




























Northern Ireland Code of Recommendations
for the Welfare of Livestock:
Cattle



Cattle



























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PREFACE

This preface is not part of the Code; instead, it explains the Code's role and the broad considerations on which it is based. The legal text in shaded boxes throughout this document is not part of the Code either but highlights the legal position. The text in these boxes is the law as it stands on the date that this Code is published or reprinted (please turn to the back cover for this information). Stock-keepers should be aware that any of the legal requirements quoted here could change - they should check that these are an accurate statement of the law as it currently stands.

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Regulation 10, 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 any statutory welfare codes relating to the animals to which he attends;
- has access to a copy of all such 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 at the time access to all statutory welfare codes relating to the animals to which he attends, and he is acquainted with the provisions of those codes.

In Regulation 2 it states that 'statutory welfare code' means a code issued under Section 3 of the Welfare of Animals Act (Northern Ireland) 1972, or Regulation 14.

To cause unnecessary pain or unnecessary distress to any livestock on agricultural land is an offence under Section 1(1) of the Welfare of Animals Act (Northern Ireland) 1972. 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 1).



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The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Regulation 3(1), states that:

The owner and the keeper of any animal shall take all reasonable steps:

- to ensure the welfare of that animal; and
- to ensure that it is not caused any unnecessary pain, suffering, injury or distress.

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Regulation 3(3), states that:

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

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Regulation 11, states that:

Where an authorised officer considers that animals are being kept in a way which is likely to cause them unnecessary pain, suffering, injury or distress, or otherwise 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 him, within the period stated in the notice, to take such action as may be specified in the notice and which the authorised officer considers to be reasonably necessary to ensure compliance with these Regulations, and the authorised officer shall give his reasons for requiring any action to be taken.



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The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Regulation 13(2), states that:

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

The Code aims to encourage all those who care for farm animals to follow the highest standards of husbandry. Without good stockmanship, animal welfare can never be properly protected. If stock-keepers follow this Code, it will help them to meet the necessary welfare standards. No matter how acceptable a system may be in principle, without competent, diligent stockmanship, the welfare of the animals cannot be adequately catered for.

The welfare of cattle is considered within a framework that was developed by the Farm Animal Welfare Council (an independent advisory body established by the Government in 1979) and known as the 'Five Freedoms'. These form a logical basis for assessing animal welfare within any husbandry system, together with taking the action necessary to protect animal welfare within the limitations 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 by 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.



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

- caring and responsible planning and management
- skilled, knowledgeable and conscientious stockmanship
- appropriate environmental design (e.g. of the husbandry system)
- considerate handling and transport of animals
- humane slaughter.

The Welfare of Animals Act (Northern Ireland) 1972 contains the general law relating to cruelty to animals. Broadly it is an offence (under Section 13 of the Act) to cause any unnecessary suffering to any domestic or captive animal by anything that is done or omitted to be done.

Under Section 27(1) of the Welfare of Animals Act (Northern Ireland) 1972, a court has the power to disqualify a person convicted under this Act 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 has been issued by the Department of Agriculture and Rural Development (DARD) and applies in Northern Ireland only.



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INTRODUCTION

1. This Code covers all cattle. 'Cattle' refers to all bovine stock (such as cows and oxen), and includes buffalo and bison. A calf refers to any bovine 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 cattle). 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 an organic certifying body. In addition, stock-keepers 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 stock-keepers. Advice on such matters is available from the Health and Safety Executive for Northern Ireland (see the Appendix for contact details).



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Section 1 – Recommendations for all cattle STOCKMANSHIP

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) define a “keeper” as ‘any person responsible for, or in charge of, animals whether on a permanent or temporary basis.’

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 1, states that:

Animals shall be cared for by a sufficient number of staff who possess the appropriate ability, knowledge and professional competence.

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7. Stock-keepers have the most significant influence on the welfare of cattle. Stock-keepers 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 the health and welfare of the herd to be monitored and assessed.
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.



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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 14-16);
 - 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);
 - identifying and 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 paragraphs 143-150).

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 stock-keepers 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. Stock-keepers need a back-up plan and equipment available if they need to catch and restrain an extensively grazed animal that is not so used to human contact (e.g. if the animal needs examined by a veterinary surgeon). Mixing groups of animals, especially where the animals are horned, should be avoided.



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Inspection

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 2, 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

All 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.

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 (see box before paragraph 99 and paragraphs 99-101).

12. Stock-keepers should be aware of the signs of ill-health and pain in cattle, which include:
 - vocalisation;
 - dull and unresponsive;
 - disinterested in surroundings;
 - reluctance to being handled and rigid stance;
 - abnormal posture – lowered head;
 - grunting or teeth grinding;
 - kicking abdomen;
 - lack of grooming;
 - excessive grooming around a wound;
 - standing with legs crossed over;



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



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Handling

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270), Schedule 1, paragraph 30, states that:

A person shall not apply an electric current to any animals for the purposes of immobilisation.

14. Cattle should be moved at their own pace, without being hurried by stock-keepers, vehicles or dogs. They should be encouraged gently – especially around corners and where it is slippery underfoot. Stock-keepers should avoid using too much noise, excitement or force. Stock-keepers must not put pressure on, or strike at any particularly sensitive part of the body (such as the head or udder). Anything used 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. It should always be ensured that there is sufficient space for the animals to move forward.
15. Stock-keepers 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. Their assessment should include:
 - gateways;
 - tracks; and
 - the areas surrounding water troughs;

so that they can take appropriate action to avoid possible injury or lameness.

