Preserving Soup—Cool Safely!

Turn this season’s abundance of garden vegetables into a large kettle of soup. Plan to freeze in containers to enjoy for lunch or quick evening meals. Preparing a large batch of soup can present a food safety challenge—Cooling!

One of the leading causes of foodborne illness is the failure to properly cool foods. The food danger zone is that place between 41° and 140°F where pathogens grow most quickly. It can take a long time to get through the danger zone when cooling a large batch of chili, soup, or stew. The soup must cool from 140°F to 70°F in 2 hours and from 70°F to 40°F in no more than four hours. To rapidly cool soup safely, follow these guidelines:

Use Ice Water Bath
An ice water bath is effective for cooling soups. This method helps decrease the soup temperature quickly and safely.
- Fill a large container or clean sink with ice and a small amount of water. Place the kettle of soup into the ice bath.
- Stir the soup to release heat and aid cooling.

Use Shallow Pans
The smaller the portions, the quicker the cool down.
- Divide large batches into small containers, no deeper than 3 inches.
- Stir occasionally to aid cooling.

Use Ice in the Recipe
You can reduce cooling time by adapting your soup recipe.
- Prepare a thicker soup, reducing the amount of liquid called for in the recipe.
- Add ice to the soup at the final preparation step.

Use Cooling Paddles
- The paddle is filled with water and placed in the freezer.
- Stir the soup in the kettle with the frozen chill paddle.

Do not put a large container of hot soup directly into the refrigerator. It may take too long to cool and can raise the internal temperature of your refrigerator. When making a large batch of soup, plan ahead for the cooling method you plan to use. Begin your plan by having an accurate food thermometer to keep tabs on the temperature during the cooling process.
Home can venison for tasty, convenient meals

If you have a family history of farming or hunting, you may have tasted or heard of canned beef, chicken, pork, or venison.

With the renewed interest in home food preservation there has been a resurgence in the home canning of meat and game. In a recent food preservation class some of the men quickly made it known that they were there to learn one thing—how to can venison!

So, how do you can venison? Start with safety first. When canning game meat such as venison, NEVER use any canning method but pressure canning. Venison is a low acid food like beef or pork, and must be processed in a pressure canner to reduce the risk of C. Botulinum. Botulism is a paralyzing disease affecting the body's nervous system which could be found in improperly processed home canned food.

Choose high-quality meat and keep it cool until ready to can. Be sure to trim the fat off the meat before canning. Excess fat left on the meat will melt and rise to the top during processing. If the fat comes in contact with the sealing edge of the lids, the jar may not seal.

Venison can be raw packed or hot packed processed in pint or quart jars. The processing time ranges from 75 to 90 minutes at 11 or 15 pounds pressure. For venison you can follow the recommended time and pressure given for cubed or ground beef or pork.

Venison will produce the best quality if canned fresh. However, if you choose to freeze venison prior to canning, be sure to trim visible fat to avoid off flavors. Wrap tightly in freezer wrap, label and date and freeze at 0°F or lower for up to six months. Before canning, completely thaw venison in the refrigerator at 40°F or colder. Once meat is thawed, pressure can within 1 to 2 days. Store jars of canned venison in a cool, dry, dark place.

Always bring home canned meat to a boil for 10 minutes prior to serving. Do not eat directly out of the jar.

Tasty, fork-tender home canned venison, not only for camping, or the deer shack, but a delicious, quick supper of chili, stew, or BBQ sandwiches. An old-fashioned convenience food for today's busy families!

Learn more at: Safe Home Canning of Meats at http://z.umn.edu/canmeats.

Safe venison jerky

In recent years, illnesses due to Salmonella and E. coli O157:H7 from homemade jerky have raised questions about the safety of traditional drying methods.

All safe methods for making venison or beef jerky now require cooking the meat before placing it in the dehydrator. To reduce bacteria, USDA recommends that meat be heated to 160°F before dehydrating.

One method developed by Colorado State University, the Hot Pickle Cure method, raw meat strips are simmered 1½ to 2 minutes in a boiling marinade. Precooking in marinade destroys bacteria, shortens the drying time, and makes a more tender jerky. For more information on this method and other pre-treatment options visit: http://z.umn.edu/92a
Pickled fish

Pickled herring is usually the first fish that comes to mind when we think of tangy, tasty pickled fish. In Minnesota we have the opportunity to enjoy pickled northern, sucker, trout, salmon and others.

