

CARCASS GRALLOCHING

ENGLAND & WALES
BEST PRACTICE GUIDES

the deer
initiative

Introduction

From the moment it is culled a deer carcass needs to be treated carefully on its way to becoming food. One of the first steps in the process is the gralloch, during which part of the meat hygiene inspection process also takes place. Gralloching is followed by further larding to bring the carcass to the “primary product” or “in skin” stage for storage prior to processing the carcass into venison. The aim of this guide is to provide practical guidance on the initial stages of preparing a carcass immediately after the deer has been shot. The same result can be achieved by many means but the key goal is a process which minimises damage and contamination. A second “Larding” guide describes the final stages of in skin carcass dressing. This guide also links to Carcass inspection, Transport, Basic Hygiene and Larder Hygiene and Safety guides. This guide links to Carcass Inspection, Transport, Basic Hygiene and Larder guides.

The purpose of gralloching is to:

- ◆ Remove the alimentary tract(guts) to avoid contamination of the carcass. Over time, even intact guts, if left in the carcass, will cause a form of contamination of the edible parts known as “greening”. If the guts are damaged by the shot rapid removal can significantly reduce the degree of contamination.
- ◆ Help to cool the carcass. Intact carcasses stay warm for a very long time, longer in hot weather. Cooling the carcasses slows any degradation of the carcass and improves storage times.
- ◆ Reduce tainting of meat by blood

Equipment

Some or all of the equipment listed below will be required at the gralloch. It should be clean, in useable condition and to hand before the gralloch is begun.



- ◆ Sharp knife
- ◆ Disposable gloves
- ◆ Antiseptic wipes/hand wash
- ◆ Means of suspending carcass (if appropriate)
- ◆ Plastic bags
- ◆ Record book

Reducing contamination risk.

- ◆ Hands must be clean. Open wounds or sores on hands must be covered e.g. by using disposable gloves or food safe (blue) waterproof plasters. The use of gloves must be considered best practice but if bare hands are used they should be washed/wiped before beginning the gralloch. Gloves will need to be replaced (or bare hands washed/wiped) during the gralloch as they become soiled.
- ◆ Use clean equipment and keep it clean throughout. Choose as clean an area as possible for a gralloch in the field, alternatively carry out the whole process in the larder.
- ◆ Gralloching is far easier after a clean shot. If the shot causes unnecessary damage then that should be taken account of as the gralloch proceeds.

- ◆ It is helpful if the carcass is arranged head down before starting work, either suspended or laid on a slope, this ensures that blood drains away from the haunch/saddle area.
- ◆ Minimise the number and the extent of cuts through the skin to reduce the risk of contamination before the carcass reaches a larder. Cuts through the skin should be made outwards, rather than cutting inwards through the hair which leaves cut hair everywhere. Start the cut with the back of the blade against the hair then allow the point to break the skin, the cut will then be out ward through the skin, parting the hair and not cutting it. This is not necessary when removing the feet. See fig 1.



fig 1. cut outwards through the skin wherever possible

When and Where

The gralloch should take place as soon as possible after culling, preferably immediately. There is a small window of time during which an intact carcass will remain in perfectly good condition, an hour or so in cool conditions (say 10°C or less) but a little as 15 minutes on hot days exposed to the sun. If the gut is damaged these times will be greatly reduced.

The place at which the gralloch is done will vary according to the prevailing conditions and facilities available. Ideally the whole process would be carried out in a deer larder but commonly it has to be done where the animal was shot, although it is sensible to perform the gralloch away from very public areas. All or part of the gralloch might have to be done on the ground, but smaller carcasses might be suspended if there is a suitable place to do so.

Procedure

The process of gralloching can be split into a number of different tasks, each of which is described below as if the gralloch was being carried out with the animal on the ground. The order and precise way in which the tasks are carried out will depend on the facilities available, the specific situation and personal preference but the end result should always be the same – a hygienically dressed carcass. Best practice would be to do the minimum in the field, completing carcass dressing in the controlled environment of a deer larder. It is accepted however, that because time is of the essence in preventing contamination, the procedures described here often have to be

completed in the field. Where practical a suspended gralloch may prove the most hygienic in these situations.

Check for death

This is always the first step. Approach the deer cautiously and confirm death by checking for lack of eye reflex when the eye is touched.

