



Let's Preserve Newsletter

Lancaster County

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Dear Home Food Preserver,

In mid-August we participated in Penn State's Ag Progress Days by doing a food preservation exhibit and by presenting an "Eat Smart-Stay Healthy" Food Demonstration. In thirty minutes we demonstrated all the steps in canning crushed tomatoes using some "fast forwards".

It was fun to talk about home canning with so many people from all over the state. We learned that many people are still canning and that many still use unsafe methods. It is important to use up-to-date techniques and to use research tested recipes. You can find safe recipes in the new *Let's Preserve* handouts introduced at Ag Progress Days.

Information about obtaining them is available later in this newsletter.

Nancy has compared the chance of getting food poisoning from home canning to the chance of being in a car accident. You wouldn't intentionally expose your family or yourself to an accident. Likewise, when you know an unsafe canning practice might cause food poisoning, you don't want to put your family at risk.

Look in this newsletter for two warnings from Penn State concerning the use of tomatoes with blight and the making of refrigerator dill pickles.

Wishing you a successful season of food preserving,

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 Penn State Cooperative Extension

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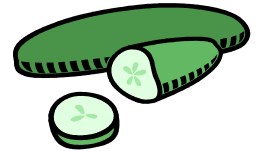
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Feature Food of the Month

As the end of the growing season approaches, gardeners look at the miscellaneous produce still available and plan how it might be used. As a result, products such as end-of-the garden relish, calico vegetables, and mixed vegetable pickles have developed. Chow-chow is another version of mixed pickles.

Chow-Chow Relish

1 quart chopped cabbage (about 1 small head)
3 cups cauliflowerets (about 1 medium head)
2 cups chopped green tomatoes (about 4 medium)
2 cups chopped onions (about 2 medium)
2 cups chopped sweet green peppers (about 4 small)
1 cup chopped sweet red peppers (about 2 small)
3 tablespoons salt
1 ½ cups sugar
2 teaspoons celery seed
2 teaspoons dry mustard
1 teaspoon mustard seed
1 teaspoon turmeric
½ teaspoon ginger
2 ½ cups vinegar
Combine vegetables; sprinkle with salt. Let stand 4 to 6 hours. Drain well. Rinse and drain. Combine sugar, spices and vinegar in a large saucepot. Simmer 10 minutes. Add vegetables; simmer 10 minutes. Bring to a boil. Pack hot relish into hot jars, leaving ¼-inch headspace. Remove air bubbles. Adjust two-piece caps. Process 10 minutes in a boiling water canner. Yield: about 4 pints.

Source: Ball Blue Book

Keeping Pickled Products Safe

While some food preservers brag of the number of vegetables they include in their chow-chow and similar relishes, they need to use caution in adding extra ingredients. The vegetables that go into combination pickles and relishes are low acid foods that would have to be processed in a pressure canner if they were being canned by themselves. Only by adding sufficient vinegar to change the pH level is it safe to process them in a boiling water bath.

Use vinegar of 5% acidity and use the weight and size of pickles listed in the recipe. It takes more vinegar for small cucumbers than for large ones to reduce the tissue pH low enough to make it an acid food. Make sure each jar of pickles or relish gets the amount of syrup or brine specified in the recipe. Do not pack pickles too tightly in jars. The ratio for medium to large cucumbers to brine or syrup is 70/30 or seven cups cucumbers to three cups brine or syrup. The ratio for small or sliced cucumbers is 60/40. This proportion should be the same in each jar.

Never make a change in a recipe that will change the acidity of that recipe. For quick pickles and relishes only, it is safe to increase the amount of vinegar or use less sugar if you want a more sour product. More sugar can be used for a sweeter pickle. Salt can be reduced in quick pickles, but must be used in proper proportion in fermented pickles. Spices can be altered.

Do not alter the amount of vegetables in a pickle or relish. Keep the total amount of the vegetable constant in relation to the vinegar mixture. The proportion of onion or peppers in a relish may be changed but the total amount cannot be safely increased.

Process all pickles and relishes in a boiling water bath to destroy spoilage organisms in the headspace and to obtain a good vacuum seal. Refer to a research tested recipe for times. While many pickles are processed for 10 minutes, some pickled low acid foods such as red beet pickles require 30 minutes of processing.

Caution

Throw Away Refrigerator Dill Pickle Recipes

Recent research has shown that the bacteria *Listeria monocytogenes* can survive and grow in refrigerator dill pickles causing food borne illness. Typically, refrigerator dill pickles were held in a brine mixture at room temperature for one week and then refrigerated for up to 3 months. Because research shows that the pickle pH did not change enough to reduce the *Listeria* bacteria to a safe level, there is a food safety risk. It is no longer recommended that refrigerator dill pickles be prepared in the home.

