



**Isle of Man**  
**Government**

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# Welfare Code Cattle

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## **An Introduction by the Minister**

The Department of Agriculture Fisheries and Forestry is introducing a new Welfare Code for cattle, based on the Five Freedoms. The Code has been produced after consultation with all interested organisations, and will assist in the production of quality livestock under farm assured schemes.

The Five Freedoms were developed by the Farm Animal Welfare Council. They form the foundation for assessing animal welfare within the agriculture industry and help to apply standards to safeguard animal welfare.

The Code, which was laid before Tynwald on 16th May 2006, embodies the latest scientific advice and the best current husbandry practices and takes account of the Five Freedoms.

### **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 by rapid diagnosis and treatment;
4. **Freedom to express most normal behaviour**  
By providing sufficient space, proper facilities and company of an animal's own kind;
5. **Freedom from fear and distress**  
By ensuring conditions and treatment to avoid mental suffering.

In acknowledging these Five Freedoms, those people who care for livestock should demonstrate –

- 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 Preface to the Code identifies good stockmanship as a key factor in farm animal welfare. The Department recognises that there are already high standards in the

industry due to the hard work of farmers. This Code should be an essential tool to measure those standards by.

Farmers should recognise that this Code is not intended to be absolute or prescriptive. Many variations exist in management systems for cattle. Should you find that your practices seem to be in conflict with a section of the Code, you should consider whether you have met, or could meet, the underlying welfare need in a different manner. If you cannot resolve this yourself, or find yourself in conflict with numerous or significant sections of the Code, you should seek advice; the Department's officers are always available to assist in this respect.

The Preface also explains the status of the Code in relation to the Island's legislation. Wherever the word ***must*** appears in the Code, this generally indicates that a legislative provision exists.

Phil Gawne  
Minister of Agriculture, Fisheries and Forestry

*This Welfare Code was laid before Tynwald on the 16th May 2006.*

## 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.

The Code, comprising paragraphs 1 to 150, was laid before Tynwald on 16th May 2006. It has been prepared following consultation as required by section 30 of the Animal Health Act 1996 (Part III: Welfare of Livestock) which reads as follows:

The Department may, after consultation with such organisations as appear to it to be representative of interests substantially affected – prepare codes containing such recommendations with respect to the welfare of livestock for the time being situated on agricultural land or on or in any vehicle, container or moveable structure as it considers proper for the guidance of persons concerned with the livestock; and revise any such code by revoking, varying, amending or adding to the provisions of the code in such manner as the Department thinks fit.

The following further extracts from the Animal Health Act 1996 and The Welfare of Farmed Animals Order 2002 explain the status of the Code in relation to the Island's legislation –

### **Animal Health Act: Section 28:**

Any person who:

- Causes unnecessary pain or unnecessary distress to any livestock which are under his control, or
- Permits any such livestock to suffer any such pain or distress of which he knows or may reasonably be expected to know,

Shall be guilty of an offence under this Act.

### **Animal Health Act: section 30(4)**

A failure on the part of any person to observe a provision of a code for the time being issued under this section shall not of itself render that person liable to proceedings of any kind; but such a failure on the part of any person may, in proceedings against him for an offence under section 28, be relied upon by the prosecution as tending to establish the guilt of the accused unless it is shown that he cannot reasonably be expected to have observed the provision in question within the period which has elapsed since that provision was first included in a code issued under this section.

### **The Welfare of Farmed Animals Order 2002, Article 3(1)**

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.

### **The Welfare of Farmed Animals Order 2002, Article 10**

1. 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.
2. 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.

Nearly all livestock husbandry systems impose restrictions on the stock and, if care is not taken, some of these can cause an unacceptable degree of discomfort or distress by preventing the animals from fulfilling their basic needs.

Provisions meeting these needs, and others which must be considered, include:

- comfort and shelter;
- Readily accessible fresh water and a diet to maintain the animals in full health and vigour;
- Freedom of movement;
- The company of other animals, particularly of like kind;
- The opportunity to exercise most normal patterns of behaviour;
- Light during the hours of daylight, and lighting readily available to enable the animals to be inspected at any time;
- Flooring which neither harms the animals, nor causes undue strain;
- The prevention, or rapid diagnosis and treatment of vice, injury, parasitic infestation and disease;
- The avoidance of unnecessary mutilation;
- Emergency arrangements to cover outbreaks of fire, the breakdown of essential mechanical services and the disruption of supplies.

The basic requirements for the welfare of livestock are:

- A husbandry system appropriate to the health and so far as practicable, the behavioural needs of the animals; and
- A high standard of stockmanship.

The recommendations which follow are designed to help stockmen, particularly those who are young or inexperienced, to attain the required standards. The part that training has to play in the development of the stockman's awareness of welfare requirements cannot be overstressed. Detailed advice on the application of the Code in individual circumstances is readily available through the DAFF Field Staff and in advisory publications, some of which are listed at the end of this Code.

The legislation quoted in the document is not part of the Code but is intended to highlight the relevant legal requirements. The law quoted is that in force on the date of publication.

Any reference in this Code to advisory publications is for information only, and does not form part of this Code.

Certain aspects of livestock husbandry can present hazards to the health and safety of the stockman. Advice on these matters is available from the Department of Local Government and the Environment, Health and Safety Section.



# Section 1 – Recommendations for the Welfare of Cattle

## Stockmanship

### Introduction

- 1 This code covers all cattle. 'Cattle' refers to all bovine stock such as cows and oxen. A calf refers to any animal under six months old.
- 2 The code's recommendations apply to cattle under all husbandry systems. Section 1 of the code gives the recommendations that apply to all ages and types of cattle. Section 2 covers those recommendations that apply to specific categories of cattle (such as calves, breeding cattle and dairy). If these recommendations are followed, they will help to protect the stock's welfare. The code's recommendations are not a complete list and they are not meant to replace expert advice, such as from a veterinary surgeon.
- 3 The husbandry system that is used, and the number and stocking rate of cattle kept at any one time, should depend on:
  - The suitability of the farm environment;
  - How many animals the farm can accommodate at one time;
  - The competence of the stock-keeper; and
  - How long the stockmen have to carry out their duties.
- 4 Organic cattle farming is conducted according to additional, legally enforced standards. However, nothing in those standards affects the legal responsibilities of organic farmers regarding positive animal welfare. Any matters which appear to conflict with organic standards should be discussed with your organic certifying body. In addition, you should seek expert advice, such as from a veterinary surgeon.
- 5 In general, the larger the size or the productivity of the herd, the more skill and care is needed to protect welfare. No changes should be made to husbandry, equipment or production until the possible effects on animal welfare have been considered.
- 6 The relevant animal welfare legislation applies to owners as well as to anyone looking after cattle on their behalf, wherever the cattle are located. A written contract can be useful in making sure that everyone involved is clear about their animal welfare responsibilities. However, the obligations imposed by law will still

apply, whether or not a contract exists. Certain aspects of livestock husbandry can present hazards to the health and safety of the stock-keeper. Advice on such matters is available from the Department of Local Government and the Environment, Health and Safety Section.

