

May - July
2023



BOONE COUNTY
EXTENSION
HOMEMAKERS

The KALEIDOSCOPE



Cultural Arts Experience

MONTHLY QUOTE

“
***We make a living by
what we get, but we
make a life by what
we give.***
Winston Churchill

IN THIS ISSUE

- OFFICER MESSAGES
- UPCOMING EVENTS
- FAIR INFO
- RECAP OF EVENTS

March Sewing Day





IMPORTANT DATES

May 2	First Tuesdays- Stay Scam Safe	6:30 pm	Lebanon Public Library
May 11	Achievement Night	6:00 pm	Auditorium
May 17-23	ACWW Kuala Lumpur, Malaysia		
June 5-7	Home & Family Conference		Noblesville
June 6	First Tuesdays- Empower Me to be Clutter Free	6:30 pm	Dining Room
June 26	E. H. Council Meeting <i>Pitch-In for Old & New Presidents</i> <i>Marionettes - Drinks</i>	6:00 pm	Dining Room
July 15-21	Boone County 4-H Fair		
July 28 - August 20	Indiana State Fair	(Note: Closed on Mondays and Tuesdays)	

A MESSAGE FROM THE

PRESIDENT



Spring has sprung!! Now if the temperature would stay steady. Sometimes I wish the blossoms would stay on the trees.

On April 5th I drove to Starke Co., our Host A Hoosier Co. It was a cool and rainy day. I met them at Baileys in North Judson. It is a large box store that sells anything from appliances to furniture to home goods and food at a discount. After looking there, we went into the town of North Judson to A Kid's Place. They have all kinds of clothes for kids. Any child in the county can get clothes and it doesn't matter how much money they have. I think they can go twice a year. There is a list of items they get like 8 pairs of pants, 8 tops, underwear, p.j.s, shoes all the way to a coat. From there we went to Toto and ate lunch, a very nice family restaurant. They then brought me back to my car. I had a very nice day with them. They were all cousins from different families. They will be coming down here on June 17 for the Shalom House Garden Fest. If anyone would like to join us please let me know.

Fair time will be here soon, before you know it. I am sure Judi will have some details for us. Hope to see you at Achievement Night!

Patty

Notes from Judi

Stay Positive...Work Hard...Make It Happen

From the desk of the



We can close the books on another 4-H BBQ.. With over 43 dessert donations, there was plenty of a variety of pies, cakes and cookies. At the April Council meeting it was decided to spend some of this profit to purchase utensils that would only be used for the BBQ desserts (pie cutters, pie servers, serrated knives, long knives, etc). These items would be stored for each year's use.

Achievement Night was held on May 11th with over 35 in attendance. The program BEES...was presented by Chuck Dailey, Master Beekeeper. THANK YOU to the Paper Scrappers who provided the decorations of bee name tags, bee floral arrangements, and various 'bees' in the room. The meal of baked chicken was catered by Chef Mike of The American Legion in Lebanon. Cedar Tree Kitchen (Cheri Goodwin) treated us to a variety of tasty cupcakes. My favorite was the white almond. We supported the Bee-Cause project by donating over \$132 to help provide supplies to 3rd world countries to improve their quality of life.

July 15-21...put these dates on your calendar now. The Boone County 4-H Fair is right around the corner. Once again, the BCEH members will be providing breakfast, lunch, and dinner to the fairgoers. There will be paid opportunities to help with breakfast every day. Are you an 'early riser'???? Sign-Up Genius will be ready in June, maybe the second week. Please check your calendar and see when you can volunteer to help in the Beehive. We are always looking for teen agers who can help with the grills, fryers, and heavy lifting (must be at least 16 years old).If you have any suggestions, please share those with Judi, Patty, or Pandora.



Thank you to the clubs and mailbox members who have submitted their dues for the coming year (July 1, 2023 – June 30, 2024). If you have still not turned in your dues, please send your \$10 to me at the Extension Office as soon as possible. Please also provide updated contact information when paying your dues.

It's not too early to reserve your spot on the schedule!! We need cashiers at the Bee Hive for the week of the fair in July. Please say "yes" when you get a call from the Assistant Treasurer, Joan Guthridge, to serve as a cashier. If you would like to volunteer, we'd love to hear from you.

If you have any questions, please feel free to email me at dione.finney@gmail.com or call/text me at (317) 319-3149.



Extension - Boone County

The Purdue Extension Office is currently accepting applications for a Program Assistant. This is a full time (35 hrs/week) position with county benefits. The successful candidate will assist Extension Educators in program delivery throughout Boone County. The full position description, and link to apply for the position, can be found at:

<https://www.governmentjobs.com/careers/boonecountyin/jobs/4032947/program-assistant>.

If you have further questions about this position, please contact Andrea Hatfield, County Extension Director, at ahatfield@purdue.edu or 765-482-0750. Please feel free to share this information with anyone you think would be a good candidate for the position. There is also a post on our Facebook page (Purdue Extension- Boone County) that we would appreciate you sharing!

