



# Let's Preserve Newsletter

Lancaster County

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Dear Home Food Preserver,

As we write this, the rhubarb is nearly ready for harvest, strawberries are beginning to blossom, and asparagus and spinach are appearing in markets. There is much anticipation as these plants emerge from the ground and we look forward to that really fresh taste. The success of home food preservation depends upon using scientific methods to capture that fresh taste while at the same time maintaining the safety of the food. The purpose of this newsletter is to help you accomplish that goal.

Even though our gardens are small, we find we plant with food preservation in mind. Martha is introducing yellow wax beans to her garden so that she will have all the makings for marinated bean salad—a snap to make with canned beans.

This newsletter features the traditional early produce but introduces some variety with kiwi—a tropical fruit that is now readily available in our markets. Throughout the summer, we hope to introduce you to some more “tropicals.”

Included with the newsletter is a schedule of the food preservation classes that will be offered this year. We hope you will be able to join us for one or more of these workshops.

*Happy preserving!*

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**Featured Food of the Month**

**Strawberry-Kiwi Jam**

- 3 cups crushed strawberries
- 3 kiwi, peeled and diced
- 1 tablespoon lemon juice
- 1 tablespoon minced crystallized ginger
- 1 package powdered pectin
- 5 cups sugar

Combine strawberries, kiwi, lemon juice, ginger, and powdered pectin in a large saucepot. Bring to a boil, stirring frequently. Add sugar, stirring until dissolved. Return to a rolling boil. Boil hard 1 minute, stirring constantly. Remove from heat. Skim foam if necessary. Ladle hot



jam into hot jars, leaving ¼-inch headspace. Adjust two-piece caps. Process 10 minutes in a boiling-water bath. Yields: about 6 half-pints. *Source: So Easy to Preserve, 4<sup>th</sup> edit.*

**Recipe tips:**

- Kiwifruit vary in size—use at least 1 cup of diced kiwi.
- Ginger is optional.
- One-half teaspoon butter or margarine may be added with the fruit to reduce foaming.
- Use a large pan (6 to 8 quart) with good burner surface contact to allow for expansion of the rapidly boiling jam and to heat the mixture quickly to avoid overcooking the pectin.

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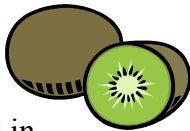
## Freezing Spring's Bounty

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### Kiwifruit

Kiwi originated in central China along the Yangtze River Valley but was developed as a commercial fruit in New Zealand in the early 1900's. The first kiwi plants were introduced into the United States in 1935 and the first commercial vineyards were established in the mid-1960's. Today, kiwifruit are readily available in local grocery stores.



Kiwifruit contains an enzyme similar to the one in papayas and pineapple that prevents gelatin from setting. The enzymes will also produce off-flavors when combined with milk or milk products for long periods of time. Therefore, cook the fruit before adding it to ice cream or frozen cream pies. Freezing does not inactivate the enzyme.

**Nutrition Note:** A small kiwi has about the same amount of vitamin C as a good-sized orange. 100 grams of kiwi has 57 mg of vitamin C.

### Preserving Kiwi

Kiwifruit freezes well. Sliced fruit thaws evenly and is attractive. Crushed fruit may be used for meat tenderizing or used for jam or sauces. Because kiwifruit is high in acid, adding sugar or sweetening improves the flavor. Adding 1 teaspoon ascorbic acid crystals per

quart of syrup or adding commercial fruit preservatives before freezing improves flavor and color retention. For a syrup pack, use 3 cups sugar to 4 cups water. To use a dry sugar pack, the Kiwifruit Commission recommends 1 cup sugar for 1 quart of crushed fruit. Michigan State University also suggests freezing kiwifruit in a honey syrup.

There are no USDA standards for home canning of kiwifruit.

Kiwifruit may be dried in the oven at a very low temperature or in a home dehydrator. The strained pulp can also be sweetened and dried in thin sheets to make a fruit leather. Steaming the dried fruit a few minutes over boiling water makes it moister to add to baked goods.

