Code of Recommendations for the Welfare of Livestock

Sheep

defra
Department for Environment
Food and Rural Affairs
Code of Recommendations for the Welfare of Livestock: Sheep
Note

This Code, comprising paragraphs 1 to 138, which has been prepared following consultation, is issued with the authority of Parliament pursuant to Section 3 of the Agriculture (Miscellaneous Provisions) Act 1968.

These recommendations have been notified to the European Commission in accordance with Directive 83/189/EEC (1983 O.J. L109/8, as amended).

Section 3 of the Agriculture (Miscellaneous Provisions) Act 1968 allows ‘the Ministers’ to produce codes of recommendations for the welfare of livestock and to issue such codes once they have been approved in draft by both Houses of Parliament. However, the original definition of ‘the Ministers’ (see Section 50 of the 1968 Act) has been changed to reflect devolution for Scotland and Wales. In relation to England, the powers of ‘the Ministers’ were transferred to the Secretary of State for Environment, Food and Rural Affairs by the Transfer of Functions (Agriculture and Food) Order 1999 (S.I. 1999/3141).

(In relation to Scotland, the powers of the Ministers had previously been transferred to the Scottish Ministers by Section 53 of the Scotland Act 1998 (1998 c.46) and, in relation to Wales, the powers of the Ministers had previously been transferred to the National Assembly for Wales by article 2(a) of the National Assembly for Wales (Transfer of Functions) Order 1999 (S.I. 1999/672)).
## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
<th>Paragraphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Introduction</td>
<td>5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Stockmanship</td>
<td>6</td>
<td>6 - 12</td>
</tr>
<tr>
<td>Feed &amp; water</td>
<td>7</td>
<td>13 - 19</td>
</tr>
<tr>
<td><strong>Health</strong></td>
<td>8</td>
<td>20 - 41</td>
</tr>
<tr>
<td>General</td>
<td>8</td>
<td>20 - 24</td>
</tr>
<tr>
<td>Inspection</td>
<td>9</td>
<td>25</td>
</tr>
<tr>
<td>Condition scoring</td>
<td>9</td>
<td>26</td>
</tr>
<tr>
<td>Lameness</td>
<td>9</td>
<td>27 - 31</td>
</tr>
<tr>
<td>External parasites</td>
<td>10</td>
<td>32</td>
</tr>
<tr>
<td>Internal parasites</td>
<td>10</td>
<td>33</td>
</tr>
<tr>
<td>Casualties</td>
<td>10</td>
<td>34 - 39</td>
</tr>
<tr>
<td>Dosing &amp; vaccination equipment</td>
<td>11</td>
<td>40 - 41</td>
</tr>
<tr>
<td><strong>Management</strong></td>
<td>12</td>
<td>42 - 66</td>
</tr>
<tr>
<td>General</td>
<td>12</td>
<td>42 - 43</td>
</tr>
<tr>
<td>Marking</td>
<td>12</td>
<td>44 - 45</td>
</tr>
<tr>
<td>Handling</td>
<td>12</td>
<td>46 - 49</td>
</tr>
<tr>
<td>Fencing &amp; hedges</td>
<td>12</td>
<td>50 - 51</td>
</tr>
<tr>
<td>Shearing</td>
<td>13</td>
<td>52 - 57</td>
</tr>
<tr>
<td>Castration</td>
<td>13</td>
<td>58 - 61</td>
</tr>
<tr>
<td>Tail docking</td>
<td>14</td>
<td>62 - 63</td>
</tr>
<tr>
<td>Tooth grinding</td>
<td>14</td>
<td>64</td>
</tr>
<tr>
<td>Electro-immobilisation, vasectomy &amp; electro-ejaculation</td>
<td>14</td>
<td>65</td>
</tr>
<tr>
<td>Dehorning or disbudding</td>
<td>14</td>
<td>66</td>
</tr>
<tr>
<td><strong>Breeding techniques</strong></td>
<td>15</td>
<td>67 - 71</td>
</tr>
</tbody>
</table>
Code of Recommendations for the Welfare of Livestock: Sheep

Pregnancy & lambing 16 72 - 87
Artificial rearing 18 88 - 97

Housing 19 98 - 123
General 19 98 - 102
Ventilation 19 103
Buildings & equipment 20 104 - 113
Lighting 20 114 - 115
Space allowances 21 116
Mechanical equipment & services 22 117 - 119
Fire & other emergency precautions 22 120 - 123

Hazards 23 124 - 128

Milk sheep 24 129 - 138
Management 24 129 - 133
Milking practices 24 134 - 136
Milking parlours & equipment 24 137 - 138

Appendix

Useful publications 25
Further information 26
Preface

This preface is not part of the Code but is intended to explain its purpose and to indicate the broad considerations upon which it is based. Similarly, the legislation quoted in boxes throughout the document is not part of the Code but is intended to highlight some of the legal requirements. The law, as quoted in these boxes, is that in force on the date of publication or reprinting of the Code (please turn to the back cover for this information). Readers should be aware that any of the legal requirements quoted might be subject to change - they should seek confirmation before assuming that these are an accurate statement of the law currently in force.

Regulation 10 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) provides that:

Any person who employs or engages a person to attend to animals shall ensure that the person attending to the animals:

- is acquainted with the provisions of all relevant statutory welfare codes relating to the animals being attended to;
- has access to a copy of those codes while he is attending to the animals; and
- has received instruction and guidance on those codes.

Any person who keeps animals, or who causes or knowingly permits animals to be kept, shall not attend to them unless he has access to all relevant statutory welfare codes relating to the animals while he is attending to them, and is acquainted with the provisions of those codes.

In Regulation 2 it states that ‘statutory welfare code’ means a code for the time being issued under Section 3 of the Agriculture (Miscellaneous Provisions) Act 1968. The breach of a code provision, whilst not an offence in itself, can nevertheless be used in evidence as tending to establish the guilt of anyone accused of causing the offence of causing unnecessary pain or distress under the Act (Section 3(4)).

Regulation 3(1) of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that owners and keepers of animals shall take all reasonable steps:

- to ensure the welfare of the animals under their care; and
- to ensure that the animals are not caused any unnecessary pain, suffering or injury.

Regulation 3(3) of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:

- In deciding whether the conditions under which animals are being bred or kept comply with the requirements set out in Schedule 1 of the Regulations, the owner and keeper of the animals shall have regard to their species, and to their degree of development, adaptation and domestication, and to their physiological and ethological needs in accordance with established experience and scientific knowledge.

