



The Management of Deer on National Trust Land



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Cover: Red deer stags, during the rutting season, on Cage Hill, Lyme Park. © NTPL/Nick Garbutt

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Introduction

The Trust manages between 4,000 and 5,000 deer* in ten parks in England, one in Wales and one in Northern Ireland. (* See footnote page 10.)

Management of deer is also an important aspect of the Trust's work in the countryside. Deer are an accepted and often welcome part of UK biodiversity but mature deer have no natural predators. As a result, populations can increase and cause damage to wild plant communities and crops. Numbers of most deer species are increasing and are extending their range.

Adjustment to agricultural and forestry programmes can help to minimise any damage caused by the deer but as part of this management programme deer usually have to be killed.

This paper sets out a framework of policy and principles for managers and those responsible for public information and education. It is presented under the following section headings:

1. Guidelines on the management of wild deer
2. Guidelines on the management of park deer
3. Minimum standards for stalkers and conditions of employment
4. Health and safety and hygiene requirements in the culling of deer and the capture of live deer.

Information about close seasons and permitted firearms is provided at page 18.

There are some other key publications which all managers should have readily available. These are highlighted in the selected bibliography which is provided at page 19.

Section 1

Guidelines on the management of wild deer

Introduction

These guidelines have been prepared with the purpose of:

- establishing the need for management of wild deer on Trust land;
- defining the Trust's policy and identifying appropriate management objectives;
- promoting high standards in all aspects of deer management.

British deer species

Red deer (*Cervus elaphus*). Native, widespread in Scotland, scattered throughout England with concentrations in Devon, Somerset, Cumbria and Norfolk.

Sika (*Cervus nippon*). Nineteenth-century introduction; large numbers locally in southern England, also present in north-west England and Scotland. Capable of interbreeding with red deer.

Roe deer (*Capreolus capreolus*). Native, large numbers concentrated in southern England and north, from Yorkshire and Cumbria into Scotland, also East Anglia. Absent from Ireland.

Fallow deer (*Dama dama*). Early introduction, present throughout most of England, concentrated in the south and east. Also found in parts of Wales and Northern Ireland.

Muntjac (*Muntiacus reevesi*). Nineteenth-century introduction, population centred on and concentrated in south-east and central England, but spreading west to Devon and north to Derbyshire. Still uncommon in Wales and absent from Ireland.

Chinese water deer (*Hydropotes inermis*). Twentieth-century introduction. Rare and largely confined to the Cambridgeshire fens and Norfolk Broads.

The need for management

In Britain and Ireland the large carnivores which contributed to regulating population levels of deer have been persecuted to extinction. Changes in land use, particularly the creation of new forested areas, have provided extensive and often favourable habitat for deer. So, without management, the size of deer populations is limited largely by the availability of food.

In extreme conditions, deer will die of malnutrition or associated diseases. More typically there is a reduction in reproductive rate and an increase in pre- and post-natal mortality.

These responses, in themselves, are insufficient to prevent population growth.

Increasing numbers and the spread of deer to new areas can result in environmental or commercial damage. The perception that damage is occurring prompts management, usually involving culling.

Many deer are killed on the roads. Measures to reduce the incidence of road traffic accidents caused by deer may also be necessary in some places.

Objectives of management

On National Trust properties, deer are generally a welcome and acceptable component of the fauna. The Trust's objectives in managing wild deer are:

- **To protect valued wild plant communities.** The protection of many such communities depends on maintaining specific levels of grazing and browsing.
- **To contain damage to commercial crops (farming and forestry) and to ornamental produce.** Excessive damage does occur and must be contained. The Trust is aware of its obligations towards tenants and neighbours.
- **To reduce the incidence of road traffic accidents involving deer.** It is not always possible to take effective action, but at particular black spots some measures are realistic.

Health is generally not a management issue in relation to wild deer in England, Wales and Northern Ireland.

In achieving its objectives, the Trust will aim:

- **To carry out all operations in a safe and humane manner.** Any culling is to be carried out with full regard at all times for the safety of visitors and staff; the welfare of livestock and other animals and the clean despatch of deer to be culled (see also Model Risk Assessment WRK – 004).
- **To co-operate with neighbours in the preparation of management programmes.** Herd deer such as red, fallow, and sika, habitually move over large areas and effective management is only possible in this way.

