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Food Facts For You!

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Sending Food Gifts to U.S. Military; How to Interpret Can Sizes; Using Paraffin in Candy: Is it a Safety Issue?; How is 'Instant' ClearJel® Different from 'Regular' ClearJel®?; Is Avian Influenza a Food Safety Issue?; Does Washing Promote Food Safety?; Welcome to Spring! A Great Time for Eggs.

Sending Food Gifts to U.S. Military

(Note the following information is included in a press release for February 2005.)

With Valentine's Day fast approaching, many families will be wishing to send a special food gift to family members and friends serving overseas in the Air Force, Army, Navy, Marine Corps, or Coast Guard.

"I am sure that in addition to receiving letters from home, our men and women in the armed forces would appreciate food gifts," said Susan Conley, director of Food Safety Education for the USDA's Food Safety and Inspection Service. "It's important to mail food gifts that are not perishable, can tolerate a range of temperatures, and won't break with rough handling."

Perishable foods are those that must be kept at 40 °F or below to remain safe to eat – meat, poultry, fish, and soft cheeses, for example. These foods cannot be safely left at room temperature for more than 2 hours, much less for a week or more in the mail. Foodborne bacteria that may be present on these foods grow fastest at temperatures above 40 °F and can double every 20 minutes. When this happens, someone eating the food that has been left out too long can get sick.

Food gifts that can be safely mailed include dried products such as jerky and fruits, shelf-stable canned specialties, and regional condiments such as hot sauces. Homemade cookies, candy, and low-moisture breads like fruitcake and bar cookies are also good candidates for mailing.

As an alternative to homemade gifts, some families may wish to send a military member's favorite mail order foods. Shelf-stable "summer sausage," cheeses, cakes, and snacks can be ordered on the Internet or through mail order catalogs. Because of the delivery time and distances between the U.S. and duty stations overseas, do not order any food gifts that must be kept refrigerated.

Conley reminds consumers that "Families and friends must have a specific address for their service members. Mail addressed to 'Any Serviceman' will not be accepted by the U.S. Postal Service."

RECOMMENDATIONS FOR FOOD GIFTS

- Dried beef or poultry such as beef jerky, turkey jerky, or beef slims are safe to mail. Bacteria can't multiply in food preserved by removing moisture.
- Dehydrated soups and fruit drink mixes are lightweight and safe to mail. Regional condiments such as hot sauce and Cajun seasonings in packets are useful for spicing up Meals Ready to Eat (MREs).
- Canned specialties such as patè, corned beef, shelf-stable hams, anchovies, shrimp, dips, and cracker spreads make nice treats. Recipients should be cautioned not to use any cans that are damaged or swollen. Foods in glass containers should not be mailed because the container can break.
- Dense and dry baked goods such as fruitcakes and biscotti are good choices for mailing because they will not become moldy. Other suitable baked goods include commercially-packaged cakes and cookies in airtight tins, dry cookies such as ginger snaps, and specialty crackers.
- High-moisture baked goods such as pumpkin bread – while safe at room temperature for a few days – should not be mailed because they will most likely mold before delivery. Fragile foods like delicate cookies won't make the trip intact. When mailing firm cookies and homemade candies, wrap each piece individually and pack items in commercially popped popcorn or foam packing "peanuts" to help cushion the trip. Place the food gifts in a sturdy box and seal it securely with packing tape.
- Dried fruits such as raisins and apricots, canned nuts and fruit, and commercially-packaged trail mix need no refrigeration.
- Hard candies and firm homemade sweets such as fudge, pralines, and toffee are safe to mail because their high sugar content prevents bacterial growth.

How to Interpret Can Sizes: What to do for Can Size "2"

*(Alice Henneman, **University of Nebraska-Lincoln**, provides the following ideas for equating can numbers with the volume of food in each.)*

Some favorite older recipes may call for can sizes such as a Number 2 or a Number 303 can. Here's a chart to help you determine how these correspond to current can sizes:

Can Size Number	Approximate Volume of Food	Approximate Weight of Food
No. 1 picnic	1-1/4 cups	10-1/2 to 12 ounces
No. 300	1-3/4 cups	14 to 16 ounces
No. 303	2 cups	16 to 17 ounces
No. 2	2-1/2 cups	20 ounces
No. 2 1/2	3-1/2 cups	27 to 29 ounces
No. 3	5-3/4 cups	51 ounces
No. 10	3 quarts	6-1/2 pounds to 7 pounds and 5 ounces

Using Paraffin in Candy: Is it a Safety Issue?

Chocolate candy is often shared with family and friends on Valentine's Day. Some older recipes for homemade chocolate call for paraffin as an ingredient. Is it safe to use paraffin when making chocolates and other confectionary products at home?

According to the ***Food Additive Handbook***, paraffin is most often an adhesive component, coating, or masticatory substance used in chewing gum base. Food-grade paraffin has also historically been included in recipes for some candies to make them look shiny. Paraffin also stabilizes the final product, preventing fat bloom. Although food-grade paraffin is edible, paraffin is indigestible and has a laxative effect if consumed in high enough amounts! There are no commercial confectionary products which contain paraffin. Special confectionary coatings (chocolate, white or pastel-colored) are sold which can easily be melted and used for dipping or molding a variety of confections.