To cause unnecessary pain or unnecessary distress to any livestock on agricultural land is an offence under Section 1(1) of the Agriculture (Miscellaneous Provisions) Act 1968.
Regulation 11 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:

- Where an authorised person considers that animals are being kept in a way which is likely to cause unnecessary pain, suffering or injury, or in any other way in contravention of any provision of these Regulations, he may serve a notice on the person appearing to him to be in charge of the animals requiring that person, within the period stated in the notice, to take any action that the authorised person considers to be reasonably necessary to ensure compliance with these Regulations and the authorised person shall give his reasons for requiring that action to be taken.

Regulation 13(2) of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:

- In any proceedings against an owner or keeper of animals for a failure to comply with Regulation 3(1) or 3(2), the owner or keeper as the case may be, may rely on his compliance with any relevant recommendation contained in a statutory welfare code as tending to establish his compliance with the relevant Regulation.

The Code is intended to encourage all those who care for farm animals to adopt the highest standards of husbandry. Without good stockmanship, animal welfare can never be adequately protected. Adherence to these recommendations will help stock-keepers to reach the required standard.

The welfare of sheep is considered within a framework, elaborated by the Farm Animal Welfare Council, and known as the ‘Five Freedoms’. These form a logical basis for the assessment of welfare within any system, together with the actions necessary to safeguard welfare within the constraints of an efficient livestock industry.

The Five Freedoms are:

1. **freedom from hunger and thirst**
   - by ready access to fresh water and a diet to maintain full health and vigour;

2. **freedom from discomfort**
   - by providing an appropriate environment including shelter and a comfortable resting area;

3. **freedom from pain, injury or disease**
   - by prevention or rapid diagnosis and treatment;

4. **freedom to express normal behaviour**
   - by providing sufficient space, proper facilities and company of the animals’ own kind;

5. **freedom from fear and distress**
   - by ensuring conditions and treatment to avoid mental suffering.

In acknowledging these freedoms, those who have care of livestock should practise:

- caring and responsible planning and management;
- skilled, knowledgeable and conscientious stockmanship;
- appropriate environmental design (for example, of the husbandry system);
- considerate handling and transport;
- humane slaughter.
The Protection of Animals Acts 1911-2000 contain the general law relating to cruelty to animals. Broadly it is an offence (under Section 1 of the 1911 Act) to be cruel to any domestic or captive animal by anything that is done or omitted to be done.

Section 12(2) of the 1911 Act empowers a police constable to place, in safe custody, animals in the charge of persons apprehended for an offence under the Act until the end of proceedings or the court orders the return of the animals. The reasonable costs involved, including any necessary veterinary treatment, are recoverable by the police from the owner upon conviction.

Under Section 1 of the Protection of Animals (Amendment) Act 1954, as amended by the 1988 Act, the court has the power to disqualify a person convicted under these Acts from having custody of any animal. The ban can specify a particular kind of animal or all animals for such period as the court thinks fit.

This Code applies in England only and has been issued by the Secretary of State for Environment, Food and Rural Affairs (following approval in draft by both Houses of Parliament). It replaces (also as regards England only) the existing Code, which was issued in 1990.

Similar Codes are being produced in Scotland, Wales and Northern Ireland. Until these new Codes are issued, the existing Code will continue to apply in Scotland and Wales. Separate arrangements exist in Northern Ireland.

This Welfare Code was issued on 14th August 2000.
Introduction

1 In this Code (which applies in England only) the word ‘sheep’ refers to all ovine stock, and an animal under six months of age is considered to be a lamb.

2 The recommendations are relevant to sheep under all husbandry systems. Following them will help to ensure that the welfare of stock is safeguarded.

3 The number and type of sheep kept and the stocking rate and/or housing density should depend on the suitability of the environment, the capacity of the farm, the competence of the shepherd and the time available to carry out his or her duties. Good stockmanship is of paramount importance in all systems of sheep production.

4 The relevant animal welfare legislation applies to owners as well as to any person looking after sheep on their behalf, wherever the sheep are located. A written contract can be of value in ensuring that all parties are clear about their responsibilities in respect of welfare. However, the obligations imposed by law will still apply.

5 If any change in breed or type is contemplated, particularly if farming in difficult, extensive conditions, replacement should only be with a breed or type of sheep that is suitable for the location. For example, on hill farms, sheep should be sufficiently hardy and not prone to suffer as a result of extremes of climate.
Stockmanship

Schedule 1, paragraph 1 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:
- Animals shall be cared for by a sufficient number of staff who possess the appropriate ability, knowledge and professional competence.

6 The most significant single influence on the welfare of any flock is the shepherd, who should develop and carry out an effective routine for continuing care.

7 All shepherds should be aware of the welfare needs of their sheep and be capable of safeguarding them under all foreseeable conditions before being given responsibility for a flock. This requires the acquisition of specific stockmanship skills. These may be developed on-farm, working with an experienced person, or by following a course offered by a suitable training organisation. Wherever possible, the training should be of a type which leads to formal recognition of competence.

8 Shepherds should know the signs of good health in sheep. These include general alertness, free movement, active feeding and rumination, and absence of lameness, visible wounds, abscesses or injuries.

9 Shepherds should also know the signs which indicate ill health in sheep. These include listlessness, abnormal posture and behaviour, lameness, scouring, absence of cudding, persistent coughing or panting, scratching and frequent rubbing, rapid loss of body condition, excessive wool loss, sudden fall in milk yield and, in some circumstances, being apart from the flock.

10 The capabilities of the shepherd or shepherds in charge of the sheep are a significant factor in determining the size of a flock. The flock size should not be increased, nor should a unit be set up, unless the shepherds have the skills necessary to safeguard the welfare of every animal in their charge.

11 It is important for a farmer to ensure that enough time is available within the shepherd’s normal work routine for the flock to be properly inspected and for any necessary remedial action to be taken.

12 It may be necessary to engage extra help such as experienced, competent contractors to provide extra assistance during busy periods such as lambing, shearing, routine dipping and other disease prevention treatments; or when regular staff are unavailable due to holiday or sickness.
Feed & water

Schedule 1, paragraphs 22–27 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No.1870), state that:

- Animals shall be fed a wholesome diet which is appropriate to their age and species and which is fed to them in sufficient quantity to maintain them in good health, to satisfy their nutritional needs and to promote a positive state of well-being.

- No animals shall be provided with food or liquid in a manner, nor shall such food or liquid contain any substance, which may cause them unnecessary suffering or injury.

- All animals shall have access to feed at intervals appropriate to their physiological needs (and, in any case, at least once a day), except where a veterinary surgeon acting in the exercise of his profession otherwise directs.

- All animals shall either have access to a suitable water supply and be provided with an adequate supply of fresh drinking water each day or be able to satisfy their fluid intake needs by other means.