The Trust does not:

- maintain populations of deer to maximise their revenue potential in any way.
- sanction the capture and sale of wild deer.
- permit commercial stalking on its land.
- permit the hunting of deer with dogs on its land. (A trained dog may be used to track an injured deer so that it can be humanely killed, however.)

Management principles

Damage caused by deer

The usual reason for managing wild deer is to contain their impact on wild plant communities and crops to acceptable levels. It is the impact rather than an estimate of population size, which normally determines any necessary management. Population size is difficult and costly to estimate reliably and, without reference to the impact of the deer on their environment, provides no indication of appropriate management.

The impact of deer on their environment varies according to the species, the habitat, competition for food and the season. Some aspects of this can be considered damaging. It is essential to evaluate the true cause, significance and extent of reported damage before planning a management programme.

Management

An assessment of the impact of deer on their environment *may* indicate the need for management.

Management options fall broadly into four categories:

1. habitat management;
2. protection of vulnerable areas or plants by use of fencing or guards;
3. use of reflectors or other deterrents to reduce road casualties;
4. culling.

A combination of these usually provides the most effective strategy. The resulting strategy for the management of deer will be fully integrated with all related aspects of management and incorporated into the property management plan.

Culling

In cases where culling is necessary the assessment of the cull target will involve consideration of:

- the extent of damage directly attributable to deer;
- a current estimate of changes within deer population in terms of numbers and gender.

Where the control of deer population is undertaken, a designated member of staff, the **Trust deer contact**, should monitor the progress of the cull programme and ensure that correct procedures are followed by all stalkers at all times.

Responsibility for the implementation of any cull programme will rest with stalkers. Minimum standards of competence must be demonstrated (see Section 3: Minimum standards for stalkers and conditions of employment, page 14). Stalkers must be party to the Trust's standard **Deer Culling Contract** (see 'Deer and the law' next page).

Continuous monitoring and assessment of the programme is necessary. The effectiveness of deer management can only be gauged by monitoring the levels of impact over a period of years.

Records must be kept on all major aspects of the programme:

- Damage level reports need to be retained for several years if any trends are to be identified necessitating adjustment to the programme.
- If culling is necessary, then, prior to the start of the season and with the help of the stalkers, the Trust deer contact should prepare a cull plan containing information supporting the proposed cull target, a shooting plan and details of any constraints or special requirements.
- A detailed cull record should be maintained by each stalker. Information on age, sex, and carcass weight should be recorded. Any suspected symptoms of Bovine TB must be reported to the Divisional Veterinary Manager at the local Animal Health Office of Defra in England and Wales or DARD in Northern Ireland.
- At the end of the season a cull report should be prepared, normally by the stalker, for the Trust deer contact. This, in conjunction with the cull plan for that period, will assist in formulating a programme of management for the season(s) ahead.

Liaison

The mobility of herd deer means that in most cases their management will encompass a wide geographical area. In order for such management to be effective, a considerable degree of co-operation is required from all landowners in the area. The most satisfactory form that this co-operation takes is the creation of a Deer Management Group. The partnership approach will be further promoted under the auspices of the Deer Initiative, in England and Wales, from whom advice and help on the subject can be obtained. The Trust is a founder member of the Deer Initiative.

In England, Wales and Northern Ireland, we will actively promote the establishment of a management group where herd deer are present and no such organisation currently exists.

Deer and the law

Apart from the normal responsibilities that the Trust has as an employer and as an owner of land to which the public has access, there are a number of legal requirements relating specifically to the management of deer. The most relevant legislation is listed in the bibliography on page 19. A more comprehensive account is provided in *Deer: Law and Liabilities (2008)*.

A detailed instruction on the issue of contracts, 'The Deer Culling Contract – approving the use of firearms for culling deer', was prepared in 2009 and is available on the Trust's intranet. The instruction or any future amendment is the definitive statement of the Trust's policy on firearms use for deer stalking on its lands. A copy must be held with the deer guidelines.

Dispatching a wounded animal

Stalkers are often called upon to deal with injured animals. The humane dispatch of deer and other animals injured in road accidents is fraught with legal difficulty. If a police officer is present at the scene of an accident it is important to work under his or her direction. The Deer Initiative best practice guide *Deer and Vehicle Collisions* is a useful source of information.

Trained tracker dog may be used to search for a wounded animal in open country should a shot not kill cleanly.

