



November 2005

Food Facts For You!

Barbara Ingham, Extension Food Scientist
 Department of Food Science, 1605 Linden Drive, Madison,
 WI 53706-1565

Let's Talk Turkey; Cook that Ice Cream!; New Canner News; What was That Again?; Home Refrigerator Savvy; Perfecting Clearjel®; Eggs Cooked in a Bag; What's On Your Mind? (hand washing, food safety for moms-to-be)

Let's Talk Turkey

With the Thanksgiving holiday approaching, it's a good time to consider some basic tips from the USDA for safely preparing a holiday turkey – also the basis of a press release this month!

Will your turkey be fresh or frozen? For fresh turkeys, allow 1 pound of turkey per person. Buy your turkey only 1 to 2 days before you plan to cook it, and keep it stored in the refrigerator until you are ready to place it in the oven. Place fresh turkeys in a pan or on a tray to catch any juices that may leak. Do not buy fresh pre-stuffed turkeys. For frozen turkeys, allow 1 pound turkey per person. Keep frozen until ready to thaw.

What is the best way to thaw a turkey? There are 3 ways to safely thaw your turkey – in the refrigerator, in cold water in the sink, or in a microwave oven. The recommendations for thawing are:

Size of turkey	Refrigerator (40°F or below)*	In Cold Water**
4 to 12 pounds	1 to 3 days	2 to 6 hours
12 to 16 pounds	3 to 4 days	6 to 8 hours
16 to 20 pounds	4 to 5 days	8 to 10 hours
20 to 24 pounds	5 to 6 days	10 to 12 hours

*On a tray or in a pan to prevent drips. Turkey may be stored in the refrigerator for 1 to 2 days before cooking.

**Wrapped securely, making sure the water is not able to leak through the wrapping. Keep turkey submerged. Change the water every 30 minutes. Cook immediately after thawing. Do not refreeze.

Check your owner's manual to thaw a turkey in your microwave oven. Once thawed, cook immediately; do not refreeze or refrigerate a turkey after microwave thawing.

How to roast your holiday bird? Set your oven temperature no lower than 325 °F. Place the turkey or turkey breast on a rack in a shallow roasting pan. For more even cooking, it is recommended you cook your stuffing outside the bird in a casserole dish. If you choose to stuff your turkey, the ingredients can be prepared ahead of time; however, keep wet and dry ingredients separate. Chill all of the wet ingredients (butter/margarine, cooked celery and onions, broth, etc.). Mix wet and dry ingredients just before filling the turkey cavities. Fill the cavities loosely. Cook the turkey immediately.

When is it done? Here are the key temperatures for roasting a holiday turkey:

- Cook a whole turkey to 180 °F. To check for doneness, insert a food thermometer in the thickest part of the inner thigh without touching the bone.
- Cook a turkey breast to 170 °F. Insert a food thermometer in the thickest part of the breast to check for doneness.
- Stuffing must reach 165 °F; the turkey is often ‘over done’ by the time the stuffing reaches a safe temperature.
- If your turkey has a “pop-up” temperature indicator, it is recommended that you also check the internal temperature of the turkey and center of the stuffing with a food thermometer – 165 °F for stuffing; 170 °F for breasts; 180 °F for whole turkeys.
- For quality, let the turkey stand for 20 minutes before carving to allow juices to set. The turkey will carve more easily.

Timetables for Turkey Roasting (325 °F oven temperature)

Use the timetables below to determine how long to cook your turkey. These times are approximate. Always use a food thermometer to check the internal temperature of your turkey and stuffing.

Unstuffed	
4 to 8 pounds (breast)	1 ½ to 3 ¼ hours
8 to 12 pounds	2 ¾ to 3 hours
12 to 14 pounds	3 to 3 ¾ hours
14 to 18 pounds	3 ¾ to 4 ¼ hours
18 to 20 pounds	4 ¼ to 4 ½ hours
20 to 24 pounds	4 ½ to 5 hours

Stuffed	
4 to 6 pounds (breast)	Not usually applicable
6 to 8 pounds (breast)	2 ½ to 3 ½ hours
8 to 12 pounds	3 to 3 ½ hours
12 to 14 pounds	3 ½ to 4 hours
14 to 18 pounds	4 to 4 ¼ hours
18 to 20 pounds	4 ¼ to 4 ¾ hours
20 to 24 pounds	4 ¾ to 5 ¼ hours

It is safe to cook a turkey from the frozen state. The cooking time will take at least 50 percent longer than recommended for a fully thawed turkey.