- Feeding and watering equipment shall be designed, constructed, placed and maintained so that contamination of food and water and the harmful effects of competition between animals are minimised.

- No other substance, with the exception of those given for therapeutic or prophylactic purposes or for the purpose of zootechnical treatment shall be administered to animals unless it has been demonstrated by scientific studies of animal welfare or established experience that the effect of that substance is not detrimental to the health or welfare of the animals.

13 The law requires that sheep should have access to suitable feed in sufficient quantity and sufficient fresh, clean water each day. Ideally, water should be available at all times and most particularly during lactation. It is not acceptable to rely on the water content of feedstuffs, including roots.

14 The law requires that the diet of sheep should always be adequate to maintain full health and vigour. Sudden changes in the type and quantity of feed should be avoided.

15 Sheep should be provided with fresh feed, and any which is stale or contaminated should be removed from troughs before more is added. Feed should be palatable and of good quality. It is especially important to dispose of silage which has deteriorated in storage or in the feed trough.

16 Systems involving the use of high intakes of cereal-based diets require a gradual introductory feeding period, during which sufficient roughage or a suitable high-fibre concentrate should also be fed. Care should be taken to prevent individual sheep from gorging by ensuring that there is plenty of trough space available to the flock. In such systems, mineral mixtures should be specifically designed to avoid urinary problems in male animals.

17 Certain substances, in particular copper, can be harmful to sheep. Compound feeds or mineral preparations which have been prepared for other species should be avoided unless the composition can be assessed as suitable for sheep. Shepherds should be aware of breed variations in susceptibility to copper poisoning.

18 Sheep farmers and shepherds should consider the state of the flock’s dentition when culling. Sheep with poor teeth should preferably be culled. If the sheep are to be retained, they should be provided with food which they can eat without difficulty and their body condition should be carefully monitored.

19 Arrangements should be made in advance to ensure that adequate supplies of suitable feed and water can be made available to sheep in emergencies, such as severe winter storms or summer drought.
Health

General

Schedule 1, paragraph 2 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No.1870) requires that:
- All animals kept in husbandry systems in which their welfare depends on frequent human attention shall be thoroughly inspected at least once a day to check that they are in a state of well-being; and
- Animals kept in systems other than husbandry systems in which their welfare depends on frequent human attention shall be inspected at intervals sufficient to avoid any suffering.

Schedule 1, paragraph 5 states that any animals which appear to be ill or injured:
- shall be cared for appropriately without delay; and
- where they do not respond to such care, veterinary advice shall be obtained as soon as possible.

Schedule 1, paragraph 7 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No.1870) states that a record shall be maintained of:
- any medicinal treatment given to animals, and
- the number of mortalities found on each inspection of animals carried out in accordance with the provisions in Schedule 1, paragraph 2.

Schedule 1, paragraph 8 states that the record referred to in Schedule 1, paragraph 7 shall be retained for a period of at least three years from the date on which the medical treatment was given, or the date of the inspection, as the case may be, and shall be made available to an authorised person when carrying out an inspection or when otherwise requested by such person.

20 Shepherds should be experienced or trained and be competent across the range of health and welfare skills - which should include vaccination, drenching, prevention of footrot and treatment of lame sheep, prevention and treatment of internal and external parasites including scab and fly strike, tail docking and castration. It is particularly important that shepherds have competence in the skills required at lambing time.

21 A written health and welfare programme for all animals should be prepared for each flock. This should cover the yearly production cycle. It should be developed with appropriate veterinary and technical advice, and reviewed and updated annually. The programme should include sufficient records to assess the basic output of the flock and should address, as a minimum, vaccination policy and timing, control of external and internal parasites, and foot care. Pasture management should form an integral part of disease control and especially so in the case of internal parasites and footrot, where total reliance on drugs is best avoided.

22 Particular attention should be paid to sheep, including rams, which are to be introduced into an established flock, since diseases can easily be spread. Such sheep should be segregated for at least four weeks and inspected and treated, if necessary, for diseases such as sheep scab or footrot. Newly introduced ewes should again be segregated for about four weeks before lambing and lambed separately, preferably after the main flock, to avoid the introduction of infectious abortion agents at this time.

23 Before introduction of rams to a flock at tupping time, ewes should be checked for fitness (especially for lameness, teeth, udders and body condition) and any ewe which is substandard should be culled, together with any known to have suffered reproductive problems in previous seasons. This is particularly important for animals expected to live under harsh conditions. Rams should also be checked for their suitability for breeding.
24 Records must be maintained (see the box before paragraph 20) of any medicinal treatment given and the number of mortalities found in each inspection. Where equivalent information is required to be kept for other purposes, such as for medicine records or sheep identification legislation, these shall suffice.

Inspection

25 The health and welfare of animals depend upon regular supervision. Shepherds should carry out inspections of the flock at intervals appropriate to the circumstances in which sheep are kept and pay particular attention to signs of injury, distress, illness or infestation (e.g. sheep scab, fly strike, lameness and mastitis) so that these conditions can be recognised and dealt with promptly. The frequency of inspection will depend on factors which affect sheep welfare at any particular time, such as housing, lambing, fly strike and adverse winter weather conditions.

Condition scoring

26 Sheep farmers and shepherds should be aware that the use of condition scoring can contribute significantly to good husbandry. Condition scoring is an easy technique to learn and allows the body reserves of individual sheep to be assessed quickly. The information gained enables high standards of husbandry to be achieved and can prevent a welfare problem from developing. This technique enables the identification of animals requiring special care. For example, a condition score in a significant number of the flock of less than 2 for lowland sheep, and of 1.5 for those on the hill, can indicate inadequate management and the need for positive steps to rectify the situation.

Lameness

27 Lameness in any animal is usually an indication of pain. Lameness in sheep is one of the most common signs of ill health and discomfort. It has clear adverse welfare implications and also affects the performance and production of both ewes and rams. A significant percentage of sheep with chronic lameness may be indicative of poor overall welfare standards within the flock.

28 Good stockmanship, including frequent and thorough inspection along with correct diagnosis and implementation of a suitable programme of prevention and treatment, will help to reduce the incidence of lameness.

29 Lameness can originate in the feet or joints, although in adult sheep the foot is the most common site. A flock programme of foot care should be part of the written welfare programme referred to at paragraph 21. An effective foot care programme will include regular inspection of the sheep’s feet. It may also necessitate regular and careful paring, treatment of infected feet and foot-bathing with a suitable solution, which is maintained at the manufacturer’s recommended dilution, and, where appropriate, vaccination. If footrot is a major cause of lameness or if normal treatments are unsuccessful, veterinary advice should be sought.