Poaching

The poaching of deer can be a major problem. In instances where poachers are apprehended on Trust property with sufficient evidence available for a successful prosecution, it is important that the Trust support the prosecution.

In common with all illegal activity on Trust properties, staff safety is paramount when dealing with poaching. Section 3 of the Trust's *Security Manual* ('Personal Safety') refers.

Staff or volunteers who suspect that deer are being taken illegally should record and report the time, date, location and other details of any occurrence using the Trust's security incident and crime reporting system. Details of vehicles, particularly registration numbers, and descriptions of any people seen acting suspiciously are important.

If suspected poachers are encountered, extreme caution should be taken and a working presumption applied that staff or volunteers should not approach them. The police should be contacted immediately on 999 and asked for support. Where firearms are seen or heard, this fact should be relayed to the police so they can dispatch an appropriate response. Further positive action staff can take in this instance is to gather evidence if safe to do so, such as deer carcasses, spent cartridges, details of associated vehicles and person descriptions for example.

Deer and the public

There is public concern about the killing of deer. It is vital that the Trust is open in presenting its case for essential management.

Every opportunity should be taken, with due sensitivity, to demonstrate the importance of deer management (of which culling is only one aspect). Deer management enables the effective conservation of the features and natural processes that are valued in the countryside, helps to protect agricultural crops and contributes to a reduction in road traffic accidents caused by deer.

The possibility that people may be at risk from contracting Lyme disease on certain properties has been reviewed. Advice to the public and warning notices will be used, initially, only in areas where ticks are known to occur. (See also Section 4: Health and safety and hygiene requirements in the culling of deer and the capture of live deer, page 15.)

Section 2

Guidelines on the management of park deer

Introduction

These guidelines have been prepared with the purpose of:

- establishing the need for management of deer in Trust deer parks;
- defining the Trust's policy and identifying appropriate management objectives;
- promoting high standards in all aspects of management at all staff levels.

Deer in parks*

Red deer (*Cervus elaphus*) in: Calke, Lyme, Studley Royal, Tatton

Sika (*Cervus nippon*) in: Studley Royal

Fallow deer (*Dama dama*) in: Attingham, Belton, Calke, Charlecote, Crom, Dinefwr, Dunham Massey, Dyrham, Lyme, Petworth, Studley Royal, Tatton

The need for management

Deer parks are often ancient pasture-woodlands and designed landscapes of great ecological and historical importance. They are also an important resource for public recreation.

The primary concern in deer parks is to maintain the herd in a healthy condition as an integral feature of an historic landscape. The deer will contribute to the grazing necessary to sustain the plants and animals associated with ancient pasture-woodland. Deer numbers in parks should be determined by ecological and historical criteria, and not by revenue considerations.

Parks are enclosed areas. Without management involving both culling and winter feeding, numbers would rapidly exceed the carrying capacity of the park.

Objectives of management

The Trust's objectives in managing park deer are:

- **to maintain populations of deer in a healthy condition;** The relatively high stocking levels make it imperative to monitor and maintain healthy stock.
- **to maintain desired wild plant communities;** the protection of such communities depends on specific levels of grazing.
- **to maintain the historic landscape;** deer have been managed in parks, in some cases, for several hundred years.

* Between 1991 and 1996 the number of deer in Trust owned parks in the spring, ie post cull but before fawn/calf drop, varied between 4,135 and 44,06. In 1996, there were totals of 3,096 fallow, 1,065 red and 56 sika deer. The figures were similar for the other years and there were no obvious changes in the ratios of the different species.

Densities (in spring, post - cull and before calf/fawn drop) varied widely from an average of 0.9/ha at Belton to 6.9/ha at Calke Abbey. The mean density in 1996, which is typical of densities over the previous **five** years, was 2.9/ha (all species) and 2.6 /ha (fallow). In a sample of 97 deer parks selected to give the full range of densities, for fallow deer the range was from 0.1/ha to 29.7/ha with a mean of 3.6/ha (Goldspink 1989). This sample included some National Trust deer parks and does not, therefore, represent an independent comparison. Nevertheless it is clear that densities on Trust properties are close to, but lower than, the national average.

In achieving these objectives the Trust will aim:

- **to conduct all operations in a safe and humane manner;** any culling is to be carried out with full regard at all times for the safety of visitors and staff; the welfare of livestock and other animals and the swift and clean despatch of culled deer;

The Trust does not:

- maintain populations of deer in order to maximise their revenue potential in any way;
- permit trophy stalking on its land;
- permit the hunting of deer with dogs on its land.