Any concrete floors and walkways should 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 the animals can be routinely managed and treated, ensuring that they are quietly and firmly handled. Ideally, these handling pens should protect the animals from extreme weather. All pens, races (narrow passageways), crushes (restraining gates to assist handling) and floors should be kept in good condition making 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.



Cattle



Transport

The Welfare of Animals (Transport) Order (Northern Ireland) 1997 (S.R. 1997 No. 346) (As amended), Schedule 2, Part II, paragraph 14, states that:

- (1) Save as provided in sub-paragraphs (2), (4) and (9), the following animals shall not be carried in an undivided vehicle, rail wagon, pen or receptacle with other animals-
 - (a) a cow accompanied by a calf or calves it is suckling;
 - (d) a bull over 10 months of age.
- (2) Bulls may be carried with other bulls, if they have been raised in compatible groups or are accustomed to one another.
- (4) Animals of any species may be carried in the same undivided vehicle, rail wagon, pen or receptacle as their companion animals if separation would cause either of the animals distress.
- (9) Uncastrated male adult animals shall be segregated from female animals unless they have been raised in compatible groups or are accustomed to one another.
- (10) Horned cattle shall be segregated from unhorned cattle unless they are all secured.

The Welfare of Animals (Transport) Order (Northern Ireland) 1997 (S.R. 1997 No. 346) (As amended), Schedule 2, Part II, paragraph 15, states that:

- (1) Without prejudice to the provisions of Article 6(7), a person shall not suspend an animal by mechanical means, nor lift or drag an animal by the head, horns, ears, legs, tail or by any other part of its body in such a way as to cause it unnecessary pain or suffering.
- (2) Subject to sub-paragraph (3), a person shall not use, or cause or permit to be used –
 - (a) any instrument which is capable of inflicting an electric shock to control any animal;
 - (b) any stick, goad or other instrument or thing to hit or prod any calves;



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- (3) The prohibition in sub-paragraph (2)(a) above shall not apply to the use of an instrument of a kind mentioned in that sub-paragraph, on cattle other than calves which are refusing to move forward, provided that –
 - (a) the shocks last no more than two seconds each;
 - (b) the animal has room ahead of it in which to move; and
 - (c) the shocks are applied only to the muscles of the hindquarters, but the use of any such instrument shall be avoided as far as possible.
- (4) A person shall not strike, or apply pressure to, the nose or genitals of any animal or crush, twist or break the tail of any animal or grasp the eyes of any animal.
- (5) A person shall not inflict a kick on any animal.
- (6) Nothing in this provision shall prevent the suspension by mechanical means of a receptacle in which an animal is being carried.

The Welfare of Animals (Transport) Order (Northern Ireland) 1997 (S.R. 1997 No. 346) (As amended), Schedule 2, Part II, paragraph 10, states that:

- (1) Animals shall be loaded and unloaded in accordance with this paragraph.
- (2) Animals shall be loaded and unloaded using suitable ramps or mechanical lifting gear –
 - (a) which shall be free from any sharp edges and projections with which any animal may come into contact; and
 - (b) which are operated so as to prevent injury or unnecessary suffering to any animal.
- (3) The flooring of any loading equipment shall be constructed so as to prevent slipping.



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- (4) Ramps and loading platforms shall be provided on each side with protection which is –
 - (a) of sufficient strength, length and height to prevent any animal using the loading equipment from falling or escaping;
 - (b) fitted in position so as to ensure that any gap between the bottom of the side protection and the surface of the ramp will not permit damage or injury to the limbs of any animal; and
 - (c) secured in position so that it will not result in injury or unnecessary suffering to any animal.
- (5) It shall be sufficient compliance with sub-paragraph (4)(a) if the protection mentioned in that sub-paragraph extends to a height of not less than 1.3m above the ramp.
- (6) Not relevant.
- (7) An animal may be loaded or unloaded by means of manual lifting or carrying if the animal is of a size that it can easily be lifted by not more than two persons and the loading is carried out without causing injury or unnecessary suffering to the animal.
- (8) An animal may be loaded or unloaded without equipment or by manual lifting or carrying provided that, having regard to the age, height and species of the animal, it is unlikely to be caused injury or unnecessary suffering by being loaded or unloaded in this manner.

17. Facilities should be available 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 (i.e. cattle have a wide field of vision but have a blind spot behind them, which stock-keepers should avoid entering) and flight zones (an imaginary area which if entered will make the animal want to move away. An animal's movement can be controlled 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.



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Identification

18. All cattle must be permanently identified by officially approved ear tags and in accordance with current legal requirements. 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. The stock-keeper should think carefully about the best type of tags for the animals. A suitable style and size of tag should be used for the breed of animal. The tag should be correctly fitted by following the manufacturers' instructions and using the correct applicator for the model of tag being fitted. The tags should always be fitted under hygienic conditions.
19. When fitting ear tags, the animals must be properly restrained. Care should be taken 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. If cattle are being tagged during the fly season (i.e. summer) precautions should be taken to prevent the animals being irritated by flies.
20. If marking the cattle with neck bands or chains, and tail bands or leg bands (used for herd management identification purposes) the stock-keeper should fit them carefully and adjust them as necessary to avoid causing the animals any unnecessary pain, suffering or injury. If stock-keepers are using aerosols or paints for temporary marking, it must be ensured that only non-toxic (safe) substances are used.
21. More information on cattle identification and cattle movements can be obtained from a local Divisional Veterinary Office or Identification and Movement Control Section, Telephone: (028) 9052 5266.