### **General**

- 7 The stock-keeper has the most significant influence on the welfare of cattle. The stock-keeper should draw up a written health and welfare plan with the herd's veterinary surgeon and where necessary, other technical advisors; which should be reviewed and updated each year. This plan should set out health and husbandry activities that cover the whole year's cycle of production, and include strategies to prevent, treat or limit existing disease problems. The plan should include records to enable you to monitor and assess the health and welfare of the herd.
- 8 Those responsible for farm management should make sure that the cattle are cared for by enough well-motivated and competent staff. These staff need to be aware of the welfare needs of cattle and be capable of protecting them from all expected problems before they are given any responsibility. This means that the staff need specific knowledge and skills, which they should develop on farm by working with a skilled stock-keeper who is experienced in the relevant system. Wherever possible, staff should also go on a course run by a suitable training organisation. Ideally, the training should lead to formal recognition of competence. Any contract or casual labour used on the farm in busy periods should be trained and competent in the relevant activity.
- 9 Stock-keepers should be knowledgeable and competent in a wide range of animal health and welfare skills, which should include:
  - Handling skills (see paragraphs 14-17)
  - Ear tagging (see paragraphs 18-21)
  - Preventing and treating certain basic or common cases of lameness (see paragraphs 31-33)
  - Preventing and treating internal and external parasites (see paragraphs 34-35)
  - Administering medicines (see paragraph 36)
  - Providing appropriate care to sick and injured cattle (see paragraphs 39-48)
  - Castration (see paragraph 116)
  - Disbudding (see paragraphs 117-119)
  - Removing supernumerary (extra) teats (see paragraph 120); and
  - Milking (see paragraph 143-149)

It is particularly important that stock-keepers are competent in calving assessments

and simple deliveries, if this is part of their role. If they are expected to perform specific tasks on-farm, such as foot trimming, then appropriate training should be given. Otherwise, a veterinary surgeon or, for certain tasks, a competent and trained contractor will be required.

- 10 It is important that grazing cattle, especially young stock come into regular contact with a stock-keeper so that they will not be too frightened if they need to be gathered or treated. Careful supervision and handling of the animals will reduce their fear. The stock-keeper needs a back-up plan and equipment available if he needs to catch and restrain an extensively grazed animal that is not so used to human contact (for example, if it needs to be seen by a veterinary surgeon). You should avoid mixing groups of animals, especially where the animals are horned.
- 11 The health and welfare of animals depends on them being regularly inspected. All stock-keepers should be familiar with the normal behaviour of cattle and should watch for any signs of distress or disease. To do this, it is important that stock-keepers have enough time to:
- Inspect the stock;
  - Check equipment; and
  - Take action to deal with any problem.

There are more detailed inspection rules for calves (paragraphs 99-101).

- 12 The stock-keeper should be aware of the signs of ill-health in cattle, which include:
- Listlessness
  - Separation from the group
  - Unusual behaviour
  - Loss of body condition
  - Loss of appetite
  - A sudden fall in milk yield
  - Constipation
  - Scouring (diarrhoea)
  - Not cudding
  - Any discharge from the nostrils or eyes
  - Producing more saliva than usual
  - Persistent coughing
  - Rapid or irregular breathing
  - Abnormal resting behaviour
  - Swollen joints
  - Lameness; and
  - Mastitis

- 13 You should be able to anticipate problems or recognise them in their earliest stages. In many cases, you should be able to identify the cause and put matters right immediately. You should always consider the possibility that cattle may be affected by a notifiable disease (see paragraphs 37-38). If the cause is not obvious, or if your immediate action is not effective, a veterinary surgeon or other expert should be called in immediately – failure to do so may cause unnecessary suffering.

### **Handling**

- 14 Cattle should be moved at their own pace, without being hurried by stock keepers, vehicles or dogs. You should encourage them gently - especially around corners and where it is slippery underfoot. You should avoid using too much noise, excitement or force. You must not put pressure or strike at any particularly sensitive part of the body (such as the head or udder). Anything that you use to guide the animals (such as a stick) should only be used for that purpose and must not have a sharp or pointed end. The use of electric goads on adult cattle should be avoided as far as possible. If goads are used, you should always ensure that there is sufficient space for them to move forward.
- 15 You should regularly assess the type and condition of any track on which cattle are moved and the distance from housing or milking facilities to pasture. Your assessment should include –
- Gateways;
  - Tracks; and
  - The areas surrounding water troughs,
- so that you can take appropriate action to avoid possible injury or lameness.

You should make sure that any concrete floors and walkways have a non-slip surface, which does not cause too much pressure or excessive abrasion on the animals' feet.

- 16 All stock-keepers should have access to easy-to-use and efficient handling pens (the right size and scale for the type and number of animals in the herd). This is so that you can routinely manage and treat the animals, and make sure that they are quietly and firmly handled. Ideally, these handling pens should protect the animals from extreme weather. You should keep all pens, races (narrow passageways), crushes (restraining gates to assist handling) and floors in good condition and make sure that they are free from any sharp edges or projections which might injure cattle. Where possible races should be gently curved rather than have right-angled bends.

## **Transport off-farm**

- 17 You should have the facilities on-farm to load and unload cattle onto and from a vehicle, with as little stress as possible. Stock-keepers should know how to handle animals during loading and unloading, including –
- using visual fields (that is, cattle have a wide field of vision but have a blind spot behind them, which you should avoid entering) and flight zones (an imaginary area which if you enter will make the animal want to move away – you can control an animal’s movement by understanding the flight zone);
  - Lighting (as cattle prefer to move from the dark into the light); and
  - When and how to use such things as sticks and other implements for guiding.

## **Marking**

- 18 The law states that all cattle must be permanently identified by an official ear tag in each ear. These ear tags should be fitted by a properly trained and competent operator, so that the animal does not suffer any unnecessary pain or distress – either when the tags are fitted or later. Make sure that you fit the tag correctly by following the manufacturers’ instructions and using the correct applicator for the model of tag you are fitting. Always fit the tags under hygienic conditions.
- 19 When fitting any ear tags, you should properly restrain the animals. You should take care to position and insert tags correctly, avoiding main blood vessels and ridges of cartilage. When inserted, the tag should be properly closed to minimise snagging. Remember to leave a suitable gap under the tag and at the edge of the ear to allow for growth (for tags of a closed type). If you are tagging cattle during the fly season (that is, summer), you should take precautions to prevent the animals being irritated by flies.
- 20 If you are marking the cattle with neck bands or chains, and tail bands or leg bands (which you use for herd management identification purposes), you should fit them carefully and adjust them as necessary to avoid causing the animals any unnecessary pain, suffering or injury. If you are using aerosols or paints for temporary marking, make sure you only use non-toxic (safe) substances.
- 21 You can find out more information on cattle identification and cattle movements from the Animal Health Division, Cattle Passport Centre.