Management principles

Management and monitoring

Park deer are maintained at stocking levels far higher than could be sustained in the wild. Culling is therefore essential both to the well-being of the park and the herd.

Improvement of pasture within parks by fertiliser or herbicide application is not compatible with the conservation of the flora and fauna. It may be incompatible with providing a sward appropriate to the historic designed landscape. There is no justification for 'improving' the sward in order to sustain higher deer numbers. A reduction in stocking levels would be preferable if summer grazing is inadequate.

Supplementary feeding in winter is essential to maintain the health of the deer. Micronutrients essential to health and lacking in the vegetation should be provided as part of this regime.

Shelter and protection from human disturbance, especially when the young are dropped, is highly desirable.

There is rarely any justification for the introduction of new blood. Fallow deer, in particular, have such a low level of genetic diversity in the UK that a significant improvement of the herd in this way is improbable.

Live sales

Deer in Trust parks are not managed commercially. However, income from the sale of cull animals is welcome. Selling live animals is possible and at first sight seems humane and financially attractive. This involves nets, handling pens or drugs. Their use is not without hazard to deer, deer managers and, under some circumstance, the public. Live capture using muscle-relaxing drugs is especially hazardous (see Section 4, page 15). Any capture and transport of live deer requires a licence from Natural England, Countryside Council for Wales, or the Ministry of Environment in Northern Ireland. It is essential to evaluate the apparent benefit of live sales most carefully.

Culling

Responsibility for the implementation of any cull programme will rest with those persons (or 'rifles') appointed by the deer park manager. The agreed annual culling programme must be implemented even if the live-sale or venison markets are poor.

Minimum standards of competence must be demonstrated (see Section 3; begins on page 14). 'Rifles' must be party to the Trust's standard Deer Culling Contract.

Responsibility for the hygienic handling of carcasses and an awareness of factors which render carcasses unsuitable for human consumption also lies with the 'rifle.' These matters are dealt with in the Food Standards Agency *Wild Game Guide* and in the Deer Initiative's *Best Practice Guides*.

The manager of the park should control the culling operations and ensure that correct procedures are followed by all 'rifles' at all times.

Records must be kept on all major aspects of the cull programme:

- Prior to the start of the culling season, the deer park manager should prepare a cull plan which must include the estimated deer population, the cull target, a shooting plan and details of any constraints or special requirements.
- A detailed cull record should be maintained. Information on sex, age, carcass weight, carcass details, should be recorded. Any suspected symptoms of Bovine TB must be reported to the Divisional Veterinary Manager at the local Animal Health Office of Defra in England and Wales or DARD in Northern Ireland.
- At the end of the season a cull report should be prepared for the deer park manager. This, in conjunction with an estimate of the breeding success of the herd will assist in formulating a programme of management for the season(s) ahead.

Deer and the law

Apart from the normal responsibilities that the Trust has as an employer and as an owner of land to which the public has access, there are a number of legal requirements relating specifically to the management of deer. The most relevant legislation is listed in the bibliography on page 19. A more comprehensive account is provided in *Deer: Law and Liabilities (2008)*.

A detailed instruction on the issue of contracts, 'The Deer Culling Contract – approving the use of firearms for culling deer', was prepared in 2009 and is available on the Trust's intranet. The instruction or any future amendment is the definitive statement of the Trust's policy on firearms use for deer stalking on its lands. A copy must be held with the deer guidelines.

In Trust deer parks, deer culling may form part of a staff member's role. In these instances the staff member does not need to enter a 'deer culling contract' as their contract of employment already covers this.

Poaching

The poaching of deer can be a major problem. In instances where poachers are apprehended on Trust property with sufficient evidence available for a successful prosecution, it is important that the Trust support the prosecution.

In common with all illegal activity on Trust properties, staff safety is paramount when dealing with poaching. Section 3 of the Trust's *Security Manual* ('Personal Safety') refers.

Staff or volunteers who suspect that deer are being taken illegally should record and report the time, date, location and other details of any occurrence using the Trust's security incident and crime reporting system. Details of vehicles, particularly registration numbers, and descriptions of any people seen acting suspiciously are important.

