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Venison – Upper Peninsula Style
Michigan State University
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HOW TO ♦ FIELD DRESS
♦ BUTCHER ♦ PREPARE / COOK / PRESERVE





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Note: This bulletin contains material adapted from Michigan Extension bulletin
"Venison, Upper Peninsula Style" and University of Wyoming Agricultural Extension
Service bulletin "You and Your Wild Game."





The process of putting tender, good-tasting venison on the supper table begins with making a quick, clean kill.

Making A Quick, Clean Kill

Never shoot at a running deer. Why?

■ Because it is impossible to tell what is behind a running deer as you try to aim at the deer as it runs. While you're concentrating on aiming at the deer, it may pass in front of a house, livestock or another person just as you pull the trigger or release an arrow.

■ Because it is very likely that you'll only wound the deer, thus allowing it to escape and causing it to suffer unnecessarily and perhaps die days later.

■ Because, even if you recover a wounded deer, there is a good chance that the shot will have punctured the stomach, bowel or bladder, thus contaminating the meat and unfortunately starting the process of producing the gamey flavor that so many people associate with venison.

Shoot only at standing or slowly walking deer. Aim at a point midway between the top of the back and the bottom of the chest slightly behind the front leg (Fig. 1). If you hit this spot or anywhere within 5 inches of this

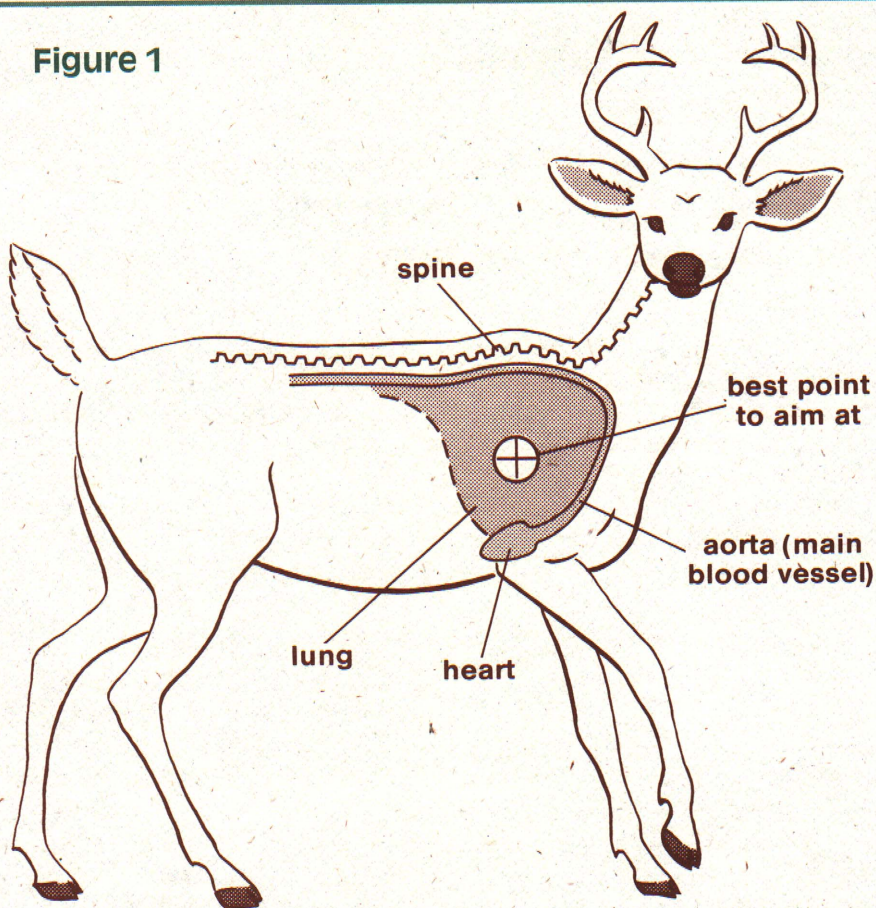
spot, you will hit a vital organ and the deer will bleed profusely and die quickly. A shot that is high or low of the aiming point will strike the heart, the aorta (a main blood vessel) or the spine. A shot forward of the spot will strike lungs and/or aorta, and a shot that is no more than 5 inches behind the aiming point will hit both lungs.

As soon as you have shot, go immediately to where you saw the deer fall. If you didn't see the animal fall, go immediately to the place the deer was standing when you shot. This improves your chances of finding the deer or finding evidence that you hit the deer (hair, blood or tissue), and it allows you to trail the deer to where it has fallen while the evidence is still fresh and visible. Do not wait for the deer to "settle down" after you have shot. A wounded deer being trailed by a hunter will bleed more profusely, leave more evidence to trail and die more quickly than a deer that is



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Figure 1



allowed to settle down, have blood clot in the wound and recover from the shock of being wounded. In addition, venison that has been well bled and then properly field dressed, stored and butchered after the kill will not have an objectionable gamey flavor.

Once you have found the deer that you shot, approach the animal carefully and be ready to shoot

again, if necessary. Look for signs of life, especially eye movement. If there are no signs of life, touch the eye with the tip of the gun muzzle, an arrow or a long stick. If there is any eye response, the animal is still alive and should be shot again through the heart. The heart is located immediately behind the joint of the front leg and the chest, close to the rib cage (Fig. 1). Do not attempt to bleed a



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wounded deer. Inserting a knife into a live deer can be dangerous and will accomplish little more than shooting the deer the second time as recommended. If the deer is dead, there is no point in inserting a knife into the deer because once the heart has

stopped pumping, severing additional arteries and veins will cause little additional blood loss.

Once the deer is dead, correctly mark the appropriate deer tag and attach it to the deer as required by law.

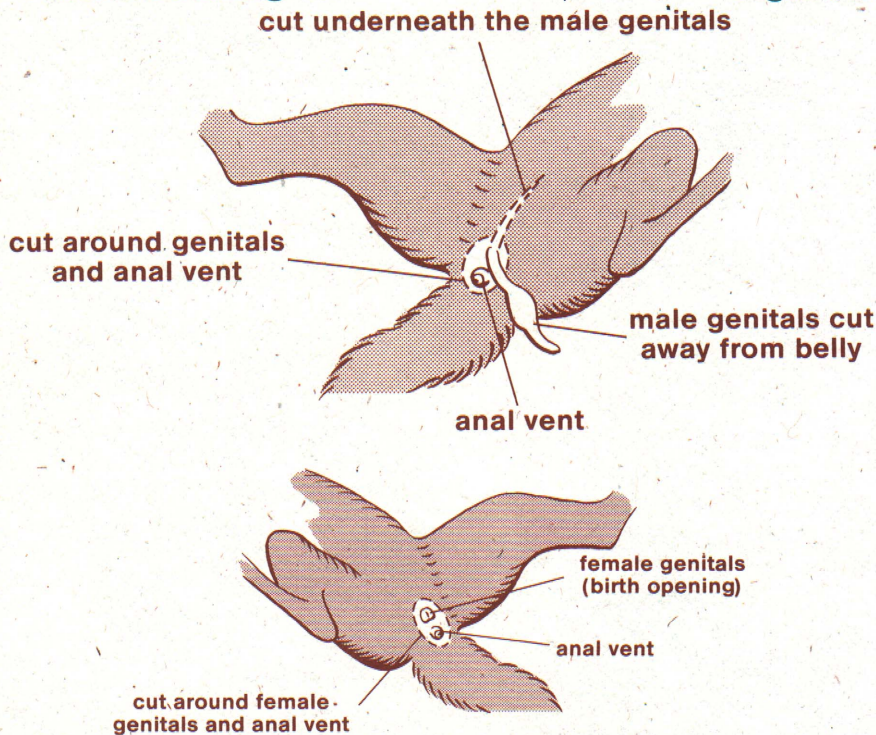
Field Dressing

Now that you have made a quick, clean and humane kill, it is important to clean and cool the

venison as quickly as possible. To do this, you will need four items: at least one length of rope 10 to

Field Dressing

Figure 2





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15 feet long, a knife with a blade no wider than 1 inch and at least 4 inches long, a wad of brown paper towels and, if you wish to save the heart and liver, two plastic bags. An easy way to field dress a deer is as follows:

1 Lay the deer on its side. Attach one end of the rope to one hind leg and the other end of the rope to a nearby bush or tree so that the rope holds the leg in the air and exposes the belly of the deer for easy access. If you wish, tie the front leg up as well.

