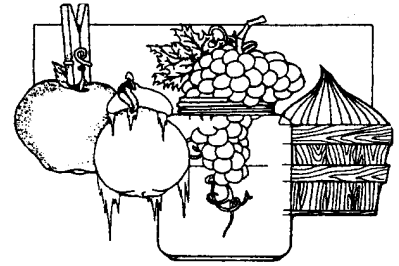


# Quality for Keeps



Information for those who produce and preserve food

## Keeping venison safe

*Since deer hunting is very popular in this area of Missouri, we see a lot of animals being transported in a very casual manner and that leaves some concern about the safety of the meat from these carcasses.*

As with any product that is being dried, canned, or frozen, the quality of the finished product is only as good as the quality you start with. The age of the animal makes a big difference in how it is best prepared. Younger animals will be tender enough to provide excellent steaks and roasts, therefore, can be frozen for later use. Older animals, which are usually tougher, will be better home-canned for later use in stews, or ground for jerky.

The wild flavor of the venison depends in part on what the animal eats, and is more noticeable in the fat. The gamey, or wild taste, can be reduced by removing the fat, connective tissue, silver skin, bones and hair during processing. Strong flavor can also be caused by inadequate bleeding, delay in field dressing, or failure to cool the carcass promptly.

Aging will improve the tenderness and texture of the meat, but should **never** be done at room temperature. For aging, the temperature should be between 32° and 35° F and should be done for 7 to 10 days.

**Safety.** Any animal that appears to be sick should never be consumed.

During deer hunting season there are occasional warm days. If the temperature outdoors is above 45° F, the carcass should be refrigerated within 3 to 4 hours after killing. Bags of ice can help to cool the carcass in the field.

Any meat that comes into contact with the intestinal contents is contaminated and should be cut off and discarded.

Since venison may contain parasites and tapeworms, it should be heated to 160° F before eating and before or after being processed into jerky. It is difficult for a dehydrator to destroy E-coli, so the meat should be steamed, boiled, or roasted to 160° F before dehydrating. If you are using ground meat to make jerky, it can be heated after dehydrating.

**Freezing.** For best quality when freezing, wrap the venison in plastic wrap, then freezer wrap, seal, label and date the packages. Vacuum sealing also works well for packaging venison for freezing. Use frozen venison within a year, or within 3 to 5 months if it is ground.

**Jerky.** Venison can be ground and used in place of ground beef, made into sausage, or used to make jerky. To make jerky from ground meat, a purchased seasoning and cure mixture is added to the meat and a special tool is used to shape the product. Since ground meat has more potential for food-borne illness, all safety precautions must be followed. The dried

product should be heated to 160° F after the drying time is complete.

Always wear latex gloves when processing deer. Washing your hands every time the meat is handled is a must. All equipment and surfaces should be sanitized after processing meat or game by cleaning with a solution of 1 Tablespoon of bleach to 1 gallon of water.



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## Home-canning venison

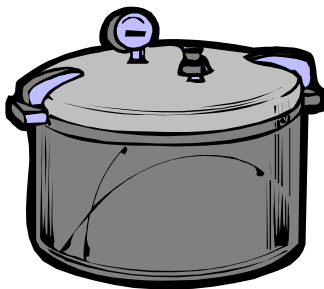
*V*enison is home-canned in the same manner as beef. **A pressure canner must be used to safely process any meat products.**

The meat should be refrigerated, then remove excess fat, cut into strips, cubes or chunks.

To reduce strong flavors in wild game, soak the meat for an hour in water, which contains 1 tablespoon of salt for each quart of water, then rinse the meat.

**Hot pack.** Precook until rare by roasting, stewing, or browning in a small amount of fat. One teaspoon

of salt may be added to a quart jar, but is not necessary for food safety. Fill the jars with pieces of meat and add boiling broth, meat drippings, water, or tomato juice, leaving 1-inch headspace. Adjust the lids and process.