## Clipping

- 22 Anyone who clips cattle should be experienced, competent and trained in clipping techniques. Clipping operators should clean and disinfect their equipment between cattle to reduce the risk of spreading disease. The clippers they use should always be appropriate for the purpose and well maintained.

## Health

### General

- 23 Maintenance of good health is the most basic requirement affecting the welfare of cattle. Measures to protect health include good hygiene, good husbandry and effective ventilation. Vaccinations may be appropriate against certain diseases. You should ensure that only authorised veterinary medicinal products, including vaccines, are used.
- 24 The written health and welfare plan (see paragraph 7) should also, as a minimum, look at –
- Biosecurity arrangements on-farm and in transport;
  - Purchased stock procedures;
  - Any specific disease programmes, such as leptospirosis, Johne’s disease, salmonella, BVD and tuberculosis;
  - Vaccination policy and timing;
  - Isolation procedures;
  - External and internal parasite control;
  - Lungworm control;
  - Lameness monitoring and foot care; • routine procedures, such as ear tagging;
  - Mastitis control.

The health and welfare plan should make sure that animals get any necessary medical treatment at the correct time and in the correct dose.

- 25 In geographical areas with known mineral deficiencies and imbalances – and where vitamin or mineral deficiencies are likely – you may need to supplement the animals’ diet. Supplementary magnesium should be provided during periods when there is a recognised risk of deficiency, for example, in early spring or at weaning in suckler herds. This aspect should be covered in your health and welfare plan. Equally, too much of a particular vitamin or mineral may cause problems. For example, too much copper can lead to copper poisoning. You need to look carefully at the amount of

copper in the existing diet, prior to the administration of copper orally or by injection.

- 26 If your herd has a serious problem with summer mastitis, you need advice from a veterinary surgeon about introducing a suitable control programme.

Controls for summer mastitis may include –

- Dry cow therapy;
- Teat sealants;
- Controlling flies (particularly from July to September) by using ear tags impregnated with insecticide or pour-on/spray insecticides; and
- Where possible, avoiding high-risk pastures (such as areas close to hedges and slow moving water which attract flies) (see paragraph 142).

### **Condition scoring**

- 27 Body-condition scoring can contribute greatly to good husbandry and help to avoid costly welfare problems. Condition scoring is an easy technique to learn. Basically, it means that you can quickly assess the body reserves (that is, fat) of individual animals. The technique will be of benefit if you use it as a routine management tool to check that cattle are in the target condition for each stage of the production cycle. This will be particularly useful at –
- Drying off or weaning;
  - Calving;
  - Peak yield; and
  - Early lactation.

You should adjust feeding as necessary for animals that are too fat or too thin. You will find more information in the Defra booklets, 'Condition scoring of dairy cows' and 'Condition scoring of beef suckler cows and heifers' (see the Appendix).

### **Biosecurity**

- 28 Biosecurity means reducing the risk of disease occurring or spreading to other animals.

Good biosecurity can be obtained through –

- Good management/husbandry;
- Good hygiene;
- Reducing stress on the herd;
- Effective disease control systems such as vaccination and worming programmes.

Biosecurity results in –

- Farm units being more secure from the introduction of new infectious diseases; and
- The spread of any diseases on the unit itself being kept to a minimum.

- 29 If you are careful when you move livestock onto a farm, and within the farm (particularly if the farm is on more than one site), this can greatly reduce the chance of a major outbreak of disease. For example, any cattle should only be transported in vehicles that have been properly cleansed and disinfected. You should ask the vendor to provide you with information on the health of the herd, such as routine vaccination and worming procedures, so that their suitability for your herd can be assessed and, where necessary, appropriate treatments and vaccinations administered.
- 30 You should have isolation facilities so that you can isolate and observe/test new animals for a suitable period when they arrive, before they join the rest of the herd. Hired bulls should only be used when no alternative is available. The potential disease status of the hired bull should be carefully considered prior to its introduction. Get advice from your veterinary surgeon. You can find more information in the Defra publication, 'Better biosecurity provides peace of mind, healthy stock and a more viable business' (see the Appendix).

## **Lameness**

- 31 Lameness in any animal is usually a sign that they are in pain. Lameness in cattle is a sign of ill-health and discomfort. It clearly affects animals' welfare, as well as their performance and production. For this reason, very lame cows should be taken off concrete and housed in a suitably bedded pen. If a significant percentage of your cattle has severe lameness, this can be a sign of poor overall welfare standards within the herd. You can find more information in Defra's booklets, 'Lameness in dairy cattle' and 'Lameness in beef cattle and dairy followers' (see the Appendix).
- 32 If lame cows do not respond to treatment, you need to call a veterinary surgeon immediately. Lameness can have a number of causes. This is why you need the veterinary surgeon's early and accurate diagnosis of the specific type of lameness affecting the herd before you can identify the likely causes and take the appropriate action.
- 33 If a lame animal does not respond to the veterinary surgeon's treatment, you should have it culled rather than leave it to suffer. If you cannot transport lame animals without causing them more pain, you should slaughter them on the farm (see paragraph 47). Also, you must not transport any cattle off-farm that cannot stand up



unaided or cannot bear their weight on all four legs when standing or walking. You should not take any cattle that can bear weight on all four feet but are slightly lame to market or anywhere else if it is likely to aggravate the injury, however slightly.

### **External parasites**

- 34 You should control diseases caused by external parasites – especially where the animal's skin is irritated and it is rubbing the area – with the appropriate parasiticides. You should treat your animals for parasites with your veterinary surgeon's advice and ensure that control and treatment regimes form part of your herd health and welfare plan.

### **Internal parasites**

- 35 You should control internal parasites by planning the grazing rotation and by using effective medicinal products (to control roundworm and fluke) or vaccines (to prevent lungworms). As part of the herd health and welfare plan you should ensure that treatment is based on the life cycle of the particular parasites you are tackling. You should treat your animals for parasites with your veterinary surgeon's advice. Organic producers, in particular, should seek veterinary advice on this aspect of their health and welfare plan.

### **Dosing and vaccination equipment**

- 36 You should make sure that all the equipment you use for dosing, vaccinating and treating the animals is in good working order. Ideally, use equipment from your own farm. If you have to borrow it, make sure it is cleaned and disinfected before use on your farm. You must clean and sterilise any equipment you use for injections, to avoid infections and abscesses. Syringes and needles must be sterilised for each animal; ideally, you should use disposable needles. The size of a dosing-gun nozzle should be suitable for the animal's age. You must dispose of any dangerous objects (such as needles) safely. Products must be administered according to manufacturer's instructions and you should be trained to give treatments – such as injections or boluses by mouth – as the animals could be injured by poor administration of treatments.

### **Notifiable diseases**

- 37 If you suspect that any animal is suffering from a notifiable disease, you have a legal duty to notify the Chief Veterinary Officer as soon as possible.

