

CARCASS LARDER DESIGN

ENGLAND & WALES
BEST PRACTICE GUIDES

the deer
initiative

Introduction

The majority of deer carcasses are destined to become food. Some carcasses will be delivered direct, but if a carcass is to be stored for even short periods it should be kept in a larder designed to meet some minimum requirements. The aim of this guide is to highlight the design requirements for a larder which is safe, efficient, hygienic and complies with current legislation.

This guide links to others in the Carcass Preparation series of guides.

Definition of terms:

Primary product:	A deer carcass which may have had the head, feet and internal organs removed but which is still in the skin
Larder:	A storage facility where deer primary products are prepared, stored and possibly processed into venison
Venison	Meat from a deer carcass after the skin has been removed
Game dealer:	An Approved Game Handling Establishment (AGHE)

Legislation

The EU Food Hygiene Regulations 2006 defines legal responsibilities for handling deer carcasses for sale. These regulations are interpreted for wild game in the UK by guidance issued by the Food Standards Agency (FSA)¹

The legal requirements which need to be addressed at the design stage of a deer larder are:



- ◆ protection of primary products and venison against contamination by keeping facilities clean by using potable (i.e. drinking quality) water and, where necessary, disinfecting them (including equipment, crates and vehicles)
- ◆ preventing carcass handlers, pests, animals, waste and hazardous substances causing contamination
- ◆ controlling temperature

Registration of larders with the Local Authority is required for any storage facility from where deer primary products or venison are sold on to others, this includes selling to game dealers.

Culling deer and using the venison for private domestic consumption only, is not affected by the EU food hygiene legislation nor does any larder have to be registered, however it is strongly recommended that these larder design criteria are applied.

Location

The larder could be a stand alone structure or utilise an existing building. The site should:

- ◆ have access to a source of electricity and potable water at good pressure.
- ◆ permit waste water drainage by an approved means
- ◆ have good vehicular access and room to work safely
- ◆ be reasonably secure, possibly screened from sight
- ◆ if possible, be in the shade to avoid large temperature fluctuations
- ◆ allow for future expansion if required

Size

The size and design of the larder should take into account the number of carcasses it will be required to hold and the number of people expected to be working at any one time. Ideally a space of at least 1 metre should be allowed around a carcass for working on it. In the storage area a gap of least 20cm should be allowed from wall to carcass and at least 15cm between carcasses.

Outside area

A hard standing which drains well and can be easily washed. This is particularly important immediately outside the larder entrance/exit. Outside lighting is strongly recommended.

Power

A single phase supply is adequate but if an industrial three phase supply could be used if available. All fittings must be suitably insulated and waterproofed.

Water

Potable(drinkable) mains water should be used where it is available. If an alternative supply is to be utilised it will need to be routinely tested for quality and water pressure and must be available all year round.

Floors and drainage

The cheapest acceptable flooring is concrete however other materials are available, such as polymer coating or tiles. Paint is not recommended unless specifically designed for the purpose. The floor must be non-slip, anti-corrosive and all joints and junctions with walls etc should be sealed. Floor surfaces should be in sound condition and be easy to clean and disinfect. To enable drainage, floors should have a fall of around 1 in 60 to suitably located drains with such falls constructed to ensure that water does not flow into other work areas. Drain gullies running the length of the floor are more efficient than single drain inlets. Drain inlets should incorporate debris traps with not bigger than 6mm mesh, that are easy to clean.

Internal drains should link to external drainage to permit waste water drainage by an approved means (see By-product Disposal guide)

Walls

Wall surfaces should be in a sound condition and be easy to clean and disinfect. Walls should use impervious, non- absorbent, washable and non-toxic materials and require a smooth surface up to a height appropriate for the operations unless larder operators can satisfy their Local Authority that other materials used are appropriate. It is recommended that angles and corners should be covered to prevent accumulation of contaminants, joints and edges are sealed and non-corrodible metal or plastic sheeting is used on walls at points subject to impact damage.

Roof

The roof must allow sufficient height to suspend carcasses and to allow for adequate ventilation. Ceilings are recommended. Overhead fixtures should be constructed and finished so as to prevent the accumulation of dirt, reduce condensation, and prevent the growth of undesirable mould and the shedding of particles.

Rails, hoists, winches

Overhead rails maximise hanging space and ease carcass handling. Rails should be easily and safely accessible, using a hoist for larger deer. The height of rails should allow carcasses to hang with adequate floor clearance. Ideally a rail will extend out of the larder to the pick up/drop off point. Hoists and winches must be easily cleaned and constructed so that contaminants such as grease will not come into contact with carcasses.