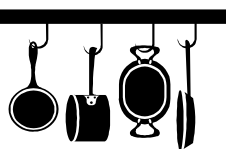


**Raw pack.** If salt is desired, add 2 teaspoons of salt per sterilized quart jar. Fill jars with raw meat pieces, leaving 1-inch headspace. **Do not add liquid.** Adjust lids and process as directed below.

Process pints for 75 minutes and quarts for 90 minutes at 11 lbs. of pressure in a dial gauge canner, or at 10 lbs. of pressure in a weighted gauge canner.

At altitudes over 1,000 ft., process at 15 lbs. of pressure in a weighted gauge canner. Pints for 75 minutes and quarts for 90 minutes.

### THE RECIPE BOX



## Jerky Marinade

- 1-1/2 to 2 lbs of lean meat (beef, pork, or venison)
- 1/4 cup soy sauce
- 1 tablespoon Worcestershire sauce
- 1/4 teaspoon each of black pepper and garlic powder
- 1/2 teaspoon onion powder
- 1 teaspoon hickory smoke flavored salt

Combine all ingredients. Place strips of meat in a shallow pan and cover with marinade. Cover and refrigerate 1-2 hours or overnight. Products marinated for several hours may be more salty than some people prefer. If you choose to heat the meat prior to drying to decrease the risk of food-borne illness, do so at the end of the marinating time. To heat, bring strips and marinade to a boil and boil for 5 minutes before draining and drying. If strips are more than 1/4-inch thick, the length of time may need to be increased. If possible, check the temperature of several strips with a metal stem-type thermometer to determine that 160°F has been reached.

Remove meat strips from the marinade and drain on clean, absorbent towels. Arrange strips on dehydrator trays or cake racks placed on baking sheets for oven drying. Place the slices close together, but not touching or overlapping. Place the racks in a dehydrator or oven preheated to 140°F. Dry until a test piece cracks but does not break when it is bent (10 to 24 hours for samples not heated in marinade). Samples heated in marinade will dry faster. Begin checking samples after 3 hours. Once drying is completed, pat off any beads of oil with clean, absorbent towels and cool. Remove strips from the racks and cool. Package in glass jars or heavy plastic food storage bags. Vacuum packaging is also a good option.

If the strips were not heated in marinade prior to drying, they can be heated in an oven after drying as an added safety measure. Place strips on a baking sheet, close together, but not touching or overlapping. For strips originally cut 1/4-inch thick or less, heat 10 minutes in an oven preheated to 275°F. (Thicker strips may require longer heating to reach 160°F.)

Source: <http://www.uga.edu/nchfp/how/dry/jerky.html>

## Home-canned breads are not safe

**C**anned breads and cakes in glass jars are popular gift-giving ideas. The bread or cake is not really home-canned. It is baked in an open glass canning jar, then covered with a canning lid; there is no further canning process given to the product.

**Canned breads and cakes are not recommended for home cooking or canning;** choose cake or bread recipes that you can freeze.

Many cake and quick bread recipes contain very little or no acid, and thus have the potential for supporting the growth of hazardous bacteria, such as *Clostridium botulinum*, if they are present inside the closed jar. *Clostridium botulinum* causes an often fatal food-borne illness, called botulism.

Recipes containing fruit, zucchini, liquids, etc. provide water for microorganisms to use. In addition, lack of oxygen alone does not prevent the growth of all harmful bacteria. The vacuum seals do not remove all oxygen, so some would still be available to contribute to the growth of bacteria.

Research at Kansas State University showed that heat-stable microorganisms can survive the baking process and multiply in breads during storage.

Research on canned breads in jars at other universities has shown the same potential for dangerous products to result. Nevertheless, recipes for home-canned breads and cakes do continue to appear in major newspapers, books, on television, and on the web. However, this does not mean the product is safe. Recipes also appear in some older canning jar company booklets. **Currently, canning jar manufacturers do not endorse baking in their canning jars.** Jar manufacturers consider home-made products baked and stored in jars to be unsafe.

Breads and cakes in sealed glass canning jars can often be found for sale at fairs and craft shows. This does not mean that the consumer can duplicate the product safely at home.