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.



Cattle



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. It should be ensured that only authorised veterinary medicinal products, including vaccines, are used.
24. The written health and welfare plan (see paragraph 7) should, as a minimum, also include:
 - 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; and
 - 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 – the animals' diet may need to be supplemented. Supplementary magnesium should be provided during periods when there is a recognised risk of deficiency, e.g. in early spring or at weaning in suckler herds. This aspect should be covered in the 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. Prior to the administration of copper orally or by injection, the amount of copper in the existing diet needs to be looked at.



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26. If the herd has a serious problem with summer mastitis, advice from a veterinary surgeon about introducing a suitable control programme will be required. 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 the body reserves (i.e. fat) of individual animals can quickly be assessed. The technique will be of benefit if it is used 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.

Feeding should be adjusted as necessary for animals that are too fat or too thin. More information can be found in the Department for Environment, Food and Rural Affairs (Defra) booklets, 'Condition scoring of dairy cows' and 'Condition scoring of beef suckler cows and heifers' (see the Appendix).



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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; and
 - 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. Being careful when moving livestock onto a farm, and within the farm (particularly if the farm is on more than one site), can greatly reduce the chance of a major outbreak of disease. For example, any cattle must only be transported in vehicles that have been properly cleansed and disinfected. Stock-keepers purchasing animals should ask for information to be provided on the health of the herd from which the animals came, such as routine vaccination and worming procedures, so that their suitability for the herd can be assessed and, where necessary, appropriate treatments and vaccinations administered.
30. Stock-keepers should have isolation facilities so that new animals can be isolated and observed/tested 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. Advice should be obtained from a veterinary surgeon. More information can be found in the DARD publication 'Biosecurity Code for Northern Ireland Farms' (see the Appendix).



Cattle



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 the cattle have severe lameness, this can be a sign of poor overall welfare standards within the herd. More information can be found 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, a veterinary surgeon should be called immediately. Lameness can have a number of causes. A veterinary surgeon's early and accurate diagnosis of the specific type of lameness affecting the herd is required before the stock-keeper can identify the likely causes and take the appropriate action.
33. If a lame animal does not respond to the veterinary surgeon's treatment, it should be culled rather than leaving it to suffer. If lame animals cannot be transported without causing them more pain, they should be humanely slaughtered on the farm (see paragraph 47). Also, cattle that cannot stand up unaided or cannot bear their weight on all four legs when standing or walking must not be transported off-farm. Any cattle that can bear weight on all four feet but are slightly lame should not be taken to market or anywhere else if it is likely to aggravate the injury, however slightly.

External Parasites

34. Diseases caused by external parasites should be controlled – especially where the animal's skin is irritated and it is rubbing the area – with the appropriate parasiticides. Animals should be treated for parasites with a veterinary surgeon's advice and by ensuring that control and treatment regimes forms part of the health and welfare plan for the herd.



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Internal Parasites

35. Internal parasites should be controlled 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 it should be ensured that treatment is based on the life cycle of the particular parasites being tackled. Animals should be treated for parasites with a 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. Stock-keepers must make sure that all the equipment used for dosing, vaccinating and treating the animals is in good working order. Ideally, they should use equipment from their own farm. If equipment must be borrowed, they should make sure it is cleaned and disinfected before use on the farm. Any equipment used for injections should be regularly cleaned and sterilised, to avoid infections and abscesses. Ideally, disposable needles should be used. The size of a dosing-gun nozzle should be suitable for the animal's age. Any dangerous objects (such as needles) should be disposed of safely. Products should be administered according to manufacturer's instructions and the stock-keeper 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 it is suspected that any animal is suffering from a notifiable disease, (see paragraph 38), there is a legal duty to notify a local Divisional Veterinary Office of the Department of Agriculture and Rural Development as soon as possible (see the Appendix).



Cattle



38. The following are the main notifiable diseases which affect cattle:

Anthrax

Aujeszký'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

More information on these diseases can be obtained by contacting a veterinary surgeon or a local Divisional Veterinary Office.

Sick and Injured Animals

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 5, states that:

Any animals which appear to be ill or injured –

(a) shall be cared for appropriately without delay; and

(b) where they do not respond to such care, veterinary advice shall be obtained as soon as possible.



Cattle



The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 6, states that:

Where necessary, sick or injured animals shall be isolated in suitable accommodation with, where appropriate, dry comfortable bedding.

39. Action should be taken immediately if any cattle are injured or appear ill or distressed. It is important to exclude the possibility of notifiable diseases. If in any doubt about the ill-health or the most effective treatment, a veterinary surgeon should be consulted without delay. Likewise, if an animal being treated does not respond to treatment, a veterinary surgeon's advice is required.
40. When necessary, stock-keepers 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, it should be ensured that unnecessary suffering does not occur. These pens should be easily reached so that the stock-keeper can regularly check on the animal. Stock-keepers 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, stock-keepers should also be able to milk any cows in them, if necessary.
41. If an unfit animal does not respond to treatment, it should be humanely killed on-farm (culled). Any animals suffering from an incurable condition (such as mucosal disease or Johne's disease), untreatable poisoning or untreatable painful conditions, should be culled as soon as possible after diagnosis.