38 The following are the main notifiable diseases which affect cattle –

- Anthrax
- Aujesky's disease
- Bluetongue
- Bovine spongiform encephalopathy (BSE)
- Brucella abortus (Brucellosis)
- Enzootic bovine leukosis
- Foot-and-mouth disease
- Lumpy-skin disease
- Pleuropneumonia
- Rabies
- Rift-valley fever
- Rinderpest
- Tuberculosis
- Vesicular stomatitis
- Warble fly

For more information on these diseases contact your veterinary surgeon or the Animal Health Division.

### **Sick and injured animals**

- 39 You should take action immediately if any cattle are injured or appear ill or distressed. It is important to exclude the possibility of notifiable diseases. If you are in any doubt about the ill-health or the most effective treatment, consult your veterinary surgeon without delay. Likewise, if an animal you have treated does not respond to treatment, seek your veterinary surgeon's advice.
- 40 When necessary, you should have a procedure for isolating and caring for sick or injured animals. Hospital pens should be an essential component of any cattle unit and they should have an entrance that is wide enough for an animal to be easily herded into the pen. When moving sick or injured cattle to the hospital pens, you should ensure that unnecessary suffering does not occur. These pens should be easily reached so that you can regularly check on the animal. You should make sure that drinking water is freely available in the pens, and that there are feeding facilities. The possibility of spillage should be minimised by using an appropriate receptacle and positioning it carefully, so as not to wet the lying area and deprive the animal of feed or water. Ideally, you should also be able to milk any cows in them, if you need to.
- 41 If an unfit animal does not respond to treatment, it should be humanely killed on-farm (culled). You should cull any animals suffering from an incurable condition

(such as mucosal disease or Johne's disease), poisoning or untreatable painful conditions, as soon as possible after diagnosis.

### **Downer animals**

- 42 When an animal is unable to rise – a 'downer animal' – the prospect for recovery of the animal can be greatly increased by providing quality care in the initial period of recumbency. The animal should be provided with a comfortable dry lying area and given food and water. Treatment should include frequent turning to ensure that the animal is not continuously resting on one side or leg, which could lead to irreversible muscle damage.
- 43 When an animal becomes recumbent, it is important to identify the likely cause. Where there is a history of trauma, for example, falling or slipping, a veterinary surgeon should assess the extent of any injury. Where the prognosis for recovery is poor, early intervention, by humanely destroying the animal on farm, should not be delayed.
- 44 Where the history indicates a medical origin for the recumbency, such as milk fever or toxic mastitis, appropriate treatment should be given in accordance with veterinary advice. Where a 'downer animal' has not responded to treatment, it should be assessed by a veterinary surgeon. Attempts to lift 'downer animals' should not be made prior to an assessment by a veterinary surgeon, to ensure that the procedure will not result in additional suffering for the animal (an offence under The Cruelty to Animals Act 1997).
- 45 You must not transport an unfit animal. However, you may transport any animal under veterinary direction for the purpose of taking it to a veterinary surgeon for treatment or diagnosis.
- 46 In an emergency, you may have to slaughter an animal immediately to prevent its suffering. In such cases, you should destroy the animal humanely and, where possible, it should be done by someone who is suitably trained and competent both in slaughter methods and use of the equipment. Under these emergency circumstances, a slaughter licence is not required.
- 47 If you have to slaughter animals on-farm in a non-emergency situation, you must do so using a permitted method which is in line with current welfare at slaughter legislation.
- 48 After slaughter, you must dispose of the carcass by a suitable method. At present, burial or burning is only permitted in very limited circumstances. If you plan to bury

the carcass on-farm, you should first check that the Department of Local Government and the Environment allows this.

## **Record Keeping**

- 49 You must only buy and use authorised animal medicines. You should keep full records of all the medicine you buy, including where you bought it.

Also, you must keep records for at least three years of –

- The date you treated the animals;
- How much medicine you used; and
- Which animal or group of animals you treated.

You will find more information in the Code of Practice on responsible use of animal medicines on the farm (see the Appendix).

- 50 In terms of individual animal management, you may find it useful, as part of the health and welfare plan, to note specific cases of mastitis, lameness and disorders, such as milk fever, and where appropriate, the relevant treatment given.

## **Feed, Water and other substances**

- 51 All cattle need a balanced daily diet to maintain full health and energy. You should monitor how much forage is available and when there is no longer enough for the animals' needs, you should supplement it with other suitable feeds. You should regularly check the weight and type of supplementary feeds offered, to make sure they are well balanced. You should plan any changes in the diet and introduce them gradually.
- 52 Sufficient roughage must be available in all diets to reduce the risk of inducing bloat or laminitis. In intensive barley beef systems, long roughage, such as straw, should be made available ad lib. Where total mixed rations are used, you should seek specialist advice.
- 53 Animals that have been isolated for treatment must have plenty of water available. Unless a veterinary surgeon tells you otherwise, you must give the animal its normal feed.
- 54 There should be enough water available for at least 10% of housed cattle to drink at any one time. Water troughs - especially those in loose housing or cubicle units - should be designed and placed where –

- They are protected from fouling; and
- There is a low risk of the water freezing in cold weather.
- Where there is sufficient space and easy access for all stock and dead-ends are avoided.

You should keep water troughs or bowls thoroughly clean and check them at least once a day to make sure they are not blocked or damaged, and the water is flowing freely. Checking for blockages is equally important where drinking nipples are used. Provision must be made for providing emergency supplies of water.

- 55 For grazing cattle, you need the appropriate number of water troughs (large enough and of the right design) or some other source of drinkable water (such as a bowser, or water tanker) that the animals can readily use wherever they are grazing. These areas should allow easy access, be smooth underfoot and not prone to waterlogging.

## **Accommodation**

- 56 The more you limit the space that cattle have in the housing system you provide, the less choice the animal has to avoid unfavourable conditions.

Housed cattle need constant care and attention from staff that are well trained in the nutritional and environmental needs of cattle.

- 57 No matter how long you house the animals, their accommodation should give them shelter and enough room to move around and interact with each other. The accommodation should provide enough space for a subordinate animal to move away from a dominant one. It is important to provide as comfortable an area as possible, so that the animals can lie down for as long as they want and have enough space to stand up again. The floor should not slope too steeply – no more than about 10% – as steeper slopes can cause leg problems, slipping and falling.
- 58 You should keep all concrete yards and passageways in good condition. They should not be too rough as this can graze or even cut the soles of the animals' feet. On the other hand, the yards and passageways must not be worn smooth, as the animals are then likely to slip and possibly cause leg and other damage. You should not let slurry build up on concrete floors and passageways, as this will also make the floor slippery.
- 59 Where slatted floors are used, you should pay particular attention to the type of slats, to avoid slipperiness. The gaps between the slats should not be wide enough to cause foot injuries (for example, when claws get trapped). You should only use

slatted pens for the size of animals that they were designed for.