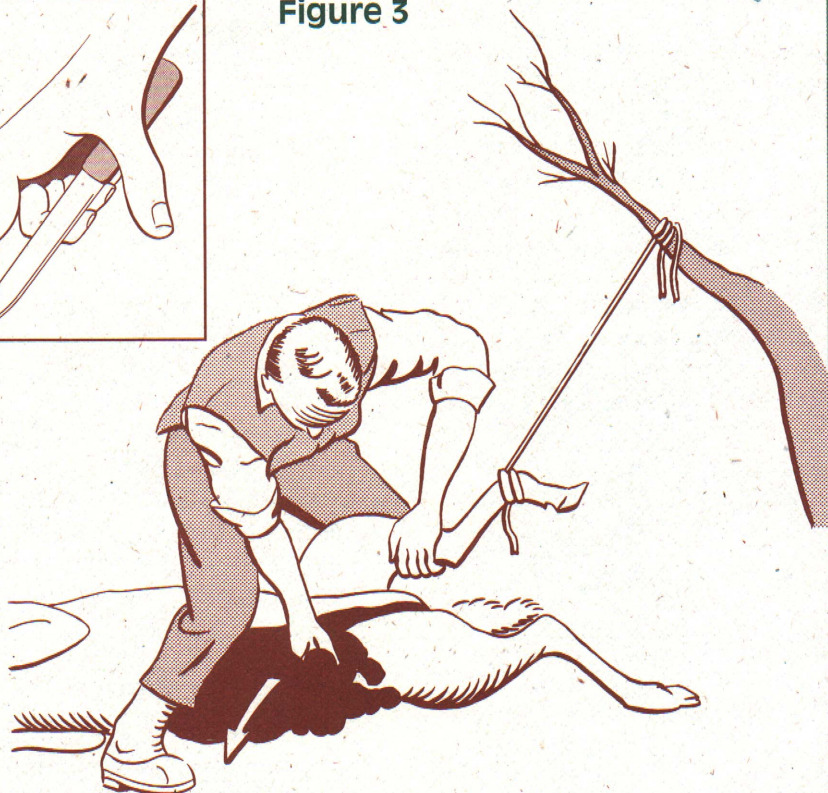
2 If the deer is a buck, grasp the male reproductive organs and cut the skin between the reproductive organs and the belly. (Fig. 2) Do not cut the belly muscles yet. Once the initial cut is made, cut the skin from the inside and pull the reproductive organs away from the body of the deer. The urinary and reproductive tubes run deep between the legs and should be carefully removed by cutting the tissue covering them and pulling them free of the body. Continue this procedure all the way around to the anal vent. Remove the scrotum and all hide from the penis. Use a short piece of cord to tie off the bowel and urine tube. If the deer is a female, begin with the next step.

3 Insert the knife blade between the anal vent and the hip bone. Cut around the anus and the

reproductive tubes, keeping the point and edge of the knife against the bone of the hip opening. Be careful not to puncture the bowel or urinary tubes, but insert the knife as deeply as possible to sever all the connective tissue between the bone of the hip opening and the bowel and urinary and reproductive tubes. Tie off the bowel and urine tube with a short piece of cord.

4 Use your knife to make a very small cut in the hide of the belly and pull the hide apart to expose the muscles of the belly wall (Fig. 3). Slowly and carefully slice through the muscle, being careful not to cut the intestines, which lie just inside the thin muscle wall. After you have made the initial cut, one way to avoid puncturing the bowels is to hold the blade between your index and middle finger so the point is not exposed (Fig. 3). Insert the knife into the initial cut, sharp edge to the outside, and then cut the belly wall open from the inside toward the chest cavity and back toward the joint of the hind legs. Once the belly muscle is completely cut open from the joint of the hind legs to the rib cage, insert the knife into the chest cavity and open the chest cavity by cutting the gristle between the ribs and the breast bone. If you do not wish to have the head of the deer mounted, cut the chest cavity





5 Now that the body cavity of the deer is open, reach into the cavity and grasp the bowel, reproductive tubes and bladder

where they enter the opening of the hip and pull gently. The bowel, bladder and reproductive tubes will slide easily through the hip opening and out through the opening in the belly if you cut them free from the hip when you cut around the anus and reproductive tubes. If they do not pull easily through the hip opening, then you will have to go back (step 3) to the anal vent and cut whatever connective tissue is

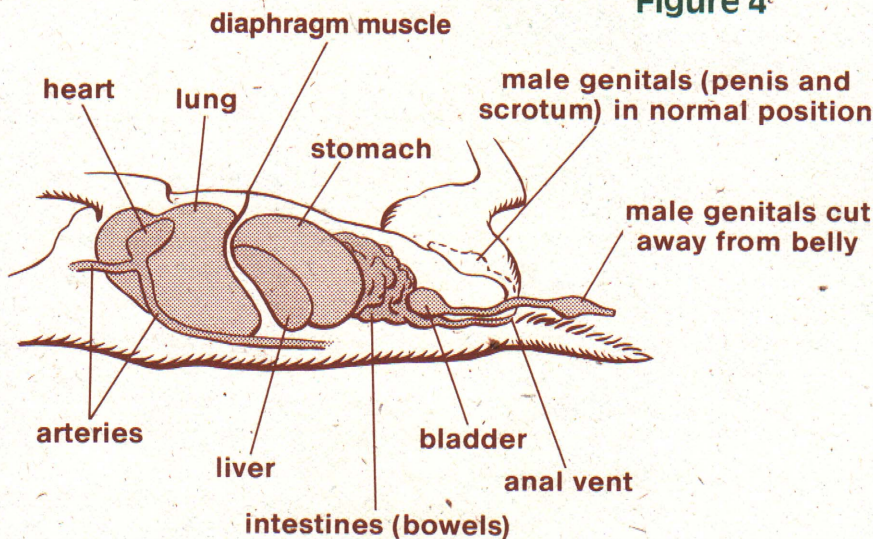


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holding the bowel and reproductive tubes to the hip. Once this is done, then you can again reach into the body cavity, grasp the bowel, bladder and reproductive tubes and pull them out through the opening in the belly. Continue to pull all of the reproductive tubes, intestines and the bottom of the stomach out of the opening in the belly and roll them onto the ground (Fig. 3). As you roll the innards onto the ground, it may be necessary to cut some tissue holding them against the inside of the back. As these innards roll out on the ground, you will see a large, thin muscle separating these innards and the chest cavity containing the heart

and lungs (Figs. 4 and 5). This muscle is called the diaphragm. Cut it where it joins the ribs and backbone, being careful not to puncture the top of the stomach where it joins the diaphragm. Once this is accomplished, all the deer innards can be rolled out onto the ground. As the stomach rolls completely free of the deer, you may wish to cut the large purple-pink organ, the liver, free from the stomach and place it in a plastic bag for later processing. As you pull the heart and lungs free of the chest cavity, you may wish to cut the heart free and place it also in a plastic bag for further processing. If you plan to have the deer mounted, insert your knife as

Figure 4





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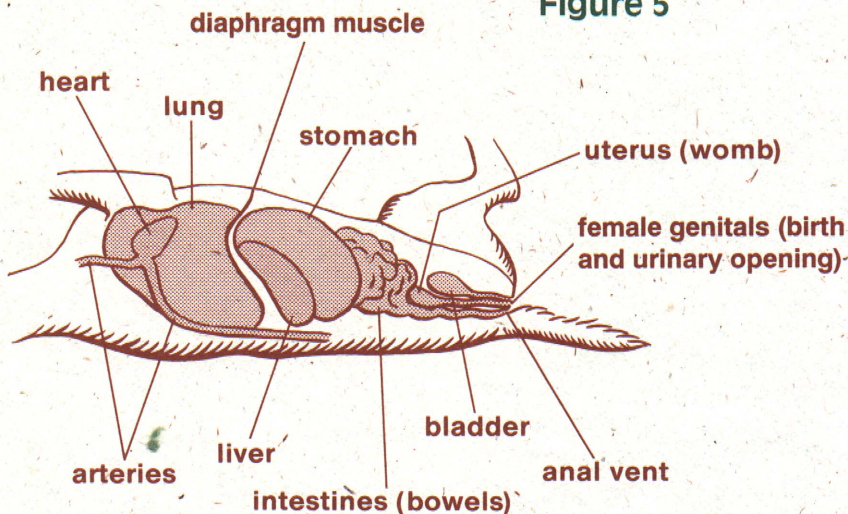
far up into the chest cavity as you can reach and cut as much of the heart, lung and blood vessel tissue free as you possibly can. If you do not plan to have the deer mounted, continue to pull the food and air tubes free from the throat all the way to the chin and cut them off at the chin.

If you have done a good job so far, then all of the organs of the deer will have been completely and cleanly removed from the body cavity. At this point, you may wish to take a few of the brown paper towels and wipe the blood from your hands. If you have blood up to your elbows or beyond, you probably didn't do the job properly.

6 Use additional paper toweling to wipe all the blood from the body cavity of the deer. Be as thorough as possible, keeping in mind that bacteria will grow very well in blood and bacteria cause meat to spoil and possibly become unsafe. Do not use leaves or soiled cloth to clean the blood from the body cavity — such items are loaded with spoilage bacteria.

7 Now that you have completed field dressing the deer, bury the paper towels or place them in the plastic bags in which you brought them to be carried out and disposed of later. Untie the deer legs and get ready whatever method you have decided to use

Figure 5





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to drag the deer back to your home, campsite or automobile. If at all possible, avoid dragging the deer through water, mud or dust in such a way that the inside of the body cavity is contaminated with

water, mud or dust. When you put the carcass in your vehicle, wrap it so that dust, dirt and dirty water from your vehicle or from the road does not contaminate the body cavity.

