

Deer Best practice in England and Wales

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Why have Best Practice guides for wild deer?

What stalkers and managers do is:

- Specialist, not many sources of comprehensive information
- Technical, wide range of skills
- Involved, may have to deal with very complex situations

Difficult to keep informed – Best Practice is a single source of information that is readily accessible and continually updated

Who has contributed?

Judith Webb (Chair)

Assoc. Chief Police Officers	Health & Safety Executive
British Assoc. Shooting and Conservation	Highways Agency
British Deer Society	Humane Slaughter Association
Confed. Forest Industries	LANTRA
Country Land and Business Association	Natural England
Countryside Alliance	Nat Forest Company
Countryside Council for Wales	National Trust
Defra (Animal Health)	National Association of AONBs
Defra (Wildlife)	National Farmers' Union
Deer Initiative	National Game Dealers Association
Deer Management Qualifications	National Gamekeepers Organisation
Forestry Commission	Royal Soc. for the Protection of Animals
Forest Research	Union of Country Sports Workers
Food Standards Agency	Veterinary Deer Society
Game and Wildlife Conservation Trust	Woodland Trust

Plus individual contributors

Who are the guides for?

- Practitioners and managers involved in some direct way with wild deer
 - ...to give confidence that they are acting humanely, responsibly and effectively; carrying out their activities in a rational and considered way based on the best current information and using the best methods.
 - ...will also inform the public, giving confidence as above but without unnecessarily tying the practitioner's hands.

What will the guides cover?

- 10 categories
 - species ecology
 - deer management
 - culling
 - meat hygiene
 - disease
 - firearms
 - equipment
 - records and survey
 - legislation/health and safety/welfare
 - assoc information

How many will there be?

Approx 80 guides

Deer legislation	Urban deer	Carcass inspection
Firearms legislation	Management Plan	Butchering 1
Close season shooting	Pop dynamics	Butchering 2
Night shooting	Pop modelling	Butchering 3
Risk assessment	Cull planning	Skinning
Grant aid	Leases/licences	Supply of venison
Deer Behaviour	Deer Management Groups	Basic Hygiene
Deer Biology	Woodland design	Larder design
Red deer	Mitigating deer impacts	Larder hygiene/safety
Fallow deer	Lyme disease	By-product disposal
Sika	Bovine TB	Firearms Safety
Roe deer	Foot and Mouth disease	Security
Chinese Water deer	Condition assessment	Maintenance
Muntjac	Deer other diseases	Rifles and Ammunition
Deer Signs	High seats	Zeroing
Habitat Impact	Cross boundary liaison	Marksmanship
Census- General	Team culling	Shooting position
Night time census	Shot placement	General Equipment
Dung counts	Moving deer	Training/Qualifications
Vantage point counts	Follow up of shot deer	Glossary
Cohort analysis	Dogs for Deer	Census forms
Woodland impact survey	Deer Vehicle Collisions	Mgt plan and text
Assessing age	Gralloching	Cull records
Ageing by teeth	Lardering	Pop model
Cull records	Extraction and transport	Impact assessment form



SPECIES ECOLOGY ENGLAND & WALES BEST PRACTICE GUIDES deer

FALLOW DEER

Introduction

The aim of this guide is to highlight features of the biology and behaviour of Fallow deer (*Dama dama*) as an aid to the management of the species. It is not a complete description of Fallow deer ecology (see further information below). Deer behaviour is not fixed, they will adapt their behaviour to local circumstances, sometimes behaving quite differently from one area to another or over time. This guide links to Deer Biology, Deer Behaviour and Deer Signs guides which should be considered as important associated reading.



