What’s this all about?

The purpose of a newsletter is to provide specialized information to those interested in preserving food at home. There is way too much to cover in just one short article or post, so this newsletter is designed to keep you up-to-date on all things food preservation throughout the growing season. Food preservation is a science, not an art, so making sure you follow current and safe recipes is my goal.

C. Botulinum: What you need to know

Canning is serious business because improperly processed jars can lead to food poisoning and even death. Clostridium botulinum is a group of bacteria that is present in soils and grow best in low oxygen conditions. These bacteria either exist as spores or vegetative cells. The spores, which are comparable to plant seeds, can survive harmlessly in soil and water for many years. When ideal conditions exist for growth, the spores produce vegetative cells that multiply rapidly and may produce a deadly toxin within 3 to 4 days of growth in an environment consisting of a moist, low-acid food, a temperature between 40ºF and 120ºF, and less than 2% oxygen. Up-to-date USDA canning regulations have scientifically proven processing times that ensure destruction of the largest expected number of heat-resistant micro-organisms in home canned foods. As you can see, it is crucial that you carefully follow and use current food processing guidelines: for your own safety and for your family’s.

Canning Equipment: The Necessities

- Mason-type canning jars with 2-piece lids (Check your recipe for size needed.)
- Water bath canner with rack and/or Pressure canner with rack. (A pressure canner can be used as a water bath canner if it has a rack.)
- Funnel, jar lifter, and tongs
- Bubble freer (can use plastic knife; some have headspace measuring tool on opposite end)
- Kitchen towels, cutting boards, kitchen timer, knives

For more information, contact the Searcy County Extension Office at 870-448-3981.

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Fruit Leathers: Make a Healthy Low-sugar Snack

Fruit leathers are homemade fruit rolls. They are a tasty chewy, dried fruit product. Fruit leathers are made by pouring pureéd fruit onto a flat surface for drying. When dried, the fruit is pulled from the surface and rolled. It gets the name "leather" from the fact that when pureéd fruit is dried, it is shiny and has the texture of leather. The advantages of making your own fruit leathers are to save money, use less sugar and to mix fruit flavors. Leftover fruit pulp from making jelly can be blended and made into fruit rolls.

For the diabetic adult or child, fruit leathers made without sugar are a healthy choice for snacks or desserts. Individual fruit leathers should contain the amount of fruit allowed for the fruit exchange.

Leathers from Fresh Fruit
- Select ripe or slightly overripe fruit.
- Wash fresh fruit or berries in cool water. Remove peel, seeds and stem.
- Cut fruit into chunks. Use 2 cups of fruit for each 13" x 15" inch fruit leather. Pureé fruit until smooth.
- Add 2 teaspoons of lemon juice or 1/8 teaspoon ascorbic acid (375 mg) for each 2 cups light colored fruit to prevent darkening.
- Optional: To sweeten, add corn syrup, honey or sugar. Corn syrup or honey is best for longer storage because it prevents crystals. Sugar is fine for immediate use or short storage. Use 1/4 to 1/2 cup sugar, corn syrup or honey for each 2 cups of fruit. Saccharin-based sweeteners could also be used to reduce tartness without adding calories. Aspartame

Leathers From Canned or Frozen Fruit
- Home preserved or store-bought canned or frozen fruit can be used.
- Drain fruit, save liquid.
- Use 1 pint of fruit for each 13" X 15" leather.
- Purée fruit until smooth. If thick, add liquid.
- Add 2 teaspoons of lemon juice or 1/8 teaspoon ascorbic acid (375 mg) for each 2 cups of light colored fruit to prevent darkening.

Applesauce can be dried alone or added to any fresh fruit pureéd as an extender. It decreases tartness and makes the leather smoother and more pliable.

For drying in the oven a 13" X 15" cookie pan with edges works well. Line pan with plastic wrap being careful to smooth out wrinkles. Do not use waxed paper or aluminum foil.

To dry in a dehydrator, specially designed plastic sheets can be purchased or plastic trays can be lined with plastic wrap. Fruit leathers can be poured into a single large sheet (13" X 15") or into several smaller sizes. Spread pureéd evenly, about 1/8-inch thick, onto drying tray. Avoid pouring pureéd too close to the edge of the cookie sheet. The larger fruit leathers take longer to dry. Approximate drying times are 6 to 8 hours in a dehydrator, up to 18 hours in an oven and 1 to 2 days in the sun.

Dry fruit leathers at 140ºF. Leather dries from the outside edge toward the center. Test for dryness by touching center of leather; no indentation should be evident. While warm, peel from plastic and roll, allow to cool and rewrap the roll in plastic. Cookie cutters can be used to cut out shapes that children will enjoy. Roll, and wrap in plastic. Chances are the fruit leather will not last long enough for storage. If it does, it will keep up to 1 month at room temperature. For storage up to 1 year, place tightly wrapped rolls in the freezer.
Food Preservation FAQs

If my recipe doesn't call for processing, do I need to do so?
Many recipes passed down through the years or found in older cookbooks do not include instructions for processing. The foods are usually canned by the open kettle method, sealed and stored. Foods prepared in this manner present a serious health risk — particularly low acid foods. To minimize the risk of food spoilage, all high acid foods should be processed in a water bath canner or pressure canner and all low acid foods in a pressure canner.

Do I really need to leave a certain amount of headspace in the jar?
Yes, leaving the specified amount of headspace in a jar is important to assure a vacuum seal. If too little headspace is allowed, the food may expand and bubble out when air is being forced out from under the lid during processing. The bubbling food may leave a deposit on the rim of the jar or the seal of the lid and prevent the jar from sealing properly. If too much headspace is allowed, the food at the top is likely to discolor. Also, the jar may not seal properly because there will not be enough processing time to drive all the air out of the jar.

How can I remove scale or hard-water film from canning jars?
Soak jars for several hours in a solution containing 1 cup of vinegar and 1 gallon of water.

If I find mold growing inside a jar of canned food, can I just scrape it off and eat the food?
Mold growth in foods can raise the pH of the food. In home canned products, this could mean that the high acid products could become low acid and therefore run the risk of botulism or other bacterial spoilage. Thus, any home canned product that shows signs of mold growth should be discarded. USDA and microbiologists now recommend against even scooping out the mold on jams and jelly products and using the remaining jam or jelly, even though that used to be suggested.

The Gerber Family Tragedy

In 1924, a typical family gathering in Albany, NY turned into a death sentence for 12 people. Emelia Gerber served a salad with home-canned beans, which she forgot to boil before adding into the salad. In the following days, 12 members of the family died from botulism. The victims included Hans Yunker, 7, of Scio; his aunt Emelia Yunker Gerber, 67; his uncle Reinhard Gerber, 73; the Gerbers’ son-in-law and daughter, Paul Gerbig, 35, and Margaret Gerbig, 34; and the Gerbigs four daughters, Hilda, 10, Marie, 7, Margaret, 5, and 13-month-old Esther, who, it was presumed, picked up the poisoning via tainted breast milk. Also dead were the Ruehlings: Paula, 23, Gottfried, 25 and Horst, 13 months.

At the time, botulism was a somewhat rare but extremely serious illness. Of the 367 cases reported in the U.S. between 1918 and the Albany tragedy in 1924, 230 proved fatal. Modern canning methods have eliminated most threats of botulism. Nonetheless, more than 100 cases are still reported each year in the United States, according to the Centers for Disease Control and Prevention.
Coming next issue…

⇒ Types of Pressure Canners
⇒ Freezing: All the Highs and Lows
⇒ Headspace Requirements
⇒ Canning FAQs
⇒ Storage Tips

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