

HOME ECONOMICS GUIDE



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Recommended Procedures for Canning

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Process Properly

Use a pressure canner to process all low-acid foods—vegetables, meats, fish, milk products, and soups. Allow the steam to escape for 10 minutes before the petcock is closed if your canner has one. Close the petcock and allow the pressure to rise to desired heat (5 or 10 pounds). Then process for the length of time recommended for the specific food. Regulate the heat to maintain a steady pressure to avoid under-processing or over-processing. Have about two inches of water in the pressure canner after the filled jars are in place. Or follow instructions with your canner for the amount of water to use. This will insure steam throughout the processing period.

Use a boiling-water bath for all high-acid foods and for jams, preserves and marmalades. High-acid food include fruits, sauerkraut made of salt and cabbage, and pickles made with salt brine or vinegar. A boiling-water bath means the water is at least one inch above the top of the jars. Processing time is counted from the time the water returns to a full boil after the filled jars of food have been placed in the processing bath. If water boils away, add more to keep the water at least one inch above the tallest jar.

Use an open rack under the jars in the canner or water bath to hold the jars off the bottom of the canner. This allows heat to circulate freely on all sides, above and under jars. A rack also allows air to escape from a pressure canner.

Use open-kettle canning only for jellies containing sugar. Sterilize the jars by boiling them in water for 10 minutes immediately before filling them with boiling hot jelly. Seal immediately with very hot parafin to a depth of one-eighth inch. (Too much parafin is undesirable.) A double boiler is a good way to heat parafin. Cover with a lid to prevent entry of dust or other objects.

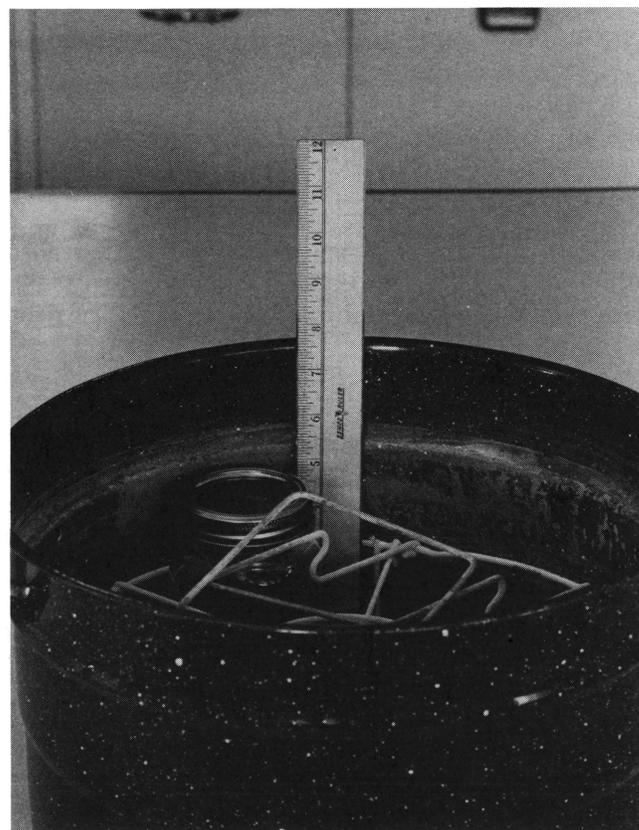
Do not use powders, acids or drugs in the food as preservatives. Heat is the only safe preservative for home canning. An exception to this rule is tomatoes. Refer to information "Lets Can Tomatoes" available from your University of Missouri Extension Center.

Can Good Food

Can foods at their peak of goodness; foods that are



A pressure canner allows temperature above 212°F.



Kettle depth to allow water to boil one inch above tallest jar.



“Open Kettle” means hot food sealed into jars and no further cooking. Use only for jelly.



Can fresh vegetables at peak of quality.

fresh, fruits that are ripe and vegetables that are tender. Work with small quantities and as quickly as possible. Huge volumes of food waiting to be canned lose nutrients and quality.

Do not can overripe fruits. They contain less acid, may be unsafe, and the quality is lowered.

Do not can tomatoes that are overripe, bursted, bruised, or faulty in any way. Such tomatoes may have low acid and many spoilage organisms. Can corn, lima beans, peas, and other starchy vegetables while young and tender before excess starch has developed.

Use sufficient water in the food to insure good heat penetration. This means the food should pour and move about when the jar is tilted.