In addition, we are also accepting applications for our 4-H Summer Assistant position. This is a short-term position employed by the 4-H Council to assist with 4-H and Fair-related activities. If you have further questions about the 4-H Summer Assistant position or would like to receive an application, please contact Betsy Lairson, 4-H Youth Development Extension Educator, at blairson@purdue.edu or 765-482-0750. The deadline for applications to be submitted is May 25th.



Dear Extension Homemakers,

What a busy newsletter this is!!! We have some of my favorite months ahead and I hope you are excited for summer as I am. I have put some articles in this issue related to fresh produce and cleaning. Summer means lots of fresh fruits and vegetables in my home and I am sure I am not alone. Check out the guide on Vegetable Storage and Cleaning, then make sure you are up to date on your Basics of Home Canning if you plan to can or freeze your garden produce. The third article, Considerations for Using a Sanitizer at Home, is a relatively new article that will help readers understand the different types of sanitizers on the market.

During the summer last year I got lots of calls pertaining to food preservation, so this summer I am making an effort to focus on that need in our community. If you are looking for more articles on canning different types of produce, check out the Purdue Extension – Boone County Facebook page each week for the “Let’s Preserve” series. Each week I will feature a different food to preserve. Posts will start mid-May and run through the fall. If you aren’t on Facebook, but you would like the articles email me at pandora@purdue.edu and I will mail you copies of the articles.

I am also working with a couple HHS Extension Educators in other counties to put together some food preservation workshops for the community. In order to teach the food preservation programs, an Extension Educator must go through a Master Preserver training. Since I am not trained, I must rely on my colleagues across the state to help. So, once I have workshops scheduled I will let you and the community know all the details.

I look forward to working with each of you in the coming months!

Sincerely,

Pandora



We had 9 applicants from High School Seniors from three schools. We gave out 3 Scholarships and Dione Mount presented those at the Lebanon High School Awards Night.

The Scholarship committee made a request to the Council to award one check for \$1000 (instead of a check for \$500 at the beginning of each semester). This request was moved & approved. We also gave a Teacher Grant for \$100 recently.

Joan Mohr, Chairman

First Tuesday Program Reminder

We are restarting the First Tuesday programs to continue to reach out to the public to inform them on various helpful topics and to put Boone County Extension Homemakers name in front of them. Programs will normally be held at the 4-H Fairgrounds and will start at 6:30pm. June is our final program for this Spring series of First Tuesdays. There will be another series in the Fall (August-October).



June 6th: Empower Me to be Clutter Free
August 1st: Program to be determined

Please help us spread the word about the programs. Remember you do have to register, but all sessions are free.. Call the Extension Office at 765-482-0750

Bee Kind Random Acts Of Kindness

Our last meeting was Apr.3. Sandy McCormack and Judi Wilson helped me by stuffing and putting the tags on 76 hearts. As of Apr 23 I have sewn 1026 hearts and Judi has passed out 236 wooden hearts. These have been passed out at Lion's Breakfast and Lion's Pork Loin Dinner at Sheridan., 4-H Bar-B-Q, Walt Disney World, my work, Valentines Day for teachers at school and numerous restaurants. It is not hard to find a place to leave them. We have gotten some good responses from them. You do not have to give them directly to a person just leave them on the table.

I have taken 11 Birthday Bags to the Caring Center from 5 clubs. Hopefully I will receive more at the council meeting. This is for current clubs and associate clubs. Some clubs get what's on the list and some goes beyond. I want to thank everyone for helping.

Patty and Judi

A CULTURAL ARTS EXPERIENCE RECAP



On March 23rd, we held an event called A CULTURAL ARTS EXPERIENCE, THE ART OF JOURNALING. It was held at the Sugar Creek Art Center. Pandora Taylor gave the program on Journaling and Trish Patmore instructed on the decorating of a journal. J.C. Cochina catered our lunch. A tour of the Art Center followed lunch. We had 24 in attendance. Fun was had by all who attended!

Thank you to the committee who planned this event!
They are Linda Fahrenbach, Karen Neimeyer, Kathy Budreau and Anita Sedwick.

INTERNATIONAL NIGHT RECAP

International Night was held on Thursday, April 6, 2023, in the Boone fairgrounds community building with 29 in attendance.

Two Purdue University students from Nigeria were in traditional clothing and spoke accompanied by slides. They did an outstanding job.

The menu included Nigerian chicken stew, jollof rice, Nigerian coleslaw, and pound cake. As they entered, the students said, "Wow, it smells like home!"

The Sugar Creek, Marionettes and Gingham Pals clubs coordinated the event.

Sherry Bringman provided the room setup plan and it has been filed for future reference. We had prepared for 60 in case participation returned to pre-pandemic levels. It did not, but the preparations were appropriate and the buildings and grounds crew did a great job with setup.