### Strawberry Mania

You can't wait to indulge in the first ripe local strawberries—so you purchase a plastic clamshell package of the big berries in the grocery store. How much are you getting? How can you tell how many containers to buy to make jam? The California Strawberry Commission says that one 16-ounce clamshell container equals 3 cups or about 18 whole berries. Therefore, 1 pint equals about 12 whole berries. The weight-to-volume ratio changes if the berries are halved, quartered, sliced or pureed. It takes about 2 quarts of berries to make 4 cups of washed, stemmed, and crushed berries for jam. Two pounds of frozen berries also make 4 cups crushed berries.

Store fresh berries loosely covered and unwashed in the refrigerator to maintain their sweet sumptuous flavor.



### Freeze Strawberries

Select fully ripe, firm berries with a deep red color. Discard immature and defective fruit. Wash and remove caps.

To freeze whole berries in a syrup pack, put berries into containers and cover with syrup made of equal parts sugar and water. A dry sugar pack can be used for whole, sliced, or crushed berries. Add ¾ cup sugar to 1 quart

berries and mix thoroughly. Stir until most of the sugar is dissolved or let stand for 15 minutes. Pack berries into containers, allowing ½ inch headspace for pints or 1 inch headspace for quarts in containers with a wide top opening. Fifty percent (50%) more headspace is needed for containers with a narrow top opening.

**Freezing tip:**

Frozen crushed berries can be used later in the season to make jam. Include on the label the cups of crushed berries and the amount of sugar in the container. Subtract the amount of sugar in the berries from the sugar needed in the jam recipe. Use a jam recipe that calls for liquid pectin because those recipes mix the sugar with the fruit before the pectin is added.

Unsweetened strawberries generally do not have the plump texture and good color of those packed with sugar. Berries packed in water or unsweetened juice freeze harder and take longer to thaw. Whole berries frozen without any sugar are best if eaten while partially frozen.



Did you know June 9 is National Strawberry Rhubarb Pie Day?

## Rhubarb

The best rhubarb has firm, crisp, tender, well-colored stalks with few fibers. The deeper the red, the more flavorful the stalks will be. Use only the stalks—the leaves are poisonous.



Heating rhubarb in boiling water for 1 minute and cooling promptly in cold water helps retain color and flavor when freezing rhubarb. (Use caution to avoid over blanching the rhubarb or you will end up with a watery mess.) It may be cut into ½ inch to 1 inch pieces or into lengths to fit the package. Rhubarb can be frozen sweetened or unsweetened. To freeze without sugar, simply pack raw or blanched rhubarb tightly into containers without sugar allowing ½ inch headspace with wide top openings. If preferred, the rhubarb can be covered with a 40% syrup (2¾ cups sugar to 4 cups water). Another method of freezing

without sugar is to spread the cut pieces on a baking sheet and place them in the freezer. Once they are frozen, place them in a plastic freezer bag. Unsweetened rhubarb is best used within 6 months.

With the careful selection of ingredients, rhubarb sauce can be prepared and frozen. Avoid cornstarch or flour thickeners as they tend to separate when frozen. I've had good results using tapioca, cooked instant Clear Jel® and Therm Flo® to slightly thicken my rhubarb sauces.

## Rhubarb Pineapple Sauce

*This sauce is suitable for freezing. It was included in the newsletter several years ago and was extremely popular.*

One 20-ounce can crushed pineapple, juice packed  
2 tablespoons instant tapioca\*  
1½ cups sugar  
6 cups rhubarb, cut into 1-inch pieces



Drain pineapple juice from can into a 3-quart saucepan. (You should have about ¾ to 1 cup juice.) Add tapioca and sugar. Stir. Let set 5 minutes.

Add rhubarb and bring to a boil; cover and cook over low heat, stirring occasionally, until rhubarb is tender and tapioca is clear, 8-10 minutes. (Watch to avoid boil over.) Remove from heat. Add crushed pineapple. Chill. May be frozen in small containers.

This sauce has the texture of a homemade pudding. Use less tapioca if a thinner sauce is desired.

\*If you don't like the gelatinous texture of the instant tapioca, just pulverize it in a coffee grinder or blender or buy tapioca starch (from gourmet food shops) which is already finely ground.