Cattle



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. BSE suspects should be notified to the local Divisional Veterinary Office. Attempts to lift ‘downer animals’ must 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.

The Welfare of Animals (Transport) Order (Northern Ireland) 1997 (S.R. 1997 No. 346) (As amended), Articles 4(1) and 6(1) respectively provide that:

A person shall not transport any animal in a way which causes or is likely to cause injury or unnecessary suffering to that animal.

A person shall not transport any animal unless:

- it is fit for the journey intended to be effected by a means of transport; and
- suitable provision has been made for its care during the journey and on arrival at the place of destination.



Cattle



For these purposes an animal shall not be considered fit for a journey intended to be effected by a means of transport (including the intended method of loading and unloading) if that animal is ill, injured, infirm or fatigued, unless it is only slightly ill, injured, infirm or fatigued and the journey intended to be so effected is not likely to cause it unnecessary suffering, likely to give birth during transport, is a new born animal in which the navel has not completely healed, or has given birth during the preceding 48 hours.

45. An unfit animal can **only** be transported if it is being taken to a veterinary surgeon for treatment or diagnosis, or to the nearest available place of slaughter and even then, only if done in a way that does not cause the animal any more suffering.
46. In an emergency, an animal may have to be slaughtered immediately to prevent its suffering. In such cases, the animal should be destroyed 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.

It is a general offence under the Welfare of Animals (Slaughter or Killing) Regulations (Northern Ireland) 1996 (S.R. 1996 No. 558) As amended by S.R. 2000 No. 76, S.R. 2001 No. 66, S.R. 2002 No. 304 and S.R. 2004 No. 209 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)).

47. If animals have to be slaughtered on-farm in a non-emergency situation, it must be done using a permitted method which is in line with current welfare at slaughter legislation (see following box on page 27).



Cattle



The Welfare of Animals (Slaughter or Killing) Regulations (Northern Ireland) 1996 (S.R. 1996 No. 558) As amended by S.R. 2000 No. 76, S.R. 2001 No. 66, S.R. 2002 No. 304 and S.R. 2004 No. 209 state that 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.

48. After slaughter, the stock-keeper must dispose of the carcass by a suitable method (see the box below). The Animal By-Products Regulations (Northern Ireland) 2003 bans the on-farm burial or open burning of animal carcasses in Northern Ireland.

The Animal By-Products Regulations (Northern Ireland) 2003 (S.R. 2003 No. 495) provide the powers necessary to enforce the EU Animal By-Products Regulations (1774/2002) in Northern Ireland, which lay down health rules for the disposal of animal by-products not intended for human consumption. Cattle that die on farm cannot be disposed of by burial, open burning or disposal to landfill. Fallen stock can only be disposed of by the following methods:

- incineration in an approved incineration plant;
- rendering at an approved rendering plant; or
- despatch to an approved collection centre for feeding to dogs at a recognised kennel or similar premises.

This provision applies to the disposal of stillborn or unborn calves, as well as to older cattle.



Cattle



Record Keeping

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 7, states that:

A record shall be maintained of –

- (a) any medicinal treatment given to animals; and
- (b) the number of mortalities found on each inspection of animals carried out in accordance with paragraphs 3 or 4 of Schedule 4 (see box on page 45); or paragraph 2 of Schedule 1 (see box on page 11).

Schedule 1, paragraph 8 states that:

The record referred to in 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 officer when carrying out an inspection or when otherwise requested by such person.

It is a requirement under the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) Regulations (Northern Ireland) 1998 (S.R. 1998 No. 237) Regulation 32, to keep a record of:

‘The name and address of the supplier of the authorised veterinary medicinal product’.

49. Only authorised animal medicines should be bought and used. Full records of all the medicine including vaccine bought must be kept, including where it was bought. Also, records must be kept for at least three years of:
- the date the animals were treated;
 - the name and quantity of the medicine used; and
 - which animal or group of animals were treated.

More information can be found in the ‘Code of Practice on responsible use of animal medicines on the farm’ (see the Appendix).

50. In terms of individual animal management, it may be 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.



Cattle



FEED, WATER AND OTHER SUBSTANCES

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraphs 22-27, 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 promote a positive state of well-being.

Animals shall not 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 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.

51. All cattle need a balanced daily diet to maintain full health and energy. Stock-keepers should monitor how much forage is available and when there is no longer enough for the animals' needs, it should be supplemented with other suitable feeds. The weight and type of supplementary feeds offered should be regularly checked, to make sure they are well balanced. Any changes in the diet should be planned and introduced gradually.



Cattle



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, specialist advice should be sought.
53. Animals that have been isolated for treatment must have plenty of water available. Unless told otherwise by a veterinary surgeon, the animal must be given its normal feed.
54. Cattle should have unrestricted access to a clean fresh water supply which is adequate to meet peak animal requirements. Drinkers must fill sufficiently quickly to avoid any animals in a group remaining thirsty. Water troughs – especially those in loose housing or cubicle units – should be designed and placed where:
 - they are protected from fouling;
 - there is a low risk of the water freezing in cold weather; and
 - where there is sufficient space and easy access for all stock and dead-ends are avoided.