- 60 You should not use fully-slatted concrete floors for breeding cows or replacement heifers. Where there are slats, part of the accommodation should be a solid-floor area with straw or some other suitable bedding material, so that the animals will be comfortable and less likely to injure themselves – particularly their udders.
- 61 You should keep bulls reared for slaughter in small groups, ideally no more than 20 animals in each. You should not normally add bulls to groups already formed, and neither should you add one group to another to send to slaughter. You should keep groups of bulls at a safe distance from female cattle.

### **Straw yards**

- 62 Ideally, for dairy herds you should completely clean out straw yards every four to six weeks. This is so that the cows do not get too dirty and to reduce the risk of mastitis from bacteria in the bedding (that is, environmental mastitis). If you use straw yards, you should top them up with clean, dry straw at least every day. In the case of suckler herds, the frequency of cleaning out and topping up can be reduced. You should make sure that there is enough clean and dry straw available for as long as the animals are housed. Where possible, you should store this straw under cover to keep it dry.
- 63 There should be enough space for all the animals to lie in comfort at the same time, and to stand up and move freely. Where feed and water troughs are accessible from the bedded area, measures should be put in place to reduce fouling. Where feed and water troughs are provided in the adjacent loafing area, the access areas should be sufficiently wide to permit free movement of animals and prevent routes becoming wet, fouled and slippery. Where a loafing area is used it should, ideally, be partly covered. You will need to control the build-up of slurry in passageways and loafing areas by scraping at least twice a day.
- 64 Where appropriate, you should take cows that are bulling away from the main group temporarily, so that the risk of teat injuries is reduced and the straw yard will not be churned up. Churned-up straw can dirty the cows and may lead to mastitis.

### **Cubicles**

- 65 If you are installing cubicles or adapting your existing facilities, you should get specialist advice. You need to consider the size, shape and weight of the animals when you design the cubicles. Cubicle passageways should be wide enough for cows to pass one another easily.

- 66 Cubicles should be designed to encourage cows to lie down and stand up easily without injuring themselves. You need to have enough bedding to –
- Keep the cows comfortable;
  - Prevent them from getting contact or pressure sores (from always lying in the same or cramped positions); and
  - Keep the cows' teats, udders and flanks clean.

You must never use a bare, solid base in the cubicles. The kerb should not be so high that it strains the cows' legs as they enter or leave the cubicle, neither should the bed be so low that it becomes contaminated with slurry.

- 67 Where you do have cubicles, you should have at least one for each cow. About 5% more cubicles than the number of cows in the management group is recommended. You should train heifers to lie correctly in cubicles by encouragement (giving them familiar bedding), rather than by restraint (such as tethering them).
- 68 It is important that you keep slurry to a minimum, either by scraping out the passageways at least twice a day or by using slatted passageways. You should clean the cubicle base each day and replace the bedding as necessary, to keep the lying area clear of manure.

## **Cowsheds**

- 69 In cowsheds, the lying area should be big enough to help keep the cows clean and comfortable and to avoid them damaging their joints. You need to untie tethered cows and let them exercise at least once a day and give them feed and water if it is a long exercise period. The animals should also be able to groom themselves when tethered. The cowshed needs to be well ventilated.
- 70 Feed and water troughs should be designed and placed where smaller animals cannot get into them and you should keep the troughs clean. Where particular feeds are not provided ad lib, the troughs should enable all the animals in the pen to eat at the same time to avoid excessive aggression.
- 71 The internal surfaces of housing and pens should be made of materials that you can clean and disinfect and easily replace when necessary.
- 72 If you are going to treat these surfaces, use paints or wood preservatives that are safe to use with animals. There is a risk of lead poisoning from old paintwork, especially if you use second-hand building materials.

## **Space allowances**

- 73 You should work out the space allowance for cattle housed in groups in terms of –
- The whole environment;
  - The age, sex, live weight and behavioural needs of the stock;
  - The size of the group; and
  - Whether any of the animals have horns;
- and you should base your decision on expert advice.

## **Ventilation**

- 74 All new buildings should be designed with the animals' comfort in mind, and with the aim of preventing respiratory diseases. The buildings should provide enough ventilation throughout the year for the type, size and number of stock to be housed in them. Where appropriate, roofs should be insulated to reduce solar penetration.
- 75 Where the ventilation in existing buildings is not good enough, you should adapt these buildings by improving air inlets and outlets, or by using mechanical equipment (such as a fan).
- 76 When you are removing slurry from under slats, you must take special care to avoid fouling the air with dangerous gases (such as methane), which can kill both humans and animals. Ideally, slurry tanks should be emptied when the building is not in use. Where it becomes necessary to remove slurry when cattle are being housed, you should take all stock out of the building. Buildings should be well ventilated during this procedure.

## **Lighting**

- 77 During daylight hours, indoor lighting – whether it is natural or artificial – should be bright enough for you to clearly see all the housed cattle and for the cattle to feed and behave normally. Also, you should have enough fixed or portable lighting available at any time if you need to inspect any animals, for example, during calving.

## **Equipment**

- 78 All mains electrical equipment should meet relevant standards and be properly earthed, safeguarded from rodents and out of the animals' reach.



# Management

## General

- 79 Where there is no natural or artificial shelter to protect grazing stock from extreme weather conditions, you should move them to a more suitable area. Shelter or natural shade from trees or hedges is important in summer as heat stress causes animals (particularly high-yielding cows and dark-coated suckler cows) severe problems such as –
- Abnormal breathing;
  - Severe loss of appetite;
  - Serious weight loss; and
  - Anoestrus (cows not coming into season).
- 80 Where animals are out wintered, they must have access to a well-drained lying area and, where possible, be provided with shelter from adverse weather conditions.
- 81 You should have a concrete standing area, or well-drained, suitable surface, that will not injure animals' feet around feed and water troughs. The surface on which the animals walk to reach the troughs should also be well drained. Otherwise, you should move the troughs quite often so that the animals are not standing in the same muddy and fouled areas.
- 82 You should take all practical measures to remove all cattle from areas that are in imminent danger of flooding.
- 83 You should keep all the farm's fields and buildings clear of debris such as wire or batteries (with their risk of lead poisoning), or plastic or sharp metal objects that could injure the cattle or rip out their ear tags and damage their ears.

## Fencing and hedges

- 84 You should look after your fences, trim hedges and remove any obstructions or snags (on hedges, gates, fences or feeding troughs) that could catch on ear tags.
- 85 You should make sure that any electric fences are designed, constructed, used and maintained properly, so that when the animals touch them they only feel slight discomfort. All power units for electric fences must be properly earthed to prevent short circuits or electricity being conducted anywhere it should not be, for example, gates and water troughs.

## **Injurious weeds**

- 86 You should control injurious (harmful) weeds because they can harm animals by –
- Poisoning them (for example, ragwort);
  - Injuring them (for example, thistle); and
  - Reducing their grazing area by reducing the edible plants that are available.