## Asparagus

One of spring's favorite vegetables is so delicate that it requires special care in freezing. Start by selecting young tender spears.

Wash them thoroughly and sort by size. Remove the scales with a sharp knife and



cut into even lengths to fit containers. Water blanch small spears for 2 minutes, medium spears 3 minutes, and large spears 4 minutes. Cool promptly, drain and package, leaving no headspace. Seal and freeze.

To maintain top quality, be sure that the asparagus is in a moisture proof container or wrapping to avoid air from reaching the surface and causing freezer burn. Press out all the air in flexible packaging, or use just the right size container for the amount of food to avoid air from coming into contact with the asparagus. Freeze it quickly in the coldest part of the freezer. Because of the high water content in asparagus, slow freezing causes larger water crystals and lower quality.

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## Freezing Skills

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### Freezer Headspace

Freezing directions usually include head space because liquids, including the sugary syrup, expand when frozen and can spill over the top of the container causing a sticky mess in the freezer. Expansion of liquid in a glass jar could cause the jar to break. Vegetables that do not pack tightly, such as asparagus and broccoli, do not need headspace.

### Packaging Materials

Newer packaging materials have made freezing foods easier. Rigid containers made of plastic or glass are especially good for liquid packs. Rigid containers with straight sides make removal of the frozen food easier. Rigid containers are often re-useable and make stacking of foods in the freezer easier. Cardboard and plastic cartons from cottage cheese, ice cream and milk are not sufficiently moisture-and-vapor resistant to be suitable for long-term freezer storage unless they are lined with a freezer bag.

If using glass jars, choose wide-mouth dual-purpose jars made for freezing and canning. These jars have been tempered to withstand extremes in temperatures. Standard canning jars (with narrow mouths) break more easily at freezer temperature and require extra headspace

to allow for expansion of foods during freezing.

Covers for rigid containers should fit tightly. If they do not, reinforce the seal with freezer tape. Freezer tape is especially designed to stick at freezing temperatures.

Avoid plastics that are brittle and crack at low temperatures. One popular plastic shatters easily if it falls when it comes directly from the freezer, increasing the danger of plastic shards in the food—not to mention on the floor. You also want plastic to be resistant to oil and grease and to not absorb flavors and odors.

Some plastic containers are suitable for freezing, thawing, and reheating in the microwave oven. Read the label to insure that the plastic is suitable for microwave cooking. Otherwise, transfer the contents to another container to thaw and reheat in the microwave oven.

Flexible wraps include bags and sheets of moisture- and-vapor resistant materials, laminated freezer papers, and heavy duty aluminum foil. They are suitable for dry-packed vegetables and fruits, meats, fish, or poultry. Bags can also be used for liquid packs. Protective cardboard cartons may be used to protect bags and sheets against tearing and to make stacking easier. Laminated papers are also used as protective over-wraps.

*(Source: So Easy to Preserve)*

Plastic bags are the most popular freezing material. The zipper style or press and seal type bags are popular for their convenience. These bags are available in different weights. Read labels to see if they are vapor proof and suitable for long term storage—some popular brands are labeled for freezer storage.



### Ice Crystals

Ice crystals form when the water contained in the food freezes and expands. This causes the cells walls of fruits and vegetables to rupture producing a softer texture when the product thaws. Freezing food quickly produces smaller ice crystals that cause less cell wall damage.

Set the freezer temperature to its coldest setting several hours before food will be placed in the freezer, place the food on the coldest shelves in the freezer, allow a little space between packages for cold air circulation, and avoid overloading the freezer with unfrozen product at one time. When the food is frozen, the freezer can be returned to 0°F and packages moved closer together. Avoid freezing food in large containers over one-half gallon in size because the food freezes too slowly to avoid large ice crystals. Cool all foods and syrup before packaging to speed up the freezing process.

## Clean the Freezer

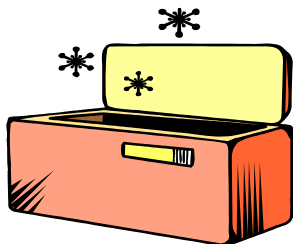
Plan to defrost and clean the freezer at least once a year when it is least full. Even a frost-free freezer needs to be cleaned regularly to remove dirt or food residue.