Begin carcass inspection

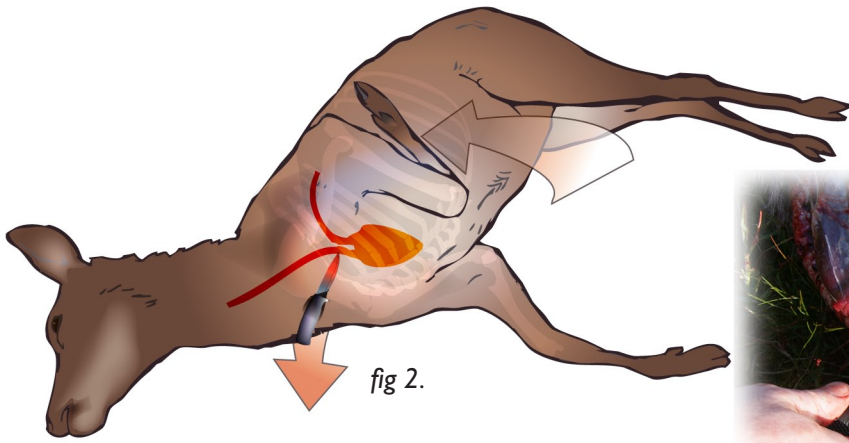
The inspection process begins at this point and will continue throughout until carcass preparation is complete (see Carcass Inspection guide).

In rare cases, at this stage it may be that the carcass is so obviously diseased or unfit for human consumption that you decide to abandon the gralloch at this stage and dispose of the carcass (see By-product Disposal guide).

Bleeding

See figs 2-4. Bleed the animal as soon as possible, and where it fell unless it is appropriate to move the carcass away from areas of public access.

With the animal on it's back or side, insert the knife immediately above the breast-bone, pointing toward the heart, so that it penetrates the chest cavity. Work the blade to either side and remove, the blood should flow freely. This is known as thoracic bleeding. Blood flow can be aided by bending the foreleg back at the knee and pressing it hard down onto the rib cage.



If it can be done without risk of contamination, the carotid arteries and jugular veins on both sides of the neck could be also be drained by cutting them just behind the jaw, but on balance this is usually best left until in the larder as a consequence of removing the head.

Tie the foodpipe (oesophagus).

See figs 5-7. From the bleeding incision, make a cut along the centre of the neck to expose the windpipe (trachea), behind which is the foodpipe(oesophagus). Separate the foodpipe, squeeze any contents back towards the stomach, then cut it close to the head. Scrape off surface flesh from a short length and knot it to prevent leakage of stomach contents into the chest cavity when removing the gut later. Free any connective tissue where the foodpipe enters the chest, this makes it easier to remove later. Lay the foodpipe back in the neck, not on the ground. If you are concerned about environmental contamination e.g. when dragging a large carcass, make the cut only as long as is necessary to tie the foodpipe.



fig 3.



fig 4.

figs 2-4. Bleeding: Note that the length of the knife blade needs to be at least 5 inches in larger deer to reach the aorta. Blood flow can be aided raising the hind legs or in larger deer by bending the foreleg back at the knee and pumping it down onto the rib cage.

fig 5. foodpipe windpipe



fig 6.



fig 7.



figs 5-7. tying the windpipe. Separate the windpipe, scrape surface flesh to expose pipe beneath, tie knot

Open the stomach cavity.

With the deer on its back, and, taking care not to puncture the intestines or stomach, make an incision either:

- ◆ from the sternum to just in front of the udder (females), or to one side of the pizzle (penis) as far as the scrotum (males). Start the cut over the soft rearward pointing cartilage of the breastbone with the knife edge upwards and parallel to the skin. The initial cut should be through the skin, fat and muscle but should not penetrate the peritoneum (thin silvery layer) around the gut. Push through the peritoneum with a finger, insert two fingers and lift the skin, the blade can then be guided along well clear of the gut. (alternatively make the cut with a forefinger laid along the back of the blade and extending past the tip. Tension the skin as the cut is made), see figs 8 and 9.

OR

- ◆ cut in the opposite direction, starting a few centimetres in front of the pubic bone and ending above the sternum, using a similar technique. The udder may have to be removed to start the cut. This method may be preferable if the gut is distended because the gralloch was delayed, or if the carcass is suspended, see fig 10.