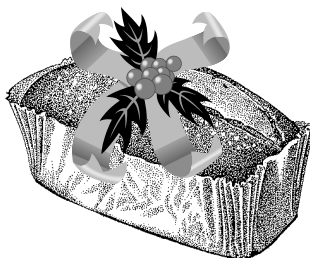
When breads and cakes in jars are made for sale commercially by reputable companies, additives, preservatives and processing controls, which are not available for home recipes, are used. Safety tests are done on each specific recipe for commercial products.



**Do not purchase home-canned breads and cakes in glass jars,** unless they contain additives to prevent microbial growth and meet all labeling requirements for commercial foods.

Given that no reliable, safe recipes for baking and sealing cakes or breads in jars for room temperature storage are available to the home cook, it is best to say these products are not recommended at this time.

*Source: University of Georgia Cooperative Extension*



## Storing home-preserved foods

**A**fter foods have been canned, dried or frozen, the food will be in storage for a few months to a year. Therefore, even if everything was done correctly during the preservation process, the quality will be affected by the storage conditions.

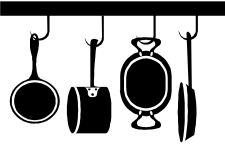
After the jars of home-canned foods have sealed and cooled, remove the screw bands and wash the jars and lids to remove food residue. Jars should then be rinsed and dried, labeled and dated. The jars of food should be stored in a clean, cool, dark, dry place that is between 50° and 70° F to help retain the highest quality of home-canned foods.

If foods are stored above 95° F or, in direct sunlight, the quality of home-canned foods will be lost quickly and the food may spoil.

Freezing temperatures, or corroded metal lids caused by dampness, may break seals and allow contamination and spoilage. As long as the food stays sealed if freezing occurs, the quality, but not the safety of the food is affected. Using newspaper, boxes, or blankets may prevent freezing if food is stored where the temperatures are extremely cold.

For best quality, foods should be frozen quickly and held at 0° F. To be sure frozen foods are kept at 0° F or below, use an appliance thermometer. Above this temperature, bacteria may continue to grow very slowly. Use a freezer grade foil, plastic wrap, bags, paper, or containers to keep air and odors away from the food, and prevent moisture loss. Be sure to date and label all packages. Be sure to rotate your supply of frozen foods so foods do not lose quality by staying in the freezer too long.

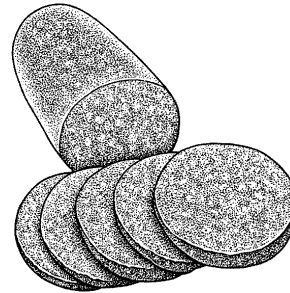
## THE RECIPE BOX



# Venison or Game Sausage

Venison is high quality, delicious and nutritious meat. Care should be used in handling venison just as you would any other meat. Most of the flavor in a meat product is in the fat; therefore, in making a breakfast-type sausage using game meat, pork fat is used.

- 25 lbs. lean venison or trimmings
- 25 lbs. fat pork (jowls or fresh bellies)
- (2 cups) 1 lb. salt
- (15 Tbs.) 3 oz. black pepper
- (5 Tbs.) 1 oz. ginger
- (8 Tbs.) 1 oz. rubbed sage
- (5 Tbs.) 1 oz. crushed red pepper (optional)
- (5 Tbs.) 1 oz. ground red pepper (optional)



Cut lean venison and pork into small pieces, add spices and mix. Grind twice through 1/8-inch or 3/16-inch plate. Sausage may be stuffed, pattied, smoked, or used in bulk form.

Source: [http://www.uga.edu/nchfp/how/cure\\_smoke/venison\\_sausage.html](http://www.uga.edu/nchfp/how/cure_smoke/venison_sausage.html)

Any way that you choose to use the venison, it is important to always keep all work surfaces clean and keep the meat cold until ready to cook. Refer to the website below, "Field Dressing Your Deer", for more information.

<http://www.dnr.state.oh.us/Portals/9/pdf/pub111.pdf>

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