Hanging Your Deer

As soon as you get your deer to campsite or home, hang the deer to allow the venison to cool quickly and completely. If you did not thoroughly clean the inside of the body cavity when you field dressed the deer, do so as soon as you get the deer hung up. Soak a clean cloth in a saltwater solution (1/2 cup salt in 1 gal. water), wring it dry and wipe the inside of the cavity of the deer with this damp cloth. If the inside of the body cavity has been contaminated by the contents of bladder, bowel, intestine or stomach or with unclean water, mud or dirt, thoroughly rinse out the body cavity with water. When the cavity is clean, thoroughly dry the inside with cloth or paper toweling.

Deer can be hung from the antlers, the neck or the hind legs. Research has shown that it makes absolutely no difference in venison quality whether you hang the deer by its hind legs or its head. If you wish to have the deer mounted, however, hanging it by its hind legs avoids rope damage to the

hide on the neck, head, ears, etc. It is also much easier to butcher the deer and save the head and cape for mounting if you hang it by the hind legs.

To hang a deer by its hind legs, slice the hide between the leg bone and the large tendon on the back of each leg and insert a sturdy branch, board, wooden dowel or metal rod as a cross-bar through these openings. If you wish, notch the branch, board or dowel or bend the ends of the metal rod up to ensure that the deer does not slip. Attach a rope to the middle of the cross-bar to hang the deer as desired.

The major reason for hanging a deer carcass is to allow the meat to cool further and to make the subsequent butchering process easier. Hanging, if done properly, may also help tenderize the meat if that is necessary. Because the majority of deer in Michigan are less than 2 1/2 years old when killed by hunters, there is absolutely no reason to allow most deer to hang for more than one



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day. If, however, you have your deer aged by a DNR biologist and you're told that it is 2 1/2 years old or older, you may wish to allow the deer to hang for more than one day.

If you hang your deer for 1 to 3 days, or if it is simply not possible or convenient for you to process your deer or have it processed for several days after the deer is killed, then it is vitally important that the deer be hung properly. If a deer hangs for more than one day, the body cavity should be thoroughly cleaned as previously described, and **the meat must be maintained at a temperature below 40 degrees Fahrenheit**, preferably between 35 and 37 degrees. If the temperature of the meat exceeds 40 degrees, then it should be taken immediately to a commercial meat cooler or be processed and frozen.

The deer may be hung with the hide on or the hide off. When the deer is hung with the hide off, the meat tends to dry out and discolor. This makes cooking more difficult, and the outer edge of the meat develops a dry, hard crust that must be trimmed before

freezing or cooking. Leaving the hide on protects the meat, but it also makes skinning more difficult. One good reason for skinning and processing your deer as soon as the meat is chilled is that it is easier to skin and process it then rather than later.

If the inside of the body cavity of the deer is contaminated with stomach or bowel contents and the deer is allowed to hang for several days, the venison will most assuredly have a gamey flavor and begin to spoil. Hanging the carcass for more than one day during which the meat temperature exceeds 40 degrees F will also cause an objectionable gamey flavor or spoilage, even if the carcass is thoroughly cleaned.

It is not necessary to remove the glands on the deer's legs before butchering it, but if you prefer to do so, thoroughly clean the knife you used to cut off the glands or use a different knife for cutting the meat. Any knife used to cut off the glands will surely be contaminated with the substances contained in these glands.



Skinning, Butchering and Cutting the Deer Carcass

Once the deer is hung, two pieces of meat should be removed immediately, cleaned thoroughly, chilled, and eaten or frozen. These are the tenderloins (can be sliced to filets mignons), the two large muscles on the inside of the body cavity that run along the backbone to the hipbone. If the deer has been properly shot and field dressed, these two pieces of meat from any deer are tender, good tasting and excellent eating. Remove them carefully to avoid ripping them and to be sure that you get all of the meat. If, however, the deer has been gut shot or improperly field dressed, these two pieces of meat can be heavily contaminated and require extensive trimming and/or may have to be discarded. Once they're free of the deer, wipe these pieces of meat free of blood, wash them thoroughly if there is any chance that they have been contaminated, and then chill, cook and eat them, or place them in the refrigerator so that they can be cooked in the next 24 hours, or wrap and freeze them.

If you have hung the deer by the hind legs, begin the skinning process by inserting your knife under the hide of the deer on the inside of the middle of the hind

leg and cut upward toward the end of the leg. When you reach the point on the leg where the leg is suspended from the cross-bar, cut the hide around the leg, being careful not to cut the large tendon that is holding the carcass up. Then grasp a loose edge of the hide and pull downward, pulling the hide free from the hind leg.

As you pull the hide free toward the tail, cut the tail off by placing the blade of the knife at the base of the underside of the tail and slicing into the cartilage connecting the tailbone to the backbone. Once the tail is cut free, grasp the hide on the hair side and pull outward and downward, pushing on the skin side of the hide with the opposite hand if necessary to assist in separating the hide from the carcass.

Continue this process all the way down to the front legs, then cut toward the front leg and then down the middle of each leg. Pull the hide free from each leg. If you are not going to mount the deer, cut the hide from the inside from the top of the chest to the chin (if you have not already done so when you field dressed the deer). Continue pulling the hide free of the deer all the way down to the base of the skull. If you're going



If you are, not going to mount the head, you may wish to remove the head and hide from the carcass at this point. Do so by pulling the hide completely free from where the neck joins the head. Rotate the head as much as possible to help you identify this joint. Once you have done so, insert the knife into the joint and cut from side to side to sever the head and hide from the carcass. If you have hung the deer by the head and wish to mount the head, it is very difficult to skin the deer and remove the shoulder and neck meat. If you have hung the deer by the head and do not want to mount it, then cut the hide from the inside around the neck and

The second piece of meat to be removed from the carcass is the loin (Fig. 6). To remove the loin, insert the knife into the carcass along the edge of the backbone and cut alongside the backbone (midline) from the hip to the shoulder, keeping the knife against the edge of the backbone. Cut the loin off at the hip and shoulder and roll these muscles outward away from the spine, using your knife to cut the meat free from the backbone and the rib cage. When both pieces of meat have been cut free from the back, trim off the connective tissue. The outer white connective tissue, or fell, is the white material

11



butterfly steaks, cut the loin into approximately 2-inch-thick pieces, then split each piece from the surface or outside of the muscle to the rib side. Cut almost in half and fold open to make a butterfly. Loin steaks and medallions are always tender and good tasting. If you want to make chops, the



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backbone must be sawed in half and cut crosswise into chops. (Because this requires a cleaver and/or a saw, it is **not** described in this publication.)

Next cut the shoulder from the carcass (Fig. 6). Simply hold the front leg away from the rib cage and cut the muscle holding the shoulder to the rib cage all the way up to and including the meat on the backbone. Place the shoulder and leg on a cutting board and cut the meat away from the lower leg (the shank) in any manner you choose. Trim all the connective tissue (the white stuff) off the meat you remove from the shank and set the meat aside to be ground into burger later or cut up into smaller pieces for stew meat or soup meat. If you plan to grind all of the shoulder meat into burger or cut it into small pieces for stew and soup meat, then simply cut the meat of the shoulder free from the front of the foreleg and shoulder. Once the meat is free of the bone, remove all connective tissue and set the meat aside to be cut up into smaller pieces or ground. If you wish to make a shoulder roast, start by laying the shoulder down on the cutting board with the outside of the shoulder facing upward. The outside of the shoulder blade has a bony ridge in the middle. To debone the meat, cut down both sides of the bony

ridge on the top of the shoulder blade and, keeping the edge of the knife against the shoulder blade, cut outward, separating the bone from the meat. Then carefully separate the meat from the edges of the shoulder blade. Then cut the meat on the underside of the shoulder blade away from the bone of the shoulder blade, keeping the knife edge against the bone. Continue removing the meat down along the foreleg of the deer, being careful not to cut the meat of the shoulder blade that joins the meat of the foreleg. Once the bone has been removed from the meat of the foreleg, the meat of the foreleg can be folded up into the meat of the shoulder and then all that meat rolled and tied with a string into a roast.

The next cuts of meat on the deer are easily butchered.