Windows

Windows are not essential but where fitted should be constructed to prevent the accumulation of dirt. Those which can be opened should be fitted with pest/insect-proof screens which can be easily cleaned. Frames should be impermeable and non-corroding.

Doors and work surfaces

Doors and work surfaces should be easy to clean and disinfect. This will require the use of smooth and non absorbent surfaces unless larder operators can satisfy their Local Authority that other materials used are appropriate. Doors must prevent ingress of pests when closed.

Lighting

Natural light is not usually sufficient. Artificial light must be bright enough to enable safe working and carcass inspection. Lights are best placed in the ceiling and should be in shatterproof guards. All fittings must be waterproof.

Materials, surfaces and equipment

All materials, surfaces and equipment should :

- ◆ be easily cleaned, allowing for no crevices or angles that allow contamination to accumulate.
- ◆ not be of bare timber (although undamaged wood may be acceptable for chopping boards)
- ◆ be unaffected by water, disinfectants, detergent, blood and fat.

Equipment and sinks

Adequate and separate facilities should be provided for hand washing and the cleaning, disinfecting and storage of equipment. These facilities should be constructed of corrosion-resistant materials, be easy to clean and have an adequate supply of hot and cold water. Sinks should be ducted to a closed, trapped drain.

Essential equipment:

- ◆ hot and cold water with non-hand operated taps.
- ◆ a stainless steel sink for cleaning equipment.
- ◆ a stainless steel wash hand basin with liquid soap and disposable paper towels
- ◆ hose for floor washing, preferably with variable jet nozzle
- ◆ knives. Minimum 5 inches long, plastic handle with scabbard and means of sharpening
- ◆ butchering saw (and scabbard) or equivalent
- ◆ plastic buckets and offal bins with lids marked "unfit for human consumption"
- ◆ stainless steel hooks and gambrels, chest spreaders if required
- ◆ broom and brushes for cleaning
- ◆ food safe detergent and hard surface cleaner
- ◆ weighing scales
- ◆ means of recording carcass data, tags as appropriate
- ◆ winch/hoist for larger deer (these should be easily cleaned and constructed to prevent contaminants such as grease from coming into contact with carcasses)
- ◆ suitable clothing e.g. waterproof boots, aprons/ gowns, chain mail glove, hat
- ◆ first aid kit

Other equipment:

- ◆ UV fly trap (essential unless flies can be prevented by other means)
- ◆ variable outlet hose gun
- ◆ stainless steel rack for pluck/head inspection (or use hook)
- ◆ stainless steel work surface (if room available)
- ◆ stainless steel cradle or bench

Ventilation

Adequate ventilation should be provided and should be based on the principle of a large volume of air moving slowly through the work areas. Air inlets/outlets, door and window openings should be screened to prevent entry from insects. Ventilation equipment should be resistant to corrosion.

Carcasses should be hung to allow free flow of air between them. Where a larder is reliant on forced ventilation some provision should ideally be made for natural ventilation during down times in order to prevent stagnant air and mould.

Temperature control

Food legislation stipulates that large wild game must be cooled to below 7°C within a reasonable time after killing and kept there until delivered. Ideally a carcass should be stored between 1 and 2°C but must not be frozen. A carcass should reach a game dealer (or other premises with chill facilities) while cooling down to, or at the required temperature. It is acceptable for a carcass to cool naturally to below 7°C if ambient temperatures allow, but active chilling will have to be considered if not. Once chilled the carcass should not be allowed to warm above 7°C again. Unless you can guarantee that a carcass can reach a game dealer (or other premises with chill facilities) while cooling down to or at the required

temperature, you will have to consider active chilling unless ambient air temperature ensures that the correct temperatures are maintained.

A larder with a chill facility must be adequately insulated. It is recommended that proprietary insulated materials and chiller units are used for larger larders although for single carcasses, simple, stand alone chill cabinets may be adequate. Chill rooms should have the same design criteria as the larder and ideally link with it via the rail system. For individual carcasses a chill cabinet might be adequate.

Larder protocols

Carcasses can be degraded by poor handling even in the best designed larder. A protocol for handling carcasses should be taken into account at the design stage and followed in use. It is strongly recommended that a HACCP style risk assessment is carried out both at the design and use stages. See Larder Hygiene and Safety guide.

Further Information:

¹ Guide to food hygiene Regulations for those supplying wild game for human consumption at: <http://www.food.gov.uk/foodindustry/meat/wildgameguidance>