



Food safety first, even with wild game

Wild game hunting seasons are upon us!

Wyoming is host to a wide variety of game species that range in size from small bird species to larger ungulates such as moose and bison. Safe practices ensure clean and quality meat no matter the species. These guidelines will make wild game meat more pleasing to the palate and safer to consume.

Proper practices

Bleed, field dress, and cool the carcass promptly. Bleeding the animal is an important step in meat care and processing. Proper bleeding improves the keeping qualities and appearance of the meat.

Field dressing refers to the process of removing undesired portions of the animal and harvesting the edible portions. There are three major field-dressing rules to follow as soon as the animal is dead: 1) Keep the carcass clean and use clean utensils during the dressing process; 2) Remove the intestines, lungs, liver, and heart as soon after the kill as possible (if you like variety meats, save the heart and liver

in a plastic bag and put them on ice, if possible); 3) Cool the entire carcass quickly and keep it cool during processing and transport. Transporting the meat in game bags can also help keep meat clean and flies off. In a perfect situation, the internal temperature of the carcass (measured in the thickest part – shoulder or hind leg) should be cooled to less than 50 degrees Fahrenheit within 24 to 48 hours.

Hanging to drain and clean

Hanging the meat or an entire carcass above the ground not only allows the meat to cool evenly, thoroughly, and quickly, it also keeps unwanted animals away from the meat. Remove all foreign particles and loose hair from the meat or carcass. Wipe out excess blood with paper towels or clean cloths and clean water, if available. Copious amounts of cold, clean water will enhance cooling, as well as wash debris and some microorganisms from the carcass. Allow the carcass to dry. Prop the cavity open, and hang the carcass in the shade until

the cavity surface is thoroughly dry. Be sure there is good air circulation.

Chilling

Improper temperature is meat's worst enemy! Cool the animal quickly after harvest. If possible, fill the cavity with bags of ice to enhance cooling during transport. To aid cooling in warm weather, the animal may be skinned, if you have provisions to keep the carcass clean. Use light cotton bags to protect the skinned carcass from contamination by flies. Do not use airtight game bags or tarps that hold in heat that will cause the meat to spoil rapidly.

Refrigerate the carcass as soon as possible for best quality once it has been removed from the field. If the weather is over 40 degrees Fahrenheit, it is strongly recommended the carcass be taken to a cooler and refrigerated within three to four hours after killing. In cool weather (28 to 35 degrees Fahrenheit), wrap the carcass or quarters in



a sheet and hang to chill in a ventilated shed. Do not allow the carcass to freeze soon after harvest as it may toughen the meat. Remember to keep the carcass cool during transport.

Aging meat

How long to age meat is a common question asked by hunters. There are some general timeframes used for the number of days an animal should age. More information is provided here: bit.ly/uw-food-preserve, for specific game species.

Aged meat is often more tender and flavorful; however, do not age any game carcass if it was shot during warm weather and not chilled rapidly, if the animal was severely stressed prior to the kill, if gunshot areas are extensive, or if the animal was under 1 year of age.

Aging is not recommended for carcasses with little or no fat covering. Aging is unnecessary if the meat will be ground. Do not trim fat from game meat before it is aged because the fat protects the meat; however, fat should be trimmed after aging to avoid undesirable flavors associated with the fat.

Limit aging to a maximum of two weeks at 34 to 37 degrees Fahrenheit. At this point, tenderization slows down and bacterial slime develops.

Care in the kitchen

Wild game provides wholesome, nourishing food, but should be preserved carefully to retain quality. Freezing meat is the most accepted way to maintain top quality. When processing wild game meat remember these practices:

- Wash your knife, hands, and cutting board often with warm, soapy water.
- Trim fat and inedible parts from the carcass when it is cut.
- Mix 15 percent pork or beef fat with ground game and 35 percent pork fat with fresh game sausage.
- Keep raw meat and cooked meat separate to prevent cross-contamination.

Store in a refrigerator if planning to use the game meat immediately. Wrap the meat in moisture-proof plastic wrap or place in a clean plastic storage bag.

UW Extension Resources

Are you new to hunting, have a wild meat food safety or cooking question, or want to make jerky from your wild game? Then check with the University of Wyoming Extension office in your county (bit.ly/UWcounty) or visit the University of Wyoming Extension Nutrition and Food Safety website bit.ly/uw-nutrition-foodsafety.

