

## Casualty in Sheep

### INTRODUCTION

It is inevitable that on every sheep farm, there will occasionally be animals which become sick or injured. The action taken by the owner or person in charge is extremely important – doing nothing is not an option.

It is your legal responsibility to ensure such sheep are attended to promptly and in a proper fashion. This may be by

1. Treatment under the advice and guidance of your veterinary surgeon

or

2. Humane destruction

When humane destruction is the option of choice to prevent unnecessary suffering, it is very unlikely it will be possible to use the carcase for human consumption. Slaughter for human consumption elsewhere than in a licensed slaughterhouse, is a complex area of law and is not recommended. Further advice can be found on the website of the Food Standards Agency [www.food.gov.uk](http://www.food.gov.uk)

Treated sheep, whether by yourself or a Veterinary Surgeon, need to be monitored daily.

If signs of improvement are not seen as expected, treatment should be reviewed.

A decision is then made whether to:

- continue with existing treatment and monitoring for a specified time
- refer to your veterinary surgeon
- perform euthanasia.

Sheep require special attention because they have a passive response to pain or stress so the severity of the condition and consequent suffering may not be noticed, or even ignored, unless good stockmanship is practised.

The following pages offer more specific advice on common problems where ignoring the problem is not acceptable and will compromise the welfare of individuals and maybe the flock.

## LAMENESS

Lameness causes pain and suffering so lame sheep should always be treated promptly. This may vary due to farm circumstance or severity of lameness but prompt treatment will mean a faster response and the condition is less likely to have spread to other sheep—**most causes of lame sheep are infectious diseases, particularly scald, foot rot and CODD (contagious ovine digital dermatitis).**

A severe lameness such that a sheep is not weight bearing on one leg should be treated immediately.

Diagnosis is important so that correct treatment can be given. Lame sheep should be separated from healthy sheep where possible and their condition monitored daily.

**If there is no improvement in 5 days** sheep should be re-examined and further appropriate treatment given, this may require referral to a veterinary surgeon.

Progress should be continually monitored.

While it may take some time for a cure and return to full soundness there will be some cases that do not recover.

Lame sheep that fail to respond to treatment should be referred to a veterinary surgeon or euthanased.

It is unacceptable to leave chronically lame sheep to suffer.



## **THIN SHEEP**

One of the commonest causes of thin sheep is a lack of sufficient food for the metabolic requirements of the animal. This is especially so with ewes in late pregnancy and early lactation. In such cases, nutritional advice must be sought and the diet corrected immediately.

There are also many diseases that can cause loss of weight in sheep. Some of these diseases are treatable (ie worms in lambs), but many are not. Accurate diagnosis of the cause of weight loss is therefore essential.

Where sheep have lost weight and there is no prospect that this can be corrected, either by improved feeding or by veterinary treatment, then humane slaughter must be carried out.

Remember that the carcasses of very thin sheep are unsuitable for human consumption and in addition, such animals are unfit to transport to an abattoir. They should therefore be humanely killed on the farm.

**It is totally unacceptable to allow sheep to continue to lose weight to the point of emaciation, or even death**





## LAMBING TIME

While the majority of ewes lamb naturally without incident it is important that those that have problems, (whether in delivering lambs or associated problems such as prolapse) receive suitable attention.

Lambing is one of the busiest and most tiring times of the year but a ewe in trouble in the corner or under a hedge must receive suitable attention.

Any intervention should be by, or under direct supervision of, an experienced person and must always be gentle and do no damage.

If there is excessive bleeding or internal damage is suspected at any time this should be investigated immediately. If the uterus is torn or major blood vessels ruptured then immediate veterinary attention should be sought, that may lead to euthanasia, or humane slaughter performed by a competent person without delay.

Investigation is necessary if there has been no progress within two hours of appearance of the water bag, or sooner if the ewe is distressed. If the lamb is being presented correctly you may wish to leave her a further 30 minutes before intervention

If no progress is made after ten to fifteen minutes of intervention then call for more experienced help

The sooner you request veterinary assistance, the greater the chance of a successful outcome.