Non-food grade paraffin, such as used in candle making, should not be used in candy. Non-food grade paraffin wax can contain oils and other impurities which may be toxic or harmful.

To avoid using paraffin in recipes, consider substituting vegetable shortening instead. Vegetable oil will also substitute for paraffin without the associated safety hazards. Alternately, use a special confectionary coating sold for dipping or molding.

How is 'Instant' ClearJel® Different from 'Regular' ClearJel®?

(I recently received an inquiry from an Extension agent in Arkansas where spring is just around the corner. Her question had to do with uses for 'instant' Clear Jel, a new product, versus the more traditional Clear Jel used in canned pie filling.)

ClearJel® is a commercial thickener, composed of a modified corn starch. It comes in several versions, including one that sets up and thickens best in uncooked instant foods (Instant ClearJel®) and another that works best in cooked foods (ClearJel® A). The uncooked version (Instant ClearJel®) is combined with an equal amount of sugar, and stirred thoroughly into food. Maximum thickness is attained in about 10 minutes. The cooked version (ClearJel® A) is mixed with cold water before being added to a recipe, or is added with other ingredients with stirring, so that it dissolves and thickens as the mixture heats. A similar phenomenon is seen with 'regular' and no-cook pudding mix; while both contain starch as the thickening agent, the regular pudding thickens only on heating while the no-cook pudding sets up and thickens after being stirred into cold milk. Both products are starch based and are different from SureJel™ which is a pectin-based ingredient for making jams and jellies.

ClearJel® is used in instant puddings, gravies, and pie fillings, and can be used to replace corn starch, flour, or tapioca as a thickener. The reason that we use ClearJel® A for home canning is that it stands up to the thermal stress (heat) of water bath processing without breaking down. Flour and unmodified corn starch do not maintain a gel on extended heating.

I did some searching and found sources of ClearJel® and Instant ClearJel® available to commercial food processors, but not to home canners. A quick search of a few web sites of companies that supply ClearJel® for home canning: **Kitchen Krafts**

<http://www.kitchenkrafts.com/> and **Sweet Celebrations** <http://www.sweetc.com/maid.htm>

indicate that they supply only ClearJel® A. I would not expect the 2 products to be

interchangeable. My impression would be that the 'instant' ClearJel® would not stand up to extended heating and would break down if used in home canning.

Is Avian Influenza a Food Safety Issue?

Influenza A viruses are found in many different animals, including ducks, chickens, pigs, whales, horses, and seals. Influenza A viruses normally seen in one species sometimes can cross over and cause illness in another species. Avian influenza viruses may be transmitted to humans in two main ways:

- Directly from birds or from avian virus-contaminated environments to people.
- Through an intermediate host, such as a pig.

Influenza viruses have the ability to change and recombine in various animal species, including humans. If this occurs, a new influenza A virus develops to which most people have little or no immune protection. This new virus causes illness in people and can be transmitted easily from person to person, resulting in an influenza pandemic.

Although avian influenza A viruses do not usually infect humans, several instances of human infections and outbreaks of avian influenza have been reported since 1997. Most cases of avian influenza infection in humans are thought to have resulted from contact with infected poultry or contaminated surfaces. However, there is still a lot to learn about how different subtypes and strains of avian influenza virus might affect humans. Of the documented cases of human infection with avian influenza viruses, illnesses caused by highly pathogenic viruses appear to be more severe.

The reported symptoms of avian influenza in humans have ranged from typical influenza-like symptoms (e.g., fever, cough, sore throat, and muscle aches) to eye infections (conjunctivitis), pneumonia, acute respiratory distress, viral pneumonia, and other severe and life-threatening complications. Standard antiviral drugs are used to treat influenza A, although some influenza strains have become drug-resistant.

Does Washing Food Promote Food Safety?

Historically, we equate washing to cleanliness. We wash clothes, linens, cars, dishes, and ourselves. So, it is logical that many people believe meat and poultry can be made cleaner and safer by washing it. Is this true? Does washing meat, poultry, eggs, fruits, and vegetables make them safer to eat? The following tips are provided by the Meat and Poultry Hotline:

- Hand washing after handling raw meat or poultry or its packaging is a necessity because anything you touch afterwards could become contaminated. In other words, you could become ill by picking up a piece of fruit and eating it after handling raw meat or poultry. Practice good hand washing before and after handling raw foods as well as when using the bathroom, changing diapers, tending to a sick person, blowing your nose, sneezing and coughing, and after petting animals.
- It is important to prevent cross-contamination from raw meat or poultry juices by washing counter tops and sinks with hot, soapy water. If desired, you may sanitize with a solution of one teaspoon of liquid chlorine bleach per quart of water.
- Packaging materials from raw meat or poultry also can cause cross-contamination. Never reuse them with other food items. These and other disposable packaging materials, such as foam meat trays, egg cartons, or plastic wraps, should be discarded.
- Washing raw poultry, beef, pork, lamb, or veal before cooking it is not recommended. Some consumers think they are removing bacteria from the meat and making it

safer; however, research has shown that repeated washing will not remove all the bacteria from meat, and any bacteria present on the surface is destroyed by cooking it to a safe internal temperature.

