

Preventing your game meat from spoiling or toughening up starts the very moment you harvest the animal. A wild deer begins to deteriorate the minute it dies and should be dealt with immediately and not retrieved the next morning.

Steve Glass is the inventor of the [Trophy Bag Cooler](#), a dual-purpose (cooling or heating) bag designed to fit and insulate whole harvested carcasses. With many other transportation and proper-care products on the line, he is a trusted expert on handling wild game meat.

Glass has often encountered hunters, both new and old to the trade, who unknowingly mismanage their harvest. He says a lot of it stems from years of misguided knowledge or hunting shows that are concerned with prize points rather than consuming their harvest. When it comes to harvesting animals for food, Glass has a saying that everyone at the Trophy Bag Cooler office is familiar with.

"If you're going to eat it, take care of how you treat it."

Here's what really goes on the moment you harvest an animal. A deer, for example, has a four-chamber stomach that begins the fermentation process. It generates gas which will penetrate through the intestine and visceral tissues and goes into the meat, which taints the meat. Basically, the animal spoils from the inside out. The deterioration process starts immediately. At:

- 32° F it takes 20 hours for bacteria to double
- 40° F it takes 6 hours
- 60° F it takes 2 hours
- 70° F it takes 1 hour
- 90° F it takes 30 minutes

(This chart is located on the Trophy Bag Cooler website. [Find more information here.](#))

How To Properly Manage Wild Game Meat

Supplies

In addition to all your hunting and camouflage supplies, you'll need to be prepared in the field to field dress the animal, clean it properly, and have the correct transportation means available. Here is a list of basic cleaning and field dressing supplies you'll need:

- A good butcher knife or hunting knife
- A bone saw, a small hatchet, a whetstone or steel sharpener
- Twelve feet of light rope or nylon cord
- Plastic bags, like Ziploc
- Paper towels
- Fresh water to wash your hands with, and plastic surgical gloves

Field dressing

Field dressing the animal is one of the most important parts of the process when exercising proper care of your harvest. [Read an in-depth article on how to properly field dress a deer per Glass' recommendations here.](#)

Important things to keep in mind when field dressing an animal:

- Use a clean knife when cutting into the animal. Do not set it down on the dirt when not in use, and rinse it throughout the process, especially if it does come in contact with the ground.
- Get the entrails out as soon as possible, especially the heart, liver, lungs and intestines.

- Just wiping away the blood with towels or spraying the carcass with antimicrobial spray is Glass' recommendation. You can spray the inside of the carcass with water, but you need to take towels to wipe off excess moisture.
Tip Bacteria needs two things to thrive: heat and moisture. When you open the body of your deer, the core temperature is at 101 or 100 degrees Fahrenheit. Therefore it is essential to cool and eliminate moisture from the carcass as soon as possible. [Refer here or to the chart above for the time needed for bacteria to double in different temperatures.](#)
- Do not allow dirt or outside moisture to come in contact with the inside of the cleaned carcass.
- Keep flies and other insects out by treating the entrance and exit wound of your shot.
- Cool the animal right away to slow the growth of bacteria.

Temperature

Improper temperature is meat's worst enemy. The surface of the carcass may be contaminated with bacteria that can spoil the meat unless chilling slows the growth. During warm hunting seasons special care should be taken to keep the carcass cool and Glass recommends his product, the Trophy Bag Kooler. It should be kept in the shade and allowed to cool down as quickly as possible.

- Refrigerate the deer carcass as soon as possible for best quality.
 - If the weather is over 40°F, it is strongly recommended that the carcass be taken to a walk-in cooler the day of the kill and if you don't own one, use a Trophy Bag Kooler.
 - If the air temperature is above 50°F, as it often is all over the US, the deer carcass should be refrigerated within three to four hours after killing.
 - In cool weather below 32°F, the carcass will freeze. Do not allow the carcass to freeze. Freezing will toughen the meat if it experiences cold-shortening (defined below).
- Cool the animal quickly. Cool the carcass by propping the chest open with a clean stick and allowing air to circulate. Filling the cavity with bags of ice will also enhance cooling.
- To aid cooling in warm weather, the animal may be skinned, if you have provisions to keep the carcass clean. Some people use ground pepper and cheesecloth or light cotton bags to protect the skinned carcass from contamination by flies. Do not use tarps or material that hold in heat as this will cause meat to spoil rapidly.

Cold-shortening is when the animal is subjected to extremely cold temperature and the internal muscle temperature drops below 32°F within 12 hours after the animal was harvested. This happens either when the animal is harvested in warm weather and is processed too fast and not allowed to go through rigor mortis. This also occurs in cold weather when the outside temperature freezes the animal naturally. Do not allow the animal to freeze immediately after harvest. This can cause the meat to be tough and stringy.

Rigor mortis is the stiffening of muscles in any dead species within the first 24-hours after the animal is harvested. In those 24 hours the meat stiffens so much that the corpse is hard to move or manipulate. Within that time, the meat eventually starts to relax and natural enzymes in the meat start to breakdown the collagen and the complex proteins. Allowing the process to work its magic will make your meat very tender and more flavorful.

Improper transportation of harvested animals.

Transportation

- Keep the carcass cool during transport, having followed all the recommended field dressing and cooling guidelines.

- Do not tie a deer carcass across the hood of your car or put it in your trunk when it is still warm.
- Be sure to keep the carcass cool until it reaches the locker plant. Keep the carcass out of direct sunlight and allow for adequate air circulation.

Additional (and interesting) information

- Based on the results of a poll, the most common reason hunters donate the meat from their hunt is because they question the manner in which they took it; they are unsure whether the meat is spoiled.
- Many people don't understand pH levels and how that affects their harvest. Blood and water have nearly the same pH level of 7 or 7.5 therefore neither will attract *more* insects, but flies and other insects are attracted to pH levels of 6 or higher (not just blood for blood's sake). Flies prefer 6.5 to 8 pH to lay eggs, but the higher the pH the better for the flies and bacterial growth.
- Insects and bacteria are sensitive to acidity (the lower the pH the greater the acidity). Glass uses and produces an antimicrobial spray similar to that used in the slaughter industry. The spray reduces the pH level to 1.1 on contact.
- Most people don't use microbial sprays because they don't know about it. But by treating the animal with the spray, you start the preservation process in the field.

Steve has witnessed multiple instances of improper transportation of harvested animals over the years. One hot day in September Glass saw a guy transporting an elk wrapped only in tarp on top of a Durango who drove from Colorado to Oklahoma. He arrived at the taxidermist who is Glass's acquaintance and sure enough, the elk was stinking and rotting.

Witnessing incidents such as these and speaking with many uninformed hunters is what inspired Glass to create the Trophy Bag Kooler. Glass is simply a passionate hunter who is passionate about his food also. [Find out much more information on his website here.](#)