If suspected poachers are encountered, extreme caution should be taken and a working presumption applied that staff or volunteers should not approach them. The police should be contacted immediately on 999 and asked for support. Where firearms are seen or heard, this fact should be relayed to the police so they can dispatch an appropriate response. Further positive action staff can take in this instance is to gather evidence if safe to do so, such as deer carcasses, spent cartridges, details of associated vehicles and person descriptions for example.

Deer and the public

There is public concern about the killing of deer. It is important that the Trust is open in presenting its case for management of which culling is only one aspect. Every opportunity should be taken to demonstrate the importance of deer management in the conservation of the features and special attributes of parks.

Another important medium for informing visitors is the leaflet or guide book. Although there is no need, and rarely space, for any detailed presentation of the case, a reference to the fact that deer are managed, with an indication of the numbers culled each year can give visitors an insight into management practice and pre-empt criticism. Guided walks and the inclusion of references to deer management in educational material also have the potential for increasing knowledge and understanding.

Lyme disease is not currently a problem in any National Trust deer park. Carcasses in all parks are free from ticks which can carry the disease. If this situation changes, warning signs will be used and advice made available to the public.

Section 3

Minimum standards for stalkers and conditions of employment

The Trust demands the highest standards of all its stalkers. All stalkers must be able to demonstrate a minimum standard of competence before being permitted to stalk on Trust property. In addition to the skills of deer knowledge and marksmanship, current legislation concerning carcass-handling and inspection require that stalkers are proficient in these areas.

Deer Culling Contract

All stalkers (not members of staff carrying out their normal work) must be subject to the standard National Trust Deer Culling Contract. A detailed instruction 'The Deer Culling Contract – approving the use of firearms for culling deer' was prepared in 2009 to guide Trust staff in putting such contracts in place. The instruction is available on the Trust's intranet site.

Insurance

All stalkers on Trust land (not members of staff carrying out their normal work) must be in possession of a public liability insurance indemnity, currently to a minimum value of £5 million, that will be reviewed annually. Staff carrying out their normal work are covered by the Trust's own policy.

Qualifications

There are currently many competent and responsible stalkers both on the Trust staff and outside, who have no recognised qualification. So long as there is no reason to doubt their competence and there is not a requirement under Regulation (EC) 853/2004 to be 'trained' for the purposes of supplying deer carcasses into approved game handling establishments, they will be permitted to continue while being encouraged to gain an appropriate qualification. The Trust considers the appropriate qualification to be Deer Management Qualifications (DMQ) Stalking Certificate at level 2 or equivalent. Stalkers will be expected to have obtained the qualification within a three-year period.

No new stalker should be recruited without a formal qualification.

The Trust's manager must always be satisfied that any stalker is competent to operate alone.

Alternative qualifications that may be considered are the St Hubert Club Qualified Stalker qualification or the *Cull Deer* module of the Gamekeeping Vocational Qualification.

References

References are essential when recruiting stalkers. Ideally a reference should be obtained from another stalker currently known to the manager and in whom he has complete confidence. Alternatively they may be obtained from a landowner on whose property the applicant has stalked or continues to stalk.

Training new stalkers

In many circumstances qualified and experienced stalkers should be encouraged to train novice or apprentice stalkers. This will be with the express written permission of the Regional/Country Director and could prove very useful in developing future stalkers with an intimate knowledge of the property and the particular deer management objectives of the Trust. Such apprenticeships should be of two years, or more, duration.

Section 4

Health and safety and hygiene requirements in the culling of deer and the capture of live deer

Use of firearms

All culled deer must be shot by trained marksmen using high velocity rifles. The 1991 Deer Act provides the relevant statutory framework within which the Trust and its employees must operate.

The safest method of culling with a rifle is from a high seat. However, it is unrealistic to expect that any cull target could be achieved solely in this way. Inevitably most animals will be shot from the ground, a situation which reinforces the need for the highest standards of skills and responsibility.

Under most conditions deer may only legally be shot during the period commencing one hour before sunrise and ending one hour after sunset. Night shooting of deer in England and Wales can only be carried out under licence, issued by Natural England or the Countryside Council for Wales.

Risk assessment

Deer culling requires the completion of a formal risk assessment (Management of Health and Safety at Work Regulations 1999). The Trust makes use of a combined model/site risk assessment form. The centrally prepared elements of the model summarise the hazards and groups at risk in general terms and set out the principal precautions to be followed. The site element will need to be completed by the person responsible for the culling, and will set out the hazards particular to the property, and the specific local precautions to be adopted. It will only be necessary to complete this once (not prior to each cull), with occasional review thereafter.