Neck meat: In most cases, the neck meat is best ground into burger, so simply cut the meat from the neckbone any way you choose. If you wish to make a neck roast, cut the meat all the way around the neck at the head and the chest. Cut the neck open from head to chest on the bottom of the neck and cut around the neckbone, keeping the neck meat in one piece. Go all the way around the neck, cutting around



14



Figure 7

The diagram illustrates the hindquarters of a horse from three perspectives: rear view, right outside view, and left inside view. Key anatomical features are labeled with lines pointing to them: 'top (inside) round' points to the upper inner thigh area; 'bottom (outside) round' points to the lower outer thigh area; 'sirloin tip' points to the upper outer thigh area; 'ball of hip joint (ball and socket joint)' points to the hip joint; 'rump' points to the buttock area; 'round' points to the middle thigh area; and 'shank' points to the lower leg area. The 'top view' is a circular diagram showing the top of the hindquarters. The 'left inside view' is a diagram showing the inner side of the hindquarters. The 'rear view' shows the horse from behind, and the 'right outside view' shows the horse from the right side.

top (inside) round

bottom (outside) round

sirloin tip

top view

ball of hip joint (ball and socket joint)

rump

round

shank

left inside view

rear view

right outside view

will be tender. Take the two remaining pieces of meat (the inside and outside rounds) and trim both ends (Fig. 7). The trimmings are suitable for cubes, stew or soup meat, or ground meat. The trimmed piece can then be cut crosswise into 1-inch round steaks, which will be almost as tender as the loin steaks. These pieces of meat can also be left whole for roasting, cut into thin



When all the meat has been removed from the carcass, inspect all pieces of meat again, remove any white connective tissue that you did not remove previously and remove all foreign matter, especially hair. Cut away and discard any meat that has been bruised by bullet, shot or arrow. It is far better to cut away more meat than necessary than to leave bruised meat. Bruised meat will have a strong, gamey flavor. If you think it is necessary, rinse the meat in cold water, but be sure to pat it completely dry with toweling. The venison can then be wrapped in white freezer paper, shiny side in, and taped closed. Label each package with the cut of meat and the date. Then place the meat in a freezer kept at approximately 0 degrees F. Spread the meat out over the inside of the freezer as evenly as possible so it freezes solid within 24 hours. Avoid stacking a large amount of fresh meat in one place in the freezer — the middle layers may take days to freeze solid. After the meat is solidly frozen, you can stack it as you desire.

There are many ways to grind venison into burger, but the following suggestions produce excellent ground meat. If you plan to use the ground meat in burgers, it is best to grind the venison with an additional 5 to 10 percent (by weight) beef fat (suet) or grind it with 30 percent (by weight) lean pork shoulder. The resulting venison burgers will be as good as or better than any beef burgers you have eaten. If you plan to use the ground venison in dishes such as sloppy joes or chilli, with commercial mixes such as Hamburger Helper, you may wish to grind your venison without any additional fat or other meat.

Package the ground venison in quantities you find convenient to use, such as 1/2 pound, 1 pound, 2 pounds, etc. If you package it yourself, wrap in freezer paper, slick side in, tape closed, and label with the date and the kind of ground venison. The business that grinds the meat for you may be willing to package it as you direct.



Quick Review

Venison is a good-tasting, tender meat, but it is often made less tasty or even gamey by the following practices:

- *Contaminating the meat with the contents of bowels, bladder or stomach, dirt or dirty water.*
- *Hanging the carcass when the meat will reach temperatures above 40 degrees F.*
- *Not cleaning or trimming and disposing of contaminated meat.*
- *Leaving fat and connective tissue (the white stuff) on the meat (the red stuff).*
- *Making shoulder and neck steaks from large, old deer.*



How to Use Cuts of Venison

Hind and fore shanks — bone out and cut into cubes for stew meat or grind for meat loaf or deerburgers.

Round — is usually cut into steaks and prepared according to one of the recipes that follow (dry heat cookery). It can also be made into Swiss steaks.

Legs — a small, tender leg can be roasted whole just like a leg of lamb. The meat can also be ground or made into kabob or stew meat, or cured and smoked.

Loin and rib chops — the loin is the source of the sirloin and porterhouse steaks, generally called chops. The loin and rib steaks or are the best for dry cooking — frying, broiling, roasting, grilling. These cuts also make extra choice roasts.

Shoulders — this is another source of pot roasts (moist heat cookery). Cut to whatever size roasts you want. The shoulder can also be corned or boned out for stew or ground meat.

Rump — this is also used for pot roast (moist heat cookery). It is also good corned, or it can be boned out and used like the shoulder.

Neck — best used for pot roasts, stew meat or ground meat. The irregularity of the neckbone makes boning difficult, but with a little care it can be done.

Flank and breast — the flank and breast contain a lot of meat, which is best used for soup, stews or ground meat.

Just don't waste it!

How to Cook Venison

Venison is one of the most highly prized game meats. As mentioned earlier, most of the objectionable or gamey flavor comes from careless handling of the deer after it has been shot.

Some of the gamey flavor is in the fat, so trim away as much of the fat as possible. Another reason for

careful trimming is that venison fat, as it cools, tends to be sticky or tallowy, and it clings to the teeth and the roof of the mouth.

Because venison is a dry meat, only certain cuts (tenderloin, round, and loin steaks or chops) can be cooked using dry heat methods (broiling, frying, roasting, grilling). All other cuts must be cooked.



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using moist heat (pot roasting, stewing, soup). Adding beef suet, butter, pork fat or bacon prevents venison from becoming dry and chewy. This will, however, also increase the total fat, calorie and cholesterol content of the food. Venison without added fat is relatively low in fat, saturated fat and cholesterol. A 3-ounce serving of roasted venison has 131 calories, 2.7 grams total fat, 1.1 grams of saturated fat and 95 milligrams of cholesterol. This means that 19 percent of its calories are from fat and 7 percent from saturated fat. That makes venison slightly lower in total

calories than roasted beef, roasted chicken breast (meat only) and roasted pork tenderloin, and much lower in percentage of calories from fat than either beef or pork. Only chicken is lower in percentage of calories from saturated fat. All the other meats mentioned, however, are lower in cholesterol than venison. (See chart below.)

When mixing venison with other meat for storage, using suet instead of pork will prolong the storage life of the venison. The suet doesn't become rancid as quickly as the pork fat.

Table 1. Venison nutrition.

meat or poultry (3 oz.)	calories	total fat	% cal. total fat	saturated fat	% cal. sat. fat	chol.
venison*, roasted	131	2.7 g.	19%	1.1 g.	7.3%	95 mg.
beef, roasted eye of round trimmed to 0" fat	149	4.8 g.	42%	1.8 g.	16.5%	59 mg.
chicken, roasted breast, meat only	140	3.0 g.	20%	.9 g.	5.5%	72 mg.
pork, roasted tenderloin	133	4.1 g.	28%	1.4 g.	9.5%	67 mg.

Sources: Composition of Foods: raw, processed, prepared. USDA Handbook 8, vol. 5, 10, 13, 17; 1979, 1991, 1990, 1989. USDA.

*note: Handbook 8, vol. 17 has only one venison entry. There may be leaner cuts of venison available, but no other authoritative reference has more complete nutrient information regarding specific venison cuts.



Quick, Simple And Easy Venison Recipes

Eleanora Dudderar, Glenn's wife, likes these recipes because they are quick and easy — especially if Glenn uses them.

Broiled Venison Steak

Choose only the most tender of the steaks — the tenderloin, the loin or the round steaks — and place them on a broiling platter or pan coated with cooking spray or oil. Baste the steaks with butter, margarine or lemon juice, according to your taste and dietary needs. As an alternative, cover the steaks with a strip of bacon. Place the broiling platter or pan on a middle oven rack and broil for approximately 5 to 7 minutes per side. When you turn the steaks, be sure to baste the second side as directed or cover with the strip of bacon. If the steaks are 1-inch thick, broiling for approximately 5 to 7 minutes per side will cook the steaks to medium rare or medium. Adjust the cooking times as necessary or according to your taste, but avoid cooking to well done. Venison cooked beyond medium well is usually dry and chewy.

Barbecued Spareribs

Boil venison spareribs for at least 20 minutes to remove as much of the fat between the layers of meat as possible. Then coat the spareribs with a barbecue sauce of your choice and barbecue over a grill to the desired degree of doneness. Serve while hot.

Venison Burgers

Grind your venison with 30 percent lean pork shoulder, or with 5 to 10 percent beef fat. Pat the ground venison into burgers exactly as you would ground beef. Broil on a broiler platter or pan on a middle oven rack. Cook until juices run clear and there is no color in the meat (medium well). Do not cook to well done or very well done.



Venison Liver

Rinse the liver with cold, clean water and inspect it for any discoloration. A healthy liver is purple-pink. Liver with off-colored spots (yellow, gray, white) should be discarded. After inspecting the liver, cut away all fatty tissue and any connective tissue, and cut out the large blood vessels and ducts that run through the liver. Then slice the liver into pieces no thicker than 1/2 inch, preferably about 1/4 inch. Season to taste with salt, pepper and flour, and fry the slices in a skillet with melted margarine or butter and sliced onions. Cook thoroughly but do not overcook. Venison liver is best when it's cooked while fresh. It makes an excellent evening meal in deer camp.

As you remove the blood vessels and ducts from the liver, you may encounter large, white flatworms called flukes. If you do a thorough job of removing the ducts and vessels, you most likely will remove all of the flukes. These flukes pose no hazard to human beings, especially if the liver is cooked properly. If you find the presence of flukes totally unacceptable, simply discard the liver.