30 Foot paring is a skilled procedure and can damage feet if carried out incorrectly or excessively. If in doubt, specialist advice should be sought.

31 If a chronically lame sheep does not respond to remedial treatment, it should be culled and not left to suffer. As such animals cannot be transported in a way which avoids further suffering, they should be slaughtered on the farm (see paragraph 37). In addition, sheep that cannot get up without assistance or sheep that can bear weight on only three legs when standing must not be transported.
Sheep that can bear weight on all four feet but are slightly lame should not be consigned to market or sent on any journey which is likely to exacerbate the injury, however slight.

**External parasites**

32 Where external parasites, such as those causing scab or fly strike, ticks or lice, are likely to occur, sheep should be protected by dipping or by the use of an effective preventive chemical agent. Where sheep are clinically infected with such external parasites, effective treatment must be given without delay.

**Internal parasites**

33 Internal parasites should be controlled by grazing management and/or anthelmintic treatment administered at appropriate times based upon the life cycle of the parasite. Advice on appropriate timing, and steps to avoid the development of anthelmintic-resistant worms, should be sought from a veterinary surgeon or specialist adviser.

**Casualties**

34 Injured, ailing or distressed sheep should be identified and treated without delay. Where the shepherd is able to identify the cause of ill health, he or she should take immediate remedial action. When in doubt, veterinary advice should be obtained as soon as possible.

35 Provision should be made, and used when necessary, for the segregation and care of sick or injured animals. Unfit sheep (including infirm, diseased, ill and injured animals) should be removed from flocks.

36 If an unfit sheep does not respond to treatment, it should be culled or humanely killed on-farm. It is an offence to cause, or to allow, unnecessary pain or unnecessary distress by leaving a sheep to suffer.

37 In an emergency, it may be necessary to kill an animal immediately to prevent suffering. In such cases, the animal should be destroyed in a humane manner and, where possible, by a person experienced and/or trained both in the techniques and the equipment used for killing sheep.

38 If animals are killed or slaughtered on-farm, other than in an emergency, the operation may only be carried out using a permitted method and in accordance with current welfare at slaughter legislation.

It is a general offence under the Welfare of Animals (Slaughter or Killing) Regulations 1995 (S.I. 1995 No. 731) as amended by the Welfare of Animals (Slaughter or Killing) (Amendment) Regulations 1999 (S.I. 1999 No. 400), to cause or permit any avoidable excitement, pain or suffering to any animal during slaughter or killing (Regulation 4(1)). The general offence applies in all cases, but the detailed provisions in respect of the method of slaughter or killing do not apply when an animal has to be killed immediately for emergency reasons (Regulation 13(2)).

When an animal is slaughtered or killed on-farm, this must be done using a permitted method. The animal could be:

- stunned using a captive bolt pistol, concussion stunner or electrical stunner after which it must be followed by bleeding – or pithed – without delay (Regulation 14 and Schedules 5 (Part II) and 6). If the animal is stunned and bled, the operation must be carried out by a slaughterman licensed for these operations (Schedule 1), unless the owner is slaughtering an animal for his own consumption; or
- killed by a free bullet (Regulation 15 and Schedule 5 Part III); the animal should be killed with a single shot to the head.
An unfit sheep may be transported only if it is being taken for veterinary treatment/diagnosis or is going to the nearest available place of slaughter and then only provided it is transported in a way which is not going to cause it further suffering. Further advice can be found in a Defra booklet which gives guidance on the transport of casualty farm animals (see Appendix).

Articles 4(1) and 6(1) of the Welfare of Animals (Transport) Order 1997 (S.I. 1997 No. 1480) respectively provide that:

- No person shall transport any animal in a way which causes or is likely to cause injury or unnecessary suffering to that animal.
- No person shall transport any animal unless:
  - it is fit for the intended journey; and
  - suitable provision has been made for its care during the journey and on arrival at the place of destination.
- For these purposes an animal shall not be considered fit for its intended journey if it is ill, injured, infirm or fatigued, unless it is only slightly ill, injured, infirm or fatigued and the intended journey is not likely to cause it unnecessary suffering.
- Notwithstanding the above, any sheep may be transported to the nearest available place for veterinary treatment or diagnosis, or to the nearest available place of slaughter, if the animal is not likely to be subject to unnecessary suffering by reason of its unfitness. However, an animal so transported may not be dragged or pushed by any means, or lifted by a mechanical device, unless this is done in the presence and under the supervision of a veterinary surgeon who is arranging for it to be transported with all practicable speed to a place for veterinary treatment.

Dosing & vaccination equipment

Care should be taken to ensure that all equipment used in dosing, vaccination and treatment is maintained to a satisfactory standard. Equipment used for any injections should be frequently cleansed and sterilised to avoid infections. Ideally, disposable needles should be used. Dosing gun nozzles should be of a size suitable for the age of the sheep. Hazardous objects such as needles should be disposed of safely in accordance with current legislation.

Where necessary, the shepherd should receive training in the use and maintenance of equipment used for dosing, vaccination and treatment.
Management

General

42 All fields and buildings should be kept clear of debris such as wire or plastic, which could be harmful to sheep.

43 When sheep are outdoors in winter, and particularly when fed on root crops, they should be allowed either to run back to pasture or to a straw bedded area, which gives a more comfortable lying area as well as limiting the build-up of mud or dung on the fleece. Where there is no natural shelter for the sheep, artificial shelter, such as the placement of straw bales, should be provided.

Schedule 1, paragraph 17 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:
- Animals not kept in buildings shall, where necessary and possible, be given protection from adverse weather conditions, predators and risks to their health and shall, at all times, have access to a well-drained lying area.

Marking

44 Permanent marking of sheep by, for example, ear tattooing or tagging, should be carried out only by a skilled stockman using properly maintained instruments. Ear tags should be suitable for use in sheep. Wherever possible, marking should not be undertaken during the fly season. If marking does have to be carried out during the fly season, farmers should take measures which will prevent or reduce the threat of fly strike. Where, for flock management purposes, ear marking is by notching or punching, this should be done using proprietary equipment. If horned breeds of sheep are to be marked for flock management purposes, horn branding is to be preferred.

45 Aerosols or paints used for temporary marking should be non-toxic.

Handling

46 All sheep farmers should have easily operated and efficient handling pens, to facilitate routine management and treatment, on a size and scale to suit the flock numbers. Pens and floors should be maintained in good repair and should not have any sharp edges or projections, which might injure sheep.

47 When sheep are to be transported, well-designed collecting, loading and unloading facilities should be available on the farm. It is helpful if the sheep are familiar with these handling pens in order to minimise stress levels.