Here are some optional cooking hints:

- Do not rinse turkeys, or other meat, before cooking; this only spreads germs. Use paper towels to gently remove pin feathers or coagulated blood, if desired.
- Add ½ cup of water to the bottom of the pan to keep your bird moist and to make clean-up easier!
- If your roasting pan does not have a lid, you may place a tent of heavy-duty aluminum foil over the turkey for the first 1 to 1 ½ hours. This allows for maximum heat circulation, keeps the turkey moist, and reduces oven splatter. To prevent over-browning, foil may also be placed over the turkey after it reaches the desired color.
- For last-minute information on cooking your holiday feast, call the Meat and Poultry Hotline 1-888-674-6854 or log onto www.fsis.usda.gov.

Cook that Ice Cream!

In August of 2005, the Food and Drug Administration (FDA) issued a recall of Cake Batter Ice Cream™ and similar products from retail and food service industries; primarily linked to Cake Batter Ice Cream™ sold at Cold Stone Creamery stores. How did this happen and what are the implications?

During the summer of 2005, health officials investigated a multi-state outbreak of salmonellosis related to ice cream products sold to individuals in Washington, Oregon, Minnesota, Ohio, Michigan and Arizona. Implicated in this outbreak was Cake Batter Ice Cream™, sold only at Cold Stone Creamery stores. The product was recalled and FDA investigations confirmed that while the ice cream base (cream, sugar, etc) **was** pasteurized to destroy pathogens, the dry cake mix that was added to the ice cream base **was not** cooked before being added. The dry cake mix was labeled 'bake before use' by the manufacturer.

Dry cake mix is a product designed to be rehydrated and then cooked. Dry cake mix should not be considered a ready-to-eat food because it has not been processed to ensure that pathogens have been destroyed. *Salmonella* is known to occasionally be present in flour and other non-animal foods such as barley, cereal powder, and yeast. Proper handling of these and similar products is necessary to prevent illness. Products similar to the recalled 'cake batter' ice cream, such as 'cookie dough' ice cream, would also be considered unsafe if prepared from improper ingredients. [Note: Cookie Dough ice cream was not implicated in this outbreak.]

The results of this investigation may be important for consumers wishing to experiment in the kitchen. As always, follow label directions when handling and preparing food!

New Canner News

Thanks to Kathy Eisenmann (Jefferson County) I have some information to share about a new style of pressure canner. Kathy recently bought a new pressure canner from Mirro – a weighted gauge 22-quart model. Kathy wanted to share information on her new canner model in case questions come our way. Some new-model updates include:

- The new (2005) model no longer has a handle lock which the old model used to assist in sealing the lid and gasket.
- The new weighted gauge operates also very differently. Unlike the 'old' model where a gauge rocked back and forth (jiggled) on the canner to indicate that pressure had been reached, the new model has a top-like gauge which screws down on the pressure value. The new gauge spins like a top and rocks slightly when pressurized.

If you don't screw the gauge down, the canner will not pressurize. [Kathy noted that screwing the gauge down on a hot canner with steam escaping was a real trick!]

- The new canner/gauge is almost silent, even when operating properly. You don't hear the rocking sound of the old gasket; you do hear steam escaping.
- The gauge for this new canner is 'assembled' from parts adjustable by 5, 10 and 15 pounds.

Kathy noted for the inexperienced canner it might be difficult to tell when pressure is being maintained using the new canner. Kathy noted: "I figured out it needed to be screwed on quite by accident as the directions say "place the gauge on top of the valve." Well, if you do that it just sits there while steam escapes. You have to screw it done a bit and then it drops into place and the canner pressurizes. You could easily boil away the water waiting for the thing to pressurize if you don't screw it on, although hopefully people would turn off the canner after 10 minutes without pressurization." Kathy also cautions that the new design may not be appropriate for children or youth due to the amount of hot steam that escapes during processing and the threat of burns. Thanks Kathy for keeping us all up-to-date!!

What was That Again?