Venison Pot Roast

You can make a roast by rolling shoulder or neck meat into a round and tying it with string. Before you roll it, season the side of the meat that will be on the inside of the roll with the seasonings of your choice. Many of the dried instant soup mixes are excellent for this purpose, especially the vegetable soup mixes. Large rolled roasts from the neck and shoulder can be tied and cut into smaller roasts of desired size. Coat the meat with a mixture of salt, pepper and flour, and brown all sides in your choice of cooking oil. If you are going to cook the venison in a pressure cooker, which is highly recommended, place the cooking rack in the pressure cooker and add water as recommended for your cooker (usually 1 to 2 cups). A 1-pound venison roast will usually cook in 10 to 15 minutes, so you may wish to add fresh vegetables of your choice at this time. Most fresh vegetables, if cut into large pieces, will cook in approximately the same time. If you wish to use frozen vegetables instead, cook the roast at pressure for 10 to 12 minutes, then remove the cooker from heat until the pressure is completely gone, add the desired frozen vegetables, return the cooker to the heat,



♦ M I C H I G A N ♦ V E N I S O N ♦

bring the pressure up and cook for approximately 2 additional minutes. Most frozen vegetables require approximately 2 minutes of pressure to cook thoroughly. If you're using a roasting pot, cover and cook the meat over low heat for 1 to 2 hours or until the meat is tender. Then add fresh vegetables and cook until the vegetables are done. If you wish, make a gravy of the liquid in the pan to serve with the meat and vegetables.

Venison Heart

Slice the heart open and remove all blood vessels and all the tough tissue lining the inside of the heart. Slice the heart crosswise into pieces 1/4 inch thick. Season to taste and fry in melted butter or margarine and sliced onions. Do not overcook or the meat will become tough.

Venison Kabobs

Cut, rump meat or the trimmings from steak meat into approximately 1- to 2-inch cubes. Soak the cubes in a commercial marinade according to label directions. To cook, skewer the meat cubes and, if you desire, coat with a barbecue sauce of your choosing and grill until the meat is cooked to the desired doneness. If you're cooking on an open barbecue grill, wait until the coals are completely white, then grill the cubes approximately 10 to 15 minutes on one side. Continue turning and grilling until the other sides are done. If you do not wish to use barbecue sauce, lower the grill as close as possible to the coals, sear the cubes quickly on all four sides, and then cook for approximately 5 to 10 minutes, turn and cook for another 5 to 10 minutes for medium to medium rare cubes.



Recipes

The following Michigan venison recipes have been modified to reduce fat and sodium content. Some have been used for years by loggers and backwoodsmen. Others are quite new. All of them are worth trying.



BARBECUED DEERBURGERS

If you happen to get a deer that has a very strong wild flavor, here is one way to fix the meat to make it delicious. It's so good on toasted buns — easy for a crowd.

Temp: 400 degrees F to brown, 250 degrees F to finish.

Time: About 20 minutes to brown, 1/2 hour to finish.

Serves 8 to 10.

3 Tbsp. fat or drippings

2 pounds ground venison

1 cup onion, chopped

1 cup celery, finely diced

1/2 large green pepper, chopped fine

1 clove garlic, minced (optional)

1/2 cup chili sauce

1/2 cup catsup

1 3/4 cups water

2 tsp. salt (optional)

1/4 tsp. pepper

2 Tbsp. Worcestershire sauce

1/4 cup vinegar

1 Tbsp. brown sugar

2 tsp. dry mustard

1 tsp. paprika

2 tsp. chili powder

2 Tbsp. chopped parsley

Preheat frying pan. Add fat and melt. When hot, add meat, onions and celery. Brown, stirring frequently. Spoon off excess fat. Combine remaining ingredients, except parsley. Mix well and pour over meat. Cover pan and simmer 30 minutes, stirring occasionally. Add parsley. Serve between hot buns or over mashed potatoes, rice or noodles.



BARBECUED VENISON NO. 1

- Mix all ingredients except venison in large saucepan. Cook over low heat for about 30 minutes or until sauce is thick. Slice rump roast into the bubbling sauce and simmer until meat is just heated through. Serve on hard rolls crisped in oven. Makes 10 hearty sandwiches.

BARBECUED VENISON NO. 2

- Brown onions in salad oil. Add remaining ingredients except venison. Arrange meat in casserole dish. Pour sauce over meat. Bake at 375 degrees F for 20 minutes, or until sauce thickens.

VENISON AND CORN CASSEROLE

- | | |
|------------------------------------|-------------------------------------|
| 1 pound ground venison | 1 clove garlic, minced |
| 4 celery stalks, diced | Dash pepper |
| 2 medium onions, chopped | 1 1/2 Tbsp. Worcestershire sauce |
| 1 can (10 1/2 ounces) tomato soup | 1 tsp. chili sauce |
| 1 can (1 pound) cream style corn | 1 package (3 3/4 ounces) corn chips |
| 1 can (15 1/2 ounces) kidney beans | |

Heat oven to 375 degrees F. Brown ground venison in large, heavy skillet. Add celery and onions. Cook and stir 3 minutes. Reduce heat. Stir in soup, corn, beans and seasonings. Pour into 2-quart casserole dish. Bake uncovered 20 minutes. Top with corn chips. Bake 10 to 15 minutes, or until chips are slightly toasted. Serves 8.

Variation: Omit corn chips. Bake 35 minutes. Serve with corn bread.



VENISON AND RICE CASSEROLE

Vegetable oil, margarine or non-stick cooking spray

2 pounds ground venison

Pepper and salt, if desired

2 cups celery, diced

2 cups onion, diced

1 green pepper, chopped

1 can mushroom soup

1 can chicken rice soup

1 cup uncooked rice

Brown venison in a little oil, margarine or non-stick cooking spray in large frying pan. Add salt (if desired), pepper, celery, onion and green pepper, and heat thoroughly. Combine remaining ingredients and pour over meat and vegetables. Simmer for 1 hour at 300 degrees F. Serves 8.

CHILI

Vegetable oil, margarine or non-stick cooking spray

2 pounds ground venison

2 cloves garlic, minced

1 tsp. paprika

2 Tbsp. chili powder

1 Tbsp. salt, if desired

1 Tbsp. white pepper

1 Tbsp. diced chili pods

1 quart water

Brown meat in a little oil, margarine or non-stick cooking spray. Add seasonings. Add enough water to cover meat. Cook slowly 4 to 5 hours, stirring occasionally. Add remaining water as needed. Serves 8.

VENISON CHOP SUEY

1 pound venison, cubed

Vegetable oil, margarine or non-stick cooking spray

1 cup onion, chopped

2 cups celery, chopped

2 Tbsp. molasses

2 Tbsp. soy sauce

1 can bean sprouts

2 Tbsp. cornstarch

Rice or chow mein noodles

Cook venison in a little oil, margarine or non-stick cooking spray; do not brown. Add onion, celery, molasses and soy sauce. Cook 5 minutes. Drain bean sprouts. Reserve liquid. Mix cornstarch and reserved liquid. Add slowly to meat mixture. Cook until thickened. Add bean sprouts. Heat thoroughly. Serve over rice or chow mein noodles, if desired. Serves 6.



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DEERBURGERS (with suet)

2 pounds lean venison, ground
1/8 to 1/4 pound suet
A handful moist bread

Sliced onion
Salt (optional)
Pepper

Mix well, shape and fry.

DEERBURGER SKILLET MEAL

Non-stick cooking spray, vegetable oil
or margarine
1/2 pound ground venison
1/2 medium onion, chopped
1/2 green pepper, chopped
1 cup tomatoes, canned

1/2 tsp. Worcestershire sauce
1/2 tsp. salt (optional)
1/16 tsp. pepper
3/4 cup water
3 ounces noodles

Brown venison in non-stick cooking spray, vegetable oil or a little margarine. Add chopped onion and green pepper and continue cooking until onion is light brown. Add all ingredients except noodles. Stir and heat to boiling. Spread uncooked noodles over the top. Cover tightly. Simmer for 15 minutes or until noodles are tender and have absorbed most of the liquid. Serves 2 to 4.

VENISON GOULASH

This is simplicity itself, and it uses the tougher portions of venison that are usually ground into deerburger. Chuck portions are ideal.

2 pounds small white onions, sliced
4 ounces canned vegetable shortening
3 pounds stewing venison, cubed
1 Tbsp. marjoram

1 1/2 Tbsp. paprika
2 cans beef broth
Noodles (if desired)

Saute onion slices in shortening until soft. Add cubed venison and brown on all sides. Sprinkle marjoram and paprika over meat and cover with beef broth. Cover pot and simmer slowly 3 hours or until meat is tender, stirring often and adding more warm beef broth from time to time. Gravy should be thick. Broad noodles are excellent with this gravy liberally spooned over them. A fresh green vegetable is an eye-appealing accompaniment, along with a beverage. Serves 8.



◆ M I C H I G A N ◆ V E N I S O N ◆

HEART

Heart may be fried, boiled or baked. Baked heart requires boiling prior to baking. Heart may be served hot or cold and sliced thin for sandwiches.

FRIED HEART (See "Quick and Easy" section, p. 24)

BOILED HEART

Slice the heart open and remove all blood vessels and tough tissue lining the inside of the heart. Boil heart until tender.

BAKED HEART

Slice the heart open and remove all blood vessels and tough tissue lining the inside of the heart. Boil heart until tender. Split heart open and fill with dressing. Put the rest of the dressing around the heart. (The heart will be better if completely covered.) Bake at 350 degrees F until dressing reaches 165 degrees F. Try this dressing:

- 1 large onion, diced
1 cup celery, finely cut
1/4 cup margarine (1/2 stick)
1/2 loaf dry bread, cubed
- 1 tsp. salt (optional)
1/8 tsp. pepper
1 tsp. sage
Water

Cover onion and celery with a little water and simmer until tender. Add margarine and leave until melted. Mix bread cubes, salt, pepper and sage. Pour the liquid over the bread and stir until moist.