You may decide that it is not economical to request veterinary attention; you may then leave the ewe for up to two hours to see if she makes any progress herself. At the end of these two hours you should investigate again and if it has not been possible to remove the lambs then the ewe must be humanely slaughtered and not left to die.





## **CARCASS DISPOSAL**

It has been illegal to bury carcasses on farm since 2005, with a few exemptions for some farms in remote areas of the Scottish Highland, and Islands the Scilly Isles and Lundy Island. Check with DEFRA for details ([www.defra.gov.uk](http://www.defra.gov.uk)).

On farm disposal is allowed in an approved incinerator (contact DEFRA for guidance [www.defra.gov.uk](http://www.defra.gov.uk))

Most carcasses must be collected by, or taken to, a registered and licensed collector.

The National Fallen Stock Company was formed in 2005. Contact tel no. 0845 054 8888

There is no set fee and prices vary between contractors.

You do not have to be a member of the scheme to have stock collected by scheme contractors.

## **HUMANE SLAUGHTER METHODS**

In an ideal world personnel specifically trained to do the job such as veterinary surgeons or slaughter/knacker men would destroy all casualty animals. Unfortunately economic and practical constraints often mean that this is not possible and so the responsibility for performing this unpleasant task often falls to the farmer.

### **Lethal injection**

In the case of lambs an overdose of anaesthetic (barbiturate) administered by your vet is the best method. Talk to your vet to see if a mutually acceptable arrangement can be agreed, but be aware that the vet will have to charge for this service. Lambs destroyed by this method must be safely stored until the carcass can be incinerated or sent to a knackery for rendering (see below). Barbiturates make the carcass lethal to any human or animal that consumes it e.g. your sheep dog.

### **Blunt trauma followed by bleeding out**

If anaesthetic drugs are not an option, very young lambs (less than 5 kg in weight) can be held up by the back legs and despatched with a swift, sharp blow to the back of the head using a blunt object such as a heavy piece of wood or short section of pipe. As an alternative you can also deliver the blow by holding the lamb by the back legs and swinging it hard against a wall or other hard surface. If you are in any doubt about whether the blow has been effective repeat it immediately, only much harder. This technique requires a swift and sure touch but, if done properly, it instantly renders the animal unconscious. Death of the unconscious animal should then be ensured by cutting the throat from ear to ear. The cut should be made with a long sharp knife and should penetrate all the way to the neck bones (vertebrae) so that the blood vessels supplying the brain are severed. Such methods are obviously not for the faint hearted and should only be undertaken by experienced and competent people.

## **Firearms**

For larger lambs firearms are indicated, a shotgun (eg. 28 bore or .410) capable of delivering the required weight of shot or a humane killer or rifle (e.g. .22) which delivers a free-bullet.

Appropriate certification is required for all firearms and a humane killer or rifle may only be used for the purposes authorised on the holders firearms licence.

Used correctly, a shotgun is much safer than a free bullet weapon as shot disperses inside the skull, reducing the risk of injury to bystanders. In young or polled animals the shotgun should be aimed at a point on the midline of the brow as shown in Figure 1.

The direction of shot should be aimed down the spine into the body. For older animals and ewes with horns an alternative aiming position at the back of the head is required as shown in Figure 3. This is required because shot may not penetrate the thicker skull bones at the front. In both instances the gun should be held approximately 8 -10 cm from the head. Remember, that at this close range, shotgun pellets will cause severe mutilation which may be distressing to anyone observing the procedure.

Free bullet weapons are extremely dangerous and **must** only be used by experienced operators. Operators must be aware of the risks of ricochet and must always ensure that any observers stand directly behind them when firing. **They are not suitable weapons for killing lambs because of the high risk of the bullet overpenetrating and exiting the carcass.**

Used in adult animals they should be aimed as shown in Figure 1 and held approximately 1-3 cm from the head. Align the animal and aim carefully to ensure that the bullet passes down through the neck.

