



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

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Dear Home Food Preserver,

July and August always seem to be the best months for the garden. With all the rain this summer, green bean plants are so tall that I've even supported bush type beans with a few bamboo stakes to keep them off the ground. We've been enjoying the first of the harvest fresh, but I'm looking forward to a major picking to freeze some in a few days. If you prefer canned beans, take note of some problems encountered by other food preservers on page 2.

Wet weather seems to make the cucumber vines extra productive. I've already made my favorite frozen pickles. After testing many pickle recipes last summer for a workshop, the number of my "favorite" recipes has increased. Busy homemakers enjoy quick recipes—the Reduced Sodium Dill Pickles falls into that category. In fact, there are many quick process pickles available that have the crisp texture and taste of the traditional 7 or 14 day pickles. If interested, contact the office for a copy of "Let's Preserve Pickles".

May all your preservation efforts this busy time of year be successful.

Nancy Wiker
 Extension Educator – FCS
 Penn State Cooperative Extension

Martha Zepp
 Food Preservation Consultant
 Penn State Cooperative Extension

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Feature Food of the Month

Here's a pickled treat that I enjoy. Young tender beans are the best for pickling. I found a round bean like Blue Lake worked better than the flat Roma bean, but I have used both. The vinegar in the pickling solution makes it safe to process this recipe in a boiling water bath. *These beans shrivel when they first come out of the boiling water bath but take on a smoother texture after setting in the brine for several weeks. All quick process pickles need to set in the brine several weeks to a month to develop flavor.*

Dilly Beans

2 pounds green beans
 ¼ cup canning salt
 2 ½ cups vinegar
 2 ½ cups water
 1 teaspoon cayenne pepper, divided*
 4 cloves garlic, divided*
 4 heads dill, divided

Trim ends off green beans. Combine salt, vinegar, and water in a large saucepot. Bring to a boil. Pack beans lengthwise into hot jars, leaving ¼-inch headspace. Add ¼ teaspoon cayenne pepper, 1 clove garlic and 1 head dill to each pint. Add ½ teaspoon cayenne pepper, 2 cloves garlic and 2 heads dill to each quart. Ladle hot liquid over beans, leaving ¼ inch headspace. Remove air bubbles. Adjust two-piece caps. Process pints or quarts 10 minutes in a boiling water canner. Yield: 4 pints or 2 quarts. Source: Ball Blue Book

**A similar USDA recipe uses an equal amount of red pepper flakes for the cayenne. It also lists the pepper and the garlic as optional flavorings.*

Freezing Green Beans

As one of the most easily grown vegetables in the home garden, green beans are popular with many food preservers. The easiest method is to freeze young tender beans that have been water blanched 3 minutes. Blanching stops enzyme action that continues the ripening process which can make the beans tough even when frozen. After blanching, beans need to be plunged in cold water to cool, drained thoroughly and packaged leaving ½-inch head space. More and more I am using the “individual quick freezing” method of placing the beans on a tray to freeze before packing them. This makes it easier to take the amount needed from the package and the beans cook more quickly because you don’t have a large mass that has to thaw before the center can cook.

Canning Green Beans

Some people prefer the taste of canned green beans. Snap beans into 1-inch pieces or leave whole. Beans may be hot or raw packed. To hot pack, cover beans with boiling water and boil 5 minutes before packing into hot jars, leaving 1-inch headspace. If desired, add ½ teaspoon salt per pint. Fill jars with boiling hot cooking liquid to within 1-inch from the top of the jar. To raw pack green beans, pack the beans tightly into hot jars, leaving 1-inch headspace. Add salt, if desired, and fill jar to 1-inch from the top with boiling water. Remove air bubbles. Wipe jar rims. Adjust lids and process in a **pressure canner** at 10 pounds for a weighted gauge or 11

pounds for a dial gauge canner. Process pints for 40 minutes and quarts for 50 minutes.

It is not safe to process beans in a boiling water bath, not even for long periods of time. The only safe method of processing low acid vegetables is to process them for the recommended amount of time in a pressure canner.