The first step in producing safe home-pickled fish is to implement a step to kill the larvae of the broad fish tapeworm, a parasite that can infect humans. The larval tapeworm is most common in northern pike although it is found in several Minnesota fish.

There are two schools of thought on how to destroy this infective worm. One, you simmer the fish in the pickling brine to 140°F. This does not affect the flavor or texture of the pickled product. Otherwise, if you are pickling raw fish, freeze the fish at 0°F for 48 hours prior to brining.

In pickling fish, select only fresh, high-quality fish, use 5% distilled white vinegar, avoid hard water (as it causes off-color and flavors), use canning or pickling salt and fresh, whole spices. Pack pickled products in glass jars.

Pickled fish must be stored in the refrigerator and should be used within 6 weeks.

Pick 5% for pickling

Vinegar, that is. When pickling vegetables, fruit or fish, be sure to use white or cider vinegar with 5% acidity. There are vinegars on the market shelves that are 4% or even 3% acetic acid. Be sure to read the vinegar bottle label and purchase 5% vinegar for safe, quality pickled products.

Gifts from the garden

Thinking about holiday gifts? This busy food preservation time can be a great time to think about, plan for, and set aside some jars of the jams, pickles, or peaches you’ve preserved to be given as holiday gifts.

Home preserved foods can be a welcome gift to many folks on your gift list. Remember how Uncle Joe liked Aunt Sally’s raspberry jam? Now that he lives alone, what a memorable gift, your jam with a box of biscuits. The elderly are often difficult to buy gifts for—we say they have everything. Yet, it may have been many years since they’ve had chow-chow, spiced apple rings, or pickled beets like they used to “put-up”.

Jars of homemade salsa, jelly, dill pickles or dried apples packed in a basket will be a winter treat for the college student in your life.

Relishes, chutneys, pickled asparagus or herb vinegars make the perfect gift for the experimental cooks on your list.

A few gift ideas for busy families are jellies, jams, canned fruits, juices, pickles, salsa and dried fruits.

Whenever you give a food gift to someone, food safety comes first. Be sure your kitchen could pass inspection and you are following researched-based recommended procedures and recipes. Remember the elderly, children and people with a compromised immune system can be most affected by foodborne illness. Be sure to label and date all food.

Take pride in your accomplishments and take heart in the joy they will bring others.
Shelf life of home preserved foods

Storage conditions do affect the length of shelf-life of your home-canned and frozen foods. To store canned food wisely:

- Store in a cool, clean, dry place with temperatures from 50° to 70°F.
- Avoid storing canned foods in a warm place near a furnace, or in direct sunlight. Light can cause color changes and nutrient loss in foods canned in glass jars.
- For best quality, use within one year.

For the best quality frozen foods, use quality freezer containers, maintain the freezer temperature at 0°F or lower and use within 8 to 12 months.

When in doubt, throw it out!

Do not taste or use food from a jar with an unsealed lid or food that shows signs of spoilage! Look closely at all jars before opening them. A bulging lid or leaking jars are signs of spoilage. When you open the jar, look for other signs such as spurting liquid, an off odor or mold.

How do we safely dispose of spoiled or suspect canned food? Spoiled canned foods should be discarded away from human or animal contact. If the suspect glass jar (or swollen metal can) is still sealed, place it in a heavy garbage bag. Close and place the bag in a regular trash container.

Spoiled jars of low-acid vegetables or meats that are unsealed, open or leaking require careful handling and a 30 minute boil (covered in water) to detoxify the food and container. Cool and discard the containers, their lids, and food in the trash.

Frequently Asked Questions

Are there any recent cases of a foodborne illness associated with home-canned foods?

Yes. Three confirmed cases of botulism were reported in Oregon in July, 2012 from a private barbecue dinner. This illness resulted from improperly home-canned beets.

As a result, please follow current procedures and up-to-date recipes when preserving foods! Do not use dangerous methods nor use old recipes that are not safe.

I want to can salsa in quarts. What are the recommended processing times?

At this time, there are no recommendations or tested recipes. According to the National Center for Home Food Preservation, there is no money to conduct the research for canning salsa in quarts. As a result, salsa must be canned in pint jars.

Can I can tomatoes from frost-killed vines?

No, these tomatoes will be low in acidity and may carry additional bacteria. Putting them in a sealed jar will increase the potential for a foodborne illness to multiply rapidly. Although you may notice a flavor change, you can use them fresh or freeze them.

Photos from The National Center for Home Food Preservation http://nchfp.uga.edu/ and Microsoft.com

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For more food safety information visit our website: www1.extension.umn.edu/food-safety/.