48 Sheep should not be caught by the fleece alone. They should be handled or restrained by means of a hand or an arm under the neck (holding the neck wool, if necessary) with the other arm placed on or around the rear. Lifting or dragging sheep by the fleece, tail, ears, horns or legs is unacceptable. Care should be taken with horns, which may be broken off if sheep are roughly handled.

49 Devices such as raddles, harnesses, tethers and yokes should be of suitable material and should be properly fitted and adjusted to avoid causing injury or discomfort. They should be checked regularly and should not be used for longer than necessary. Tethering by the horns is unacceptable.

Fencing & hedges

50 Fences and hedges should be well-maintained so as to avoid injury to sheep and prevent entanglement. Where any type of mesh fencing is used, particularly for horned sheep, and around lambing fields, it should be checked frequently so that any animals which are caught can be released.

51 Electric fences should be designed, installed, used and maintained so that contact with them does not cause more than momentary discomfort to the
Sheep. Electric mesh fencing should not be used for horned sheep.

**Shearing**

52  Every mature sheep should have its fleece removed at least once a year.

53  Shearers should be experienced, competent and have received adequate training in shearing techniques. Inexperienced shearers should be supervised by suitably competent staff. When shearing, care should be taken not to cut the skin of the sheep. Where a wound does occur, immediate treatment should be given.

54  Shearers and all contractors should clean and disinfect their equipment between flocks to minimise the risk of spreading disease.

55  Full use should be made of weather forecasts and shelter to avoid excessive cold stress to newly shorn sheep at whatever time of year shearing is carried out.

56  Winter shearing is not a suitable practice unless the sheep are housed.

57  Sheep which were shorn and housed in winter should be turned out to grass in spring only when the fleece has regrown to 15–20 mm in length and when weather conditions are favourable. Where adequate natural shelter is not available, other means should be adopted, such as the provision of straw bales.

**Castration**

58  Farmers and shepherds should consider carefully whether castration is necessary within any particular flock. Castration is unlikely to be necessary where lambs will be finished and sent to slaughter before reaching sexual maturity. The procedure should only be carried out when lambs are likely to be retained after puberty and where it is necessary to avoid welfare problems associated with the management of entire males.

59  Account should be taken not only of the pain and distress caused by castration but also the stress imposed by gathering and handling, and the potential risk of infection. For very young lambs gathered in large groups, there is a real risk of mist-mothering, which may lead ultimately to starvation and death.

60  Castration should not be performed on lambs until the ewe/lamb bond has become established.

61  Castration may only be carried out in strict accordance with the law (see box below). The procedure should be performed by a competent, trained operator. Once a lamb is over three months of age, castration may only be performed by a veterinary surgeon using a suitable anaesthetic. Shepherds should only carry out surgical castration after having first considered and ruled out alternative methods, in discussion with their veterinary surgeon.

Under the Protection of Animals (Anaesthetics) Act 1954, as amended, it is an offence to castrate lambs which have reached three months of age without the use of an anaesthetic. Furthermore, the use of a rubber ring, or other device, to restrict the flow of blood to the scrotum or tail, is only permitted without an anaesthetic if the device is applied during the first week of life.

Under the Veterinary Surgeons Act 1966, as amended, only a veterinary surgeon may castrate a lamb which has reached the age of three months.
Tail docking

62 Farmers and shepherds should consider carefully whether tail docking within a particular flock is necessary. Tail docking may be carried out only if failure to do so would lead to subsequent welfare problems because of dirty tails and potential fly strike. If it is considered that both tail docking and castration are necessary, thought should be given to performing both operations at the one time of handling, so as to minimise disruption and the potential for mis-mothering and distress.

63 Tail docking must be carried out only in strict accordance with the law (see box below and that following paragraph 61). The procedure should be performed by a competent, trained operator.


Dehorning or disbudding

66 Dehorning or disbudding of a sheep by lay persons is against the law, except for the trimming of ingrowing horn in certain circumstances (see box below). Horned sheep, especially rams, should be regularly inspected to ensure that neither the tip nor any other part of the horn is in contact with the face.

Under the Veterinary Surgeons Act 1966, as amended, only a veterinary surgeon may dehorn or disbud a sheep, apart from trimming the insensitive tip of an ingrowing horn which, if left untreated, could cause pain or distress.

Tooth grinding

64 Tooth grinding of sheep is prohibited by law (see box following paragraph 63).

Electro-immobilisation, vasectomy & electro-ejaculation

65 The electro-immobilisation of sheep is prohibited by law. Vasectomy or electro-ejaculation may be carried out only by a veterinary surgeon.
Breeding techniques

Schedule 1, paragraph 28 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:
- Subject to sub-paragraph 2, natural or artificial breeding or breeding procedures which cause, or are likely to cause, suffering or injury to any of the animals concerned shall not be practised.
- Sub-paragraph 1 shall not preclude the use of natural or artificial breeding procedures that are likely to cause minimal or momentary suffering or injury or that might necessitate interventions which would not cause lasting injury.

Schedule 1, paragraph 29 states that:
- No animals shall be kept for farming purposes unless it can reasonably be expected, on the basis of their genotype or phenotype, that they can be kept without detrimental effect on their health or welfare.

67 The body condition of the ewe and nutritional management prior to tupping have a marked effect on the ovulation rate and eventual litter size. The ram should also be in appropriate body condition. Farmers and shepherds should be aware of the influence of pre-mating management upon the subsequent needs of the ewe in pregnancy, and should plan accordingly.

68 It is possible to manipulate the time and pattern of lambing by using vasectomised rams, intra-vaginal progestagen sponges – with or without pregnant mare serum gonadotrophin (PMSG) - or administration of melatonin. If the lambing date is changed and/or litter size is increased, account should be taken of the special requirements for feed, labour and other inputs both before and at lambing time, when the welfare of ewes is under particular pressure. In particular, housing or shelter should be available if lambing is to take place in adverse weather conditions.

69 Any person using artificial insemination should be trained and competent in the technique.

70 Laparoscopic artificial insemination is a surgical technique which must be carried out only by a veterinary surgeon using an anaesthetic.

71 Treatment of ewes using hormones to produce multiple embryos and subsequent embryo transfer must be carried out only by a veterinary surgeon. Embryo transfer is an act of veterinary surgery.
Pregnancy & lambing

72 The nutritional management of pregnant ewes is particularly important. Both condition scoring and scanning can be of benefit.

73 Pregnant and nursing ewes should receive adequate food to ensure the development of healthy lambs and to maintain the health and bodily condition of the ewe.