It was agreed to avoid Easter week next year; Easter will be March 31, 2024. Pandora has contacts for India and Puerto Rico, so these are potential topics for 2024.





Thank you to all who attended our Sewing Day on March 14th and to those of you who sewed at home this year! There were 7 of us at Sewing Day. We made a total of 41 items to donate to our local charities.

We donated a total of 72 items to Choices Pregnancy Center, 4 blankets to the "Your Not Alone" project, 20 tote bags to Homewood Health Campus and 6 shawls to Indiana Donor Network's Threads For Compassion program. We sewed 21 tote bags for Head Start and we still need 15 more. If you would like to sew one, please contact me for more information. Also, If you would like to knit a shawl I have yarn available. Our next Sewing Day will be in the Fall, date to be announced.

BCEH is sponsoring a Pillow Case Contest during the Open Show at the Fair again! You can make a pillowcase or decorate a purchased pillowcase. You must be able to sleep on the pillowcases. Pillowcases will be judged by creativity. There is an Adult division and a Junior Division. In each division there is a first place award of \$15 and a second place award of \$10. You must donate a new standard size pillow to enter the contest. All pillows and pillowcases will be donated to the Boone County Woman's Shelter. No pillow or pillowcases will be returned. Join the fun and start making your pillow cases now as it gets really busy by fair time!! Pillowcases are entered the same time as all open show entries. The Open Show Handbook has all the details of the contest. You can also donate a pillow and or pillowcase without entering the contest. You can bring those pillows and cases anytime during the open show.

Enjoy the Spring time!
Linda Fahrenbach,
Volunteer
Community
Service Chair



BEE AWARE IT'S TIME FOR



News from the Open Show Directors

A huge THANK YOU to all the members who volunteer their time to our Open Show. We couldn't do it without you! Check-in is always busy, judging is always busy, & the teams of happy volunteers in Arts/Craft/Hobbies, Culinary, Fine Arts, Flower/Garden, Needle Arts, & Photography process exhibits smoothly & efficiently. If you would like to volunteer to help us check-in exhibits on Tuesday, July 18, & Wednesday, July 19, please contact Cindy Baker at sew_handy@yahoo.com or 317-733-0274.

The Open Show is July 18-21. Maple is the Creative Cookery flavor...I'm looking forward to seeing lots of tasty entries. Whether you like to cook, garden, craft, paint, or photograph, we have a category for you. We'd love to display your items. And we want more children (both 4-Hers & non-4-Hers) to participate, as they are the next generation of Boone County residents & potential new members..

Bake Auction

July 19 6:00pm

Farm Bureau Inc. Community Building

Volunteers
needed

Jody Durham, who heads the Bake Auction has a request. She needs assistance. Please consider volunteering for this position. Jody will steer, guide, & train you. The Bake Auction is a very important event because it is a fundraiser for Open Show prize money & expenses plus other Extension Homemakers expenses.



NEW CHECK IN TIMES FOR OPEN SHOW EXHIBITS

Please note that this year we have adjusted the check-in times for exhibits due to 4-H projects being in another building and not having to wait for them to be removed from the Community Building to start our set up and check-in.

Here are the NEW check-in times:

Tuesday, July 18 4:00-7:00 pm

Wednesday, July 19 9:00-11:00 am

4-H members wishing to participate in the Open Show will be able to check out their projects from the BCA building on the fairgrounds from 4:00-7:00 pm on Tuesday, July 18 and bring them over to the Farm Bureau Inc. Community Building for Open Show Judging and displaying.

Open Show Open to the Public

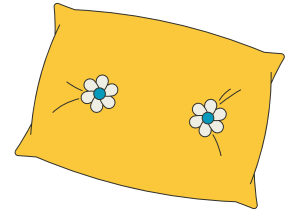
Wednesday, July 19 6:00 pm

The Purdue Extension Office is working on final details of the Open Show Book and as soon as it is available we will notify all Extension Homemakers. We apologize for the delay, we are still very short staffed.



Pillow Case Contest

Check -in: July 18 4:00-7:00 pm
or July 19 9:00-11:00 am
Farm Bureau Inc. Community Building



BCEH is sponsoring a Pillow Case Contest during the Open Show at the Fair again! You can make a pillowcase or decorate a purchased pillowcase. You must be able to sleep on the pillowcases. Pillowcases will be judged by creativity. There is an Adult division and a Junior Division. In each division there is a first place award of \$15 and a second place award of \$10. You must donate a new standard size pillow to enter the contest. All pillows and pillowcases will be donated to the Boone County Woman's Shelter. No pillow or pillowcases will be returned. Join the fun and start making your pillow cases now as it gets really busy by fair time!! Pillowcases are entered the same time as all open show entries. The Open Show Handbook has all the details of the contest. You can also donate a pillow and or pillowcase without entering the contest. You can bring those pillows and cases.