You can find out more information on injurious weeds in: The Weeds Act 1957 – Guidance on control of injurious weeds, a DAFF publication.

## **Fire and other emergency precautions**

- 87 There should be plans in place to deal with emergencies at your farm, such as fire, flood or disruption of supplies (for example, no electricity for milking machines). The owner should make sure that all the staff are familiar with the appropriate emergency action. You will find more information in the DEFRA booklets, 'Emergencies on livestock farms' and 'Farm fires: advice on farm animal welfare' (see the Appendix).
- 88 It is important that you get advice about design when you are building or modifying a building. You need to be able to release and evacuate livestock quickly if there is an emergency by, for example, having outward opening doors and gates.

You should consider installing fire alarms that can be heard and responded to at any time of the day or night.

- 89 You can get expert advice on all fire precautions from fire safety officers at the Isle of Man Fire and Rescue Service.

## Section 2 – Specific Recommendations

### Pregnancy and calving

- 90 A large proportion of calving difficulties and losses can be prevented by making sure that cows are at the correct condition at calving. Stock-keepers in charge of calving should be –
- Familiar with all the signs that a cow is about to calve; and
  - Well trained in caring for calving cows and their calves, including the use of mechanical calving aids.
- 91 You should always provide adequate supervision at calving, whilst ensuring that calving cows should not be disturbed, unless there are indications that the birth process is not proceeding normally. Enough space should be available to allow cows to exhibit their normal behaviour at calving. If space is limited, you should not house heifers with older cows, as the cows may dominate their feeding and lying areas.
- 92 Before you use any type of recognised calving aid, you should examine the cow to make sure that the calf is properly presented (that is, in the correct position – head first, the right way up and with the head between the two front feet). You also need to check that the calf is not too large for a natural delivery, so that it will not cause any unnecessary pain or distress to either mother or offspring.
- 93 If you have any concerns about the presentation or the ability to calve naturally, you should get advice from a veterinary surgeon immediately.
- 94 If you help in the delivery, good hygiene of both yourself and the equipment, is essential. You should clean and disinfect calving aids and ropes after each time you use them. You should only use calving aids to help with a delivery, not to extract the calf as quickly as possible. Calving ropes need to be flexible and thick enough not to damage the calf. After the birth, you should treat the calf's navel with a suitable antiseptic to prevent infection, particularly when calves are born inside.
- 95 Where calving pens are used, you should do everything possible to prevent the build-up and spread of infection by making sure that they have enough clean bedding and that they are regularly cleaned and disinfected.
- 96 Where cows and their calves are group housed, calves should have a separate solid floor and bedded area which the cows are unable to access.
- 97 Calving should not be induced routinely. Induction does have a role to play in

preventing oversized calves, but you should seek advice from your veterinary surgeon.

## **Calf Rearing**

### **General**

- 98 Caring for calves, particularly when you buy calves from a number of sources, should be part of your written health and welfare plan. As calves are more susceptible to a number of diseases, good hygiene is essential, particularly with the equipment used artificially to rear calves. You will find more information in DEFRA's booklet, 'Improving calf survival' (see the Appendix).

### **Inspection**

- 99 It is particularly important that you watch calves carefully for signs of diarrhoea or respiratory disease, such as coughing or rapid or laboured breathing, both of which could spread rapidly. When you buy in calves, you should inspect them as soon as they arrive, before they come into contact with other calves on the farm. You need to assess their general health, paying particular attention to their posture, breathing and the condition of their nose, eyes, navel, anus, feet and legs.
- 100 After carefully inspecting any calves you have bought, you should rest them in comfortable conditions for a few hours and then give them a first feed of milk or other suitable liquid, such as electrolyte solution. Where practical, you should keep them apart from other calves for long enough to prevent any possible cross-infection.
- 101 If you rear calves in a system where milk is provided by artificial means, you should closely monitor their feed intake. If calves have a reduced or slower feed intake, this is often an early sign of disease.

### **Sick and injured calves**

- 102 You should isolate and treat calves if, for example, they have diarrhoea or pneumonia. Monitoring their temperature is a useful means of assessing their response to treatment. If the calves do not respond to treatment promptly or properly or these illnesses return, you need to get advice from a veterinary surgeon.

### **Feed, water and other substances**

- 103 Bovine colostrum is essential to protect the calf against infectious disease. Ideally

calves should be left with their dam for at least 12 and preferably 24 hours after birth. It is recommended that the calf should continue to receive colostrum from its mother for the first three days of life. Allowing the calf to suckle naturally may be the best way to make sure that it gets enough colostrum. However, you should supervise suckling carefully and ensure that the udder is clean before the calf sucks. If the calf is unable to suck, colostrum should be given by a suitably trained person using a stomach tube. When there is any doubt about the quantity or quality of colostrum that is available from the cow, you should give it to the calf by teat feeder or stomach tube from another source within six hours of its birth. A store of frozen or some other form of colostrum should be kept on the farm for use in emergencies.

- 104 Removing the calf earlier than 12-24 hours after birth should only be done for disease control purposes, under the advice of a veterinary surgeon and the protocol should be recorded in the health and welfare plan. These calves should still be fed colostrum. In some circumstances, such as in the control of Johne's disease, the use of pooled colostrum may promote the transfer of infection. In such cases, to prevent the risk of the spread of infection in the herd, you should ensure that each calf receives colostrum only from its dam or if this is not possible, only from a single animal.
- 105 You can increase the value of colostrum by specific vaccination of the cow or colostrum donor. In high-yielding dairy cows, you may find that the concentration of antibodies in colostrum is diluted. You should get advice from your veterinary surgeon on ways to improve colostrum to protect calves against infectious diseases.
- 106 You should not offer milk from cows treated with antibiotics or those being treated for mastitis to calves fed on whole milk.
- 107 In artificial calf-rearing systems, it is better for the calf to drink from, or be able to reach a dummy teat. Fresh water should be available in the pen. All calves should receive liquid food every day during their first four weeks of life and, in any case, until they are eating enough solid food.
- 108 When calves are put on unlimited milk-feeding diets, you should make sure that they have enough teats to avoid undue competition and watch them carefully to check that they are all feeding properly. You should take the same care when you introduce solid food, as and when the calves want it.
- 109 You should wean suckler calves so that it causes as little stress as possible to both cows and calves. You should take particular care of newly-weaned suckling calves and keep them in groups of familiar animals to avoid fighting and cross-contamination. If you have to mix some of the animals, to minimise disease you

should make sure that the environment does not stress the calves.

- 110 You should avoid the routine early weaning of suckled beef calves (at two to three months old) as it can increase the post weaning growth check and thus reduce their resistance to disease. Weaned calves must always have access to fresh forage and weaner mix. You should replace the feed each day so that the food is fresh and appetising. Weaning at between six and nine months of age is recommended, although earlier weaning is acceptable for suckler calves where the cow's health or body condition is poor.