A gut hook can be used after making the initial incision, if preferred.

fig 8. opening belly from breastbone – cut out through skin



fig 9.

cartilage of sternum
skin
peritoneum with gut underneath

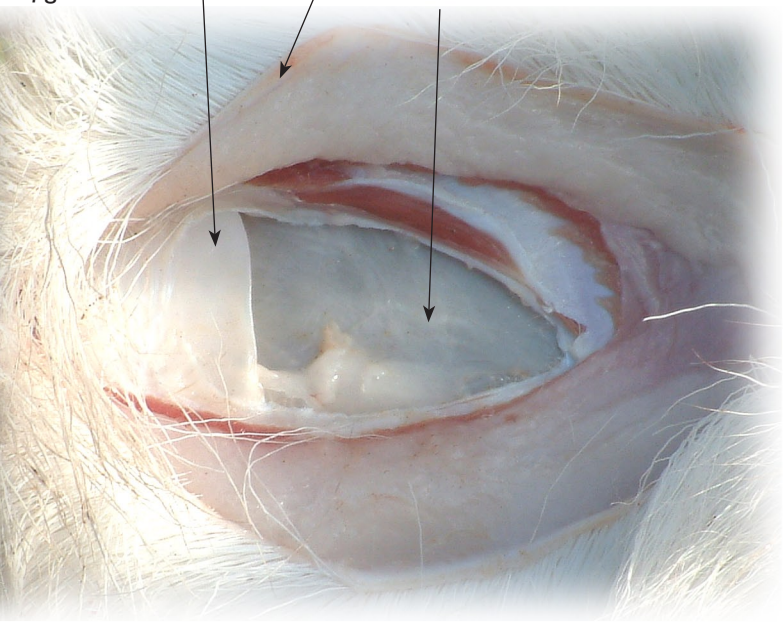




fig 10. opening belly from rear end – note that udder has been removed. Clean, frequently washed hands



fig 11. stripping pellets along the rectum

Free the rectum

fig 11. To keep the rear end intact – having opened the stomach cavity, empty the intact rectum by squeezing any pellets first out of the anus then back toward the stomach. Then, leaving sufficient length to tie a knot, break or cut the rectum and tie it, leaving the knotted end in the carcass, to be removed in the larder later with the anus. Lay the end of the rectum still attached to the intestine outside of the carcass.

Variant fig 12.: Core out the rectum by cutting inside the walls of the pelvic girdle around the anus (and vulva, in females) to free the rectum etc. In males the pizzelle will need to be freed first. Keeping tension on the skin will make the cuts cleaner and easier. Push any faeces out of the anus by squeezing the rectum as soon as you have made the first cut..

Take care not to push the knife inside the pelvis too deeply as you are likely to puncture the bladder. Having emptied and broken the rectum inside the gut cavity, the freed parts should be pulled backwards out of the pelvis not forwards through it. This method exposes more of the carcass to potential contamination than keeping the rear end intact and dealing with it in the larder.

Remove the gut

Turn the animal on it's back or towards its right side. If there is a well developed foetal sac remove it by reaching as far into the pelvis as possible, pinching the vagina and cutting it. Avoid damaging the bladder. Find the spleen. It is attached between the upper left side of the stomach and diaphragm. Break the connective tissue between the spleen and diaphragm leaving the spleen attached to the stomach. Remove the gut to the right hand side by pulling out first the intestines then the stomach, breaking any connections as you go and leaving behind the liver and diaphragm with the foodpipe passing through it. The kidneys can be removed and inspected at this stage or later in the larder. Try to keep the intestine clean to aid inspection.

fig 12. core out anus/vulva



Free the foodpipe

Hold the foodpipe (still attached to the gut) where it passes through the diaphragm and slide your hand towards the heart to free any connections. Still holding the pipe as far forward as possible, apply a steady pull to draw it carefully back through the diaphragm without breaking it or unravelling the knot. The intact gut can now be inspected.

Next steps

Ideally the carcass will now be transported back to the larder, see the Extraction and Transport guide. The next steps are dealt with in the Lardering guide



fig 13. leave spleen attached to stomach



fig 14. pulling the foodpipe



fig 15. foodpipe and rumen extracted