NUTR-PU-151 09/2021

PACKAGING AND STORING WILD GAME AT HOME

Rebecca Dittmar[1]

Game meat can provide a nutritious, tasty, and sometimes less expensive alternative to the traditional meat products sold in grocery stores. Nevertheless, game meat needs to be handled and stored properly to keep it from spoiling or growing disease-causing organisms (pathogens) that can cause foodborne illness.

Game meat is defined as, "the meat of any animal that is hunted for food or sport instead of being raised on a farm." Examples include deer, elk, wild hogs, and game birds such as quail, pheasants, or turkeys.

To keep game meat safe to eat, field dress the carcass with the right equipment and under the proper conditions. Although the techniques for field dressing vary by the type of game animal, some important basic tools are common to all:

- Rubber gloves
- Clean, sanitary knives
- Coolers that are sanitized, insulated, and large enough to contain both meat and ice
- Ice from potable water
- A plan for transporting the carcass from the field into an insulated cooler or another cold-storage unit as quickly as possible

To enable the meat to cool more quickly, trim large muscle cuts into small pieces and package them individually before moving them to a refrigerator or freezer. Do not package, chill, or freeze large cuts of meat—they require more energy and time to cool and freeze completely than smaller cuts. Freezing smaller cuts also helps maintain overall meat quality longer by minimizing exposure to air and re-sealing, which can result in off-odors.

Maximize the airflow in the cooler to make sure that the meat cools adequately. After the carcass has been properly field dressed, cut, and cooled to below 40°F, it is ready to be packaged for storage in the freezer (Fig. 1).

[1]Extension Program Specialist – Food Safety Education

Freezing is the easiest way preserve wild game. Freeze meat at 0°F or below as quickly as possible to reduce or inactivate pathogen growth and other chemical changes that can affect its quality. When done properly, freezing causes little to no loss in the nutrient content of wild game meats.

FREEZING GAME MEAT

By following basic guidelines for freezing, a safe, high-quality product can be ensured. Use packaging material such as butcher/freezer paper, flexible freezer bags, or a vacuum sealer and compatible packaging for small cuts of meat. All of these materials work well if used correctly.

If butcher paper is used, there are several different types of materials available. Butcher paper intended for use in long-term freezer storage should be labeled as "freezer paper." It is coated with a sealer that will help reduce the flow of oxygen into the package during storage. Wrapping meat with plastic cling wrap will add an additional layer that will help extend freezer storage and will retard freezer burn.

If using a vacuum sealer, follow the manufacturer recommendations for selection of packaging materials and vacuum conditions. Do not try to vacuum seal using films or packaging materials that are not recommended by the device manufacturer, because the heat sealer may not be rated to melt the plastic enough to create a strong, airtight seal. Properly sealed vacuum sealer bags that are rated for freezing allow for the least amount of oxygen transfer and a greater storage time in a properly maintained freezer.

Vacuum sealing meat also helps prevent potential freezer burn and spoilage. When using conventional freezer bags, press each package to expel as much air as possible before closing it. Although freezer bags are the easiest way to package, they do afford more opportunities for residual oxygen in the package, which can lead to a reduction of quality earlier during freezer storage.

For paper packages, follow the steps below and label the packages with the date and contents.

PRESERVING MEAT QUALITY

Two common problems to avoid when freezing meat are rancidity and freezer burn.

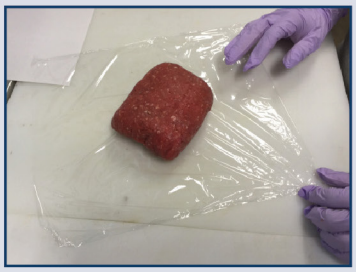
Rancidity is a chemical change that can produce an off-flavor when fat from the meat is exposed to air for too long. To control rancidity, use packaging materials that prevent air from reaching the meat, and remove as much air as possible from the packages before freezing. Vacuum packaging can also help prevent rancidity.

Freezer burn is a discolored, grainy spot where the meat appears to be dry and tough. It is caused by excess moisture loss that results in the formation of ice crystals and introduction of oxygen in the package. Although freezer burns can reduce the quality of the meat by causing off-flavors, it does not cause illness.

To prevent freezer burn, package the meat properly by using materials that fit as closely around the meat as possible, and freeze it quickly. Additionally, a more consistent freezer temperature increases storage time and reduces the possibility of rancidity or freezer burn. Avoid temperature variation by only opening the freezer door for short periods of time.

Keep the freezer in a cool, dry, ventilated place. Never put it in direct sun or next to a stove or water heater, which makes it difficult for the freezer to remain at 0°F or lower.

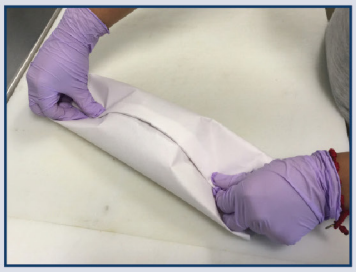
Also, be sure that the freezer is level and not overloaded so that the freezing rate does not slow down, reducing the meat quality.



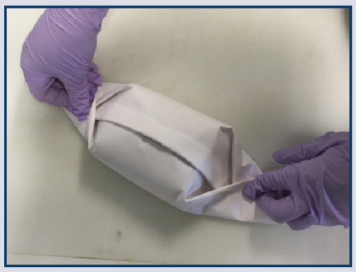
Step 1
Wrap the meat in plastic cling wrap.

Step 2
Place the wrapped meat in the center of freezer paper.

Step 3
Bring the opposite sides of the paper together and fold down the edges about 1 inch deep.



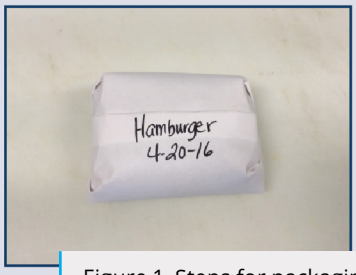
Step 4
While folding down the edges, push out the air.



Step 5
Fold the ends tightly to form a V.

Step 6
Flip the package so that the seam is down. Fold the ends over each other.

Step 7
Seal the edges with freezer tape.



Step 8
Label the package with its contents and the date.

Figure 1. Steps for packaging meat in paper for freezing.

Instead of stacking the packages in one area of the freezer, spread them out to allow air to circulate among the packages more easily, which helps the product freeze faster. The old saying, "freeze fast and thaw slowly," is important to remember with all meat products—especially with wild game.

For the best quality, the United States Department of Agriculture (USDA) recommends consuming frozen wild game within 8 months to a year. If meats are stored in the refrigerator, keep them at 40°F or below and eat or freeze them within 2 or 3 days. Use an appliance thermometer to make sure that the refrigerator stays at the proper temperatures.

To keep the meats from contaminating other foods in the refrigerator, store them separately from the other foods.

FOR MORE INFORMATION

Preserving foods: *So Easy to Preserve*, 5th ed. 2006. Cooperative Extension Service, University of Georgia, Athens, GA. Revised by Elizabeth L. Andress and Judy A. Harrison, Extension Foods Specialists.

Freezing/food safety: USDA Food Safety and Inspection Service (*http://www.fsis.usda.gov/wps/portal/fsis/topics/food-safety-education/get-answers/food-safety-fact-sheets/safe-food-handling/freezing-and-food-safety/CT_Index*).

Hunting access information: Local Texas Parks and Wildlife biologist (*http://tpwd.texas.gov/landwater/land/technical_guidance/biologists/*), or county Extension agent (*https://counties.agrilife.org/*).

ACKNOWLEDGMENT

The photographs were taken at Bernhard's Meat Processing of Kerrville, Texas.