appear, no discrimination is intended, and no endorsement by Penn State Cooperative Extension is implied.

This publication is available in alternative media on request.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 328 Boucke Building, University Park, PA 16802-5901, Tel 814-865-4700/V, 814-863-1150/TTY.