Shooting in the back of the head (Figure 2) is not recommended as the bullet will exit through the base of the skull.

On no account whatsoever must anyone hold an animal whilst it is being shot using any weapon, use straw bales if additional restraint or positioning is needed and never shoot an animal in a confined space or over a concrete floor. Be patient when aiming and always have another cartridge immediately to hand should it be needed.

Needless to say these techniques require training and skill and are recommended only for those who are experienced at handling firearms and hold relevant firearms certificates.

## **Captive-bolt followed by bleeding out**

A captive-bolt pistol as used in most abattoirs is probably the safest weapon for stunning livestock. Captive-bolts work by using a blank cartridge to fire a fixed rod, 'the bolt', through the skull and into the brain. Sheep may be stunned with a captive bolt pistol loaded with the appropriate sized cartridge (e.g. 1 grain for newborn lambs, 1.25 grain for older lambs and 2.5 grain for adult sheep). For young and polled animals, the pistol is placed on top of the head at a point just behind the brow aiming directly downwards (Figure 2). For older animals with horns, the position is slightly further back, as for a shotgun, (Figure 3) aiming towards the base of the tongue. In both instances the weapon is held gently against the head before firing. Remember the bolt may exit through the base of the skull so keep this area clear and never hold the animal otherwise you may

lose a finger or worse! Unlike shot or a free bullet, the bolt only stuns the animal. The animal must then be killed by bleeding out or pithing. **Under no circumstances must stunned animals be left without being bled or pithed as they may regain consciousness.** Bleeding out is achieved by cutting the animal's throat from ear to ear ensuring that all the neck vessels are severed. To speed the process up a knife may also be inserted into the chest to sever the major vessels as they leave the heart. Pithing involves inserting a rod into the hole made by the bolt and moving it around rapidly inside the skull to destroy the rest of the brain and top of the spinal cord. Flexible metal or plastic pithing rods are commercially available and are usually used for bigger animals such as cattle, but for sheep a short solid rod, such as a 20 cm long screwdriver will do the job equally well. During and after pithing animals may kick violently due to involuntary nerve reflexes known as 'spinal shock'. In lambs spinal shock can last for several minutes and may be distressing to watch, however the reaction is an involuntary response to the destruction of brain tissue and does not mean that the animal is alive. After bleeding leave the animal for approximately 5 minutes or, after pithing, until spinal shock subsides and check for any signs of life such as breathing or blinking when you touch the front of the eye. To be fully effective, captive-bolt pistols must always be properly maintained by regular cleaning; any build up of soot or dirt can cause the bolt to jam.

Further information on humane killing of livestock, including details of training courses, legislative requirements and excellent guidance notes and videos, can be obtained from the Humane Slaughter Association: Technical note 8 on their web site refers to on farm slaughter. <http://www.hsa.org.uk/Publications/Technical%20Notes.html>

Humane Slaughter Association  
The Old School  
Brewhouse Hill  
Wheathampstead  
Herts.  
AL4 8AN  
Tel. 01582 831919  
<http://www.hsa.org.uk/>

Figs. 1 to 3  
From old casualty sheep book or from HSA



## APPENDIX ONE : CONDITION SCORING

Condition score is assessed by palpation of the ewe in the lumbar region, on and around the backbone in the loin area immediately behind the last rib and above the kidneys.

### Pic from previous version

(1) An assessment is made of the prominence (the degree of sharpness or roundness) of the spinous process of the lumbar vertebrae.

(2) The prominence of, and the degree of fat cover over, the transverse processes of the vertebrae are assessed.

(3) The extent of the muscular and fatty tissues below the transverse process is judged by the ease with which the fingers pass under the ends of these bones

(4) The fullness of the eye muscle area and its degree of fat cover in the angle between the spinous and transverse processes is estimated.