- Do not wash eggs before storing or using them. Washing is a routine part of commercial egg processing and the eggs do not need to be washed again. Federal regulations outline procedures and cleansers that may be used. "Bloom", the natural coating on just-laid eggs that helps prevent bacteria from permeating the shell, is removed by the washing process and is replaced by a light coating of edible mineral oil which restores protection. Extra handling of the eggs, such as washing, could increase the risk of cross-contamination, especially if the shell becomes cracked.
- Wash fresh produce under cold running tap water before eating or preparing. This removes any lingering dirt and reduces bacteria that may be present. If there is a firm surface, such as on apples or potatoes, the surface can be scrubbed with a brush. **Consumers should not wash fruits and vegetables with detergent or soap.** These products are not approved or labeled by the Food and Drug Administration for use on foods. You could ingest residues from soap or detergent absorbed on the produce.

Welcome to Spring . . . A Great Time for Eggs!

Easter is coming up soon, in March 2005. The following information will be available as a press release in mid-February, in time for early March newsletter deadlines.

It's spring, well at least almost — the season to enjoy the great outdoors and celebrate special occasions, like Easter, Passover, and graduation! While eggs are used all year 'round, they are especially important for many spring activities.

Like all perishable foods, such as meat, poultry, seafood, and produce, eggs need to be handled properly to prevent foodborne illness. Occasionally, eggs with clean, uncracked shells can be contaminated with bacteria. If foods containing harmful bacteria are consumed, they can cause foodborne illness. That's why it's important to cook eggs thoroughly and use a food thermometer to make sure egg-containing foods reach a safe internal temperature.

Here's what YOU can do to have a safe and eggs-cellent spring!

Clean Up, Clean Up . . .

Before you begin preparing holiday dishes, remember that clean hands are key! Always wash hands with hot, soapy water before and after food preparation, as well as when you're handling raw animal products, such as raw eggs.

Beware of cross-contamination. Foodborne illness can occur when kitchen equipment is not thoroughly washed between uses. Always wash surfaces and cooking equipment, including blenders, in hot, soapy water before and after food preparation.

Cook and Keep Cool . . .

Bacteria can multiply in moist foods, including desserts and salads containing high-protein foods. Refrigeration slows bacterial growth, so it's important to refrigerate eggs and egg-containing foods. **Remember the 2-Hour Rule:** Don't leave perishables out at room temperature for more than 2 hours. Bacteria love to grow in protein-rich foods. Whether you like your breakfast eggs scrambled or fried, always cook eggs until the yolks and whites are firm. Tasting is tempting, but licking a spoon or tasting raw cookie dough from a mixing bowl can be risky. Bacteria could be lurking in the raw eggs. Cook

cheese cakes, lasagna, baked ziti, and egg dishes to an internal temperature of at least 160° F. Use a food thermometer to check.

EGG - STRA! EGG - STRA!

Read all about egg safety for Easter egg hunts! Use these tips to plan an egg-citing event.

Before the hunt . . .

- Wash your hands thoroughly before handling eggs at every preparation step, including cooking, cooling, dyeing, and hiding.
- Only use eggs that have been refrigerated and discard eggs that are cracked or dirty.
- When cooking, place a single layer of eggs in a saucepan. Add water to at least one inch above the eggs. Cover the pan, bring the water to a boil, and carefully remove the pan from the heat. Let the eggs stand (18 minutes for extra large eggs, 15 minutes for large, 12 minutes for medium). Immediately run cold water over the eggs. When the eggs are cool enough to handle, place them in an uncovered container in the refrigerator where they can air-dry.
- When decorating, be sure to use food grade dyes. It is safe to use commercial egg dyes, liquid food coloring, and fruit-drink powders. When handling eggs, be careful not to crack them. Otherwise, bacteria could enter the egg through the cracks in the shell.
- Keep hard-cooked Easter eggs refrigerated until just before the hunt. Keep them fully chilled by storing them on a shelf inside the refrigerator, not in the refrigerator door.
- Consider buying one set of eggs for decorating only and another set for eating.

During the hunt . . .

- Hide the eggs in places that are protected from dirt, pets, and other potential sources of bacteria.
- To prevent bacterial growth, don't let eggs sit in hiding places for more than 2 hours.

After the hunt . . .

- Discard any eggs that were cracked, dirty, or that children didn't find within 2 hours.
- Place the eggs back in the refrigerator until it's chow time!

For more information about eggs, contact:

The U.S. Department of Agriculture (USDA) Meat and Poultry Hotline at (800) 535-4555

The American Egg Board (AEB) at www.aeb.org

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