Frozen packages should be removed from the freezer and placed in insulated ice chests or cardboard cartons that have been lined with several layers of newspaper to provide comparable insulation. Clean the freezer as quickly as possible, but follow the manufacturer's directions. A few manufacturers recommend placing pans of hot water in the freezer to hasten defrosting while others do not recommend this practice because the refrigerant pressure could build up in the evaporator making restarting the freezer difficult.

Place towels in the bottom of the freezer to catch water and frost. Loose frost can be removed with a wooden or plastic scraper.

After defrosting, sponge out the interior with a cleaning solution made of one tablespoon baking soda per quart of water. Then rinse with clean water and dry with an absorbent cloth.

After cleaning the freezer, turn it on and close the door to allow it to become cold before returning the food to the freezer. Also, wipe accumulated frost off food packages and label them for first use before replacing them in the freezer.



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## Getting Organized

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Take time now to get ready for the busy home preservation season ahead.

- Clean storage shelves to make room for new products
- Clean and defrost freezer
- Check equipment and supplies
- Check the pressure canner
  - Test dial gauge
  - Check rubber gasket for flexibility
  - Check that vent openings are clean all the way through
- Check that the boiling water canner is deep enough to cover jars with 1 to 2 inches of water over tops of jars
- Inspect jars for nicks, cracks or chips
- Check that a supply of new lids are on hand
- Replace bent and rusted screw bands
- Locate up-to-date canning instructions
- Buy freezer containers and bags
- Purchase specialty products such as ascorbic acid powder or commercial anti-darkening agents

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## Dial Gauge Testing

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Just a friendly reminder about your pressure canner.

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. Call to make an appointment if other times suit you better. It takes about 10 minutes. Bring the lid only.

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

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## Problem Solving – Stiff Jams or Jellies

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Remaking stiff jams or jellies will probably provide a mixture that will spread more easily than the stiff product but will not be the quality of the ideal gel. Try thinning each 8-ounce jar with  $\frac{1}{4}$  cup water or fruit juice. It may require some experimenting with how much liquid is needed to thin the jam or jelly. It is best to work with only 2 or 3 half-pint jars at one time. Over very low heat, melt the stiff jam or jelly in the added liquid, stirring constantly to prevent scorching. When it is all in solution, raise the heat to medium and bring the mixture to a full boil, continuing to stir constantly. Remove from heat and quickly skim foam off jelly if necessary before storing in clean jars in the refrigerator. It is not recommended that jam or jelly remade this way be reprocessed for storage at room temperature. These jams may or may not actually gel because over-cooking of the pectin can reduce or destroy its ability to form the gel structure.



Instead of remaking the stiff jam or jelly, you can find other uses for it such as warming it and using it as a glaze for meats or as a syrup for pancakes or ice cream.

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## Resources

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Want more information for using strawberries, rhubarb, or kiwi—browse these web sites:

California Strawberry Commission:

[www.calstrawberry.com/recipes/](http://www.calstrawberry.com/recipes/)

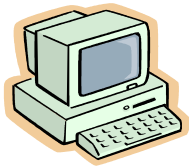
California Kiwi Fruit Commission:

[www.kiwifruit.org/consumer/recipes/](http://www.kiwifruit.org/consumer/recipes/)

The Rhubarb Compendium:

[www.rhubarbinfo.com](http://www.rhubarbinfo.com)

*This web site has anything you want to know about rhubarb and includes many recipes.*



National Center for Home Food Preservation:

<http://www.uga.edu/nchfp/>

*This is one of the most extensive and reliable sources of food preservation information.*

The revised “Let’s Preserve” flyers on canning and freezing 14 different foods are available at your county cooperative extension office.

Lancaster County Penn State Cooperative Extension will continue to have a resource person available to answer food preservation questions on Wednesday’s from 10:00 a.m. to 2:00 p.m. Call (717) 394-6851. This is also a good time to bring your dial gauge pressure canner lid in for testing.

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

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