Water troughs or bowls should be thoroughly clean and checked 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, the appropriate number of water troughs is needed (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. More information can be found in the DARD publication 'Biosecurity Code for Northern Ireland Farms' (see the Appendix).



Cattle



ACCOMMODATION

General

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraphs 11 and 12, 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.

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 4, 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 is well drained or well maintained with dry bedding.

Schedule 1, paragraph 9, 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.

56. The more limited the space that cattle have in the housing system provided, the less choice the animal has to avoid unfavourable conditions. Housed cattle need constant care and attention from staff who are well trained in the nutritional and environmental needs of cattle.



Cattle



57. No matter how long the animals are housed, 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. All concrete yards and passageways should be kept 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. Slurry should not be allowed to build up on concrete floors and passageways, as this will also make the floor slippery.
59. Where slatted floors are used, particular attention should be paid to the type of slats, to avoid slipperiness. The gaps between the slats should not be too wide so as to cause foot injuries (e.g. when cleats get trapped). Slatted pens should only be used for the size of animals that they were designed for.
60. Fully-slatted concrete floors should not be used for breeding dairy cows. 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 more comfortable and less likely to injure themselves - particularly their udders. Replacement heifers and suckler cows should be housed in accommodation which provides an area of solid floor with bedding at least 3 weeks prior to calving.
61. Bulls reared for slaughter should be kept in small groups, ideally no more than 20 animals in each. Bulls should not normally be added to groups already formed, and neither should one group be added to another to send to slaughter. Groups of bulls when housed or grazed should be kept out of direct vision of sexually mature heifers and cows, and should not be adjacent to the route that dairy cows take to and from the milking parlour.



Cattle



Straw Yards

62. Ideally straw yards should be completely cleaned out every four to six weeks to reduce the risk of mastitis (particularly in dairy herds) from bacteria in the bedding (i.e. environmental mastitis). In the case of both dairy and suckler herds the cattle should always be provided with clean, dry bedding. If straw yards are used they should be topped up with clean, dry straw every day. Stock-keepers should make sure that there is enough clean and dry straw available for as long as the animals are housed. From a welfare point of view to avoid both discomfort, and moist conditions which could encourage the spread of disease, straw should be stored in dry conditions.
63. There should be enough room for all the animals in the management group to lie down and move around 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. The build-up of slurry in passageways and loafing area will need to be controlled by scraping them out at least twice a day.
64. Where appropriate, cows that are bulling should be taken 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.



Cattle



Cubicles

65. Specialist advice should be obtained when installing cubicles or adapting existing facilities. The size, shape and weight of the animals need to be considered when designing 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. Cows should be provided with 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.

If cow cubicles have a solid base, it must never be used bare when housing cows, and must be provided with some type of bedding or proprietary cow mat. The kerb should not be so high that it could put undue strain on 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 there are cubicles, there should be at least one for each cow. About 5% more cubicles than the number of cows in the management group is recommended. Heifers should be trained to lie correctly in cubicles by encouragement (giving them familiar bedding), rather than by restraint (such as tethering them).
68. It is important that the build-up of slurry in passageways is kept to a minimum by scraping them out at least twice a day or by using slatted passageways. The cubicle base should be cleaned each day and the bedding replaced as necessary to keep the lying area clear of manure.



Cattle



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. Tethered cows need to be untied and allowed exercise at least once a day and given 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 the troughs should be kept 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 can be cleaned and disinfected and easily replaced when necessary.
72. If treating these surfaces, paints or wood preservatives that are safe to use with animals should be used. There is a risk of lead poisoning from old paintwork, especially if second-hand building materials are used.

Space Allowances

73. The space allowance for cattle housed in groups should be worked out in terms of:
 - the whole environment;
 - the age, sex, liveweight and behavioural needs of the stock;
 - the size of the group; and
 - whether any of the animals have horns;

and the decision on stocking density should be based on expert advice.



Cattle



Ventilation

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 13, 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.

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.
75. Where the ventilation in existing buildings is not good enough, these buildings should be adapted by improving air inlets and outlets, or by using mechanical equipment (such as a fan).
76. When removing slurry from under slats, special care must be taken 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, all stock should be taken out of the building. Buildings should be well ventilated during this procedure.



Cattle



Lighting

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 3, states 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.

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



Cattle



EQUIPMENT

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraphs 18-21 state 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 and that no parts of the equipment have become seriously worn.

Where defects or worn parts in automated or mechanical equipment of the type specified in paragraph 18 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.

Where the health and well-being of the animals is dependent on an artificial ventilation system –

- 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
- 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.

The back-up system shall be thoroughly inspected and the alarm system shall each 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.

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



Cattle



MANAGEMENT

General

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 17, 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.

79. Where there is no natural or artificial shelter to protect grazing stock from extreme weather conditions, the stock-keeper 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 outwintered they must have access to a well-drained lying area and, where possible, be provided with shelter from adverse weather conditions.
81. A concrete standing area, or well-drained, suitable surface, that will not injure animals' feet should be provided around feed and water troughs. The surface on which the animals walk to reach the troughs should also be well-drained. Otherwise, the troughs should be moved quite often so that the animals are not standing in the same muddy and fouled areas.
82. All practical measures to remove all cattle from areas that are in imminent danger of flooding should be taken.
83. All the farm's fields and buildings should be kept clear of debris such as wire or batteries (to avoid the 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.