Male coloured doe

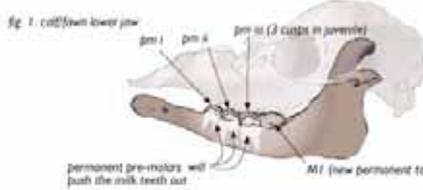
Social structure

Herding deer. Size of herds depends on quality, deer density, degree of risk of year. Large herds may be the norm in dense, coniferous disturbance, as in a food source or prolonged her usually aggregated for most of the habitats may mix freely throughout does will move into traditional rut approaches. Within groups the hierarchy loosely based on age, six does herds are often led by a alpha female but may suckle for longer. Female remain with their dam and her group disperse after a year or to join

Patterns of activity

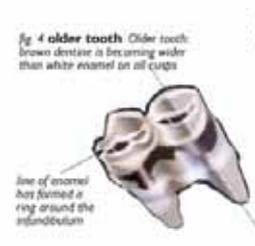
Use of Habitat

Prefer diverse woodland habitats of woodland which are near to a land. Fallow like to have areas of which to lay up and will often adopt "canyons" where they can run. Bucks will often be seen sitting out pre-harvest.



Tooth wear

The wear pattern of adult teeth is not completely reliable for ageing but in general, young adult teeth are high and sharp and get progressively lower and smoother as they age. As the teeth wear the pattern of dentine, enamel and size of the infundibulum changes (see Table 2). Adult teeth may break up and be lost in old age and tooth wear can be one of the limiting factors in any deer's life-span.



CULLING ENGLAND & WALES BEST PRACTICE GUIDES deer

DOGS FOR DEER

Introduction

The aim of this guide is to provide information on how trained dogs can be used to aid deer management. The guide also seeks to identify various blood tracking training methods whilst identifying when and how dogs should be used. This guide links to the Follow up of Shot deer guide.



Glossary

- 'Free' = Dog is working remote from handler with no line.
- 'On a line' or 'leash' = Dog is attached to (m), light woven used to pull steadily
- be handler aware either by it's weight across and under then leading
- in deer ahead of
- sent from by the greater i.e. 'at bay' or by
- three main tasks: concealed live deer by can help the about disturbing
- hot deer may be for light, a dog can are.

- tracking injured or wounded deer. Using a dog can substantially reduce the time taken to find and dispatch such deer.

Dogs can also be used for moving deer out of cover.

Suitable breeds of dog

Many breeds of dog are suitable, ranging in size from small ratters to the larger breeds, most of the working dog breeds can be trained to work with deer. The breed selected often reflects the stalker's needs e.g. their domestic circumstances, the species of deer stalked, type of terrain, foot stalking or high seat etc. When selecting a puppy, it is often helpful if the parents are working stock and have a successful history of working with deer.

RECORDS & CENSUS

Introduction

An indication of deer numbers is useful aid to managing deer populations. The aim of this guide is to discuss attempting a deer census and to methods. It should be considered to the Thermal Imaging and Spots Point, Dung Counting, Cohort and Assessment guides.

Is census accurate?

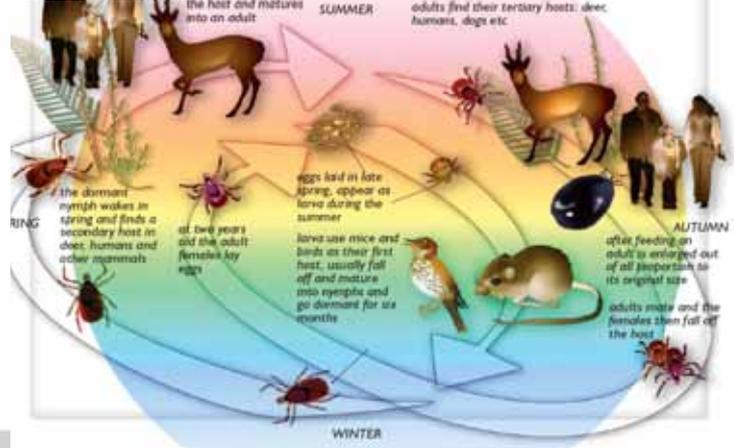
There are no realistic census methods indicate exactly how many deer are in an area. Even for a visual count on open ground, it is likely that the total will be between 5 and 16% of figure seen (see DCS guide Open). In more wooded areas the number seen usually underestimates the true figure and often by an error margin of 300% or more, depending on the method. Estimates of deer numbers using other methods also have wide margins for error. No census method can account for the fact that immigration or emigration may have occurred just before, after or between counts.