The model risk assessment for deer culling is contained in the Trust's Health and Safety Manual. The Trust's procedures for risk assessment are set out in Health and Safety Instruction No. 10.

Muscle-relaxing drugs

The use of muscle-relaxing drugs, eg Imobilon, delivered by means of hypodermic darts, for the capture of deer is not permitted (except in exceptional circumstances) in areas to which the public has free access. In other areas there is a strong presumption against their use. Imobilon is highly toxic to humans and its use is not without risk to the deer.

In exceptional circumstances if it is found necessary for the animal's welfare to dart deer in a public area the following conditions apply:

- The manager should ensure that the risk to Trust staff involved in any aspect of use of Imobilon or other drugs has been assessed under the Trust's procedures for compliance with the COSHH Regulations.
- The manager should also carefully assess the risk to the target species, especially fallow deer which typically experience a severe reaction to the drug often leading to death.
- Only persons with an official **authorisation** by the Home Office may administer the drug by hypodermic dart. A region may wish to maintain a list of such persons for future use. A strict protocol must be followed in compliance with the drug manufacturer's instructions and contemporary veterinary practice. All discharged darts *must* be recovered and

disposed of in a sharps box. A full report must be submitted to the Land Use Director.

- No carcass of a previously drugged animal may be sold for human (or any) consumption within four weeks of the use of such drugs.

Food hygiene and environmental protection

Carcasses of cull animals will normally be sold for human consumption. Venison comes under provisions in relevant parts of these regulations:

- **Regulation (EC) No 178/2002**, which sets general food law requirements, including establishing traceability of food, feed and food producing animals;
- **Regulation (EC) No 852/2004**, which sets general hygiene rules applying to all food businesses;
- **Regulation (EC) No 853/2004**, which sets additional hygiene rules applying to businesses producing food of animal origin. Section IV of Annex III of this regulation covers wild game supplied to and processed in approved game handling establishments (AGHEs).

Under the terms of these regulations, it is an offence to render food injurious to health or to sell or offer for sale food that is unfit for human consumption.

The Food Standards Agency have produced the *Wild Game Guide* which provides informal, non-binding advice on the legal requirements which cover the provisions in the relevant parts of **Regulation (EC) No 178/2002, Regulation (EC) No 852/2004 and Regulation (EC) No 853/2004** and should be considered an essential reference document for those engaged in supplying venison into the human food chain. A copy, together with any subsequent amendment, should be retained with this guidance

In meeting the provisions of the regulations all deer carcasses, as required by any Game Handling Establishment, will need to be tagged. Tags will be supplied by the Trust for this purpose.

The provisions within the regulations require a trained person to be present and to complete relevant documentation where deer carcasses are being supplied to an approved game handling establishment (AGHE). The *Wild Game Guide* lists the number of training options that are available to meet the requirements of Regulation 853/2004. The Trust will ensure that all of its staff supplying deer carcasses into the human food chain are suitably trained.

Stalkers need to comply with the Tuberculosis (Deer) Order (1989). This stipulates that the Divisional Veterinary Manager at the local Animal Health Office of Defra is immediately notified if the presence of TB is suspected in a carcass. It is also good practice to notify the local Environmental Health Department.

Collection centres (or larders) for the initial processing of carcasses are now provided at each deer park where venison is produced. Elsewhere, it may be possible to share facilities with other managers, such as the Forestry Commission.

The disposal of waste material (carcasses, gralloch, etc) must comply with Animal By-Products Regulation 2005, Animal By-Products Order 1999, and the Waste Management (England and Wales) Regulations 2006. Deer stalkers operating on Trust land will comply fully with this in one of the following prescribed manners depending on their situation:

- where the deer carcass is gralloched in the field the gralloch and other parts may be buried in an area and manner approved by the regulations. Burial must be below ground level, effective, and in all cases well away from watercourses to avoid any risk of contamination; or

- where the deer carcass and any parts (including gralloch) are transferred to a Trust building any waste arising must be disposed of at a facility provided by the Trust (the Environmental Practices *Dealing with catering and animal by-products waste* refers); or
- where the deer carcass becomes the property of the stalker and is removed from Trust land the stalker is responsible for making their own arrangements for the disposal of waste arising from processing the carcass.