### **Accommodation**

- 111 Housed calves need an environment that is –
- Dry;
  - Well drained;
  - Well bedded;
  - Well ventilated; and
  - Draught free.

The calves must have enough space for each of them to lie down comfortably. Young calves are particularly susceptible to pneumonia so good ventilation is essential. Ventilation should not be restricted to try and raise the air temperature.

- 112 Until they are weaned, you should keep housed calves in small groups to –
- Make it easier for you to inspect them; and
  - Limit the spread of disease.

When calves are fed by natural suckling, other penning arrangements may be satisfactory.

- 113 You should not put new-born and young calves on totally slatted floors. Suitable bedding should always be provided.

### **Moving and selling calves**

- 114 To reduce the risk of disease, wherever possible, you should make arrangements to transfer the calves directly from farm to farm rather than through a market.
- 115 Ideally, young calves reared without their mothers should receive human contact, preferably from the same stock-keeper.

## **Castration**

- 116 Stock-keepers should consider carefully whether castration is necessary. If it is necessary, there are three methods which can be used to castrate calves –
- A rubber ring, burdizzo or other device, which can only be used in the first seven days of life, by a trained and competent stock-keeper, to restrict the flow of blood to the scrotum;
  - bloodless castration with a burdizzo and using an anaesthetic, by a trained and competent stock-keeper, in calves over 1 week and less than 2 months old;
  - Castration by a veterinary surgeon, using an anaesthetic.

## **Disbudding and dehorning**

- 117 Disbudding means removing the horn buds in calves, before any horn material can be seen. It is preferable to dehorning as it is less stressful to the animal. Disbudding should take place before calves are two months old and ideally as soon as you can start to see the horn bud. It is strongly recommended that chemical cauterisation should not be used. If chemical cauterisation is used this must be carried out in the first week of life. Disbudding should only be carried out with a heated iron, under local anaesthetic, by a trained and competent stock-keeper.
- 118 Dehorning should not be a routine procedure. It involves cutting or sawing horn and other sensitive tissues under local anaesthetic. Ideally, a veterinary surgeon should do it, and only if it is necessary for the herd's welfare. It should not be a routine procedure. If you feel that dehorning is necessary, it should be done in spring or autumn to avoid flies or frosts. You should protect the wound from contamination by such things as grass seeds, hay or silage until the hole has scabbed over. You should put hay racks at a level which reduces the risk of food falling onto the head and contaminating the wound.
- 119 The person doing the disbudding or dehorning should always allow enough time for the anaesthetic to numb the area before they begin. They should test this by pricking the skin in the area to see whether the animal can still feel anything around the horn bud or the base of the horn.

## **Supernumerary teats**

- 120 If an animal has supernumerary teats (that is, too many teats) and the extra ones are to be removed, the operation should be done before three months of age. Anyone carrying out the procedure should be suitably trained and competent. Once the local anaesthetic has numbed the area and antiseptic has been applied, the

supernumerary teats should be removed with clean, sharp scissors. Any bleeding should be stopped immediately.

## **Breeding animals**

### **Breeding**

- 121 To rear heifers, you need to demonstrate conscientious and knowledgeable management during their growing period, and through to calving. The animals should show steady growth to meet recommended target weights, so that they will successfully calve at a weight and size suitable for introduction to the adult herd. You should not deliberately mate heifers that are too small, or mate females with an inappropriate bull, or breed of bull. If you do, you are likely to produce calves which will be subject to a high degree of calving difficulties due to their high birth weight or conformation. Every effort should be taken to ensure that such mating's do not take place accidentally. Where it becomes apparent that an inappropriate mating has occurred, veterinary advice should be sought on how best to handle the situation.
- 122 A high priority in the breeding selection policy should be to include qualities that will improve the welfare of the animals, for example, leg and foot conformation which would lessen the likelihood of lameness. You should not breed from any animals that have deformities or other weaknesses, where these could affect the general welfare of the stock. For beef cattle in particular, you should breed from animals that are more docile (less aggressive), and also animals with good muscular-skeletal structures (which can reduce lameness). Where possible, you should breed from naturally-polled cattle (that is, those with no horns) as this avoids the need for disbudding or dehorning.

### **Inspection**

- 123 In breeding herds where you use supervised or artificial mating and at calving times, the stock-keeper should allow enough time to monitor oestrus activity, so as to avoid the unnecessary use of hormones or other treatments. At least twice a day, the stock-keeper should inspect all lactating dairy cows and cattle close to calving.

### **Management**

- 124 A lactating cow needs an appropriate diet to satisfy her nutritional needs, without harming her body condition and metabolism. The amount an animal consumes will be dependent on the quantity, quality and accessibility of the feed provided and the time spent eating. Anything which interferes with this, such as lameness, will have a detrimental effect on the health and welfare of the animal.



- 125 You should regularly inspect the feet of all cattle – including bulls – and trim them when necessary. A foot-care programme for your herd should be part of your farm’s written health and welfare plan. Foot trimming is of value for all cattle, not just for cows that are lame. You should not attempt foot trimming unless you are properly trained and you have restraining facilities for the animals. This is because poor foot trimming can cause lameness. If you are in any doubt, get advice from a veterinary surgeon.

### **Natural service - bulls**

- 126 Where natural mating is used, young bulls should only be introduced to small groups of cows (ideally 10-15). Extra feed should be offered as necessary.
- 127 All bulls should have good and safe service conditions. Slatted floors and slippery conditions underfoot, (for example, in yards, cubicles and passageways) are not suitable for mating animals.

### **Artificial insemination (AI) and embryo transfer**

- 128 You should keep the cows in familiar surroundings until insemination, at which time they can then be moved to an appropriate stall nearby and inseminated immediately.
- 129 Surgical methods of embryo collection or transfer may only be carried out by a veterinary surgeon and should not be used as part of routine husbandry.

Surgical methods should only be necessary when it is not possible to collect or transfer embryos by the usual method.

- 130 The recipient animal (the cow receiving the embryo) should be able to carry the chosen embryo to full term and to calve normally, without needing a caesarean section. Caesarean sections should not be routinely undertaken.
- 131 Ovum pick up (collecting unfertilised eggs direct from the ovary of a cow or heifer, usually through a needle inserted through the wall of the vagina) must only be done by a veterinary surgeon as it is a surgical procedure. You should not use this procedure on young, immature heifers and, in any case, it should only be done rarely. Repeated epidural injections are necessary for this procedure and they can cause welfare problems for the animals (such as severe pain in the tail head and lower back).

## **Ultrasound scanning**

- 132 Ultrasound scanning through an animal's rectum is an invasive procedure that needs skill and training on the operator's part. Lay operators should be suitably trained.