Use Quart Jars or Smaller

Use only quart-size or smaller jars for safe canning. There are no safe recommendations for processing in jars larger than quarts. Use only pint-size or smaller jars for corn, dry beans, potatoes, other starchy food, and mushrooms.



Use only quart size or smaller jars.

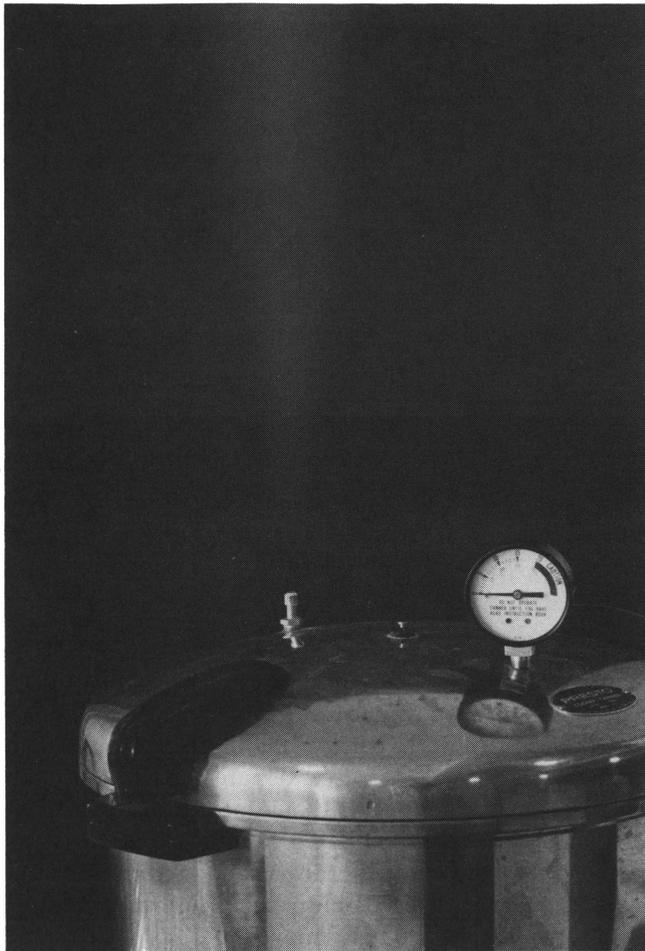
Check all lids and jars to be sure they are clean. Wash jars with soap immediately before they are heated to be filled with food. Remove all stains. Glass stains indicate something abnormal. The sealing compound of lids must be pliable without holes or bubbles. Follow the manufacturer's instructions for how to treat lids. Jars must have a smooth surface where the seal is to be made. One-piece lids seal on the lower rim of the neck of the jar. Two-piece lids seal on the top edge of the jar. Either sealing surface must be free from chips or cracks.

Pack Food Hot

Fill all foods into the jars boiling hot. The only



Insert rubber, plastic, or wood handle between food and jar to release air bubbles. Add more liquid if needed.



Allow steam to flow freely for 10 minutes. Then close petcock or put on weighted gauge.

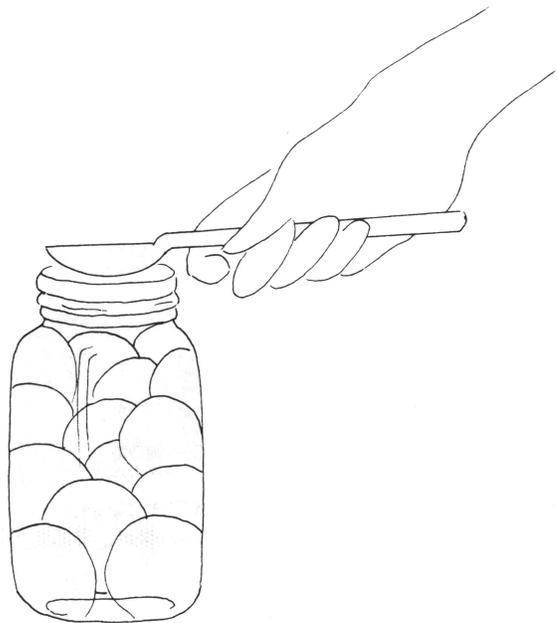
exception is certain types of pickles. Foods packed too tightly in the jar slow the rate of heat movement to the center and may result in underprocessing. Juice, water, or syrup should fill in around the solid food and cover the food. Liquid helps transfer heat to the center of the jar. A jar overfilled prevents a good vacuum. Leave the recommended headspace above the food, usually $\frac{1}{2}$ to $\frac{3}{4}$ inch.