For clarification stalkers should note that if the deer carcass is processed for private domestic consumption then waste arising can be disposed of in a normal household bin, however, if venison is sold to someone else any waste becomes trade waste and must be disposed of through a registered waste carrier to be disposed of at a licensed waste site.

Safety of staff engaged in culling and processing

The COSHH regulations apply to micro-organisms hazardous to health. Formal assessments are complete for the most important hazards associated with deer: Bovine TB and Lyme disease. Information on the health hazards of Lyme disease is set out in the Trust's Health and Safety Manual.

It is the manager's responsibility to evaluate the risks to staff in the operations associated with culling and processing to ensure that these are minimised and to demonstrate due diligence in this process. In particular, the following points should be addressed for staff working in the larder:

- Lifting equipment is necessary to avoid the physical stresses on individuals of handling carcasses.
- It is highly desirable to have someone in attendance who is trained to provide first aid in case of a knife wound.
- It is recommended that the person using a knife should have chain mail protection for the hand not holding the knife; also protection for the forearm (usually in the form of a plastic guard).

Useful information

Close season

Statutory close seasons in England, Wales and Northern Ireland		
Red deer		
Stags	1 May to 31 July	
Hinds	1 April to 31 October	
Red/sika hybrids		
Stags	1 May to 31 July	
Hinds	1 April to 31 October	
Fallow deer		
Bucks	1 May to 31 July	
Does	1 April to 31 October	
Roe deer		
Bucks	1 November to 31 March	
Does	1 April to 31 October	
Chinese water deer		
Buck	1 April to 31 October	
Doe	1 April to 31 October	
Sika		
Stags	1 May to 31 July	
Hinds	1 April to 31 October	
Muntjac		
There is no statutory closed season for this species. It is recommended that when culling female muntjac immature or heavily pregnant does are selected to avoid leaving dependent young.		

Permitted firearms

Firearms permitted for killing deer in England, Wales and Northern Ireland		
	England and Wales	Northern Ireland
Rifles	Calibre not less than .240 in or muzzle energy not less than 1700ft/lb Muntjac and Chinese water deer only. Calibre not less than .220 inches and a muzzle energy of not less than 1000 ft/lb	Calibre not less than .236 in or muzzle energy not less than 1700ft/lb
Rifle ammunition	Bullet must be soft nosed or hollow nosed	Bullet of not less than 6.48 g (100 grains) Expanding bullets designed to deform in a predictable manner
Shotgun	Not less than 12-bore (may only be used by occupier to prevent provable serious damage)	As England and Wales
Shotgun ammunition	Rifle slug of not less than 22.68 g (350 grains) or AAA shot	As England and Wales
Prohibitions	Any air gun, air rifle or air pistol	Any air gun, air rifle or air pistol or gas propelled weapon; any pistol, revolver or handgun other than slaughtering instrument

Selected bibliography

The Trust has been a contributor to the production of industry best practice guides and supports them as a key source of information on deer management. There is a series of around 70 guides, accessible via the internet to view or download as a PDF document. The guides cover the following nine broad topics in detail:

- Legislation, health and safety and welfare
- Species ecology
- Records and survey
- Deer management
- Disease
- Culling deer
- Meat hygiene
- Firearms
- Equipment

The England and Wales Deer Best Practice Guides documents are available at
www.thedeerinitiative.co.uk/html/bestpractice.htm

Other selected publications are noted below, those items highlighted in bold offer either a broad review of the subject area or are the standard reference text and as such would be a good starting point for staff involved with deer management.

Deer biology and ecology

General

Harris, S. and Yalden, D.W. (eds), *Mammals of the British Isles: Handbook* (The Mammal Society, fourth edition, 2008)

Putman, R.J., *Natural History of Deer* (Helm, 1988)

Apollonio, M., Andersen, R., and Putman, R.J. (eds), *European Ungulates and their Management in the Twenty-First Century* (Cambridge University Press, 2009)

Individual species

Andersen, R., Duncan, P. and Linnell, J. D.C. (eds), *The European Roe Deer: The Biology of Success* (Scandinavian University Press, 1998)

Chapman, D.I. and Chapman, N.G., *Fallow Deer: Their History, Distribution and Biology* (Coch-y-Bonddu Books, 1997)

Chapman, N.G. and Harris, S., *Muntjac* (The Mammal Society and British Deer Society, 1996)