Why estimate deer numbers?

- There are many reasons why a deer census is worthwhile:
- Census data, when used in combination with other information can help to guide cull planning decisions, see Cull Planning guide.
- If care is taken to eliminate "double counts" (counting the same animal more than once) most direct methods will at least give a figure for the minimum number that must be present.
- Provided any count is carried out in a consistent way, counts over many years may indicate trends in population numbers even if accuracy is not very good.

Methods

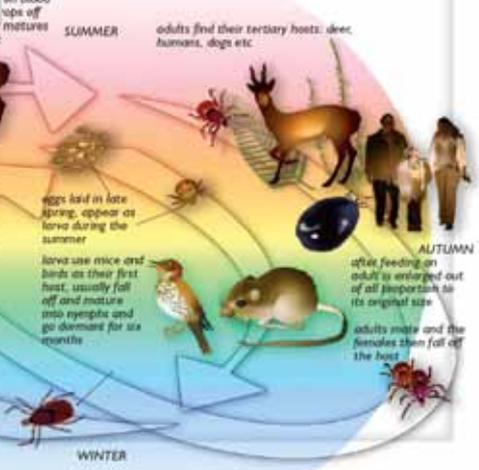
- There are 3 main types of census:
- Direct counts (vantage point, thermal imaging, spotlighting)
 - Indirect counts (dung counts, activity index)
 - Number projections from cull data (e.g. cohort analysis)
- Direct (visual) methods rely on deer being seen.

