

MOOSE HUNTING – CARE AND HANDLING OF MEAT

By

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Moose meat is considered a high quality form of nutrition when properly handled in the field, at the butchering stage, freezing and when cooked. When cooked properly it is tasty, nutritious, yields about 25% protein, and most importantly is nearly fat free (i.e. about 1% compared to up to 25% in some beef) and over twice as digestible. It is also a rich source of calcium, vitamin B1 and B2, making it an ideal food source for those diet conscientious consumers.

On an annual basis thousands of pounds/kilograms of moose meat results from the annual harvest, the quality of which depends directly on how hunters care and handle the animal taken. Careful handling of the carcass (assuming success in taking an animal) is a critical part of the hunt and done properly will result in quality meat for the table. Such a nutritious delicatessen can offset hunt expenditures but from a different perspective is a way to share experiences and success with family and friends while at the same time promoting the values offered by hunting.

Mature adult males can weigh in excess of 1600 pounds. As an example a 3.5 year old bull taken by the author in 2006 yielded 4 quarters after dressing that weighed 700 pounds with the live weight calculated to be 1400. Most new hunters have little of no experience of what to do when such an animal of this size is downed. Good planning, preparation and being equipped with the correct knowledge are key to success in the field.

Recommended Equipment

The right equipment, knowledge and common sense will ensure issues are minimal. The basic equipment must include a sharp knife, sharpening stone, meat saw (preferred over small axe), a 2 m piece of light rope, at least 8 m of half inch nylon rope a small block and tackle, meat bags, several pieces of toweling or wiping cloth, 2 or 3 large plastic bags (for liver, heart and tongue), a large sheet of polyethylene,

pack boards or some type of carrying structure (stretcher) make the task easier. Cheesecloth is useful for protecting meat as are paper shrouds (specifically designed for covering meat). But, instead of cheese cloth which frequently tears and through which flies can penetrate T-shirt tubing that stretches is preferred. Such tubing can be purchased at any linen store and made into bags 1.4 m in length to cover each quarter. These can be washed and used repeatedly. When buying tubing as a continuous piece, cut sections at the suggested length and have them sewn along the bottom end.

For hanging moose quarters, construct loose fitting nylon mesh bags (1/16th inch mesh size) measuring 1.83 m wide by 1.37 m deep. The mesh is sown along both sides with Velcro on the top. This 'sock' can be readily pulled over quarters hanging on a meat pole and the Velcro fastened around hooks or ropes holding the quarters. This has the important advantage of letting air circulate while keeping flies off the meat.

Field-Dressing

Field dressing must be done soon after the killing to facilitate carcass cooling and avoid bacterial action thus causing spoilage. Even in cool fall temperatures a carcass will take nearly 2 days to cool completely if the hide is left intact. Bleeding is unnecessary as the bullets used usually ensure that bleeding occurs internally. Place the animal on its back (having one or 2 willing partners is usually a welcome bonus), with the head slightly uphill (if possible) and spread the rear quarters by holding or tying the legs apart using adjacent trees or clumps of woody brush. Insert a knife at the base of the throat and make a cut through the hide down the middle of the belly to the anal area, taking care not to puncture the paunch or intestines. Skin back the hide from edge of the incision and at this point you may also wish to commence skinning the legs with the overall objective being to remove the hide and cut the carcass into 4 or 6 pieces. To remove the hide, make an incision down the inside of each leg to the lengthwise cut made along the length of the body. Skin out the legs and down both sides toward middle of the back as far as you can. Next lay the skin out flat and roll the animal on to one side and skin on down and along the back. The carcass can then be rolled over to the other side to finish the process. A large piece of poly or a tarpaulin will help keep the exposed meat from touching the ground.

Now, return to the original starting point and make the incision deeper along the breast bone and make a small puncture into the abdominal cavity. To avoid punctures, insert 2 fingers with pressure down on the stomach one on either side of the knife (cutting surface upwards), slowly and carefully expose the abdominal cavity back to the pelvic girdle. Your fingers help in keeping the stomach and intestines from being accidentally cut. Once in the anal area cut the muscles down to the pelvic girdle – at this point the hind legs will more readily stay apart. If the head is not to be mounted, continue the cut made at the base of the neck forward to the upper part of the neck exposing the wind pipe and esophagus. Using a meat saw split the breast bone (brisket) exposing the chest cavity. Carefully cut the diaphragm loose from the abdominal wall first doing it on one side and then the other – be careful not to cut the paunch. Next cut the wind pipe and esophagus as close to the head as possible and tie the light (2 m) rope around the aforementioned to prevent stomach content from running out. Next cut deeply around the anus with your knife to free the lower intestine or, using a saw cut through the pelvic girdle. The latter is preferred and can be first made on one side of the bone and then the other thereby removing a piece of bone about 7.5 cm wide which will make it easier to free the large intestine leading to the anus from the surrounding body. Ensure that the urinary bladder is not punctured. With bulls, the penis and testicles can be loosened and pulled back to the anal area where the former enters the body cavity through the pelvic girdle. Carefully tie the end of the lower intestine off with string to prevent the escape of pellets. Next if not done already free the bladder and rectum from their attachments, again taking care not to rupture or spill the contents. The internal organs can now be removed by turning the moose on its right side. Remember the attachment of the paunch is on the left side of the body cavity, hence removal is easier if you can cut around the diaphragm and other attachments without having to probe under the entire weight of the paunch. Reach through the chest cavity and pull the wind pipe and esophagus using the rope secured to it toward the rear of the carcass. Finally roll the entire mass (about to weight 25-35% of the whole body weight depending on sex and age) out of the body cavity. Pull this mass away from the carcass. Lay a piece of plastic along one side of the animal and commence skinning (if not done already) that side down to the middle of the back. Repeat the same procedure for the other side and use the hide as a table on top of the plastic. Care in skinning will ensure that little hair ends up on

