

South Dakota State University
**Open PRAIRIE: Open Public Research Access Institutional
Repository and Information Exchange**

Extension Extra

SDSU Extension

4-1-1998

Specific Handling Practices for Processing Big Game in the Field

David E. Naugle
South Dakota State University

Kenneth F. Higgins
South Dakota State University

Follow this and additional works at: http://openprairie.sdstate.edu/extension_extra

Recommended Citation

Naugle, David E. and Higgins, Kenneth F., "Specific Handling Practices for Processing Big Game in the Field" (1998). *Extension Extra*. Paper 431.
http://openprairie.sdstate.edu/extension_extra/431

This Other is brought to you for free and open access by the SDSU Extension at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in Extension Extra by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.



Extension Extra

ExEx 14048
April 1998
Food Safety

COLLEGE OF AGRICULTURE & BIOLOGICAL SCIENCES / SOUTH DAKOTA STATE UNIVERSITY / USDA

Specific Handling Practices for Processing Big Game in the Field

by David E. Naugle, Department of Wildlife and Fisheries Sciences,
with review by Kenneth F. Higgins, South Dakota Cooperative Fish and Wildlife Research Unit,
USGS-BRD, South Dakota State University

Why should hunters educate themselves about proper handling of big game?

Annually, 10.7 million sportsmen and women spend 127 million days afield hunting big game. Meats of big game are a healthy and appetizing source of dietary protein. Hunters unfamiliar with proper handling practices for processing wild game, however, run a risk of contracting food-borne illnesses. Big game transported from the field to the freezer may become contaminated with bacteria during processing. Unsafe handling practices by hunters that lead to the contamination of meats usually occur along "critical control points." An awareness of critical control points can help ensure that the meats hunters bring home are safe for human consumption.

CONTROL POINT 1:

Initial Field Dressing

Field dress big game carcasses (white-tailed and mule deer, antelope, moose, elk) immediately after harvest to allow the meat to cool rapidly. Animals shot in vital organs (heart, lungs or liver) need not be bled since enough vessels will have been severed to allow sufficient bleeding. You may sever the jugular vein on the underside of the neck to bleed an animal that has

not been shot in the vital organs. Skillfully placed shots fired from short distances into the vital organs or head will prevent damage to meat and minimize the loss of animals from wounding.

For complete guidelines on how to field dress big game animals refer to *Wild Side of the Menu No.2-- Field to Freezer*. This can be obtained through your county Extension office or at the following website:

<http://www.foodsafety.org/sd/sd018.htm>

Hang animals in a tree after field dressing to allow circulating air to cool the carcass from all sides.

If an animal cannot be hung, place it on rocks or logs in a shaded area to allow air to reach the underside of the carcass.

When field dressing an animal, avoid puncturing the stomach and intestines -- gastric juices that spill onto hind quarters when internal organs are accidentally cut will contaminate meat. Remove bloodshot meat from the carcass with a clean knife. Wipe the carcass cavity with clean towels to remove blood, loose particles, and hair. Use water sparingly because wet meat spoils faster than dry meat.

Place sticks between the rib cage to spread the chest cavity open and promote further cooling. In warmer climates or in early seasons in northern latitudes, carcasses can be cooled rapidly by stuffing the cavity with bags of ice. Avoid packing carcasses with snow, a common practice in northern climates, because bacteria in snow could contaminate meat.

CONTROL POINT 2:

Moving game from field to vehicle. Deciding when to skin an animal.

Once the internal organs and intestines of an animal have been removed and the cavity is clean and dry, you must decide when to skin the animal. **Ideally, transport the animal directly to a locker facility where the field-dressed carcass can be cooled in a controlled environment.** Unfortunately, most carcasses must be handled extensively in the field because your favorite hunting spot is far from any locker facilities or simply because you wish to process the meat at home.

In either case, the decision on when to skin an animal should be based on the maximum daily temperature. **In warmer climates or in early seasons in northern latitudes where temperatures are well above freezing (32F) during the hunting season, skin the carcass on site.**

Hunters who wish to learn how to properly skin deer can refer to the section entitled "Skinning a Deer" in *Wild Side of the Menu No.2--Field to Freezer* available from county Extension offices, or at the following website:
<http://www.foodsafety.org/sd/sd018.htm>

A common practice for many hunters is to carry large coolers with ice in their car trunk or pickup bed. With coolers and ice close at hand, deer carcasses can be quartered and placed in cool storage for the trip home. If you do not have a cooler or access to ice, sprinkle the meat with ground pepper and wrap the skinned carcass in cheesecloth or muslin to protect meat from contamination by flies.

In colder environments or in later seasons when maximum daily temperatures drop below freezing, leave the hide on the carcass to protect meat on the way home. In instances where low temperatures rapidly cool meat, intact skins (hide) will serve to keep the carcass clean.