Animals are then awarded a score on the following scale:

Score 0 – Extremely emaciated and on the point of death. It is not possible to detect any muscular or fatty tissue between the skin and bone.

Score 1 – The spinous processes are felt to be prominent and sharp, the fingers pass easily under the ends and it is possible to feel between each process. The eye muscle areas are shallow with no fat cover.

Score 2 – The spinous processes still feel prominent, but smooth, and individual processes can only be felt as fine corrugations. The transverse processes are smooth and rounded, and it is possible to pass the fingers under the ends with a little pressure. The eye muscle areas are of moderate depth, but have little fat cover.

Score 3 – The spinous processes are detected only as small elevations; they are smooth and rounded, and individual bones can only be felt with pressure. The transverse processes are smooth and well covered, and firm pressure is required to feel over the ends. The eye muscle areas are full, and have a moderate degree of fat cover.

Score 4 – The spinous processes can just be detected, with pressure, as a hard line between the fat covered muscle areas. The ends of the transverse processes cannot be felt. The eye muscle areas are full, and have a thick covering of fat.

Score 5 – The spinous processes cannot be detected even with firm pressure, and there is a depression between the layers of fat in the position where the spinous processes would normally be felt. The transverse processes cannot be detected. The eye muscle areas are very full with very thick fat cover. There may be large deposits of fat over the rump and tail.

## APPENDIX 2 : LEGISLATION

1. The Animal Welfare (England & Wales) Act 2006, The Animal Health & Welfare (Scotland) Act 2006 and The Welfare of Animals Act (Northern Ireland) 2011

These Acts make it an offence to cause unnecessary pain or distress to any livestock or any domestic or captive animals.

They place a positive duty of care on those responsible for animals. These acts together with earlier legislation give legal basis for the Codes of Recommendation for the welfare of animals.

There are specific codes of recommendation for the welfare of livestock.

2. Codes of Recommendations for the Welfare of Livestock: Sheep

The Welfare of Farmed Animals (England) Regulations 2007; The Welfare of Farmed Animals (Northern Ireland) Regulations 2000; The Welfare of Farmed Animals (Wales) Regulations 2007 and the Welfare of Farmed Animals (Scotland) Regulations 2010 require the owner of farm animals to ensure that any person attending these animals:

Is acquainted with provisions of all the relevant statutory welfare codes relating to the animals being attended to;

- .. Has access to a copy of these codes while he is attending to the animals;
- .. Has received guidance and instruction on these codes.

These codes enshrine the 5 freedoms. These are:

1. Freedom from hunger and thirst.
2. Freedom from discomfort.
3. Freedom from pain injury or disease.
4. Freedom to express normal behaviour.
5. Freedom from fear and distress.

In acknowledging these freedoms, those who care for livestock should practice:

- .. Caring and responsible planning and management;
- .. Skilled, knowledgeable and conscientious stockmanship;
- .. Appropriate environmental design (e.g., of the husbandry system);
- .. Considerate of handling and transport;
- .. Humane slaughter and destruction.

3. Other Legislation

Specific legislation covers the welfare of animals at markets, the welfare of animals during transport and hygienic slaughter of animals.

This legislation principally relates to the welfare of fit animals going for slaughter for human consumption. Specifically this legislation states that any unfit sheep may be transported only if it is being taken for veterinary treatment/diagnosis.

This must be done in a humane and considerate manner and with all practicable speed

#### 4. Casualties

The Codes of Recommendations for the Welfare of Sheep state that injured, ailing or distressed sheep should be identified and treated without delay.

If an unfit sheep does not respond to treatment it should be culled or humanely killed on farm.

It is an offence to cause unnecessary pain or unnecessary distress by leaving a sheep to suffer. The sheep should be destroyed in a humane manner and where possible by a person experienced and or trained both in the techniques and equipment used for killing sheep.

These techniques are described in this booklet.

Copies of the Codes of Recommendations for the Welfare of Sheep (and for other species) are available from your local Animal Health Office