Creative Cookery Judging

Check -in: July 20 9:30-10:00 am
Judging starts at 10:00 am
Farm Bureau Inc. Community Building
Flavor: Maple



Start practicing now! If you are looking for taste testers the Extension Office staff is happy to help! 😊

DONATION ITEM



BEEHIVE INFO



CALL for VOLUNTEERS

Once again, the BCEH members will be providing breakfast, lunch, and dinner to the fairgoers. Sign-Up Genius will be ready in June, maybe the second week. Please check your calendar and see when you can volunteer to help in the Beehive. This year we will be open starting Friday, July 14th so that we can provide food to families bringing in 4-H livestock that evening.



Are you an 'early riser'???? There will be paid opportunities to help with breakfast every day.

Also, we are always looking for teenagers who can help with the grills, fryers, and heavy lifting (must be at least 16 years old). This is a great way to build a resume!

If you are interested or have any suggestions, please contact Judi, Patty, or Pandora.

Judi: 765-894-0468

Patty: 317-340-7223

Pandora: 765-482-0750

4,690 (6.7%) BOONE COUNTY RESIDENTS ARE FOOD INSECURE

**JULY
15-21**

Boone Co. 4-H Fair



FAIRS CARES FOOD DRIVE

Receive a *FREE* Indiana State Fair ticket for every
12 food items donated. (\$14 value)

COLLECTION DATES: July 15- 21, 2023

WHERE: Boone Cooperative Advantage (BCA)
Building located on the 4-H Fairgrounds, Lebanon

TIME: Hours of the BCA Building during the Boone
County 4-H Fair

*All food collected will go to food pantries that are part of
the Boone County Food Pantry Coalition.*



Extension - Boone County

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Healthy Food Donation Items

Fruits & Vegetables

- Shelf-stable 100% fruit or vegetable juice
- Applesauce
- 100% fruit spread
- No sugar added fruit/fruit cups
- No salt added canned vegetables



Grains

- Whole grain/whole wheat pasta
- Brown rice
- Oatmeal
- Whole grain breakfast cereal



Protein & Dairy

- Shelf-stable milk
- Canned tuna, chicken, salmon
- Peanut butter
- Dry or canned beans, peas, lentils



Other

- Olive Oil
- Canola Oil
- Low-sodium soup, stews, chili



Food Label Tips

- No sugar added
- Packed in 100% fruit juice
- No salt added or low sodium. As a general guide:
 - Low sodium = 5% or less of the daily value of sodium per serving
 - High sodium = 20% or more of daily value of sodium per serving



Other Donation Items

Other Food Items:

- Pasta sauce



Toiletries:

- Toilet paper



Fresh Vegetable Storage and Cleaning Guide

Consult this guide for specific food safety steps for each type of vegetable.
Remember to refrigerate leftovers immediately after any vegetable has been cut or peeled.

Vegetable	Storage	Rub with fingertips or scrub with a produce brush?	Additional tips
Avocado	Refrigerate after ripening	Scrub	
Broccoli	Refrigerate	Rub	
Carrots	Refrigerate	Scrub	
Chilies/ Other Peppers	Storage in cool place (such as basement or garage) preferred; can be refrigerated	Rub	Keep hands away from face when handling hot peppers.
Corn	Refrigerate	Rub	
Cucumbers	Storage in cool place preferred; can be refrigerated	Scrub	Rinse and scrub well to remove waxy surface. Remaining waxes are safe to eat. Rinse before peeling.
Garlic	Do not refrigerate	Scrub	
Green Beans	Refrigerate	Rub	Rinse and rub before snapping the end of the beans off.
Lettuce	Refrigerate	Rub, moving leaves	Remove outer leaves of non-bagged lettuce. Bagged lettuce labeled "pre-washed" does not need to be washed again prior to using.
Onions	Can be refrigerated but not necessary	Scrub	Store in a well-ventilated place so that air can get to onions. Do not freeze whole onions.
Potatoes	Do not refrigerate	Scrub	Remove eyes with a knife or peeler.
Radishes	Refrigerate	Scrub	
Spinach	Refrigerate	Rub, moving leaves	Bagged spinach labeled "pre-washed" does not need to be washed again prior to using.
Squash	Do not refrigerate	Scrub	
Tomatoes	Refrigerate after ripening	Rub	
Zucchini / Summer Squash	Refrigerate after ripening	Scrub	Rinse before peeling.

Sources:

University of Rhode Island Extension (2007). Garden to table: Storing fresh garden produce. Retrieved from www.uri.edu/ce/ceec/food/documents/fruitAndVegetableStorageChartFactSheet.pdf.
 Tong, C. (2012). Harvesting and storing home garden vegetables. University of Minnesota Extension. Retrieved from www.extension.umn.edu/distribution/horticulture/DG1424.html.
 Zandef, A., and M. Bunning (2010). Guide to washing fresh produce. Colorado State University Extension. Retrieved from www.ext.colostate.edu/pubs/foodnut/09380.html.