Cattle



Fencing and Hedges

84. Hedges, fences, gates, feeding troughs, water tanks and bowls should be maintained so as to prevent any obstructions or snags that could cause injury to animals or catch-on and pull-out ear tags.
85. Stock-keepers 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.



Cattle



Noxious Weeds

86. Noxious weeds should be controlled because they can harm animals by:

- poisoning them (e.g. ragwort);
- injuring them (e.g. thistle); and
- reducing their grazing area by reducing the edible plants that are available.

Under the Noxious Weeds (Northern Ireland) Order 1977, the Department of Agriculture and Rural Development is empowered to serve upon an owner or occupier of land, or on anyone with cropping or grazing rights, a notice requiring one or more of four noxious weeds to be cut down or destroyed within a specified time. The Order permits DARD officials to enter land to inspect whether a notice has been complied with. If an owner, occupier or anyone with cropping or grazing rights has unreasonably failed to comply with the notice, particularly if a serious threat is posed to agricultural animals or to agricultural production by noxious weeds growing on land neighbouring on agricultural land, he or she shall be guilty of an offence and on conviction liable to a fine. The Order also contains additional powers which enable the Department to take action to arrange for the noxious weeds to be cleared and recover the cost of doing so, if necessary through the Courts. The four weeds that this legislation applies to are:

- Wild oat: *Avena fatua* L. and *Avena ludoviciana* Durieu
- Thistle: *Cirsium vulgare* (Savi) Ten. and *Cirsium arvense* (L.) Scop.
- Dock: *Rumex obtusifolius* L. and *Rumex crispus* L.
- Ragwort: *Senecio jacobaea* L.

More information on noxious weeds can be obtained in DARD's fact sheet 'Herbicides for the Control of Noxious Weeds in Grassland' (see the Appendix).



Cattle



FIRE AND OTHER EMERGENCY PRECAUTIONS

87. There should be plans in place to deal with emergencies at the farm, such as fire, flood or disruption of supplies (e.g. no electricity for milking machines). The owner should make sure that all the staff are familiar with the appropriate emergency action. More information can be found in the Defra booklets, 'Emergencies on livestock farms' and 'Farm fires: protecting farm animal welfare' (see the Appendix).
88. It is important to obtain advice about design when building or modifying a building. Stock-keepers need to be able to release and evacuate livestock quickly if there is an emergency by, e.g. having outward opening doors and gates. Consideration should be given to installing fire alarms that can be heard indoors or in the vicinity of the farm yard and responded to at any time of the day or night.
89. Expert advice on all fire precautions can be obtained from local fire officers in Fire Brigade Area Command Headquarters.



Cattle

Section 2 – Specific recommendations

PREGNANCY AND CALVING



The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 5, paragraphs 1 and 2, state that:

Where any lactating dairy cows or any cows that are calving are kept in any roofed accommodation they shall have access at all times to a well-drained and bedded lying area.

Where any cows that are calving are kept in a building, they shall be kept –

- (a) in a pen or yard which is of such a size as to permit a person to attend the cows; and
- (b) separate from other livestock other than calving cows.

90. A large proportion of calving difficulties and losses can be prevented by making sure that cows are in the correct body scoring condition for 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. Adequate supervision should always be provided 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 in a particular pen is limited, heifers should not be housed with older cows, as the cows may dominate their feeding and lying areas.
92. Before any type of recognised calving aid is used, the cow should be examined to make sure that the calf is properly presented (i.e. in the correct position – head first, the right way up and with the head between the two front feet). It is also necessary 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 there are any concerns about the presentation or the ability to calve naturally, advice should be obtained from a veterinary surgeon immediately.



Cattle



94. If helping in the delivery, good hygiene of both the stock-keeper and the equipment, is essential. Calving aids and ropes should be cleaned and disinfected after every use. Calving aids should only be used 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, the calf's navel should be treated with a suitable antiseptic to prevent infection, particularly when calves are born inside.
95. Where calving pens are used, everything possible should be done 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 advice should be sought from a veterinary surgeon.



Cattle



CALF REARING

General

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Regulation 6, states that the owner and the keeper of calves confined for rearing and fattening shall ensure that, in addition to the requirements set out in Schedule 1, the conditions under which the animals are kept comply with the requirements set out in Schedule 4.

98. The procedure for calf care, particularly when buying calves from a number of sources, should be part of the 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. More information can be found in the Defra booklet, 'Improving calf survival' (see the Appendix).

Inspection

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraphs 3 and 4, state that:

All housed calves shall be inspected by the owner or keeper of the calves at least twice a day to check that they are in a state of well-being.

Calves that are kept outside shall be inspected by the owner or keeper of the calves at least once a day to check that they are in a state of well-being.

99. It is particularly important that calves are checked carefully for signs of diarrhoea or respiratory disease, such as coughing or rapid or laboured breathing, both of which could spread rapidly. When calves are bought in, they should be inspected as soon as they arrive, before they come into contact with other calves on the farm. Their general health needs to be assessed, paying particular attention to their posture, breathing and the condition of their nose, eyes, navel, anus, feet and legs.