Clutton-Brock, T.H., Guinness, F.E. and Albon, S.D., *Red Deer: Behaviour and Ecology of Two Sexes* (Edinburgh University Press and Chicago University Press, 1982)

Cooke, A.S. and Farrell, L., *Chinese Water Deer* (The Mammal Society and British Deer Society, 1998)

Langbein, J. and Chapman, N.G., *Fallow Deer* (The Mammal Society and British Deer Society, 2003)

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Ratcliffe, P., 'The Management of Red Deer in Upland Forests', *Forestry Commission Bulletin* 71 (HMSO, 1987)

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Smith-Jones, C., *Muntjac – Managing an alien species* (Coch-y-Bonddu Books, 2004)

Deer management

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Mayle, B. A., *Managing deer in the countryside*, Forestry Commission Practice Note 6 (HMSO, 1999). Available as a PDF at www.forestry.gov.uk/PDF/fcpn6.pdf

Putman R.J., *The Deer Manager's Companion: A Guide to Deer Management in the Wild and in Parks* (Swan Hill Press, 2004)

de Nahlik, A.J., *Management of Deer and their Habitat* (Wilson Hunt, 1992)

Prior, R., *Deer Management in Small Woodlands* (The Game Conservancy and British Deer Society, 1987)

Prior, R., *Deer Watch* (Swan Hill Press, second edition, 2007)

Prior, R., *Trees and Deer* (Swan Hill Press, second edition, 1994)

Springthorpe, G.D. and Myhill, N.G., *The Wildlife Ranger's Handbook* (Forestry Commission and HMSO, 1985)

Specific detail

***Wild Game Guide* (Food Standards Agency, 2008). Available as a PDF at www.food.gov.uk/foodindustry/meat/wildgameguidance**

Parkes, C. and Thornley, J., *Deer: Law and Liabilities* (Quiller Publishing, second edition, 2008)

Deer Stalking - A Code of Practice (British Association for Shooting & Conservation and the British Deer Society, 2000). Available at www.basc.org.uk/en/codes-of-practice/deer-stalking.cfm

Firearms Law – Guidance to the police. Available as a PDF at <http://police.homeoffice.gov.uk/publications/operational-policing/HO-Firearms-Guidance.pdf?view=Binary>

Gill, R. M. A., *The impact of deer on woodland biodiversity*, Forestry Commission Information Note 36 (HMSO, 2000). Available as a PDF at www.forestry.gov.uk/PDF/fcin36.pdf/

Harmer, R., *Natural regeneration in broadleaved woodlands: deer browsing and the establishment of advance regeneration*, Forestry Commission Information Note 35 (HMSO, 2000). Available as a PDF at www.forestry.gov.uk/PDF/fcin35.pdf/

Mayle, B.A., Peace, A.J. and Gill, R.M.A., *How Many Deer? A Guide to Estimating Deer Population Size*, Forestry Commission Field Book 18 (HMSO, 1999)

Putman, R.J. and Watson, P., *To develop an impact assessment methodology for use beyond the site scale* (commissioned report for the National Trust, 2009)

Trout, R. and Pepper, H. W., *Forest fencing*, Forestry Commission Technical Guide (HMSO, 2006). Available as a PDF at www.forestry.gov.uk/PDF/fctg002.pdf/

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Hingston, F., *Deer Parks and Deer of Great Britain* (Sporting and Leisure Press, 1988)

Statutory instruments

Deer, game, wildlife and animal health:

- Game Preservation Act (NI) 1928 (as amended)
- Agriculture Act 1947
- Miscellaneous transferred Excise Duties Act (NI) 1972
- Wildlife and Countryside Act 1981
- Wildlife (NI) Order 1985
- Deer Act 1991 as amended
- The Tuberculosis (Deer) Order 1989

Firearms:

- Firearms Act 1968
- Firearms (Amendment) Act 1988
- Firearms (NI) Order 1981

Food safety and environmental protection:

- Food Safety Act 1990
- Animal By-Products Order 1999
- Animal By-Products Regulations 2005
- Food Hygiene Regulations – specifically Regulation (EC) No 178/2002, Regulation (EC) No 852/2004 and Regulation (EC) No 853/2004
- Waste Management (England and Wales) Regulations 2006

Health and safety at work:

- Health & Safety at Work Act 1974
- Management of Health & Safety at Work Regulations 1992
- Control of Substances Hazardous to Health Regulations 1988