Oct. 2014

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Basics of Home Canning

Canning can be a fun and economical way to make fresh foods available year-round. Don't take chances with canning recipes handed down over the years. Use procedures that have been scientifically tested to ensure safe and high-quality canned products and optimized for prolonged storage. Use this fact sheet to understand the correct procedures for canning foods at home.

Introduction

The two safe methods of canning food at home are boiling water bath canning and pressure canning. Whether a food is high acid or low acid indicates what type of processing method should be used (Table 1). Generally, high-acid foods can be safely canned in a boiling water bath. Low-acid foods must be processed in a pressure canner.



Table 1. Examples of low-acid and high-acid foods and required processing methods.

Low-Acid Foods <i>Pressure Canning</i>	High-Acid Foods <i>Boiling Water Bath Canning</i>
Most vegetables	Most fruits
Asparagus	Apples and apple sauce
Beets	Apricots
Carrots	Berries
Green and dried beans	Cherries
Okra	Grapes
Peas	Jams and jellies (fruit only)
Peppers	Peaches and nectarines
Potatoes	Pears
Pumpkin	Pie fillings (fruit only)
Sweet corn	Plums
Meats	Acidified and fermented foods
Beef and Poultry	Chutneys
Mincemeat pie filling	Pickled vegetables
Seafood	Pickles (cucumbers)
Wild game	Relishes
Combination Foods	Salsa
Meat sauces	Sauerkraut
Soups and stews	Tomatoes (acidified)*

*Directions are available for boiling water bath and pressure canning methods.



Acidity in Foods

Low-Acid Foods

Low-acid foods include meats and vegetables (except for acidified tomatoes and pickled products). Low-acid foods lack the acidity needed to inhibit the growth of bacteria and spores that can survive the temperature of boiling water (212°F). The bacterium of greatest concern in home canning is *Clostridium botulinum* because it can produce spores that generate a dangerous toxin that causes food poisoning. Botulism spores thrive on low-acid foods in the absence of air, in the presence of moisture, and at room temperature—the conditions inside a jar of home-canned meat or vegetables. While spores of *Clostridium botulinum* may survive a boiling water bath, they are destroyed when processed in a pressure canner where the temperature can reach 240°F or higher.

High-Acid Foods

Most fruits have naturally high levels of acid. While tomatoes have some natural acids, they are borderline between high and low acid and need bottled lemon juice, citric acid, or vinegar (labeled 5 percent acidity) to increase their acidity for safe food processing. Fermented foods, such as sauerkraut, and foods to which a sufficient amount of vinegar is added, as in pickled vegetables, are also canned as high-acid foods. Jams and jellies are high-acid foods unless low-acid vegetables, such as peppers, are added. Foods in the high-acid category can be safely processed by the boiling water method. Consult other Let's Preserve fact sheets for details about canning specific foods.

Boiling Water Processing

Heat is transferred to the food by the boiling water that surrounds the jar. Maintaining a temperature of 212°F for the time specified in an approved recipe is adequate to destroy molds, yeasts, enzymes, and some bacteria. Processing times are usually given for altitudes under 1,000 feet above sea level. At higher altitudes water boils at lower temperatures, making it necessary to process foods longer.

Steam Pressure Processing

When heat is applied to a sealed canner, pressure builds up inside that canner. Water inside the canner forms steam, which replaces air. When the vents are closed, only pressurized steam hotter than boiling water remains in the canner.

Canning Procedures

Selecting Jars and Lids

Mason jars are recommended for home canning.

Commercial single-use jars are less likely to seal and may break, especially in a pressure canner. Lids may not fit single-use jars. Canning jars come in a variety of sizes. Most recipes have been developed for pint and quart jars. If processing times are not specified for smaller jars, process them the same as the next larger size that is specified. Half-gallon jars are recommended only for canning apple and grape juices. If properly used, jars may be reused.

Recipes have been research tested using standard Mason jars. Many specialty shops sell novelty jars in different sizes and shapes. Unusual jar shapes may not work with process times and temperatures given in the Let's Preserve fact sheets.

The recommended lid consists of a flat metal disc that has a sealing compound around the outer edge and a separate metal screw band. The lid should not be reused; the bands may be reused as long as they don't rust. Never reuse lids from commercially canned foods for home food preservation. Zinc lids or bail-type jars with rubber rings are no longer recommended for home canning.

Hot Pack or Raw Pack

When foods are raw packed the jars are filled with freshly prepared, unheated food. Raw-packed foods will often float in the jars, and the air trapped in and around the food may cause discoloration within 2 to 3 months of storage. Hot packing involves heating freshly prepared food to boiling, simmering it briefly, and promptly filling the jars loosely with the boiled food and liquid. Hot packing helps remove air from inside the food tissues, shrinks the food, and helps keep the food from floating in the jars. Preshrinking that occurs in hot packing allows more food to fit into each jar.