Don't attempt to can part of a jar of food; better to use that food immediately. Too much air in the jar is likely to prevent a good seal. Air in the jar may cause discoloration during storage, result in a low vacuum (poor seal), and allow mold to grow.

Insert a plastic or rubber spatula or wooden handle inside the jar between the food and the jar to release air that may be trapped inside. Repeat at two or three locations. Clean the top of the jar well with a clean cloth, paper napkin or paper towel before topping with the heated lid. Set the jar in the hot canner at once so the food does not cool.

Exhaust the Canner

All air must be forced out of a pressure canner before steam pressure builds. Air remaining in the jars also must be forced out. Air inside a canner expands quickly and creates pressure that raises the pressure gauge. This can



A sealed jar gives a clear ring when tapped with a spoon.

lead to a false assumption of steam pressure. The heat would not be sufficient to preserve the food. Time is required for the heat to force all air out of the jars and then out of the canner. Allow the air to flow freely from the valve of the canner for a full 10 minutes before the petcock is closed or the weighted gauge is put on. Steam should be visible and flow freely when all air is out of the canner. At the end of 10 minutes, close the petcock or put on the weighted gauge and allow the pressure to rise to 5 or 10 pounds (10 pounds for all vegetables except tomatoes). Then begin to count processing time.

Check For Seal . . . Then Recheck

After processing is completed and the jars have cooled, check to see if the lids have sealed. Bands may be removed from sealed jars and reused. Any unsealed jars may be reprocessed. To reprocess, reheat the food and treat it as though it were fresh. Re-examine the jar and lid for defects that may have prevented sealing. Use a new lid. Or, the food can be used immediately or frozen.

Re-examine the jars for seal again at the end of two weeks. If live organisms remained they may have forced the lid loose. If air has remained in the jar the food may start to become discolored. Any food in jars not sealed at that time should be thrown away.

Store Clean and Cool

Wash tops and sides of jars and dry them. Food, juice, or other soil on the outside of a jar encourages mold and bacterial growth and can lead to problems. Label each jar with the name of the food and the date.

Some organisms that may remain in canned foods will grow if the food is held at warm temperature. Some nutrients are affected by heat, others by light. The best

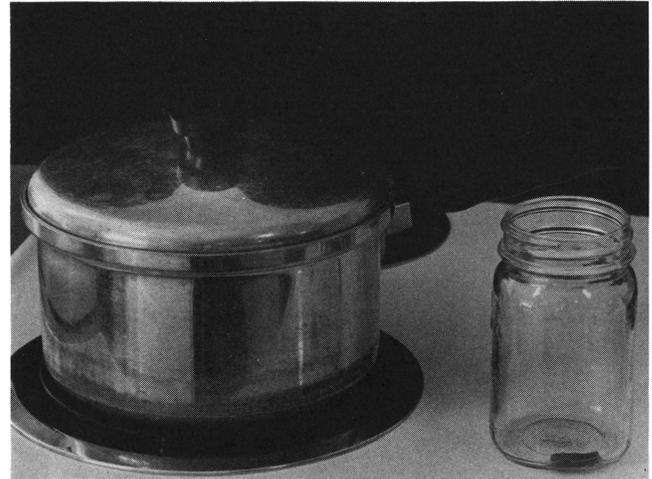


Store food in a cool dark place.

way to maintain good quality in canned food is to store it in a cool, dark place where it won't freeze. If this is not possible, put it in the coolest place you have and if necessary cover it to keep out the light. Paper or cardboard may offer some protection against freezing. Boxes in which jars were bought provide some protection from heat, cold, and light. Label each storage box so you can locate the food when you want to serve it.

Re-examine the Food

Re-examine the seal and the food at the time you open



Boil any home canned meats or vegetables 10 minutes, covered, before tasting it.

the jar to serve the food. Do not taste any home-canned vegetables, meats, dairy foods or soups before they have been boiled in a covered pan for 10 minutes. Any food that contains mold, an off odor, soft texture, cloudy liquid, or looks or smells questionable should be discarded without tasting. Destroy the food by burning it or burying it so people, pets, wild animals or fish cannot get it. Wipe up drips or spills with a disposable paper or cloth and throw it away immediately. Do not remove mold from the top of food and eat the remaining portion. Some molds are thought to cause cancer. It is not known what molds are dangerous and on what kinds of foods they grow.

Remember that one teaspoon of botulinum toxin is enough to kill a million people.



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