



Meat Hygiene

Introduction

rom the moment it is culled a deer carcass needs to be treated carefully on it's 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 lardering 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 "Lardering" 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.

The purpose of gralloching is to:

- Remove the digestive system (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. Removing organs helps to cool the carcass, slowing any degradation and improving storage times.
- Reduce tainting of meat by blood.

Equipment

Some or all of the equipment listed below will be required for 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
- Cable ties

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 clean 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, especially when dealing with high contaminant areas of the carcass.
- 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.



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 ideally would be done with the carcass suspended if there is a suitable place and lifting equipment to do so.

Procedure

The process of gralloching can be split into a number of different tasks. The key steps are described below

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

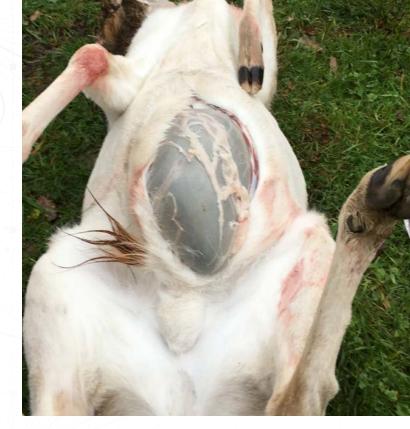
- This is always the first step. Approach the deer cautiously and confirm death by checking for lack of blink reflex when the eye is touched.
- Any remaining blink reflex may require that the deer needs to be dispatched accordingly

Begin carcass inspection

- The inspection process begins at this point and will continue throughout until carcass preparation is complete.
- 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 and dispose of the carcass.

Bleeding

- Bleeding a carcass removes excess blood, both resulting in reduced contamination and a visibly cleaner end carcass.
- Deer should be bled as soon as possible, and where it fell unless it is appropriate to move the carcass away from areas of public access.
- 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 to sever the blood vessels and remove. The blood should flow freely. This is known as thoracic bleeding or sticking.



Tie the foodpipe (oesophagus).

- This step may not be necessary when removing all organs in one go as it will be the last thing to be cut and outside of the carcass.
- Tying is needed when the style of gralloch requires the oesophagus to be pulled back through the chest cavity.
- Open the neck from closest to the chest, locate the windpipe (trachea) and the oesophagus will be beneath it. Separate it from the surrounding tissue and cut close to the head. Scrape off surrounding flesh and tie in a knot to prevent gut content leaking from the cut end.
- A far easier way to tie the oesophagus off is to use a cable tie or similar. This provides a stronger seal, but the cable tie must be removed once the gralloch is finished
- Be conscious of external contamination at this point, so avoid laying the exposed oesophagus on the ground and consider minimising the opening cut to the neck.

Open the stomach cavity.

- Taking care not to puncture the intestines or stomach, make an incision from the groin to the base of the sternum. This can be done in either direction, but the cut should be made from inside out to limit the hairs being cut.
- There are a number of ways to minimise the risk of puncturing the gut, including covering the point of the knife with the index finger, lifting the skin away from the gut with 2 fingers on the non-cutting hand or by using a specially designed knife with a blunt tip.
- The penis and testes or udder for male and female deer respectively may be removed at this stage if needed.

Free the rectum

- The rectum is a major source of possible contamination so care is needed when handling it.
- There are a number of options for removing the rectum such as:
- Feeding any faeces back towards the stomach and out of the anus before tying a length off inside either using a knot or cable tie, cutting it below the knot and leaving the full removal until back at the larder.
- Cutting all around the anus, separating the pipe from the pelvis, then pulling back through the carcass and removing all the rectum with the rest of the intestine. Take care when doing this to avoid pulling a dirty anus back into a clean carcass.

Remove the gut

- The gut consists of the intestines and stomach, though the liver and spleen are also commonly removed at this point.
- Remove the gut through your incision, pulling gently and freeing from any surrounding tissue.
- Lying the deer on its right hand side will allow the gut to be removed in a way that aids inspection of the various organs.
- If only removing the gut at this stage, gently pull the oesophagus through the diaphragm so that the gut can be removed intact.
- If removing the pluck at this stage as well, cut around the diaphragm to access the heart and lungs. Severing the trachea and connective tissue in the chest cavity will allow the pluck to be removed. The oesophagus can be pulled through along with the trachea.





Variations

The above steps are common to gralloching, though there are many variations of each, all based on circumstance or personal preference.

Some of the more common practices not mentioned above include:

- Suspending the deer- the steps are the same but suspending a deer from its rear legs will allow blood to drain better and utilise gravity in the removal of organs.
- Splitting the sternum- This is done by cutting the skin and bone of the sternum and allows better access and easier removal of internal organs, particularly when removing the gut and pluck at the same time. However, be aware that this opens up a lot more of the carcass to potential contamination during extraction and transport so consider when and where this is done.

Next steps

The organs of the deer will need to be inspected for any disease or abnormality. For more information on this, see the Carcass Inspection Guide.

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.

Further Information

BASC Gralloching Video https://www.youtube.com/watch?v=eN2NDLi_9s