General Canning Guidelines

- Use tested recipes from Penn State Extension's Let's Preserve fact sheets, the *USDA Complete Guide to Home Canning*, *So Easy to Preserve* (University of Georgia), or the *Ball Blue Book*. All these contain research based recipes. All should be 1994 or more recent editions. Older recipes may not have adequate processing times or pressure for safety.
- Use Mason jars because they withstand the higher temperatures of a pressure canner better than single-use jars.
- Use proper headspace: ¼ inch for juices, jams and jellies, and relishes; ½ inch for fruits, tomatoes, and pickles; 1 to 1½ inches for meats and vegetables. Refer to a tested recipe. Too much headspace results in a lower vacuum and a weak seal. Too little headspace may force food under the lid, causing siphoning.

or breaking of the seal.

- Remove air bubbles with a plastic utensil.
- Wipe edge of jar with a clean, damp paper towel.
- Use two-piece lids (a new flat disk and a screw band).
- Only tighten lids finger-tip tight.
- Use a jar lifter to place jars into canner and to remove jars. Be careful not to tilt jars.
- Process according to the boiling water bath or pressure canning procedures that follow.
- Adjust process times or pressure for altitudes that are 1,000 feet or more above sea level.
- After processing, set jars at least 2 inches apart to cool.
- Do not retighten bands.
- Do not turn jars upside down.

Boiling Water Bath Procedures

- Follow all the practices listed under “General Canning Guidelines” above.
- Fill the canner about half full with water.
- Preheat water to 140°F for raw-packed foods and to 180°F for hot-packed foods.
- Place jars on a rack in canner.
- Add more water if necessary to cover jars with at least 1 inch of water.
- Place the lid on the canner and keep covered during processing.
- Turn heat to its highest position until water boils vigorously; then lower heat setting to maintain a gentle boil while processing.
- After processing for the designated time, turn heat off, set off burner, remove lid, and let jars rest in the canner for five minutes before removing from the canner—this will reduce siphoning (loss of liquid from the jar).

Pressure Canning Procedures

- Follow all the practices listed under “General Canning Guidelines” above.
- Put 2 to 3 inches of water in the bottom of the pressure canner.
- Place filled jars on a rack at bottom of the canner.
- Heat to boiling to exhaust steam from the canner for 10 minutes before adding the weight or closing the petcock.
- Add weight or pressure regulator.
- Allow pressure to rise and maintain at level called for

in the tested recipe by adjusting the heat. If pressure goes below recommended pressure at any time during processing, reset your timer to zero and restart the process time.

- After processing, remove canner from heat and allow canner to cool naturally to 0 pounds pressure. Wait 2 minutes and remove weighted gauge or pressure regulator. Wait 10 more minutes before removing lid—this will reduce siphoning (loss of liquid from the jar).

Testing for a Vacuum Seal

Allow jars to cool 12 to 24 hours. Press the center of the lid to see if it is concave. If the center does not flex up and down and you cannot lift the lid off, the lid has a good vacuum seal.

Storing Canned Goods

- Remove screw bands from jars and wash jars before storing. Properly sealed jars do not need the bands on to hold the lids in place. Screw bands can rust if left on the jars in storage, causing the seals to break.
- Label with contents, date, and lot number if you canned several canner loads that day.
- Store in a cool, dry place; 50 to 70°F is an ideal temperature for storing canned goods.
- Store in a dark place. Place cooled jars in boxes if closed cupboards are not available.

Food Spoilage

When good-quality produce is used and correct canning procedures are followed, canned foods should be safe and of high quality. However, sometimes there are canning failures. A common reason for food spoilage is inadequate processing times or temperatures needed to destroy or control microorganisms. These microorganisms are molds, yeasts, and bacteria.

Molds and yeasts are easily destroyed by the heat used in processing. However, if the product is underprocessed or the lid seal is broken during storage, fuzzy masses of mold may grow inside the jar. Yeasts may react with sugars in the food, causing fermentation. You can recognize yeast activity by slime, scum, murkiness, or gas bubbles.

While some bacteria can be beneficial, as in making sauerkraut, others can be extremely dangerous, as in botulism poisoning as discussed earlier. Bacteria can multiply rapidly with millions growing on a gram of food in just a few hours. Bacteria are too small to see with the human eye. Food can be spoiled without any visual evidence. Therefore, use proper canning procedures. Never taste a food you suspect is spoiled. If in doubt, throw it out.

Enzymes are naturally occurring substances in foods that promote the normal ripening process. If they continue to work after the fruit or vegetable is harvested, they can cause undesirable changes in color, texture, flavor, and nutrition. Adding ascorbic acid or commercially available antibrowning products to the holding water reduces color changes when peeling light-colored fruits. Enzymes are quickly inactivated when heated to between 170 and 190°F. For this reason, heat process foods as soon as possible after preparing them for canning.