LIVER (See "Quick and Easy" section)



♦ M I C H I G A N ♦ V E N I S O N ♦

MEATBALLS

2 pounds ground venison
2 tsp. salt (optional)
1/4 tsp. pepper
1 onion, chopped fine
1 cup celery, chopped

1/2 cup green pepper, chopped
4 eggs, slightly beaten, or 8 egg whites
1 cup cracker crumbs, crushed
2 Tbsp. shortening
Tomato sauce or tomato juice

Mix ground venison, salt (if desired) and pepper, onion, celery, green pepper, eggs or egg whites, and cracker crumbs. Shape into small balls and brown thoroughly in shortening. Pour tomato sauce or tomato juice over the meatballs. Cover and simmer for about 1 hour.

MEAT LOAF

1 egg or 2 egg whites
1/2 cup dried bread crumbs
1 cup lowfat milk
1 pound ground venison

1/2 pound ground pork
1/2 Tbsp. onion, chopped
1 1/2 tsp. salt (optional)

Beat egg or egg white; add bread crumbs and milk. Mix thoroughly with meats. Add onion and salt, if desired. Put in greased pan and bake at 350 degrees F for 1 hour. Tomato and green pepper may be added for seasoning. Serves 4.

MEAT PIE

1 large onion, chopped
2 Tbsp. oil
1 pound ground venison
1 tsp. salt (optional)
1/4 cup canned green chilies, chopped
(about 2 small peppers; optional)

1/8 tsp. oregano
1 can (8 ounces) tomato sauce
2 cups biscuit mix, prepared according
to directions on package
1/2 cup American cheese, shredded

In 10-inch cast-iron frying pan, cook onion in oil until wilted. Add ground venison, salt (if desired), green chilies and oregano. Cook until brown, breaking meat with a fork. Add undiluted tomato sauce and heat.

Pat out biscuit dough on a piece of floured waxed paper to a 10-inch circle. Cut into wedges and place paper side up on top of the "filling." Peel off paper and bake in hot oven (425 degrees F) for 15 to 20 minutes or until brown. Turn upside down on a broiler pan. Sprinkle with shredded cheese and slip under the broiler for a few minutes to melt the cheese. Serves 6.



4 pounds of cooked venison
5 pounds of apples, chopped
1/2 pound beef suet, ground
2 pounds currants
4 pounds seedless raisins
2 pounds crushed pineapple
2 cups white sugar

2 cups brown sugar
2 scant Tbsp. salt (optional)
2 Tbsp. cinnamon
1 Tbsp. vanilla
1 tsp. cloves
1 tsp. allspice
3 quarts cider (sweet)

Combine all ingredients in a large pot. Cook slowly for 2 hours. Cool in the refrigerator in a shallow pan, pour into freezer containers and freeze. May be frozen up to 6 months. Refrigerated mincemeat may be stored up to 1 week.

2 pounds cooked venison, chopped in
food grinder
4 pounds apple, chopped
2 pounds raisins
4 cups brown or white sugar
3/8 pound shortening

1/2 tsp. cloves
1 tsp. mace
1/2 tsp. nutmeg
2 tsp. salt (optional)
1 1/2 tsp. cinnamon
Cider

Mix all ingredients except cider. Add cider to cover mixture or use fruit juices or water with 1/2 cup vinegar. Cook slowly until fruits are tender (about 1 hour). Cool in the refrigerator in a shallow pan, pour into freezer containers and freeze. May be frozen up to 6 months. Refrigerated mincemeat may be stored up to 1 week.



30



RIBS (CHINESE STYLE)

2 cloves garlic, crushed

ROASTING VENISON

POT ROAST NO. 1

Water

Brown roast on all sides in Dutch oven. Cover roast thinly with mustard. Add garlic and onion, bay leaves, salt (if desired) and pepper to taste. Add vinegar and some water, and cook in Dutch oven at 350 degrees F until the thickest portion of the meat reaches 160 degrees F, adding water as needed.



♦ M I C H I G A N ♦ V E N I S O N ♦

POT ROAST NO. 2

4 to 5 pounds venison
1/2 cup flour
Dash pepper

1/4 cup vegetable oil
2 cups water or 1 can cream of mushroom soup and 1 can water
1 package dry onion soup mix

Rub meat with mixture of flour and pepper. Brown on all sides in hot oil in 4-quart Dutch oven. Add water, or mushroom soup and water, and onion soup mix. Cover tightly. Cook slowly for 2 to 3 hours until the thickest portion of the roast reaches 160 degrees F. Turn meat occasionally while cooking, adding more water if necessary. Serves 12 to 16.

POT ROAST NO. 3

4 to 5 pounds venison
Pepper and salt (optional)
6 slices salt pork, 1/8 inch thick
2 lemons

2 Tbsp. Worcestershire sauce
1 medium onion, chopped
Hot water if needed

Remove all fat from venison roast. Season with salt (if desired) and pepper. Line a roasting pan with salt pork that has had excess salt washed off. Place roast in pan. Add the juice of one lemon, Worcestershire sauce, chopped onion and slices of the other lemon. Cover and cook at 350 degrees F until thermometer inserted in the thickest portion of the roast reaches 160 degrees F. Add a small amount of hot water as needed. Serves 12 to 16.

VENISON SAUERBRATEN

2 pounds venison chuck, round or rump roast
6 peppercorns
5 whole cloves
3 bay leaves
1 cup vinegar
Water to cover

3 Tbsp. fat
6 carrots
6 onions
1 cup celery, diced
1 Tbsp. sugar
10 gingersnaps, crushed

Trim all visible fat from venison. Place venison in glass dish with cover. Add peppercorns, cloves and bay leaves to vinegar and pour over meat. Add enough water to cover meat. Cover dish and refrigerate. Allow to stand for up to 3 days. Remove meat from marinade. Reserve liquid for gravy. Heat fat in heavy frying pan. Brown meat on both sides. Add vegetables and 2 cups of vinegar marinade. Simmer until meat and vegetables are tender—approximately 1 1/2 hours. Remove meat and vegetables from pan. Add sugar and gingersnaps to remaining liquid to make gravy. Serve meat and vegetables with gravy. Serves 8.



♦ M I C H I G A N ♦ V E N I S O N ♦

(Note: For a less spicy flavor, substitute beef consomme' for spiced vinegar when cooking meat. Larger amounts of venison may be prepared this way if your family likes sauerbraten.)

DEERBURGER SOUP

- | | |
|---------------------------|---------------------------|
| 1 to 2 pounds deerburger | Beef concentrate to taste |
| 2 Tbsp. vegetable oil | 1 small bay leaf, crushed |
| 1 cup onion, diced | 1/2 tsp. thyme |
| 1 cup raw potatoes, cubed | 2 tsp. salt (optional) |
| 1 cup carrots, sliced | 1/8 tsp. pepper |
| 1 cup cabbage, shredded | 1 1/2 quarts water |
| 1/4 cup uncooked rice | 1 No. 2 can tomatoes |

Brown deerburger and onion in oil in large kettle. Add potatoes, carrots, cabbage and water. Bring to boil. Sprinkle rice into mixture. Add remaining ingredients, except tomatoes. Cover and simmer for 1 hour. Add tomatoes just before serving. Skim off fat if necessary. Serves 8.

VENISON SOUP STOCK

Put the bones left from cutting up the deer in a large kettle. Add water to cover. Simmer for 2 hours.

Cover and cool overnight in a shallow pan in the refrigerator to harden the fat, then remove all the fat. Pick any meat from the bones and return it to the jellied soup stock.

Package for freezer storage. One part stock plus 2 parts water makes a good base for a noodle or vegetable soup.

CREOLE STEAK

- | | |
|---|---------------------------|
| 1 large round steak | 3 stalks celery, chopped |
| Flour | 1/2 green pepper, chopped |
| Salt (optional) and pepper | 3 large onions, chopped |
| Vegetable oil, margarine or non-stick cooking spray | 1 cup tomatoes |

Pound flour, salt (if desired) and pepper into steak. Brown in vegetable oil, margarine or non-stick cooking spray. Cover with celery, green pepper and onions. Add tomatoes. Cover tightly and cook slowly until meat is tender (about 1 1/4 hours).



Cut steaks 1 inch thick. Put between waxed paper and flatten with mallet or side of a cleaver until 1/4 inch thick. Heat frying pan. Add the steaks and keep shaking the pan so steak does not stick. If desired, salt and pepper lightly while cooking. Turn just once, but keep shaking the pan all the time. Serve hot.

Steaks 1/4 to 1/2 inch thick
1 quart vinegar
1 quart water
2 Tbsp. salt (optional)

In the refrigerator, marinate steaks 12 to 24 hours in liquid made from above ingredients. Remove, drain and rinse in cold water. Dry on cloth or paper toweling. Salt (if desired) and pepper to taste. Fry at medium heat in margarine or non-stick cooking spray.