I have been in touch with several of you regarding your experiences judging food entries at county fairs. Several years ago I made an effort to work through 4-H to inform fair judges of changes in food preservation methods over the last years, dating back to 1994 when a new USDA Complete Guide to Home Canning was introduced. Based on our conversations, I need to work more diligently next year to ensure that the word is getting out!

As a quick reminder, appropriate home canning resources are:

- The USDA Complete Guide to Home Canning (1994 edition) available online: http://www.uga.edu/nchfp/publications/publications_usda.html
- So Easy to Preserve* (1999) ordering information available online: <http://www.uga.edu/setp/>
- Wisconsin Safe Food Preservation series publications** available through most county offices, or online: <http://cecommerce.uwex.edu/> (under Home and Family)
- and ** Please note, recipes in So Easy to Preserve may have to be modified for some Wisconsin elevations (above 1,000 feet). Processing times in the Wisconsin Safe Food Preservation series are based on the USDA Guide and are **already** modified to be appropriate for **all** Wisconsin elevations. This means that some recipes will appear to over-process food for lower elevations; it also, however, avoids the need for consumers to appropriately adjust recipes for elevation (something that I personally think that consumers are not inclined to do.)

To paraphrase Dr. Seuss: Oh the stories we could tell..... Chris Kniep's experiences as a fair judge this summer are worth noting. The fair entries are tagged with pertinent processing information (or lack thereof!):

- I got to beet pickles – 9 entries, 18 pint jars (because I'm suppose to open one and send it home while the second sealed jar stays on display)....well one exhibitor wrote, "outdoor turkey cooker" – on the tag, YIKES! What did "he" do? The superintendents explained he used it as a boiling water bath because his stove wasn't working and he had brought along pictures to show how he did it

- “Self sealing” was listed on another tag – yes, the good old open kettle method (I automatically disqualified this) and heard the woman say, with frustration in her voice – “oh no, that’ how I did all of my entries”
- But the best one of all, on the line “processing time” the exhibitor wrote 8:00 p.m. I think there were only 3 jars left to taste and judge....

As I told the superintendents, with their tasting practice, I probably had the most dangerous job at the fair!

[Barb’s note: please do **not** taste home-canned items; even if you believe them to be safe. I will make it my job to see that our fair judging rules are brought up-to-date with current practice. And many thanks to Chris for sharing her experiences.]

Home Refrigerator Savvy

Alice Hennemann (University of Nebraska) has developed yet another useful resource for extension educators. The most recent item is on the home refrigerator. The refrigerator is the center for food safety activities in many homes. Some of us may never cook or need to use a thermometer, but almost everyone uses a refrigerator, if just to keep juice and milk cold and store leftover pizza. Chilling foods properly is important for home food safety!

Through a series of 3 questions, consumers are given tips on keeping foods refrigerator-safe. Excellent graphics accompany each question:

1. Should home refrigerators be kept at 40°F or lower?
2. Should a thermometer be kept in the refrigerator and freezer to verify food safety after power outages? (Check out the tip for tracking power outages!)
3. Should leftovers be refrigerated in shallow containers with food no more than 2 inches deep?*

[*Note: Alice recommends storing hot left-over food to a depth of no more than 2 inches; this actually is the same as our standard recommendation that the container is no more than 3 inches deep.] To view the interactive online quiz and check out the teaching materials, visit the University of Nebraska’s *Food Reflections* newsletter Sept/Oct 2005: <http://lancaster.unl.edu/food/ftsep-oct05.htm>

Perfecting Clearjel®

Some of you may have had the experience that I have had; you are making apple pie filling using Clearjel® (according to the tested recipe in *Canning Fruits Safely* (B0430)). The sweet smell of cooking apples and the spicy scent of cinnamon fills the air. The processing time is up and you go to pull the quart jars of filling out of the canner.....and the pie filling seems to have over-flowed the jars. Jars where the filling has leaked out can’t be stored on the shelf, so then it’s on to find freezer space, or you call up the neighbors for an ice cream party with apple topping. This can be a frustrating experience and after hearing from several of you this year I contacted Dr. Elizabeth Andress of the National Center for Home Food Preservation to ask for her input.

Dr. Andress was one of the primary authors of the USDA National Guide to Home Canning (1994 edition) and also is the director of the National Center for Home Food Preservation at the University of Georgia. Dr. Andress notes that she has heard of others having trouble, but following the recipe should result in a safe, high quality product, and not one that over-flows the jars.