74 Scanning can be a valuable aid to management. However, scanning is an addition to good husbandry not a replacement. The scanning procedure allows barren, single, twin and triplet bearing ewes to be managed as separate groups. A combination of scanning and condition scoring allows ewes carrying more than one lamb, and thin ewes, to be separated for special feeding and supervision. Equipment should be properly cleansed and disinfected between flocks.

75 Heavily pregnant ewes should be handled with care to avoid distress and injury, which may precipitate premature lambing. However, if a heavily pregnant ewe requires treatment, such as for lameness, she should receive appropriate treatment as soon as possible and not be left untreated until after lambing.

76 A large proportion of ewe mortalities occur during the period around lambing, so particular skill and expertise are required at this time. Severe damage can be caused through inexperience when assisting a ewe in difficulties. Shepherds should therefore be experienced and competent before having responsibility for a flock at lambing time. Where necessary, they should receive training.

77 Shepherds should pay particular attention to cleanliness and hygiene of equipment and pens during pregnancy and lambing. Personal cleanliness is essential when assisting ewes to lamb. Attention to cleanliness and hygiene is also important in the lambing area and pens used in treating or assisting lambing ewes. Lambing pens, sufficient in number and size, should be easily accessible and on a dry, well-drained site. Each pen should be provided with a hay rack, feed trough and water bucket. If the pens are outdoors, their tops should be covered.

78 There may be times when even a proficient shepherd experiences difficulty in delivering a lamb single-handed. In such cases, assistance should be called immediately.

79 Any ewe with a prolapse should be treated immediately using an appropriate technique and, where necessary, veterinary advice should be sought.

80 Embryotomy, the dissection and removal of a foetus which cannot be delivered naturally, should be carried out on dead lambs only. It should never be used to remove a live lamb.

80 Every effort should be made to prevent the buildup and spread of infection by ensuring that lambing pens are provided with adequate, clean bedding and are regularly cleansed. It is particularly important to ensure that dead lambs and afterbirths are removed and disposed of in a suitable manner without delay.

The Dogs Acts 1906-28 include provisions making it an offence for a person knowingly to permit a carcass to remain unburied in a place to which dogs could gain access.

Article 5 of the EU Animal By-Products Regulation requires that fallen stock are disposed of by:
- despatch to a knacker’s yard, hunt kennel or maggot farm;
- incineration in approved premises;
- rendering in approved premises.

The Animal By-Products Regulation does not permit the burial or on-farm burning of fallen stock, except in designated remote areas. In the UK these will be the Isle of Lundy, Isles of Scilly and designated areas of the Highlands and Islands of Scotland.

This provision applies to the disposal of stillborn or unborn lambs, as well as to older sheep.
82 Shepherds should be able to recognise lambs in need of resuscitation and be familiar with resuscitation techniques and survival aids, such as feeding by stomach tube and use of a warmer box. A Defra booklet on improving lamb survival gives further information (see Appendix).

83 It is vital that every newly born lamb receives colostrum from its dam, or from another source, as soon as possible and in any case within three hours of birth. Adequate supplies of colostrum should always be available for use in emergencies, such as when a ewe lambs with poor milk supplies.

84 A source of heat (for example a warmer box) should be available to revive weak lambs, but care should be taken to avoid overheating.

85 Where lambing takes place outdoors, some form of shelter or windbreak should be available.

86 The problem of mis-mothering, which occurs particularly during gathering, handling, transport or dipping of ewes and lambs, should be reduced by keeping group size to a minimum. Identifying lambs and mothers is also beneficial, using non-toxic colour markers.

87 Wherever possible, young lambs, other than with their mothers, should not be sold at market. Arrangements for the direct transfer of orphan lambs from farm to farm, rather than through a market, should be encouraged in order to minimise disease risk. The law forbids the transport and the sale at market of lambs with an unhealed navel.

Article 6 of the Welfare of Animals (Transport Order) 1997(S.I. 1997 No. 1480) states that:
- Animals shall not be considered fit for transport if (inter alia) they are newborn animals in which the navel has not completely healed.

Under Article 5A of the Welfare of Animals at Markets Order 1990 (S.I. 1990 No. 2627), as amended by the Welfare of Animals at Markets Order 1993 (S.I. 1993 No. 3085), no person shall bring to a market, or allow to be exposed for sale in a market, a lamb or goat kid with an unhealed navel.
Artificial rearing

88 Artificial rearing of lambs requires close attention and high standards of supervision and stockmanship if it is to be successful. It is essential that all lambs should start with an adequate supply of colostrum.

89 All lambs should receive an adequate amount of suitable liquid feed, such as ewe milk replacer, at regular intervals each day for at least the first four weeks of their life.

90 From the second week of life, lambs should also have access to palatable and nutritious solid food (which may include grass) and always have access to fresh, clean water.

91 Where automatic feeding equipment is provided, lambs should be trained in its use to ensure that they regularly consume an adequate amount of food and the equipment should be checked daily to see that it is working properly.

92 Troughs should be kept clean and any stale feed removed. Automatic feeding systems must be well-maintained and checked daily. Equipment and utensils used for liquid feeding should be thoroughly cleansed and sterilised at frequent intervals.

93 A dry bed and adequate draught-free ventilation should be provided.

94 Where necessary, arrangements should be made to supply safe supplementary heating for very young lambs.

95 Suitable accommodation should be available for sick or injured lambs. This should be separate from other livestock.

96 Until weaning, housed lambs should be kept in small groups to facilitate inspection and limit the spread of disease.

97 Where young lambs are being reared at pasture without their mothers, care should be taken to ensure that they have adequate shelter.
Housing

General

Schedule 1, paragraph 4 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870), states that where any animals (other than poultry) are kept in a building:
- they shall be kept on, or have access at all times to, a lying area which either has well-maintained dry bedding or is well-drained.

Schedule 1, paragraph 6 states:
- where necessary, sick or injured animals shall be isolated in suitable accommodation with, where appropriate, dry comfortable bedding.

Schedule 1, paragraph 9 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:
- The freedom of movement of animals, having regard to their species and in accordance with established experience and scientific knowledge, shall not be restricted in such a way as to cause them unnecessary suffering or injury.

Schedule 1, paragraph 10 states that, where animals are continuously or regularly tethered or confined:
- they shall be given the space appropriate to their physiological and ethological needs in accordance with established experience and scientific knowledge.

98 Winter housing of sheep can improve welfare, but problems of both disease and welfare can arise when large numbers are kept together. Advice should be sought on the design, construction or modification of buildings. Adequate ventilation without draughts is of particular importance, as also is the provision of sufficient trough space and lying area.