## **Bull pens**

- 133 You should not neglect the welfare of bulls. Breeding bulls, where possible, should be kept with other stock, for example dry cows. Bull pens should be sited to allow the bull to see and hear farm activity. As a guide, accommodation for a single adult bull of average size should include a sleeping area of at least 16m<sup>2</sup>. For bulls weighing over one tonne, the sleeping area should be at least 1m<sup>2</sup> for every 60 kg live weight. If the bull is not regularly and routinely exercised outside the bull pen – or if you use the bull pen as the service area – the pen should include an exercise area at least twice as large as the sleeping area.
- 134 You should have facilities in the pen and exercise area so that you can securely restrain the bull with a yoke or similar device. This is so that you can carry out routine husbandry procedures (such as cleaning out the bull pen) and so that the bull can be treated when required.

## **Dairy cows**

### **General**

- 135 It is recommended that at least once a month, you should record the daily milk yield of each lactating dairy cow and monitor this against the appropriate lactation curves for the yield level of the herd. You should use these figures and other available data as a management tool in order to identify possible welfare problems at an early stage.
- 136 When you offer concentrated dry feeds on their own to dairy cows, you should normally limit the amounts to a maximum of 4 kg in any one feed. This is to reduce the risk of rumen acidosis (that is, too much grain in the rumen leading to digestive problems) and other metabolic disorders. To make sure that the animals have enough to eat, you should make alternative feeds freely available at all times.
- 137 To allow for cows to eat as much forage as they want, you should offer more than you expect them to eat each day. You should remove any old or stale feed which could contaminate fresh feed and spoil the animals' appetites.
- 138 You should carefully introduce dairy heifers to the adult herd at least four weeks

before calving, so that they have time to get used to their new and unfamiliar surroundings – including the milking parlour.

- 139 If you are introducing cows of high genetic potential into a dairy herd (that is, cows that have been bred for high milk yield), you will need expert advice on nutrition. High metabolic turnover in such cows can mean that they have a greater risk of –
- Mastitis;
  - Lameness;
  - Failure to become pregnant or maintain pregnancy; and
  - Metabolic disorders.
- 140 Before high-yielding dairy cattle are fed on conserved forages (such as silage and hay), you should analyse feed samples to check their nutritional value. If necessary, you should get expert advice on how you can supplement the diet to match the animals' age and species. You also need to analyse the quality of feeds you buy (including by-products, such as brewers' grains), if the supplier does not provide an analysis.
- 141 You should dry lactating cows off quickly and put them on an appetising forage diet, which will maintain their body condition. From two to three weeks before calving, you should gradually introduce the cows to the production ration (that is, the phased introduction of the higher energy, post-calving diet) to avoid a sudden change of diet.

## **Mastitis**

- 142 As with any other infection, mastitis can cause the animal's distress and suffering so you should therefore control it. Despite the overall reduction in clinical mastitis, the level of environmental infection has hardly changed. Dairy producers should follow the DEFRA Mastitis Management Action Plan (Mastitis MAP) which, together with good stockmanship and environmental management, will help you to control mastitis infection.

The Mastitis MAP covers –

- Hygienic teat management (such as keeping the teats clean);
- Promptly identifying and treating clinical cases;
- Dry-cow management and therapy;
- Accurate record keeping;
- Culling of chronically infected cows; and
- Regular milking-machine maintenance and testing.

You will find more information in DEFRA's booklet, 'Treatment and prevention of mastitis in dairy cows' (see the Appendix).

## **Milking**

143 You should never leave lactating dairy cows unmilmed or with over-full udders. Anyone who milks cows – including relief milkers – should be fully competent to perform all milking procedures. Ideally, formal training should be given to milkers, which would include a period of full supervision by competent, trained operators.

144 A milking machine that is working properly is essential for –

- The cows' comfort;
- Optimum milking performance; and
- Udder health.

During each milking session, you should make simple checks (such as the working vacuum level) and carry out routine maintenance to make sure that the milking machine is working properly.

145 Where necessary, you should upgrade the milking machine so that there is no machine damage caused to teats and that the cyclic vacuum fluctuations are within the recommended range. You may need specialist advice for this.

146 You should have new or refurbished installations independently tested to ensure correct operation in accordance with manufacturer's recommendations and those contained in the 'British Standard for milking machine installations' (see the Appendix).

147 Each year, a trained and competent operator should carry out at least one full working assessment of the machinery, to ensure that it is operating correctly and to make any necessary repairs or adjustments.

148 You should minimise the amount of time cows have to wait to be milked. The standings should be large enough for the size of cattle being milked and for cows to enter and leave the milking parlour easily, with a minimum of stress. The entrance and exit areas of the milking parlour, where animals will tend to collect, should be wide enough for the animals to move easily on non-slip floors.

149 Where automatic backing gates are used in collection yards, they should be designed to encourage dairy cows to move towards the parlour, without causing them any distress. These gates should not be electrified.

## **Robotic milkers**

- 150 Robotic milkers offer the opportunity to make more efficient use of labour, but cannot replace good stockmanship. At least twice daily, the robotic system should be assessed and the appropriate action taken in respect of –
- Cows not attending the milking station;
  - Failed attachments;
  - Incomplete milkings;
  - Fall in milk yields; and
  - Alarms generated by various sensory equipment to detect conditions such as abnormal milk composition, including mastitis.

# APPENDIX

## Useful publications

### DEFRA publications related to cattle welfare

- 0409 Code of Practice - the welfare of animals in livestock markets
- 0621 Farm fires: advice on farm animal welfare
- 1147 Emergencies on livestock farms
- 1151 Lameness in beef cattle and dairy followers
- 1381 Guidance on the transport of casualty farm animals
- 3335 Improving calf survival
- 3477 Welfare of red-meat animals at slaughter - pre-slaughter handling: a pocket guide
- 3478 Welfare of red-meat animals at slaughter - stunning and sticking: a pocket guide
- 3575 Assessment of practical experience in the handling, transport and care of animals: guide to employers
- 4020 Lameness in dairy cattle
- 4516 TB in Cattle - reducing the risk
- 4661 Treatment and prevention of mastitis in dairy cows
- 6491 Condition scoring of beef suckler cows and heifers
- 6492 Condition scoring of dairy cows
- 7350 Better biosecurity provides peace of mind, healthy stock and a more viable business

### **You can get copies of all these publications, free of charge, from:**

DEFRA Publications  
Admail 6000  
London SW1A 2XX  
Telephone enquiries: 0845 955 6000  
E-mail: [defra@iforcegroup.com](mailto:defra@iforcegroup.com)  
Website: <http://www.defra.gov.uk>

**Further information on all aspects of the Codes can be obtained from:**

Animal Health Division,

The Slieu Whallian,

Patrick Road,

St Johns,

IM4 3AS

Tel: +44 1624 685844

Email: [Agriculture@gov.im](mailto:Agriculture@gov.im)

**Other useful publications related to cattle welfare:**

- British Standard for milking machine installations, BS/ISO 3918, 5707 and 6690 (1996)
- British Standard on the design and construction of cattle buildings, BS5502 Part 40
- Code of practice on the responsible use of animal medicines on the farm (2001) (Veterinary Medicines Directorate)



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