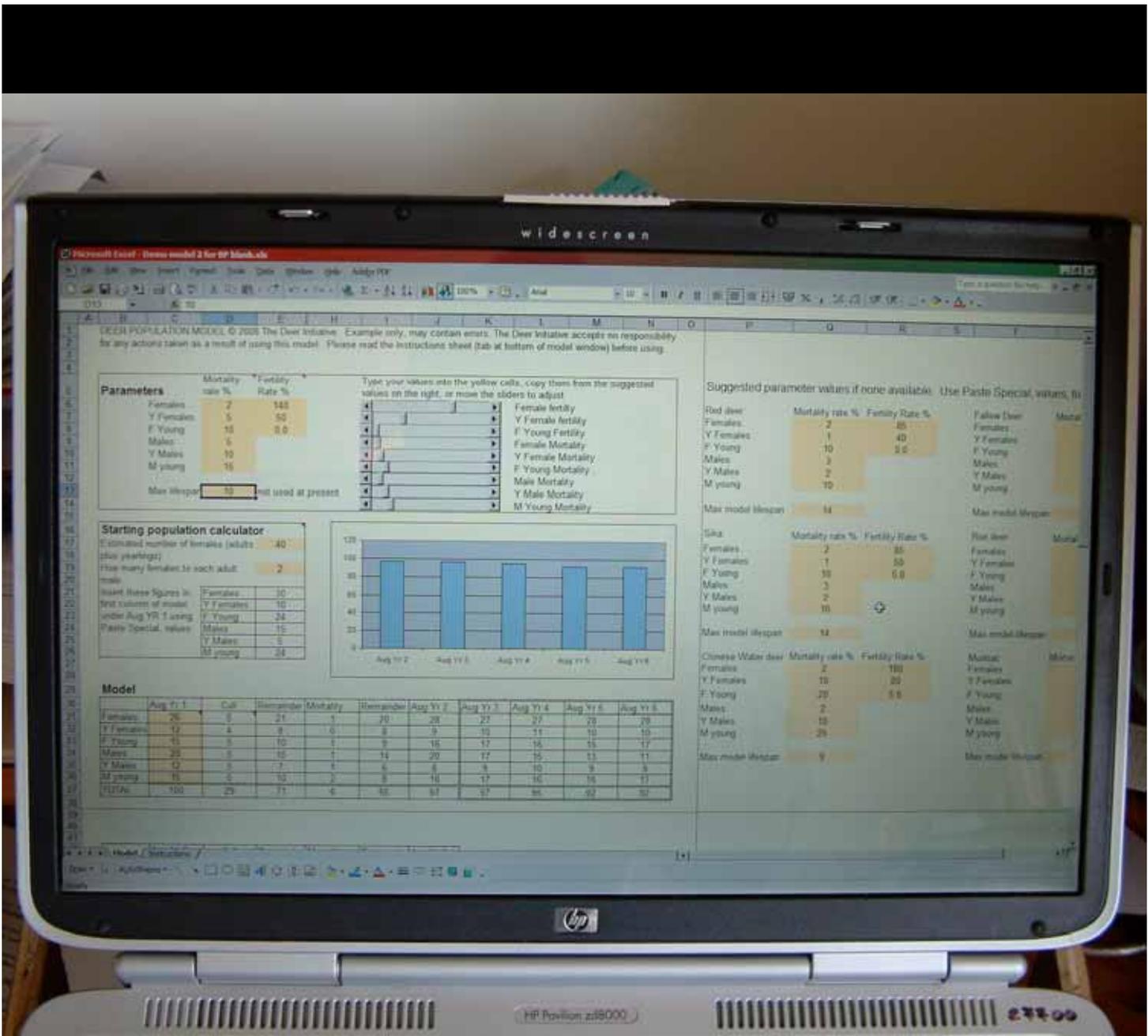


EASE Diseases + Lyme Disease

Cause of Disease

Lyme disease is caused by the spirochete bacterium *Borrelia burgdorferi* and is spread to humans (and most other mammals) by the bite of the common tick, *Ixodes ricinus*. The tick feeds on blood at each of the larval, nymph and adult stages of its life cycle and when feeding can pick up or pass on the spirochete. Between stages ticks leave their host, mature to the next stage then "quest" for a new host by clinging to the tips of long cover such as grass or bracken to be picked up as the host walks by. It is thought that birds and small mammals such as mice are the main reservoir of the disease, larger mammals such as hares and deer are more important as the second and final hosts for adult ticks.





Microsoft Excel - Deer model 2 for HP 2006.xls

DEER POPULATION MODEL © 2005 The Deer Initiative. Example only, may contain errors. The Deer Initiative accepts no responsibility for any actions taken as a result of using this model. Please read the instructions sheet (tab at bottom of model window) before using.

Parameters

	Mortality rate %	Fertility Rate %
Females	2	148
Y Females	5	50
F Young	10	0.0
Males	5	
Y Males	10	
M young	10	

Max Weeper: 10 (not used at present)

Type your values into the yellow cells, copy them from the suggested values on the right, or move the sliders to adjust.

Parameter	Value
Female fertility	148
Y Female fertility	50
F Female Mortality	5
Y Female Mortality	10
F Young Mortality	10
Male Mortality	5
Y Male Mortality	10
M Young Mortality	10

Starting population calculator

Estimated number of females (adults) (due yearlings): 40

How many females to each adult: 2

Insert these figures in first column of model under Aug YR 1 using Paste Special, values

	Females	Y Females	F Young	Males	Y Males	M young
30	30					
10		10				
24			24			
15				15		
6					6	
24						24

Model

	Aug Yr 1	Coll	Reminder	Mortality	Remainder	Aug Yr 2	Aug Yr 3	Aug Yr 4	Aug Yr 5	Aug Yr 6
Females	26	0	21	1	20	28	27	27	28	29
Y Females	12	4	8	0	8	9	10	11	10	10
F Young	11	0	10	1	9	16	17	16	15	17
Males	22	0	10	1	11	20	17	15	13	11
Y Males	12	0	7	1	6	6	6	10	9	9
M young	15	0	10	2	9	10	17	16	16	17
TOTAL	100	25	71	6	62	67	67	65	62	67

Suggested parameter values if none available

Red deer

	Mortality rate %	Fertility Rate %
Females	2	85
Y Females	1	40
F Young	10	0.0
Males	2	
Y Males	2	
M young	10	

Max model lifespan: 14

Sika

	Mortality rate %	Fertility Rate %
Females	2	35
Y Females	1	55
F Young	10	0.0
Males	2	
Y Males	2	
M young	10	

Max model lifespan: 12

Chinese Water deer

	Mortality rate %	Fertility Rate %
Females	2	100
Y Females	10	20
F Young	20	0.0
Males	2	
Y Males	10	
M young	20	

Max model lifespan: 9

HP Pavilion zd8000

27700

Where can I find the Guides?