99 The greater the restriction imposed on a sheep through housing systems, the less the animal is able to use its instinctive behaviour to minimise the effects of any imposed, unfavourable conditions. Housed sheep require continuing conscientious attention by staff well-trained in the nutritional and environmental needs of the sheep.

100 When changes are made to sheep husbandry systems which involve installing more complex or elaborate equipment than had previously been used, consideration should be given to the welfare of the animals and the need for the training of the shepherd.

101 Dry, clean, comfortable conditions under foot should be provided to minimise footrot and hygiene problems. Regular provision of fresh bedding is particularly important at lambing time.

102 When first housed, sheep should be both dry and free from footrot. Sheep affected by footrot should be segregated and treated immediately in order to prevent it from becoming a flock problem.

Ventilation

Schedule 1, paragraph 13 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:
- air circulation, dust levels, temperature, relative air humidity and gas concentrations shall be kept within limits which are not harmful to the animals.

103 Effective ventilation of buildings (to avoid high humidity, condensation and draughts) is essential, as sheep are particularly susceptible to respiratory diseases. Properly designed ventilation will permit the free circulation of air above sheep height and avoid draughts at sheep level.
Buildings & equipment

104 The law sets minimum requirements for the housing of sheep.

Schedule 1, paragraphs 11 and 12 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870), state that:

- materials used for the construction of accommodation, and, in particular for the construction of pens, cages, stalls and equipment with which the animals may come into contact, shall not be harmful to them and shall be capable of being thoroughly cleaned and disinfected.
- accommodation and fittings for securing animals shall be constructed and maintained so that there are no sharp edges or protrusions likely to cause injury to them.

105 Internal surfaces of housing and pens should be made of materials which can be cleansed and disinfected or be easily replaced when necessary.

106 Surfaces should not be treated with paints or wood preservatives which may cause illness or death. There is a risk of lead poisoning from old paintwork, especially when second-hand building materials are used.

107 All floors should be designed, constructed and maintained so as to avoid discomfort, stress or injury to the sheep. Regular maintenance is essential.

108 Solid floors should be well-drained and the sheep provided with dry bedding.

109 Newly born and young lambs should not be put on slatted floors unless suitable bedding is also provided.

110 Water bowls and troughs should be constructed and sited so as to avoid fouling and to minimise the risk of water freezing in cold weather. They should be kept thoroughly clean and should be checked at least once daily, and more frequently in extreme conditions, to ensure that they are in working order.

111 Troughs should be designed and installed in such a way as to ensure that small lambs cannot get into them and drown.

112 For sheep given concentrate feed, when all animals are fed together, it is important to have adequate trough space to avoid competition and aggression. In normal practice, approximately 30 cm of trough space is needed for hill ewes and approximately 45 cm for the larger lowland ewes. Excessive competition is detrimental to sheep welfare.

113 When feeding hay and silage ad lib., trough space should normally be provided within the range 10–12 cm per ewe, dependent upon size. Racks and troughs should be positioned and designed to avoid injury, discomfort and damage to sheep.

Lighting

Schedule 1, paragraph 3 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) requires that:

- Where animals are kept in a building, adequate lighting (whether fixed or portable) shall be available to enable them to be thoroughly inspected at any time.

Schedule 1, paragraphs 14-16 state that:

- Animals kept in buildings shall not be kept in permanent darkness.
- Where the natural light available in a building is insufficient to meet the physiological and ethological needs of any animals being kept in it then appropriate artificial lighting shall be provided.
Animals kept in buildings shall not be kept without an appropriate period of rest from artificial lighting.

114 The law requires that fixed or portable lighting be available so that sheep kept in buildings can be thoroughly inspected at any time.

115 Throughout the hours of daylight, the level of indoor lighting, natural or artificial, should be such that all housed sheep can be seen clearly by the shepherd.

Space allowances

116 The space allowance and group size for housed sheep should be determined according to age, size and class of livestock. Some examples of current good practice, with adequate ventilation and well-bedded on straw indoors, are set out below.

<table>
<thead>
<tr>
<th>Category of sheep</th>
<th>Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lowland ewes (60-90 kg live weight)</td>
<td>1.2-1.4 m² floor space per ewe during pregnancy</td>
</tr>
<tr>
<td>Lowland ewes after lambing with lambs at foot up to six weeks of age</td>
<td>2.0-2.2 m² floor space per ewe and lambs</td>
</tr>
<tr>
<td>Hill ewes (45-65 kg live weight)</td>
<td>1.0-1.2 m² floor space per ewe during pregnancy</td>
</tr>
<tr>
<td>Hill ewes after lambing, with lambs at foot up to six weeks of age</td>
<td>1.8-2.0 m² floor space per ewe and lambs</td>
</tr>
<tr>
<td>Lambs up to 12 weeks old</td>
<td>0.5-0.6 m² floor space per lamb</td>
</tr>
<tr>
<td>Lambs and sheep 12 weeks to 12 months old</td>
<td>0.75-0.9 m² floor space per lamb/sheep</td>
</tr>
<tr>
<td>Rams</td>
<td>1.5-2.0 m³</td>
</tr>
</tbody>
</table>

Shorn sheep

The space allowances may be reduced by 10% for winter-shorn sheep. However no corresponding reduction should be made in respect of the amount of trough space allocated – see paragraphs 112 and 113.

Group size

Where possible, pregnant ewes should be kept in groups of less than 50 to allow for better individual recognition and attention at lambing time.
Mechanical equipment & services

Schedule 1, paragraph 18 of the Welfare of Farmed Animals (England) Regulations 2000 (S.I. 2000 No. 1870) states that:
- All automated or mechanical equipment essential for the health and well-being of the animals shall be inspected at least once a day to check there is no defect in it.

Schedule 1, paragraph 19 states that:
- Where defects in automated or mechanical equipment of the type referred to in paragraph 18 of Schedule 1 are discovered, these shall be rectified immediately or, if this is impossible, appropriate steps shall be taken to safeguard the health and well-being of the animals pending the rectification of such defects, including the use of alternative methods of feeding and watering and methods of providing and maintaining a satisfactory environment.

On artificial ventilation systems, Schedule 1, paragraph 20 states that where the health and well-being of the animals is dependent on such a system:
(a) provision shall be made for an appropriate back-up system to guarantee sufficient air renewal to preserve the health and well-being of the animals in the event of failure of the system; and
(b) an alarm system (which will operate even if the principal electricity supply to it has failed) shall be provided to give warning of any failure of the system.