Store the meat in the refrigerator and use or freeze within three days.

Freeze game properly

Freeze meat while fresh and in top condition. Divide meat into meal-size quantities. Prevent freezer burn by using good-quality freezer paper. Use moisture/vapor-proof wrap such as heavily waxed freezer wrap, laminated freezer wrap, heavy-duty aluminum foil, or freezer-weight polyethylene bags. Press air out of the packages prior to sealing. Label packages with contents and date. Freeze and store at 0 degrees Fahrenheit or lower. Avoid overloading the freezer. Freeze only the amount that will become solidly frozen within 24 hours.

Limit fresh game to eight months frozen storage and seasoned or cured game to four months frozen storage.

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Try these recipes

Here are two food safety-approved recipes if planning to make jerky from your wild game

HOT PICKLE CURE JERKY

Use fresh, lean meat tissue free of fat and connective tissue. Yield: Five pounds of fresh meat should weigh approximately 2 pounds after drying or smoking.

- Slice 5 pounds of meat into ¼-inch strips with the grain, not crosswise. Spread meat and sprinkle on 3 tablespoons of salt, 2 teaspoons ground black pepper, and 2 tablespoons sugar. Place the meat in a pan or dish and marinate in the refrigerator 24 hours.
- Pound the meat on both sides to work in the spice. Optional: Dip strips of meat in a liquid smoke solution (5 parts water to 1 part liquid smoke) for one to two seconds for added flavor.
- Make a brine solution by dissolving ¾ cup salt, ½ cup sugar, and 2 tablespoons ground black pepper in 1 gallon of water. Stir to dissolve the salt and sugar.
- Bring the brine to a low to medium boil. Immerse the fresh meat strips (a few at a time) into the boiling brine until they turn gray (approximately one to two minutes). Remove meat from brine using clean tongs or other utensils that have not contacted raw meat.
- Spread meat on a clean dehydrator rack or on a clean rack on the top half of a kitchen oven. If using a kitchen oven, open the oven door to the first or second stop to allow moisture to escape. Heat at 150 degrees Fahrenheit (or up to 200 degrees Fahrenheit) for 9 to 24 hours or until desired dryness is reached. Remove jerky from oven before it becomes too hard or brittle. Properly dried jerky should crack when bent in half but should not break into two pieces.
- Store in clean jars or plastic bags or wrap in freezer paper and freeze. Properly dried jerky will keep for approximately two weeks in a sealed container at room temperature. It will keep for 3 to 6 months in the refrigerator and up to one year in the freezer. Check occasionally to make sure no mold is forming.

Source: "You and Your Wild Game," 1984, by R.A. Field and C.A. Raab, University of Wyoming Agricultural Extension Service, B-613, p. 58.

VINEGAR MARINADE JERKY

Ingredients per 2 pounds of lean meat slices:

Pre-treatment dip:

2 cups vinegar

Marinade ingredients:

¼ cup soy sauce

¼ teaspoon garlic powder

1 tablespoon Worcestershire sauce

½ teaspoon onion powder

¼ teaspoon black pepper

1 teaspoon hickory smoked salt

Directions:

Place 2 cups vinegar in 9×11-inch cake pan or plastic storage container. Add meat strips to container, making sure vinegar covers all strips. Let soak 10 minutes, stirring occasionally to ensure distribution of vinegar on strips. Combine all marinade ingredients and place in a 1-gallon resealable plastic bag. Add lean meat slices to bag; seal bag and massage pieces to thoroughly distribute marinade over all meat strips. Refrigerate bag 1 to 24 hours. Remove meat slices from bag and place flat without touching each other on clean dehydrator trays, oven racks, or other drying trays. Place trays in preheated dehydrator and dry at 145 degrees Fahrenheit for 10 to 14 hours or until slices are adequately dry.

Source: "So Easy to Preserve," 5th ed. 2014. Bulletin 989, Cooperative Extension Service, The University of Georgia, Athens. Revised by Elizabeth L. Andress, Ph.D., and Judy A. Harrison, Ph.D., Extension Foods Specialists.