We receive more questions about green beans spoiling than any other food. Here are some of the problems:

- Beans not clean when put in the jars. Soil that clings to the bean contains bacteria that can cause spoilage.
- Food not processed long enough to kill spoilage organisms.
- Jars have an inadequate vacuum seal allowing jars to unseal during storage. Use correct headspace and process properly.
- After processing, jars do not cool quickly enough. Allow at least 1 inch between jars when setting on the counter for air to circulate between jars. Slow cooling may cause flat-sour spoilage where the food smells like vinegar.
- Jars left to cool in the pressure canner overnight. This results in the same problem as above.
- Rings left on the jars during storage can rust causing the lid seal to break.

How Much Headspace?

You are filling jars with hot crushed tomatoes and have just a little left over. You evenly distribute the extra between each jar filling nearly to the top—good economics?—maybe not. If jars are filled too full, food may boil out during processing and solids or seeds may catch under the sealing compound and prevent the jar from sealing.

Next scenario—you are filling jelly jars and need just a little more jelly to make another jar. If you take just a little from each of the other jars, you will have that extra jar—WHOA! The

processing time may not be long enough to drive out all that extra air from the top of the jar resulting in a poorly formed vacuum seal. Besides, the extra air left inside the jar could cause the food to discolor.

Headspace is the space in the jar between the inside of the lid and the top of the food or its liquid. Allow ½ inch headspace for tomatoes, pickles, and fruits. Vegetables need one-inch headspace to allow for the expansion of the starch in the vegetable. Allow one-inch headspace for red meats and 1 ¼-inches for poultry. Most jelly and jam recommendations are for ¼-inch headspace. Some jams made with artificial sweeteners need greater headspace. Use a ruler to check the accuracy of the headspace. Not all jars are shaped the same so that you can't count on a certain groove or the neck of the jar being a set distance from the rim.

Is Headspace Needed for Frozen Foods?

Yes, for fruits, freezer jams and jellies, and vegetables with high moisture content. Liquid expands when frozen causing syrup to overflow (and cause a mess in the freezer). Headspace varies by type of pack and size of container. Vegetables that pack loosely have space to expand between the food pieces. This includes asparagus, broccoli, cauliflower, Brussels sprouts, cauliflower, peppers, and foods that are individually quick frozen (also called tray packed).

Headspace to Allow Between Packed Food and Closure

Container with Wide Top Opening

Type of Pack	Pint	Quart
Liquid Pack*	½ inch	1 inch
Dry Pack**	½ inch	½ inch

Container with Narrow Top Opening

Liquid Pack*	¾ inch***	1 ½ inches
Dry Pack**	½ inch	½ inch

*Fruit packed in juice, sugar, syrup or water; crushed or pureed fruit, or fruit juice.

**Fruit or vegetable packed without added sugar or liquid.

***Headspace for juice should be 1 ½ inches.

Source: So Easy to Preserve, 4th edition, University of Georgia

Blueberries

Plan now to enjoy blueberries throughout the year. Freeze some to add to cereal, muffins, or desserts in the winter.



Select berries that are plump and firm with a light silvery “bloom.” Bloom is a natural protective wax on the berries. Select ripe blueberries because unripe berries do not become sweeter after they are picked. Freezing berries on a tray first and then packing into containers as soon as they are frozen makes it convenient to take out as many as you want at one time. Water on the berries from washing them results in a tough skinned product. Either wait to wash them before using them or wash and dry them thoroughly between towels before freezing them. Add the frozen berries directly to batters without thawing them.

Blueberries can be sweetened and frozen as a sauce. Crush cleaned berries through a fine sieve or puree in a blender or food processor and mix with 1 to 1 1/8 cups sugar for each quart (2 pounds) of prepared berries. Stir until the sugar is dissolved.

Syrup or Dry Sugar – Which to Use?

The type of pack depends upon the intended use. Fruits packed in syrup are generally best to use in uncooked desserts. Fruit packed in dry sugar or left unsweetened are best for most cooking purposes because there is less liquid in them.