Quality Products

Testing for Seals

After jars have cooled for at least 12 hours, remove the screw bands and test seals. A common method of testing the seal is to press the middle of the lid with your finger—if the lid springs up when you release your finger, the lid is unsealed. Another method is to tap the lid with the bottom of a

teaspoon to see if it makes a clear ringing, high-pitched sound. If it makes a dull sound, the lid is not sealed. The problem with this method is that any food in contact with the underside of the lid will cause a dull sound even if the jar is sealed. The vision test is to look across the top of the jar to see if the lid curves down slightly in the center. If the center of the lid is either flat or bulging up, it is not sealed. A jar that has a tight vacuum seal can be lifted by the lid without the lid coming off.

Unsealed jars can be reprocessed within 24 hours. Replace the jar if needed, add a new lid and reprocess. If you only have one unsealed jar, you could store it in the refrigerator for use within several days. Another option is to adjust the headspace to 1 ½ inches and freeze the unsealed jars.

Storing Canned Foods Safely

1. Remove screw bands.
2. Wash, rinse, and dry jars to remove food residue that can cause mold.
3. Label and date jars. This helps in rotating foods so that older foods are used first.
4. Store in a cool place. Ideal storage temperature is between 50 and 70°F. Avoid places above 95°F such as near hot pipes, a range, a furnace, or an uninsulated attic.
5. Store in a dark place. Light destroys some vitamins and causes some foods to fade in color. The cartons in which the jars were purchased make ideal storage containers. Definitely keep jars out of direct sunlight.
6. Place in a dry place. Dampness may corrode metal lids, break seals, and allow recontamination and spoilage.

Should you be concerned if canned foods become accidentally frozen? It will not cause spoilage unless jars become unsealed and recontaminated. However, freezing and thawing may soften food lowering the quality.

Maintaining Color and Flavor

Air (oxygen), enzymes, and light adversely affect color and flavor in home preserved foods. For this reason, choose methods that remove oxygen from food tissues and jars, quickly destroy the food enzymes, and obtain high jar vacuums and airtight jar seals.

The quality of your home canned goods will only be as good as the quality of the food you start with. Choose foods that are at the proper maturity and that are free of diseases and bruises. Use the hot-pack method, especially with high acid foods to be processed in boiling water. Can foods as soon as possible to avoid exposure of prepared foods to the air.

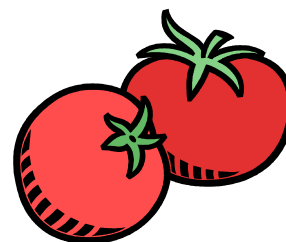
Keep peeled foods that brown easily in an ascorbic acid bath until you are ready to heat them or pack them into jars. Apples, apricots, nectarines, peaches, and pears benefit from sitting in a solution of 3000mg ascorbic acid to 1 gallon of cold water. To obtain this ratio, use 1 teaspoon of pure powdered ascorbic acid per gallon or crush and dissolve six 500 mg tablets of pure vitamin C per gallon of water. Commercially prepared anti-browning mixes are available and should be used following manufacturer's directions.

Adjust headspace as specified in recipes. Besides affecting the vacuum seal, extra headspace provides extra oxygen that can cause food to darken. Follow storage suggestions above. Over a period of time food will darken and begin to lose flavor. Can only as much food as you will use within a year.

Blighted Tomatoes

Lancaster County gardens have been hard hit with tomato blight. Infected tomatoes may be firm when picked only to turn brown with wrinkled, somewhat sunken brown lesions. Green fruit that is picked early and ripened indoors may develop symptoms before it is ready to eat.

The USDA *Complete Guide to Home Canning* recommends that canners use only disease-free, preferably vine-ripened, firm tomatoes for canning. According to Luke LaBorde of Penn State's Department of Food Science, this does not mean that the fungus itself is harmful to eat, but that the recommendation is based on the fact that fungus infected fruit may have a higher than normal pH that could make it unsafe for canning. Fruit that shows symptoms of late blight should not be used for canning.



Remember to Acidify

To ensure safe acidity of tomato products, add two tablespoons of bottled lemon juice or ½ teaspoon of citric acid per quart of tomatoes. For pints, use one tablespoon bottled lemon juice or ¼ teaspoon citric acid. Add the lemon juice directly to the jars before filling with the tomatoes. Sugar may be added to offset the acid taste if desired.

Siphoning

We get lots of questions about siphoning—the loss of liquid from jars during and after processing. Causes include packing and processing methods. Raw food contains air that is released during heat processing and as it escapes, liquid seeps out of the jar. Heating the food before it is packed into the jar releases this air. Hot packing not only reduces siphoning, but allows you to pack more of the product into the jar.

Allow proper headspace because food expands during processing. Don't pack food into the jars too tightly.