Look out for the guides at:
www.thedeerinitiative.co.uk

Hard copy available from BDS and Reeves UK. Participants in DSC level 1 will be able to purchase.

Best practice demos, seminars available soon and can be customised.

Future Projects

“Making Best practice, Common practice”

Best practice demos, seminars available soon and can be customised, e.g.

- Impact Survey
- Carcass Demo
- Liability and Risk Assessment
- Cross Boundary Liaison
- Deer Management plans and Cull Planning

Impact Assessment



Registered Trade Mark and Patent (140390) proprietor V.P. Baumgartel, 9714 6A8

STAFFERS PROFESSIONAL HB

Date: 1/10/07 Site No: 067

Distance walked, metres: 0.67

		ACTIVITY				Number per 100 metres	SCORE (0-3)
Clear land							
Dung							3
Courtes							
Scraps							1
Fencing							2
Bank stripping							
Wastes							
Recreation	rarely used	used regularly	frequently used	heavily used		2	light-moss timber!
		IMPACTS					SCORE (0-3)
Browsing	Coppice < 2m	0-10%	11-33%	34-66%	67%+		
	Coppice > 2m, basal shoots	0-10%	11-33%	34-66%	67%+		
	Tree seedlings (count at least 20 x 4 present)	all heights present	< 10% browsed, some > 50cm	> 10% browsed, few > 50cm	> 10% browsed, none > 50cm		3
	Stratification in canopy > 50%	large banks, no obvious browseline	large patches with browseline	most < 1.2m, most browsed, browseline may over-top	wide or mostly > 50cm, most browsed		2
Browseline	Not obvious even on ivy	soft, favoured species only	hard, not non-favoured esp	hard, most of species		2	
Grazing	Plant Species	not grazed or very infrequently	some grazing	commonly grazed	frequently or all grazed		1
	14 spp						

Deer Vehicle Collisions and Humane Despatch Schemes



Grants

LEGISLATION GRANT AID for DEER MANAGEMENT

ENGLAND & WALES
BEST PRACTICE GUIDES



Introduction

The purpose of this guide is to provide information on current grant aid available for deer management in England and Wales. This guide will provide information on grant aid criteria and how to approach the grant giving authorities. Grant aid packages often change so it is important to regularly check grant details, there are links at the end of this guide. The Forestry Commission (FC) administers all of the main grant aid packages for deer management in England and Wales, the criteria and scope of grants differs between the two countries. The main points of contact for grant aid are FC Woodland Officers who can be contacted through the local conservancy office. All grant aid described below is given at the discretion of the Forestry Commission.

England

impacts. Grant may be dependent on the creation of monitored deer management plans and involvement in landscape scale deer management groups. The work that grant is available for is listed in Table 1. The level of grant aid depends on the specific grant type and the conservation importance of the woodland site. The EWGS establishes "standard costs" for operational work and sets rates of payment. Rates and eligible operations under the EWGS are covered by Operations Note 12. Please

Arranging Stalking- Leases and Licences

Conditions/clauses/descriptions

In order to ensure that the interest of the landowner, stalking rights holder and tenant/licensee are protected, a form agreed and signed by both parties. The list below outlines the most common conditions/clauses that could be included. Expert advice is sought during the creation of any agreement.