Recipes—Why Be So Careful?

Here's a quote worth sharing.

“When you cook, you follow a recipe—maybe. You adjust it, very often to your own taste or those of your family. You leave out that much garlic in the stew, add nuts to that whole



wheat bread recipe. You change the ingredients a bit, to make the recipe truly yours.

You can't do this when you're canning. Experimenting can be dangerous. Time and temperature have been worked out very carefully for canning. Too little time or too low a temperature means you're not protecting the food against bacteria, enzymes, molds, and yeasts. Too much time or too high temperature may mean you're needlessly destroying nutrients in the food and damaging its taste. Be fussy in following the directions to the letter."

Source: www.mrswages.com

Reduced Sodium Sliced Dill Pickles

This is an extremely easy pickle that develops a good flavor. They have somewhat of a raw texture. Have the pickling solution very hot when adding it to the raw cucumbers.



4 pounds (3 to 5-inch) pickling cucumbers
6 cups vinegar (5%)
6 cups sugar
2 tablespoons canning or pickling salt
1 ½ teaspoons celery seed
1 ½ teaspoons mustard seed
2 large onions, thinly sliced
8 heads fresh dill

Yield: About 8 pints

Procedure: Wash cucumbers. Cut 1/16-inch slice off blossom end and discard. Cut cucumber in ¼-inch slices. Combine vinegar, sugar, salt, celery, and mustard seeds in large saucepan. Bring mixture to boiling. Place 2 slices of onion and ½ dill head on bottom of each pint jar. Fill jars with cucumbers slices, leaving ½ inch headspace. Add 1 slice onion and ½ dill head on top. Pour hot pickling solution over cucumbers, leaving ¼-inch headspace. Adjust lids and process in a boiling water canner for 15 minutes. (20 minutes at altitudes of 1001 to 6000 feet; 25 minutes above 6000 feet)

Source: USDA Complete Guide to Home Canning

Dill Substitutions

Don't have fresh dill—substitute 1 to 2 tablespoons dill seed for each quart.

If the dill in your garden matures before you are ready to make pickles, harvest the dill heads, wash, shake off the moisture, and set on a paper towel to drain. Wrap in foil to freeze the dill until ready to use. Use foil, not plastic bags, to avoid the dill odor being absorbed by other foods in the freezer.

Don't Try These Unsafe Methods

We all like to do things the quickest, easiest way possible. However, it is important to weigh the risks and benefits when choosing the easy way. In the case of home canning, some of the quick and easy processing methods are downright risky for causing food borne illness.

Oven canning is a dangerous practice for several reasons. Canning jars may shatter in high oven temperatures. Glass is sensitive to sudden temperature changes. Hot air is not as efficient in heat treating foods as steam under pressure or boiling water. Dry heat is very slow in penetrating into jars of food. Foods are under-processed resulting in the botulinum bacteria not being destroyed.

Microwave processing does not heat the foods evenly resulting in some areas being under-processed. Besides, jars cannot be closed or pressure would build up causing an explosion and metal lids cannot be used in the microwave. The Micro-Dome Food Preserver has been recalled.

Open kettle canning involves filling boiling food into sterilized jars without further processing. The air in the headspace can contain mold and bacteria that can cause spoilage. Boiling water bath and pressure canner processing kills mold spores and provides a stronger vacuum seal.

Dishwasher processing is dangerous because the temperature of the water is far below that required to kill harmful microorganisms.

Steam canning, which differs from pressure canning, is not recommended. The steam canner looks like an upside-down boiling water canner and uses a small amount of water in the base to create steam around the jars. However, steam canners do not heat foods in jars the same as boiling water does and bacteria could survive.

Water bath canning of low acid foods for several hours (see green bean article.) This is very dangerous because it takes the correct time/temperature combination to destroy pathogens. Low acid foods require higher temperatures to destroy pathogens than you get from boiling water.