Schedule 1, paragraph 21 states that:
- The back-up system referred to in paragraph 20(a) of Schedule 1 shall be thoroughly inspected and the alarm system referred to in paragraph 20(b) of Schedule 1 shall be tested at least once every seven days in order to check that there is no defect in the system and, if any defect is found (whether when the system is inspected or tested in accordance with this paragraph or at any other time), it shall be rectified immediately.

117 All equipment and services including water bowls and troughs, ventilating fans, heating and lighting units, milking machines, fire extinguishers and alarm systems should be cleaned and inspected regularly and kept in good working order.

118 The law (see box before paragraph 117) requires all automatic equipment used in intensive systems to be thoroughly inspected by the shepherd, or other competent person, not less than once each day to check that there is no defect. Any defect must be rectified immediately.

119 All electrical installations at mains voltage should be inaccessible to sheep, well-insulated, safeguarded from rodents and properly earthed.

Fire & other emergency precautions

120 Farmers should make advance plans for dealing with emergencies such as fire, flood or disruption of supplies and should ensure that all staff are familiar with the appropriate emergency action.

121 Design advice is important when constructing or modifying a building. There should be provision for livestock to be released and evacuated quickly in the event of an emergency. Consideration should be given to installing fire alarm systems which can be heard and acted upon at any time of the day or night.

122 If sheep are housed, knowledge of fire precautions by the farmer and all staff should be a priority.

123 Expert advice on all fire precautions can be obtained from fire prevention officers of local fire brigades and from the Fire Prevention Association.
Hazards

124 To minimise the risk of sheep being trapped in snow or being unable to gain shelter, care should be taken in siting shelters, shelter belts and fences.

125 As far as is practicable, sheep should be prevented from gathering in places where they may be buried by snow. Where possible, they should be allowed to move naturally or be shepherded into safer areas.

126 All sheep should be removed from areas that are in imminent danger of flooding.

127 Young lambs should be protected, as far as possible, from hazards such as open drains and predators.

128 Any dog is a potential hazard to sheep and should be kept under control on agricultural land. Well-trained sheepdogs, however, can greatly facilitate gathering and handling, particularly under extensive conditions. They should be trained so that they do not grip sheep. Sheepdogs should be well cared for and maintained in good health. They should be regularly wormed to eliminate endoparasites.

The Animals Act 1971 lays down measures with respect to civil liability for the protection of livestock from dogs, and the Dogs (Protection of Livestock) Act 1953 makes it an offence to allow a dog to worry livestock.
Milk sheep

Management

129 Milk sheep flocks are in many cases subjected to a more intensive system of husbandry than a conventional flock and will require especially vigilant stockmanship to ensure that their health and welfare are maintained.

130 Shepherds should be aware of specific problems relevant to milk sheep and the ways in which these may be avoided.

131 Some breeds of milk sheep appear to be especially susceptible to foot problems and these can be exacerbated by the husbandry methods under which the sheep are kept. The roadway, entrances and exits to buildings and fields should be well-maintained and kept as clean as possible.

132 Routine treatments to prevent foot problems should be adopted but care should be taken in the observance of withdrawal periods for any medicines used, particularly during lactation. Efforts to combat footrot during the drying-off period are particularly important.

133 Milk sheep are naturally prolific and require particular attention to the level of nutrition provided during pregnancy and lactation.

Milking practices

134 Special attention should be paid to milking techniques, the adjustment of milking equipment and dairy hygiene. Milking should take place at least daily, on a regular basis, ensuring that ewes are not left with unrelieved, distended udders.

135 Before and after milking, hygiene measures should be adopted to reduce the spread of diseases of the mammary gland.

136 Good milking practices include careful handling, examination of foremilk and avoidance of excessive stripping.

Milking parlours & equipment

137 Pens, ramps, milking parlours and milking equipment should be properly designed, constructed and maintained to prevent injury and distress.

138 It is essential to ensure that milking machines are functioning correctly by carrying out proper maintenance and adjustment of vacuum levels, pulsation rates and ratios, taking account of the manufacturers’ recommendations.
Useful publications

Publications related to sheep welfare available from Defra as at August 2000

<table>
<thead>
<tr>
<th>PB No.</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>0409</td>
<td>Code of Practice - The Welfare of Animals in Livestock Markets</td>
</tr>
<tr>
<td>0621</td>
<td>Farm Fires: Advice on Farm Animal Welfare</td>
</tr>
<tr>
<td>1147</td>
<td>Emergencies on Livestock Farms</td>
</tr>
<tr>
<td>1149</td>
<td>Lameness in Sheep</td>
</tr>
<tr>
<td>1381</td>
<td>Guidance on the Transport of Casualty Farm Animals</td>
</tr>
<tr>
<td>1875</td>
<td>Condition Scoring of Sheep</td>
</tr>
<tr>
<td>2072</td>
<td>Improving Lamb Survival</td>
</tr>
<tr>
<td>2111</td>
<td>Heat Stress in Sheep</td>
</tr>
<tr>
<td>2594</td>
<td>Explanatory Guide to the Welfare of Animals (Slaughter or Killing)</td>
</tr>
<tr>
<td></td>
<td>Regulations 1995</td>
</tr>
<tr>
<td>3477</td>
<td>Welfare of Red Meat Animals at Slaughter - Pre-slaughter Handling:</td>
</tr>
<tr>
<td></td>
<td>a Pocket Guide</td>
</tr>
<tr>
<td>3478</td>
<td>Welfare of Red Meat Animals at Slaughter - Stunning and Sticking:</td>
</tr>
<tr>
<td></td>
<td>a Pocket Guide</td>
</tr>
<tr>
<td>3575</td>
<td>Assessment of Practical Experience in the Handling, Transport and Care</td>
</tr>
<tr>
<td></td>
<td>of Animals</td>
</tr>
<tr>
<td>4908</td>
<td>Halal Slaughter leaflet (also available in Arabic, Bengali, Turkish and Urdu)</td>
</tr>
</tbody>
</table>

Copies of the above publications can be obtained, free of charge, from:

Defra Publications
Admail 6000
London SW1A 2XX
Telephone Orders (for free publications): 0845 955 6000
Telephone Enquiries: 0845 955 6000
Email: defra@iforcegroup.com
Website: http://www.defra.gov.uk

Copies of the legislation quoted in the Code are available from The Stationery Office:

TSO Publications Centre
PO Box 29
Norwich NR3 1GN
Telephone orders: 0870 600 5522
Email: book.enquiries@theso.co.uk
Website: http://www.clicktso.com

These publications are updated on a regular basis; for more information on the most current versions and new literature please contact Defra’s Animal Welfare Division on 020 7904 6512.
Appendix

Further information

If you would like any further information or advice relating to this code please contact Defra's Animal Welfare Division on 020 7904 6521.