1 pound "ham" steaks, 1/2 inch thick
1/4 cup evaporated milk
1/4 cup flour

Pound steaks thoroughly with sharp-edged meat pounder. Cut into serving pieces. Dip steaks into milk and dredge in flour. Brown one side in hot margarine. Turn. Salt (if desired) and pepper to taste. Continue browning until second side is well browned. Serves 4.

- 1 1/2 pounds venison (any part cut in pieces for stew)
- 6 medium potatoes, cut in chunks
- 6 carrots, cut in chunks
- 3 celery stalks, cut in 2-inch lengths

Put venison, potatoes, carrots and celery in casserole dish and sprinkle with onion soup mix. Add tomato sauce and mushrooms. Cover tightly, either with lid or aluminum foil. Place in oven at 350 degrees F and bake 1 1/2 hours. Serves 6.



♦ M I C H I G A N ♦ V E N I S O N ♦

STROGANOFF

1/4 cup oil	3 cups water
2 pounds venison cut in strips 1/2 inch by 1/2 inch by 2 inches	1 can cream of mushroom soup
1/4 cup flour	6 Tbsp. catsup
1 envelope onion soup mix	Noodles, rice or mashed potatoes

Heat oil. While oil is heating, shake meat in flour to coat. Saute until browned. Add onion soup mix and water. Simmer until venison is tender (1 hour or more). Add cream of mushroom soup and catsup. Heat thoroughly and serve over noodles, rice or mashed potatoes. Serves 6.

CANNING VENISON

Choose quality chilled meat. Remove excess fat. Soak strong-flavored meat for 1 hour in the refrigerator in a brine solution containing 1 tablespoon salt per quart of water. Rinse. Remove large bones.

Hot-pack: precook meat until rare by roasting, stewing or browning in a small amount of fat. Add 2 teaspoons of salt per quart to the jar, if desired. Fill jars with pieces of venison and add boiling broth, meat drippings, water or tomato juice, leaving 1 inch headspace.

Raw-pack: Add 2 teaspoons of salt per quart to the jar, if desired. Fill jars with raw meat pieces, leaving 1 inch headspace. Do not add liquid.

Adjust lids and process, using information in the charts below.

Table 2. Recommended process times for strips, cubes or chunks of meat in a dial-gauge pressure canner.

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of			
			0-2,000 ft.	2,001-4,000 ft.	4,001-6,000 ft.	6,001-8,000 ft.
Hot/Raw	pints	75 min.	11 lb.	12 lb.	13 lb.	14 lb.
Hot/Raw	quarts	90 min.	11 lb.	12 lb.	13 lb.	14 lb.

Table 3. Recommended process times for strips, cubes or chunks of meat in a weighted-gauge pressure canner:

Style of Pack	Jar Size	Process Time	Canner Pressure (PSI) at Altitudes of	
			0-1,000 ft.	Above 1,000 ft.
Hot/Raw	pints	75 min.	10 lb.	15 lb.
Hot/Raw	quarts	90 min.	10 lb.	15 lb.

Source: Complete Guide to Home Canning. Agriculture Information Bulletin No. 539. 1988. USDA



Before the advent of refrigeration, various methods of preserving meat were practiced. Drying, smoking and salting of meat to prevent spoilage were common. These practices antedate recorded history, and they were common by 1000 B.C. The Spaniards who came to North America following Columbus found dried meat (jerky) in use by the Indians. Meat was cut into thin strips and often dried without seasoning. The strips of meat were hung in trees, on poles, or in the tops of huts or teepees out of the reach of dogs. When the meat became hard, it was powdered and mixed with dried berries and corn or other dried fruits and vegetables to form pemmican. Animal fat was often added. In this form, the dried meat was transported in skins and was the principal food whenever tribes were migrating. Pemmican was often soaked four or five hours and boiled into a stew.

In recent years, jerky has again become a popular item. It can be purchased at the grocery, in sporting goods stores, in bars and even in some gas stations. As a result of its popularity, recipes for homemade jerky are in demand.

The purpose of this section is to outline several methods of making jerky. All of the recipes listed can utilize meat from domestic sources or from big game. For example, the same recipe will produce beef or venison jerky.

The Indians frequently used the loin or tenderloin, but any muscle from any place in the carcass can be used. Muscles from the round or leg are most often used today. It is recommended that muscles be removed from the carcass and made into jerky the day after the kill to prevent unnecessary bacterial growth. However, aged meat can be used. Meat that has been frozen and thawed can also be used satisfactorily. Freezing meat for a month at 0 degrees F or below before jerky is made ensures that it will be free from live parasites that are rarely found in venison. To have freshly made jerky during the year, many people freeze meat that is to be made into jerky, then thaw it in small quantities and make it into jerky as it is needed.

Meat should be trimmed of fat and connective tissue and then cut into strips 1/4 inch thick, 1 inch wide and up to a foot long. Cut with (not across) the grain. Small muscles, 1 or 2 inches in diameter, are often separated and made into jerky without being cut into strips. These thicker pieces of meat take longer to absorb the salt and seasonings and longer to dry, but with these exceptions, no changes in the jerky recipes need to be made. Some recipes call for drying jerky in the sun. Because of sanitation problems, this method is not recommended. If sun drying is used, the jerky should be cut into strips 1/4 inch thick or less.

The color of finished jerky ranges from light brown to black. Color variations depend on the recipe used,¹ the species of animal and the age of the animal. The latter two factors are related to the myoglobin concentration in fresh meat. Myoglobin is the pigment in meat responsible for color. Higher levels of myoglobin result in darker colored jerky.



CHECKLIST FOR MAKING JERKY

1. Use fresh, lean meat free of fat and connective tissue.
2. Slice the meat with the grain, not crosswise.
3. Add the correct amount of seasoning. If you do not have a scale, use approximate equivalent measures for the jerky recipes as follows:

Salt.....	10.5 oz (298 g) = 1 cup
	8.0 oz (227 g) = 3/4 cup
	2.0 oz (57 g) = 3 level Tbsp.
Sugar.....	5.0 oz (141 g) = 2/3 cup
	3.5 oz (100 g) = 1/2 cup
	1.0 oz (28 g) = 2 level Tbsp.
Ground spices.....	0.5 oz (14.3 g) = 2 level Tbsp.
	0.08 oz (2.4 g) = 1 level tsp.

4. Cure the meat the correct length of time at refrigerator temperatures. Salted meat should be placed in plastic, wooden, stainless steel or stone containers.
5. Oven or smokehouse temperatures of 170 to 190 degrees F are often recommended for the first 30 minutes. Keep the drying or smoking temperature in the smokehouse or oven at 120 degrees F or below after the first 30 minutes (use a thermometer).
6. If an oven is used, line the sides and bottom with aluminum foil to catch the drippings. Open the door to the first or second stop to allow moisture to escape and to lower the oven temperature when necessary.
7. Use any hardwood for smoking. Do not use pine, fir or other conifers.
8. Remove the jerky from the smokehouse or oven before it gets too hard for your taste. Five pounds of fresh meat should weigh approximately 2 pounds after drying or smoking.
9. Store jerky in clean jars or plastic bags, or wrap it in freezer paper and freeze it. Although jerky will last almost indefinitely at any temperature, its quality deteriorates after a few months.
10. Alter seasonings and smoking or drying times to suit individual tastes. Examples of spices that could be added to 5 pounds of meat in the recipes below include: 2 Tbsp. chili powder, 2 Tbsp. garlic powder, 2 Tbsp. onion powder, 1 tsp ginger, 2 Tbsp. coriander or 1 tsp allspice.



SIMPLE DRY-CURED JERKY

1. Prepare 5 pounds of meat as described above (1/4-inch strips).
2. Spread out meat and sprinkle on 2 ounces salt (3 Tbsp.), 0.16 ounce ground pepper (2 tsp.) and 1 ounce sugar (2 Tbsp.).
3. Put the meat in a pan or dish and let stand 24 hours in the refrigerator.
4. Dip strips of meat in liquid smoke 1 to 2 seconds for added flavor (optional).
5. Spread meat out in the top half of a kitchen oven on a rack to dry. Open the oven door to the first or second stop. Heat at 120 degrees F (lowest temperature) for 48 hrs or until the desired dryness is reached. Use an oven thermometer to make sure the oven does not get hotter than 120 degrees F. Higher temperatures result in hard, brittle jerky that crumbles when it is eaten.

PICKLE-CURED JERKY

1. Cut the meat into 1/4- by 1-inch strips.
2. Make a brine as follows:
 - 1 gallon water
 - 8 ounces salt (3/4 cup)
 - 3.5 ounces sugar (1/2 cup)
 - 0.5 ounce ground pepper (2 Tbsp.)
3. Stir to dissolve salt and sugar.
4. Put the meat strips into the brine and leave them in the refrigerator overnight.
5. Pour off the brine and let cold tap water run on the meat in a container for one hour.
6. Hang the strips of meat in a smokehouse at 120 degrees F until the jerky is the desired texture. Use any hardwood for smoking.