When possible, carry carcasses rather than drag big game animals from the hunting site to the vehicle. Dragging animals increases the risk of meat contamination and may ruin the hide. A good alternative is to use one of many commercial hauling devices designed to transport carcasses from the field to the vehicle.

Another possibility is to drive to the carcass or get a friend to help carry the carcass to a road. If dragging an animal cannot be avoided, move the animal head first with the front legs tied to the neck or antlers to minimize contamination of exposed meat by dirt and debris.

CONTROL POINT 3:

Transporting game from field to home

Once the carcass has been field dressed and moved to your vehicle, it is ready to be transported home. Remember to follow state or federal game laws by properly tagging your animal before transporting the carcass in any way (contact your local game officials for more information).

In instances where a carcass has been quartered and placed on ice in coolers, transportation from hunting grounds to home is made easy. In cooler climates where carcasses have only been field dressed and the hide remains intact, bear in mind the following guidelines to keep meat fresh.

Never transport meat by placing a carcass inside the trunk of a car or strapped on the hood of a vehicle. A car trunk traps heat and does not allow meat to cool. Similarly, the vehicle motor under the hood transmits heat to a carcass, causing meat to spoil. If you are transporting a carcass in cool weather, cover it with a tarp or blanket to minimize contamination of meat by dust, dirt and debris.

If you plan to have the meat processed at a locker, transport the carcass to the processor as soon as possible. Before packaging and storing, some processors age meat to improve its tenderness and flavor. If you are processing the meat yourself at home, be aware that not all meats should be aged and that improper aging may result in spoilage and contamination.

If you are aging a carcass at home, hang it in a shaded barn or garage that has a closed door to ensure that pets or other wild animals do not have access to the meat. Venison that is processed into sausages and burger need not be aged because the grinding process tenderizes these meats.

For detailed information on aging wild game refer to *Aging Big Game*. This can be obtained from your county Extension office or at the following web location:

<http://www.foodsafety.org/wy/wy001.htm>

More Information

Meats from wild big game animals that have been properly handled in each of the critical control points will compliment a healthy diet. For more information about safe handling of wild game and how to prepare game meats for the table, contact your local Extension office for assistance, or see the following websites:

Venison: Killing and Dressing

<http://www.ces.msstate.edu/pubs/is327.htm>

Venison: Cutting and Cooking

<http://www.ces.msstate.edu/pubs/is328.htm>

A Pocket Guide to Care and Handling of Deer from Field to Table

<http://www.foodsafety.org/sd/sd002.htm>

Wild Side of the Menu No.2--Field to Freezer

<http://www.foodsafety.org/sd/sd018.htm>

Safe Handling of Wild Game--Big Game Carcasses

<http://www.foodsafety.org/il/il072.htm>

A Pocket Guide to Care and Handling of Game Birds from Field to Table

<http://www.foodsafety.org/wy/wy001.htm>

Safe Handling of Wild Game--Game Birds
<http://www.foodsafety.org/il/il071.htm>

Waterfowl: After the Hunt
<http://www.foodsafety.org/wy/wy002.htm>

References

Field, R. A., and C. A. Raab. 1983. *You and Your Wild Game*. Agricultural Extension Bulletin B-613R, University of Wyoming, Laramie.

Gaida, U., and M. Marchello. 1987. *Going Wild. A Guide to Field Dressing, Butchering, Sausage-making and Cooking Wild Game and Fish*. Watab Marketing, Inc., Sartell, MN.

U.S. Department of the Interior, Fish and Wildlife Service and U.S. Department of Commerce, Bureau of the Census. 1991. *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*. U.S. Government Printing Office, Washington DC.

*This publication was produced with funding from the USDA-CSREES project:
The National Support and Coordination of CES Food Handler Education Programs.
SDSU CES co-directors are Carol Pitts, M.S., R.D., Extension food and nutrition specialist;
William Epperson, DVM, Extension veterinarian; and
Mike Adelaine, Ph.D., Extension microcomputer applications specialist,
assisted by Joan Hegerfeld, food safety Extension assistant.*

SDSU Food Safety Homepage

<http://www.abs.sdstate.edu/flcs/foodsafety/foodsafety.htm>

National Food Safety Database

<http://www.foodsafety.org>

One-stop shopping for credible food safety information

This publication can be accessed electronically from the SDSU College of Agriculture & Biological Sciences publications page at <http://agbiopubs.sdstate.edu/articles/ExEx14048.pdf> or from the Extension Service Drought Information Website at <http://sdces.sdstate.edu/drought/>



Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the USDA. Larry Tidemann, Director of Extension, Associate Dean, College of Agriculture & Biological Sciences, South Dakota State University, Brookings. SDSU is an Affirmative Action/Equal Opportunity Employer (Male/Female) and offers all benefits, services, and educational and employment opportunities without regard for ancestry, age, race, citizenship, color, creed, religion, gender, disability, national origin, sexual preference, or Vietnam Era veteran status.

ExEx 14048: 150 copies printed by CES at a cost of 6 cents each. April 1998. pdf December 2002.