Cattle



100. After any calves bought have been carefully inspected, they should be rested in comfortable conditions for a few hours and then given a first feed of milk or other suitable liquid, such as electrolyte solution. Where practicable, they should be kept apart from other calves for long enough to prevent any possible cross-infection.
101. If calves are reared in a system where milk is provided by artificial means, their feed intake should be closely monitored. If calves have a reduced or slower feed intake, this is often an early sign of disease.

Sick and Injured Calves

In addition to the provisions laid down in Schedule 1, paragraph 5 of the Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270), Schedule 4, paragraph 5 states that:

Where necessary, sick or injured calves shall be isolated in suitable accommodation with dry comfortable bedding.

102. Calves should be isolated and treated if, e.g. 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, advice from a veterinary surgeon is required.

Feed, Water and Other Substances

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 11, states that:

Each calf shall receive bovine colostrum as soon as possible after it is born and in any case within the first six hours of life.



Cattle



Schedule 4, paragraph 12 states that:

- (1) All calves shall be provided with food that contains sufficient iron to ensure a blood haemoglobin level of at least 4.5 mmol/litre.
- (2) A minimum daily ration of fibrous food shall be provided for each calf over 2 weeks old, the quantity being raised in line with the growth of the calf from a minimum of 100g at 2 weeks old to a minimum of 250g at 20 weeks old.

Schedule 4, paragraph 13 states that calves shall not be muzzled.

Schedule 4, paragraph 14 states that:

- (1) All calves shall be fed at least twice a day.
- (2) Where calves are housed in a group and do not have continuous access to feed, or are not fed by an automatic feeding system, each calf shall have access to food at the same time as the others in the feeding group.

Schedule 4, paragraph 15 states that:

- (1) Subject to sub-paragraph (2) below, all calves shall be provided with a sufficient quantity of fresh drinking water each day.
- (2) Calves shall be provided with fresh drinking water at all times –
 - (a) in hot weather conditions, or
 - (b) when they are ill.

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, suckling should be supervised carefully, ensuring 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, it should be given 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.



Cattle



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, stock-keepers should ensure that each calf receives colostrum only from its dam or if this is not possible, only from a single animal.
105. The value of colostrum can be increased by specific vaccination of the cow or colostrum donor. In high-yielding dairy cows, the concentration of antibodies in colostrum may be low. Advice should be obtained from a veterinary surgeon on ways to improve colostrum to protect calves against infectious diseases.
106. Colostrum or milk from cows with mastitis or from cows being treated with antibiotics should not be fed to calves.
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, the stock-keeper should make sure that they have enough teats to avoid undue competition and watch them carefully to check that they are all feeding properly. When calves are introduced to solid food, care should be taken to ensure that there is enough space to enable calves to eat forage when they want to, and enough trough space to enable all calves in a group to eat concentrates at the same time.
109. Suckler calves should be weaned so that it causes as little stress as possible to both cows and calves. At weaning time in suckler herds, both cows and calves should be managed so as to minimise stress, such as by keeping them in groups of familiar animals in a familiar environment. Excessive stress can predispose animals to disease. To minimise disease if some of the animals have to be mixed, it should be ensured that the environment does not stress the calves.



Cattle



110. Stock-keepers 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. The feed should be replaced 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

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 1 states that:

- (1) A calf shall not be confined in an individual stall or pen after the age of eight weeks unless a veterinary surgeon certifies that its health or behaviour requires it to be isolated in order to receive treatment.
- (2) The width of any individual stall or pen for a calf shall be at least equal to the height of the calf at the withers, measured in the standing position, and the length shall be at least equal to the body length of the calf, measured from the tip of the nose to the caudal edge of the *tuber ischii* (pin bone), multiplied by 1.1.
- (3) Individual stalls or pens for calves (except for those isolating sick animals) shall have perforated walls, which allow calves to have direct visual and tactile contact.
- (4) For calves kept in groups, the unobstructed space allowance available to each calf shall be –
 - at least 1.5 square metres for each calf with a live weight of less than 150 kg;
 - at least 2 square metres for each calf with a live weight of 150 kg or more but less than 200 kg; and
 - at least 3 square metres for each calf with a live weight of 200 kg or more.



Cattle



- (5) Each calf shall be able to stand up, turn around, lie down, rest and groom itself without hindrance.
- (6) Subject to sub-paragraphs (7) and (8) below, each calf that is kept on a holding on which two or more calves are kept shall be able to see at least one other calf.
- (7) Sub-paragraph (6) above shall not apply to any calf that is kept in isolation on a holding on veterinary advice.
- (8) For the purpose of calculating the number of calves being kept on a holding in order to determine whether sub-paragraph (6) above applies, no account shall be taken of any calf that is being kept in isolation on that holding on veterinary advice.

Tethering

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 6 states that:

- (1) Calves shall not be tethered, with the exception of group-housed calves which may be tethered for a period of not more than one hour when being fed milk or milk substitute.
- (2) Where tethers are used in accordance with the preceding sub-paragraph, they shall not cause pain or injury to the calves and shall be inspected regularly and adjusted as necessary to ensure a comfortable fit.
- (3) Each tether shall be designed to avoid the risk of strangulation or pain or injury and allow the calf to lie down, rest, stand up and groom itself without hindrance.