NOTE: An oven, as described under "Simple Dry-cured Jerky," can be used if a smokehouse is not available, but the smoked flavor will be lacking. In addition to pepper, some people add 10 bay leaves, 1 tsp of cloves or 1 tsp of sage (or all of these) to the above brine.

HOT PICKLE-CURED JERKY

1. Prepare the jerky as described in "Simple Dry-cured Jerky", then pound the meat on both sides to work in the spices. Other spices and liquid smoke can be added.
2. Immerse the fresh meat strips (a few at a time) into boiling brine (see "Pickle-cured Jerky") until they turn gray (approximately 1 or 2 minutes).
3. Remove the meat from the brine and oven-dry or smoke as described in the preceding recipes.

NOTE: Hot pickle-cured jerky is preferred by some because the boiling brine sterilizes the surface of the meat before the meat is dried.



◀ M I C H I G A N V E N I S O N ▶

MARINATED JERKY

1. Cut the meat into 1/4- by 1-inch strips.
2. Cover the meat with 1 cup soy sauce and 3 cups water and add 0.16 ounce pepper (2 tsp.) and 0.08 ounce ground ginger (1 tsp.) per 5 pounds of meat.
3. Stir the meat and marinate for 12 hours in the refrigerator..
4. Oven-dry or smoke in a smokehouse.

JERKY FROM GROUND MEAT

1. Cut 5 pounds of meat relatively free of fat and connective tissue into 1-inch squares. Sprinkle 2 ounces salt (3 level Tbsp.), 0.24 ounce ground pepper (1 level Tbsp.), 1 ounce sugar (2 level Tbsp.) and 5 Tbsp. Worcestershire sauce over the meat.
2. Grind meat through a 1/8-inch plate. Divide the meat into four or five portions.
3. Place each meat portion on a sheet of freezer paper, plastic or aluminum foil, and flatten the meat until it is about 1 inch thick. Now cover the meat with a second piece of freezer paper, plastic or aluminum foil and use a rolling pin to flatten the meat to 1/4 inch in thickness. Peel off the top layer. * Turn a cake cooling rack or screen over the meat mixture and reverse. Peel off the other sheet used to flatten the meat.
4. Oven dry at 120 degrees F or smoke in a smokehouse until jerky reaches the desired dryness.
5. Slice into thin strips with a knife or a pair of kitchen shears.

NOTE: Ground meat can be used if it is 15 to 20 percent fat or less and if care is taken to make sure the spices are thoroughly mixed into the meat.



CASINGS

Pork casings, pickled or preserved in dry salt, are obtainable from many locker plants. Beef casings, sheep casings and artificial casings are also often available from some locker plants or places where sausage is made. The use of casings can be avoided if fresh game sausage is made into patties and if cooked sausage such as salami is made in loaf pans. Sausages cooked in loaf pans may require the addition of bread crumbs, soy protein concentrate or other binder at the 5 to 10 percent level to prevent excessive fat and moisture separation.

All casings preserved in dry salt must first be soaked in lukewarm water for approximately 30 minutes before use. Flush each case by putting the end of the casing over the cold water tap and running cold water through the casing. Unused casings can be drained, covered again with fine salt and frozen.

FRESH GAME SAUSAGE

17 pounds lean boneless meat
8 pounds ground pork or beef (25 to 30 percent fat)
3/4 cup (8 ounces or 227 grams) salt

6 Tbsp. (42 grams) ground black pepper
5 Tbsp. (14 grams) rubbed sage

Grind venison through a 1/2- to 3/4-inch plate. Add seasonings by sprinkling over the meat, and add pork or beef. Mix thoroughly. Then grind through a 3/16-inch plate. The sausage can be wrapped and frozen, formed into patties or stuffed into casings.

Note: This is a mild sausage. For a spicy or hot formulation, add an additional:

2 Tbsp. red pepper
1 Tbsp. nutmeg

1 Tbsp. ginger
1 Tbsp. mace



◊ M I C H I G A N ◊ V E N I S O N ◊

BOCKWURST

19 pounds lean venison
6 pounds ground pork or beef (25 to 30 percent fat)
3/4 pound nonfat dry milk
3/4 cup (8 ounces or 227 grams) salt
2 quarts ice or cold water
3 eggs or six egg whites

2 Tbsp. (28 grams) sugar
3 Tbsp. (18.9 grams) onion powder
4 Tbsp. (26.4 grams) ground white pepper
1 Tbsp. (5.4 grams) ground mace
1 Tbsp. (4.8 g) ground ginger

Grind venison through a 1/2- to 3/4-inch plate. Add seasonings by sprinkling the ingredients over the meat, and add pork or beef. Mix thoroughly and grind through a 1/4-inch plate while adding ice or water. Regrind through a 1/8-inch plate. Stuff into hog or collagen casings. Cook in water at 170 degrees F. Use a meat thermometer and cook to 152 degrees F internal temperature. Immediately immerse in cold water until sausage reaches an internal temperature of 100 degrees F. Blot dry. Refrigerate at 32 to 38 degrees F.

Note: This product may be refrigerated after stuffing and cooked from the fresh state for immediate consumption.

COOKED SALAMI

19 pounds lean boneless venison
6 pounds ground pork or beef (25 to 30 percent fat)
1 cup (10.5 ounce or 298 grams) salt
1/2 cup (100 grams) sugar
1 quart ice or cold water
4 Tbsp. (29.6 grams) ground black pepper

3 Tbsp. (13.5 grams) garlic powder
3 Tbsp. (14.5 grams) coriander seed
4 tsp. (7 grams) ground mace
4 tsp. (7 grams) ground cardamom
3 tsp. (21 grams) cure**

Grind venison through a 1/2- to 3/4-inch plate. Add seasonings by sprinkling the ingredients over the meat, and add pork or beef. Mix thoroughly. Then grind through a 1/4-inch plate while adding ice or water. Regrind through a 1/8-inch plate. Stuff into artificial or natural casings 2 to 3 inches in diameter. Hang in smokehouse and heat at 180 degrees F while smoking. Use a meat thermometer and cook to an internal temperature of 152 degrees. Chill in a cold water bath until internal temperature is 100 degrees F. Refrigerate to 32 to 38 degrees F before slicing.

**See note on cure on p. 44.



22 pounds lean venison

15 ounces (426 grams) salt

2 1/4 ounces (64 grams) sugar
(dextrose)

3 tsp cure** dissolved in 1 cup water

3/4 cup (75 grams) ground red pepper

3/4 cup (64 grams) ground allspice

1 Tbsp. (5 grams) garlic powder

5 Tbsp. (28 grams) fennel seed

Grind venison through a 1/2- to 3/4-inch plate. Add seasonings by sprinkling the ingredients over the meat, and add pork or beef. Mix thoroughly. Then grind through a 1/8-inch plate. Let stand in a 6-inch-deep tray at 38 degrees F for 72 hours. Stuff in hog casings. Place in a 90 degree F smokehouse for 2 days. Refrigerate until needed.

17 pounds lean venison

1 quart ice or cold water

1 cup (10.5 ounces or 298 grams) salt

0.7 pound nonfat dry milk

3 Tbsp. (42 grams) sugar

3 tsp. (21 grams) cure** dissolved in
1 cup water

8 tsp. (12 grams) ground coriander seed

5 Tbsp. (34 g) white ground pepper

Grind venison through a 1/2- to 3/4-inch plate. Add seasonings by sprinkling the ingredients over the meat, and add pork or beef. Mix thoroughly. Then grind through a 1/4-inch plate while adding ice or water. Regrind through a 1/8-inch plate. Stuff into natural or fibrous casings. Hang in smokehouse and heat at 180 degrees F while smoking. Use a meat thermometer and cook to an internal temperature of 152 degrees F. Chill in a cold water bath until internal temperature is 100 degrees F.

Note: This product may also be water cooked in 160 to 165 degree F water to an internal temperature of 152 degrees F.

Note: Frankfurters can be made following this recipe. The difference is that franks are stuffed into smaller casings.

****The cure mentioned contains 6.25 percent sodium nitrite, which gives a red, cured color to the sausage after heating and helps prevent botulinum toxin formation. Cures such as "Modern Cure" and "Prague Powder" can often be purchased from small commercial sausage makers. Complete cures such as Morton "Tender Quick" also contain sodium nitrite. When using a complete cure in this formulation, omit 1 cup salt and all cure, then add 1 cup (10.5 ounces or 298 grams) of "Tender Quick".**



4 pounds pork
8 pounds venison
13 pounds potatoes
6 medium onions

Grind pork and venison as for hamburger. Peel and grind potatoes and onions (coarsely). Add salt, pepper and sugar. Mix together and put in casings that have been soaked in water for several hours or overnight. Put in casings as soon as potatoes are ground and mixed — potatoes will turn dark if allowed to stand. Tie ends and prick each ring in several places with a large needle. Place rings in kettle of water. Bring just to boil and simmer for a few minutes. (Boiling too hard can cause rings to burst.) Cool, wrap and freeze. When ready to eat, thaw in refrigerator, then finish cooking in a little water, simmering about 10 minutes or until done. This makes about 35 rings the size of a small ring of bologna.



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