*Never taste a food you suspect is spoiled.
If in doubt, throw it out.*

Preventing Spoilage

- Use top-quality produce that is free of disease and mold.
- Can immediately after harvest.
- Wash produce thoroughly.
- Discard overripe produce.
- Use proper canning methods and equipment.
- Use clean equipment and work surfaces.
- Sterilize jars that will be processed less than 10 minutes.
- Pressure can low-acid vegetables and meats.
- Acidify tomatoes.
- Follow a scientifically tested recipe and process for specified time.
- Adjust time and pressure for higher altitudes.



Pressure Canner Dial Gauge Testing

Pressure canner dial gauges should be tested for accuracy each year. Contact your local Purdue Extension office to determine locations and times for testing.

Important Temperatures:	
240°F	Temperature needed in a pressure canner to destroy bacterial spores in low-acid foods
212°F	Boiling point of water and processing temperature for acid foods in boiling water bath
180–212°F	Temperature at which molds, yeasts, and some bacterial cells are destroyed
170–190°F	Temperature needed to inactivate enzymes
140–180°F	Temperature at which growth of bacteria, molds, and yeasts is slowed, but some microorganisms can survive
40–140°F	Active growing range of molds, yeasts, and bacteria
50–70°F	Best storage temperature for home-canned and home-dehydrated foods

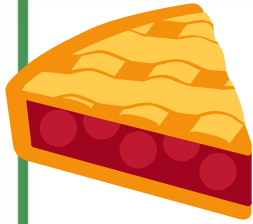
For additional information about food preservation, contact the Purdue Extension office in your county, or call 888-EXT-INFO (888-398-4636; toll free).

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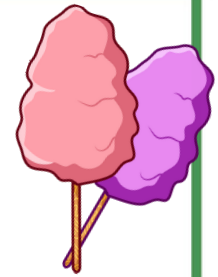
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May 2015



Fair Food Word Search



O T P L R Q P J B T H S C Z P
 Y E T E Z I N L U P N J H A S
 S N H M G A B B D Z L N I W O
 N D C O N B V E P T C X C R C
 B E H N A M P C Y R O E K P W
 B R A S C I S H I E T L E O K
 P L M H H L Q O C P T E N R K
 P O X A O K P T E V O P N K T
 I I U K S S I H C B N H O B G
 V N E E F H Z Q R E C A O U U
 V H F U F A Z Q E A A N D R P
 J S X P O K A Z A N N T L G Y
 M I H G H E F S M S D E E E X
 O T L M N M U U O F Y A H R K
 M K E T T L E C O R N R Z A A

Chicken Noodle

Lemon Shake Up

Elephant Ear

Pie

Cotton Candy

Milkshake

Ribeye

Pizza

Kettle Corn

Tenderloin

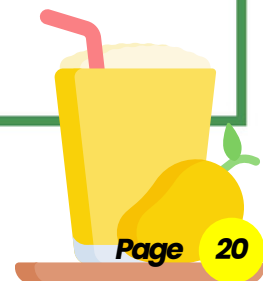
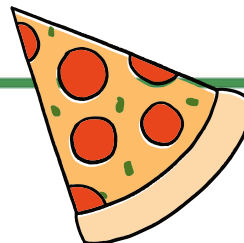
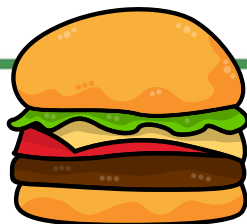
Nachos

Ham

Pork Burger

Ice Cream

Beans





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Considerations for Using a Sanitizer at Home

Proper cleaning and sanitizing of food contact surfaces is critical to preventing foodborne illnesses, premature food spoilage and cross-contamination.

After a food contact surface has been cleaned to remove all physical material, applying a sanitizer can reduce microorganisms to a safe level. Sanitizers can also be instrumental in preventing the buildup of biofilms, or bacterial buildup on a surface. However, if used improperly, sanitizers can present a chemical food safety risk. When purchasing commercial sanitizers, the many options can seem overwhelming. This article provides guidelines for selecting a sanitizer to be used on food contact surfaces.

Cleaning Versus Sanitizing

“Cleaning” and “sanitizing” are commonly used interchangeably or in tandem. But they aren’t the same and should be treated independently. Cleaning refers to the removal of visible

contaminants – soil, for example – from a surface with water, soap and scrubbing. Sanitizing is the process of reducing the number of microorganisms on a surface, often with the use of a sanitizer chemical (CDC, 2022). The surface should always be thoroughly cleaned and rinsed before a sanitizer is applied to a food contact surface. This prevents organic matter from depleting the sanitizer’s disinfecting power.

Selecting a Sanitizer

When selecting a sanitizer for use on food contact surfaces, ask:

- Is the sanitizer approved for use by the Environmental Protection Agency (EPA)?
- What sanitizer concentration and contact time is required for proper use?
- Is the sanitizer labeled for the intended use? (For example, sanitizing food contact surfaces.)

