

ENGLAND &
WALES **BEST
PRACTICE
GUIDES**

Larder Design.

Meat Hygiene





Introduction

The majority of deer carcasses are destined to become food. Some carcasses will be delivered direct to a game dealer or to the end user, 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.



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).

- Protection of any products 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

Larders can be stand alone structures or utilise existing buildings.

Regardless of the type, any larder 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.
- 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, the species of deer 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 at 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.
- Must be kept tidy and clear of debris to minimise vermin presence.

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 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

- Floor surfaces should be in sound condition and be easy to clean and disinfect.
- The floor must be non-slip, anti-corrosive and all joints and junctions with walls etc should be sealed.
- 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 no bigger than 6mm mesh, that are easy to clean.
- Internal drains should link to external drainage to permit wastewater drainage by an approved means

Walls

- Wall surfaces should be in a sound condition and be easy to clean and disinfect.
- Walls should use impervious, non- absorbent, washable and nontoxic materials and require a smooth surface up to a height appropriate for larder operations.
- 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 and strength to suspend carcasses and to allow for adequate ventilation.
- Overhead fixtures should be constructed and finished so as to prevent the accumulation of dirt and mould, reduce condensation and in a way that minimises the risk of shedding particles.

Rails, hoists, winches

- Overhead rails maximise hanging space and ease carcass handling.
- Rails should be easily and safely accessible, using a winch or 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.
- Winches and hoists must be easily cleaned and constructed so that contaminants such as grease will not come into contact with carcasses.
- Winches and hoists must be sufficiently powerful to lift the larger species of deer.

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 noncorroding.



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 for working in a larder.
- 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.

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

Below is a list of features and equipment to be considered essential in a larder:

- Hot and cold water with non-hand operated taps
- A stainless-steel sink for cleaning equipment
- A stainless-steel hand wash basin with liquid soap and disposable paper towels
- Hose for floor washing, preferably with variable jet nozzle
- Knives- Minimum blade length of 12cm in stainless steel, non-slip and non porous handle with scabbard and means of sharpening
- Butchering saw
- Plastic buckets and offal bins with lids marked “unfit for human consumption”
- Stainless steel hooks and gambrels
- Broom and brushes for cleaning
- Food safe detergent and sanitiser
- Weighing scales
- Means of recording carcass data
- Carcass tags
- Winch/hoist for larger deer
- Suitable protective clothing e.g. waterproof boots, aprons/ gowns, chain mail glove, hard hat
- First aid kit
- UV fly trap

Other equipment may be useful to have, including stainless steel cradles and stainless work tables

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.

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. This reduction and maintenance of temperature is known as the cold chain and must be kept within the above ranges throughout the journey of a carcass.

A larder with a chiller 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, standalone chill cabinets or fridge conversions may be adequate.

Chillers should have the same design criteria as the larder and ideally link with it via the rail system.

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 plan and risk assessment is carried out both at the design and use stages.

Further Information

- **FSA Guidance for Game meat handling and supply**
<https://www.food.gov.uk/sites/default/files/media/document/V7%20Guidance%20-%20supply%20of%20wild%20game%20for%20human%20consumption.pdf>