meat thereby avoiding “hair picking” later. The objective is to keep the meat as clean as possible. Front legs can be removed by cutting the skin and attached tendons around the knee joints, exerting pressure and disjointsing or use a saw. Do not cut the hock tendon on rear legs – these are essential for hanging the quarters and to attach the appropriate tag. Use a meat saw to cut through the bone below the hock. Now that the hide has been separated from the carcass up to the top of the neck, the back quarters can be split from the front by cutting between back ribs 3 and 4 using a saw and knife. The hind quarters can then be held upright and cut in half using a saw or small chain saw with vegetable oil as a chain lubricant. This is much faster than sawing. Next, remove the hind quarters from your work area to adjacent logs or brush elevated off the ground to allow cooling. Next, remove the head from the neck and repeat the same process for splitting the front quarters – cut on either side of the spinal column to facilitate the process as going central through the spinal column prolongs the task and is more difficult and is of no advantage. Remove these quarters to adjacent elevated logs etc. to begin cooling. At this point you may wish to cut the front shoulders from the rib cage giving a total of 6 pieces – this is often much easier on larger animals.

At this point remove the liver and heart and drain as much blood from them as possible. You may also wish to remove another delicacy which is the tongue.

Cleaning

A cloth or paper towel can be used to clean the body cavity of stomach content if a shot punctured the stomach or intestines or if they were cut during dressing. **Do not** wash the body cavity with water – if water is to be used dampen a cloth or toweling and use this. Excess water will collect in the tissue pockets and facilitate bacterial growth thereby increasing chance of spoilage.

Once quarters are hung, hair and other debris that may have collected on the meat during the skinning and removal from the kill site should be removed. Also, damaged meat around the wound should also be removed.

Skinning

To skin or not to skin?? Two schools of thought!! Some prefer leaving the hide intact to keep the meat clean, deter flies, and prevent the outer layer of meat from drying. In this case try to hang the carcass, for 2-3 days if the weather is cool enough to promote further cooling. Spreader sticks must be used in both chest and abdominal cavities to facilitate air circulation. Others prefer to speed up the cooling process by removing the hide, especially during the early season when temperatures can be warm – this is the preferred option and strongly recommended. Hide removal has been described above. The only variation that might occur in the above procedure is to remove or loosen the hide from the entire body before the abdominal cavity is opened.

Quartering

Each piece should be wrapped in the T-shirt tubing bags referenced above to protect from flies or dirt during transportation. Some prefer to use black pepper to keep flies off the exposed meat during transport but this is not necessary if the bags described are used. Hang the cut quarters in the shade to allow further cooling - place a tarp overtop to keep any rain off the meat but not in a fashion to impede air circulation. Never place meat in plastic bags as added moisture and heat will enhance spoilage.

Winter Hunting

Taking a moose in winter has additional problems not the least of which is ensuring that the meat does not freeze. A useful technique to prevent freezing is to quarter the animals as described previously. Then, place the meat on snow, cover with the hide and then pile snow on top of the pile to a depth of about a metre. Meat in ambient temperatures below freezing can be kept in this chilled state for 3-4 days (likely longer) until it can be moved to more suitable conditions.

Ageing meat

Controlled aging allows the muscle tissue to cure and therefore be more tender. Ideally the meat should be hung at a constant temperature just a few degrees above freezing for to 2-3 weeks. Higher temperatures such as in the 40's will shorten the ageing process.

Butchering

If you do not have the time, equipment and experience to process your own moose, having it done commercially is a must.

Freezing

Improper freezing can ruin moose meat as surely as improper field handling. Always use special freezer paper or, and if long term freezing will occur put each package in zip lock bags and extract excess air. Ensure you wrap the meat well and that each package is airtight to prevent freezer burn. Mark each package with the cut of meat and date (i.e. 2007). Quick and even freezing is recommended. Properly frozen and sealed moose meat can last for 2-3 years.

Additional Information

Yes, your hunt was likely expensive especially in these contemporary times therefore every effort should be made to ensure that the fruits of your labour are not in vain. Further, out of respect for the quarry we have taken, it must be treated in a professional way and used in its entirety

Ecology and Management of the North American Moose 733 pages.
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