Filling the boiling water bath canner only to the shoulder of the jar. Jars need to be covered with one to two inches of boiling water while being processed to heat all the contents in the jar evenly and to ensure a good vacuum seal.

Tightening jar lids after processing is a carryover from using zinc lids and jar rubbers. Tightening today's two piece lids after they come from the water bath may cause the seal to break.

Boiling jar lids before using may soften the sealing compound too much causing sealing failure. Follow the directions on the box. Most two piece lids need only to be heated to 180°F and held at that temperature about 10 minutes before using.

Also, *never reuse a jar lid.* The indentation of the sealing compound from the first use prevents an airtight seal on repeated use.

Using paraffin on top of jams and jellies or using the inversion method. Paraffin is temperature sensitive and often breaks loose from the edge of the jar resulting in mold formation on jams and jellies. Mold can produce mycotoxins in food. Discard moldy food! Use clean canning jars and process for 10 minutes in a boiling water bath or use sterilized jars and process 5 minutes. Water bath processing will sterilize the headspace and kill mold spores and at the same time create a tight vacuum seal.

Inverting hot jars of jellies and jams canned by the open kettle method is not effective in destroying mold and bacteria and does not provide a strong vacuum seal.

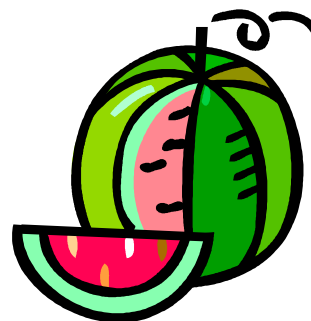
Lancaster County Penn State Cooperative Extension will continue to have a resource person available to answer food preservation questions on Wednesday's from 10:00 a.m. to 2:00 p.m. Call 394-6851. This is also a good time to bring your dial gauge pressure canner lid in for testing.

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

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.

This publication is available in alternative media on request.

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Registration Form

(Name)

(Address)

(City) (State) (Zip)

(Daytime Phone Number)

Please register me for the following classes:

___ *Totally Tomatoes – August 5*
7:00-9:00 p.m. @ \$7.00 _____

___ *The Ap-peeling Apple – October 12*
9:30 – 11:30 a.m. or
7:00 – 9:00 p.m. @ \$7.00 _____

___ *Holiday Gifts from the Kitchen*
October 20 7:00 – 9:00 p.m. or
October 21 9:30 – 11:30 a.m.
@ \$7.00 _____

Total Enclosed \$ _____
(Registration costs cover materials and handouts)

All Workshops will be held at the Farm & Home Center, Training Room, 1383 Arcadia Road, Lancaster.

To register: return form and check (made payable to **Agricultural Extension** to:
Lancaster County Cooperative Extension
1383 Arcadia Road, Room 1
Lancaster, PA 17601-3184

Payment must accompany your registration.

Workshops

An enthusiastic group attended the Jamin' with Jellies and Preserves workshop. Join the fun by attending a food preservation workshop. You can still register for the following workshops:



Totally Tomatoes

Thursday, August 5, 2004

7:00-9:00 p.m.

Salsa, dried, juice or sauce; tomatoes are an easy- to- grow versatile food found in most gardens. Get an update on tomato preserving methods. Information will be included on selection of tomatoes for preserving, making juice, salsa, canning, drying and more.



The Ap-peeling Apple

Tuesday, October 12, 2004

9:30-11:30 a.m. or 7:00-9:00 p.m.

Unpeel the mysteries of the appealing apple as you learn how to sauce, slice, snitz, and spice an amazing array of apples. Learn the art of canning, freezing, and drying apples. In addition, new ideas for using apple products will be presented.

Holiday Gifts from the Kitchen

Wednesday, October 20,
2004 7:00-9:00 p.m. or
Thursday, October 21, 2004
9:30-11:30 a.m.



What is more special than something you have made yourself? Your kitchen is a perfect place to put together unique gifts for friends and family. Look for new ideas for mixes, snacks, breads, desserts, and much more along with unique packaging ideas.