Another cause of siphoning is temperature fluctuation during processing. Bring the boiling water bath to a full boil rapidly on high, and then immediately reduce the heat to maintain a steady boil. Changing the temperature back and forth from boiling vigorously to not boiling causes loss of liquid.

When the processing time is completed, turn the heat off the burner and remove the canner from the heat. Allow the jars to rest in the boiling water canner an additional 5 minutes to equalize the heat. Jars should rest for 10 minutes in the pressure canner after the canner lid is removed. Removing the jars immediately from the canner increases siphoning.

Salsa

We get lots of questions asking how to can salsa using a favorite fresh salsa recipe. Some of these recipes contain no vinegar or lemon juice. It is not possible to can salsa without adequate acidification. It is safest to freeze fresh salsas.

Current recommendations are to can only research tested salsa recipes that provide evidence of safe acidification to prevent the growth of botulism. Only a few such research tested salsa recipes are available and they must be followed with little deviation. We have a booklet of tested salsa recipes here at the Cooperative extension office. You can also find some recipes at these web sites:

www.uga.edu/nchfp (National Center for Home Food Preservation) or
www.ext.nodak.edu/extpubs/yf/foods/fn584.pdf
(From the Garden to the Table: Salsa!--North Dakota State University) or
<http://cecommerce.uwex.edu/pdfs/B3570.PDF>
(Canning Salsa Safely—University of Wisconsin)

Tips for Canning Salsa Safely

Julie Garden-Robinson, Food and Nutrition Specialist at the North Dakota State University, offers these tips for Salsa Safety:

- Follow a research tested recipe exactly and measure or weigh ingredients carefully.
- Use bottled lemon or lime juice or vinegar as indicated.
- You can substitute lemon or lime juice in a recipe calling for vinegar, but do not substitute vinegar in a recipe calling for lemon or lime juice. Lemon or lime juice is more acidic than vinegar.
- Freshly squeezed lemon or lime juice may be used in fresh salsa recipes but is not recommended for use in canning recipes.
- You may safely decrease the amount of spice, but do not increase the spice amounts.
- To alter the “heat” in salsa, you can safely substitute one type of pepper for another, but keep the total amount of pepper the same.
- Do not thicken salsas with cornstarch before canning. If the salsa appears thin, it can be heated and thickened with cornstarch, or some of the excess juice may be strained away, *after opening the jars*.

How Hot Are Peppers?

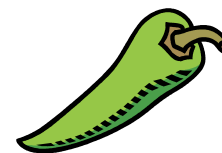
<u>Pepper Type</u>	<u>Description</u>	<u>Flavor</u>	<u>Scoville Heat Units</u>
Bell	Thick fleshed, blocky shape; dark green yellow, orange, red	Mild, sweet	0
Pablano	Resemble bell pepper; dark green with a purplish tint, red when fully ripe	Sweet earthy	2,500-3,000
Jalapeno	Tapered, shiny dark green, about 2 inches long	Sweet, green	2,500-5,000
Serrano	Small and tapered; dark green or scarlet red when ripe	Sweet, acidic, fruity, citrus	5,000-15,000
Cayenne	Slim, long, curved; dark green to red	Acidic, tart, pungent	30,000-50,000
Thai	Thin and elongated; red when fully ripe	Lingering heat	50,000-100,000
Habanero	Shaped like a lumpy square; green to orange-red	Firey, acidic heat	100,000-300,000

Source: From the Garden to the Table: Salsa!, Bulletin FN-584 North Dakota Extension Service North Dakota State University.



Pepper Equivalents:

- 1 medium bell pepper = about 1 cup, chopped
- 1 large bell pepper = about 2 cups, chopped
- 1 medium jalapeno pepper = about ¼ cup, chopped



Let's Preserve Handouts Revised

After much anticipation, the revised *Let's Preserve* Series made its debut at Ag Progress Days. These flyers contain the latest information on preserving (both canning and freezing) 14 different foods. You may obtain copies at the cooperative extension office or by calling the office at 394-6851. The following titles are included in the *Let's Preserve* series:

Apples • Blueberries • Cherries • Fruit Pie Fillings • Jelly, Jam, Spreads • Peaches, Apricots, Nectarines • Pears • Peppers • Quick Process Pickles • Sauerkraut • Snap Beans • Strawberries • Sweet Corn • Tomatoes

Two More Workshops This Year

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.

All workshops are held at the Farm and Home Center, Training Room, 1383 Arcadia Road, Lancaster.

To register: Send name, address, day time telephone number, together with \$7.00 fee for each workshop you wish to attend. Checks should be made payable to: "PSCE Program Fund". Mail to: Lancaster County Cooperative Extension, 1383 Arcadia Road, Room 1, Lancaster, PA 17601-3184. (Payment must accompany your workshop registration.)

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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