Condition/clause/description	Comments
A description of the area concerned	Name of property. Boundaries should be clearly defined on a map (the land and its precise boundaries should be familiar before the agreement is signed).
The period for which the lease/licence/contract should endure.	Usually a minimum of one year (may be shorter for contract culls), term often based on start/finish of close seasons. Revision on satisfactory performance. Longer terms offer more security, both for the tenant, making it more likely that they will become more committed and build a well structured management programme, and for the landowner since there is a predictable income and there is no risk of overexploited.
The rent (or fee) payable and due date	Amount, currency, annual increases (if any), VAT payments, and venison value if it is part of the agreement. Failure to pay within agreed grounds for termination of the agreement. Renewal terms, if relevant, should be stated.
Any conditions attributed to access rights.	Access is usually concurrent with the owner/occupier and other land users, not exclusive. Agreed access routes and areas, prior to other ownerships, vehicular access to remove carcasses/place high seats, parking. Conditions may include a requirement to restrict access for a period of time or on each occasion. Procedure in case of disease outbreak (e.g. foot and mouth disease)
Site-specific conditions for certain situations	e.g. stalking during woodland or game shooting operations, shooting on Sundays/holidays or in areas of high public use, footpaths.
Compensation	Compensatory clauses: <ul style="list-style-type: none"> • for damage suffered due to the actions or lack of agreed action of either party • against denial of access to land for a significant period of time, e.g. due to land management operations such as tree felling
Indemnity	Clause relating to loss, damage and injury caused by the owner/tenant exercising their rights, including any Public Liability insurance.
Arbitration	A clause relating to an agreed means of arbitration should disputes or differences occur during the period of a lease agreement.
Early termination of agreement	A clause covering early termination of the lease in the event of sale or other force majeure change. Other criteria which would allow for early termination, a safety violation, or failure by the lessee/licensee to fulfil a condition of the agreement such as not culling sufficient numbers of deer.
Third parties	A clause preventing (or allowing) sub letting to, or invitation of, third parties.
Standard of practice	All activities relating to the agreement should be conducted according to the law and prevailing best practice/codes of conduct.
Shooting rights	A description of exactly what the agreement allows the lessee/licensee to shoot/take and whether this includes species other than deer. Any restrictions may be imposed.
Concurrent rights	The rights holder may wish to have concurrent stalking rights in place. This is recommended to deal with the situation where it allows the rights holder to bring in extra resources to complete the cull if required.
Risk assessment	A lessee/licensee should be asked to provide a simple written risk assessment relevant to the agreed deer management activities.
Information required by the rights holder	A clause requiring the lessee/licensee to provide information such as: <ul style="list-style-type: none"> Firearms certificate details including appropriate conditions Proof of third party indemnity CV including details of deer experience

Carcass Preparation

CARCASS BUTCHERING (I)

Introduction

The aim of this guide is to provide a basic introduction to venison butchery covering the primal breakdown of a venison carcass. Note that once a carcass is skinned, it is no longer a "primary product" but becomes venison and is subject to different legislation with respect to processing and supply, see <http://www.food.gov.uk/multimedia/pdfs/wildgameguide1oct08.pdf>. This guide is linked to the Carcass Preparation series of guides.

Skinning and storage

Ideally the carcass should be skinned while warm, or as soon as it has been lardered. The carcass may still be warm after skinning, if possible allow it to cool without chilling for 6 hours or so to ensure the full and rapid onset of rigor mortis and prevent 'cold shortening' of the soft muscles. The carcass should then be chilled at 1° to 4° C and could be stored for up to 10 days to ensure tenderness and maturation, depending on age. There should be no contact with other carcasses, skinned carcasses should be hung separately from any that are in skin. Whether primary cuts are made with the carcass suspended (as

Equipment: potable water (ideally hot) | meat saw | steak knife | boning knife | chain-mail glove and apron | good quality cutting board or block | freezer bags | roasting bands

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A: neck
B: shoulder
C: forequarters
D: saddle
E: haunch
F: flank



fig. 1



fig. 2

seam

fig. 3

blade bone

(fig. 1 above) neck removal: any bloody meat should be removed from under the neck at this stage as this will be discoloured and deteriorate quickly if left on the neck

(fig. 2 far left) shoulder block removal: open the seam by gently pulling away the fore leg and the seam will open to allow better access. Care should be taken not to cut into underlying muscles

(fig. 3 left) the underside of the shoulder blade bone is now visible under fingers