- Does the sanitizer kill specific microorganisms you are targeting? (For example, *Listeria monocytogenes*, spoilage microorganisms or SARS-CoV-2.)
- Does the sanitizer require the use of personal protective equipment (PPE), such as gloves or safety goggles?

The answers to those questions should always be on the sanitizer label. The label, if not on the sanitizer container, should be on the supplier's website.

Regulation of Products

Sanitizers are considered a pesticide by regulatory agencies, such as the EPA and Office of Indiana State Chemist, and are regulated as such. By definition, a pesticide is any substance or mixture of substances intended for preventing, destroying, repelling or mitigating any pest, including microorganisms. The term is often misunderstood to refer to insecticides, but it also refers to herbicides, fungicides and various other substances used to control pests.

When evaluating a sanitizer product, the EPA will review toxicity data and test results to show how well the product kills bacteria. The EPA also considers human safety and environmental risks (EPA, 2023). EPA-approved sanitizers will have an EPA registration number on the label (Figure 1), signifying that the agency believes the product should perform as stated on the label and not pose unreasonable hazards to your health if used according to the label instructions.

The EPA registration number should be the first thing you look for when selecting a sanitizer. If a product does **not** have an EPA number, that is a red flag. You may contact the manufacturer to determine if the product does have an EPA number, and you may request it. EPA numbers and information about products can be found on the Pesticide Product Label System (PPLS) website: <https://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1>.



Figure 1. Example of a sanitizer label with the EPA registration number highlighted.



Figure 2. Examples of logos that do **not** replace an EPA registration number.

If a product does not have an EPA registration number, that product should not be used. Logos such as “USDA Certified Biobased Product” and “FDA GRAS Approved” (Figure 2) are not a substitute for an EPA number.

Once a product is registered with the EPA it must also be registered in the state that it is to be used. The registration must be renewed each year. In Indiana, pesticides must be registered with the Office of Indiana State Chemist, who is responsible for the administration and enforcement of Indiana pesticide laws (I.C. 15-16-4 and I.C. 15-16-5) (OISC, 2021). Product registration data is maintained on the National Pesticide Information Retrieval System (NPIRS): <http://npirspublic.ceris.purdue.edu/npirs.html>.

Sanitizer Product Labels

When using a sanitizer, the label is the law. Before beginning use, review the label for information that is critical to product effectiveness, and more importantly, your personal safety. The label should provide the following information:

- Concentration for use and how to dilute it
- Contact time
- What types of organisms the product can kill
- Approved uses of the sanitizer (for example, sanitizing food contact surfaces)



Figure 3. Lysol No-Rinse Sanitizer label – directions and usage.



Figure 4. Lysol No-Rinse Sanitizer label – first aid, storage and disposal.

- If a final rinse of the surface with potable water is needed following contact with the sanitizer
- Disposal of product and containers
- First aid procedures

Deviation from the product label, including improper concentrations or contact time, could cause the sanitizer to not work as intended. This could also lead to excessive product build-up on a surface, potentially posing a chemical risk. If you follow the label precisely, you can be confident that the sanitizer adequately reduces the microbes on the surface. Figures 3 and 4 show examples of information that can be found on a sanitizer label.

Measuring Sanitizer Concentration

Sanitizer concentrations are crucial for ensuring that the sanitizer can accomplish the job it was meant to do. The best way to verify that you are using the sanitizer at the proper concentration is with a measurement. One of the quickest and most cost-effective methods of measuring concentration is by using sanitizer test strips (Figure 5). Test strips may be purchased from a chemical supplier or online sources. When purchasing sanitizer test strips, ensure that you are purchasing strips that are appropriate for your sanitizer type and targeted concentration.



Figure 5. Peracetic acid test strips.

Conclusion

Sanitizers can be an effective tool for reducing microbial food safety risks associated with food contact surfaces. However, this is not as simple as buying a sanitizer from a supermarket and dumping it haphazardly on a surface. Select sanitizer products carefully and **always** follow the product label. Users should ensure that the sanitizer has an EPA registration number and is labeled for the intended use. Following these guidelines promotes food safety and proper use of sanitizers.

Note: The products mentioned in this publication are for informative purposes only and do not represent any form of endorsement by the authors, the Department of Food Science or Purdue University.

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- U.S. Environmental Protection Agency (EPA). (2023). Retrieved from <https://www.epa.gov/pesticide-registration/about-pesticide-registration>. Accessed February 16, 2023.
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 P L M H H L O O C P T E N R K
 P O X A O K P T E V O P N K T
 I I U K S S I H C B N H O B G
 V N E E F H Z Q R E C A O U U
 V H F U F A Z Q E A A N D R P
 J S X P O K A Z A N N T L G Y
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Chicken Noodle

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