If you, or your callers, ever 'suffer' from over-flowing jars, here are some tips:

- Slice the apples into thin slices, no more than ½" thick. [I find that using an apple peeler/slicer works great.]
- Blanch the apples as directed, working in small batches. Blanching stabilizes the product and also helps to remove air trapped in the apple cells.
- Cook the sugar and Clearjel® mixture as directed working in a large kettle. The mixture needs to come rapidly to temperature and to maintain heat even when the apple slices are added. Working in a too-small kettle will prevent the product from cooking properly – somewhat like too much product hinders jam and jelly making.
- Don't increase headspace to try and prevent product over-flow; it won't work.
- Air trapped in the apple tissue may be a prime 'suspect' in product over-flow. As the air expands and leaves the cells and the jar, it carries product along with it. Effective blanching and using thin apple slices may help release trapped air.
- If you have tried everything to no avail, try switching apple varieties. Many things can influence the success of the product, including apple variety, growing conditions, length of storage, etc.

Hopefully, these suggestions will help our clients be successful with this product!

Eggs Cooked in a Bag

Nancy Livingston (4-H educator in Vilas County) forwarded a series of recipes from her sister for cooking eggs in a bag. Her questions about the safety of these recipes led me to investigate. First, the recipes:

Poaches eggs in a bag. *For perfect poached eggs, as many as you like, break the eggs into separate plastic bags, one per. Tie a knot in the handle of each bag, releasing as much air as you can. Boil a pot of water, slip each bag gently into it, securing each bag to the rim of the pot for easy removal, and let boil 5 minutes exactly. Then remove the packages, untie or cut the knots and slip the perfectly poached egg (white firm, yolk perfectly runny) onto a plate and enjoy.*

Omelets in a bag. *Have your guests use a permanent marker to write their name on a quart size freezer bag. Crack two large or extra- large eggs into the bag (more than two will not work), shake and knead the bag to break the yoke and combine the eggs. Put out a variety of ingredients such as cheeses, ham, onion, green pepper, mushrooms, tomato, hash browns, salsa, etc. Have the guests add the prepared ingredients of their choice to the bag and shake. Make sure to get the air out of the bag and zip it up. Place the bags into rolling-boiling water for exactly 13 minutes. You can usually cook 6-8 omelets in a large pot. Use another pot of boiling water if you have more than 8 omelets to make. After 13 minutes, have the guest take their bag, open it and the omelet will roll out easily onto their plate.*

My concerns with these recipes are 2-fold:

1. The eggs need to cook thoroughly enough to destroy any *Salmonella* that might be there; the white should be firm and the yolks no longer runny. This means the poached egg recipe would not be recommended based on 'doneness' alone.
2. My second concern relates to the safety of items cooked in plastic bags. I called S.C .Johnson and Company since I happened to have a box of Ziploc bags in my office with a phone number. Their customer service representative told me that Ziploc (or similar) food storage bags should **not** be placed in boiled water or used to boil water/liquid in a microwave oven. This is because the polyethylene plastic that the bags are made of melts at 110°C; water boils at 100°C so there is a chance that the

bags will melt or certainly become less stable on boiling. Chemicals from the plastic may migrate into the eggs and contaminate the product.
So overall, neither recipe is recommended. Thanks, Nancy, for asking!

What's On Your Mind?

With flu season around the corner check out the educator materials from the University of Nebraska (posters, a table tent, coloring sheet and more!)

- Hand washing materials for adults/older youth:
<http://lancaster.unl.edu/food/handwashing.htm>
- Hand washing materials for children:
<http://lancaster.unl.edu/food/sinkgerms.htm>

Food Safety for Moms to Be. The up-coming holidays are a great time for families to be together. For pregnant women taking care to eat things that are safe for both mother and child is very important. An excellent collection of resource materials is available which may be helpful in working with this audience including recipes, fact sheets, tips, and so forth. Check out the FDA web site for more information:

<http://www.cfsan.fda.gov/~pregnant/pregnant.html>

Dr. Barbara Ingham

Phone: 608-263-7383

Fax: 608-262-6872

bingham@wisc.edu

Wisconsin FIRST: <http://www.wisc.edu/foodsafety/>