Cattle



Lighting

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 7 states that:

Where calves are kept in an artificially lit building then, subject to paragraphs 14 and 16 of Schedule 1, artificial lighting shall be provided for a period at least equivalent to the period of natural light normally available between 9.00 a.m. and 5.00 p.m.

Cleansing and Disinfection

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 8 states that:

- (1) Housing, stalls, pens, equipment and utensils used for calves shall be properly cleansed and disinfected to prevent cross-infection and the build-up of disease-carrying organisms.
- (2) Faeces, urine and uneaten or spilt food shall be removed as often as necessary to minimise smell and to avoid attracting flies or rodents.

Floors

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 9 states that:

Where calves are kept in a building, floors shall –

- be smooth but not slippery so as to prevent injury to the calves;
- be so designed as not to cause injury or suffering to calves standing or lying on them;
- be suitable for the size and weight of the calves; and
- form a rigid, even and stable surface.



Cattle



Bedding and Lying Area

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 4, paragraph 10 states that:

- (1) All calves shall be provided with appropriate bedding.
- (2) All calves shall be kept on, or at all times have access to, a lying area which is clean, comfortable and does not adversely affect the calves and is well drained.
- (3) All housed calves and calves kept in hutches or temporary structures shall be kept on, or at all times have access to, a lying area which is well-maintained with dry bedding.

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, housed calves should be kept in small groups to:

- make it easier for the stock-keeper to inspect them; and
- limit the spread of disease.

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

113. Newborn and young calves should not be put on totally slatted floors. Suitable bedding should always be provided.



Cattle



Moving and Selling Calves

The Welfare of Animals (Transport) Order (Northern Ireland) 1997 (S.R. 1997 No. 346) (As amended), Article 6, states that:

(3) Animals shall not be considered fit for transport if (*inter alia*) they are newborn animals in which the navel has not completely healed.

The Welfare of Calves at Markets Regulations (Northern Ireland) 1998 (S.R. 1998 No. 202) Articles 3 and 4 respectively provide that:

A person shall not bring to a market a calf which -

- is less than 7 days old;
- has an unhealed navel;
- is less than 12 weeks old and which has been brought to a market on more than one occasion in the previous 28 days; or
- is more than 12 weeks old and which has been brought to a market on more than one occasion in the previous 28 days, where bringing that calf to a market is likely to cause it unnecessary pain or distress.

Where any calf which is less than 12 weeks old is kept in a market on any day, the owner or his duly authorised agent, shall remove that calf from the market within 4 hours of the time when the last transaction involving the sale of a calf has taken place in that market.

In these articles "calf" means a bovine animal under 9 months of age.

114. To reduce the risk of disease, wherever possible, arrangements should be made 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.



Cattle



Castration

Under the Welfare of Animals Act (Northern Ireland) 1972, (As amended), it is an offence to castrate calves which have reached two 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, 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 calf which has reached the age of two months.

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 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, by a trained and competent stock-keeper, by crushing the spermatic cords of calves less than 2 months old, with a burdizzo; or
 - 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 the horn bud can be seen. It is strongly recommended that chemical cauterisation should not be used. 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 a veterinary surgeon feels that dehorning is necessary, it should be done in spring or autumn to avoid flies or frosts. Following the procedure, the animal should be given appropriate pain relief as prescribed by a veterinary surgeon. Stock-keepers should protect the wound



Cattle



from contamination by such things as grass seeds, hay or silage until the hole has scabbed over. Hay racks should be put 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

Under the Veterinary Surgeons Act 1966, (As amended), only a veterinary surgeon may remove a supernumerary teat from a calf which has reached three months of age.

The Veterinary Surgeons Act 1966, (As amended), makes it an offence to remove a supernumerary teat from a calf which has reached three months of age without the use of an anaesthetic.

120. If an animal has supernumerary teats (i.e. too many teats) and the extra ones are to be removed, the operation should be done at an early 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.



Cattle



BREEDING ANIMALS

Breeding

The Welfare of Farmed Animals Regulations (Northern Ireland) 2000 (S.R. 2000 No. 270) Schedule 1, paragraph 28, states that:

- (1) 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.
- (2) 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:

Animals shall not 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.

121. To rear heifers, the stock-keeper needs to practice 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. Stock-keepers should not deliberately mate heifers that are too small, or mate females with an inappropriate size, type (with known hereditary characteristics of producing large calves with associated calving difficulties) or breed of bull. This is 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 matings do not take place accidentally. Where it becomes apparent that an inappropriate mating has occurred, veterinary advice should be sought on how to manage the heifer.



Cattle



122. A high priority in the herd replacement breeding policy should be to select bulls and cows that will improve the welfare of the progeny. For example in dairy herds, parental stock should be selected on information (e.g. estimated breeding values) for leg and foot conformation which is likely to reduce the future incidence of lameness. Beef herd replacements should be bred for a docile temperament and robust vigour. Where possible, herd replacements should be bred from naturally polled cattle, as this avoids the need for disbudding and/or dehorning the offspring. Animals that have deformities or other weaknesses should not be bred.

Inspection

123. In breeding herds where supervised or artificial insemination techniques are used, stock-keepers 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, stock-keepers 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. The feet of all cattle – including bulls – should be regularly inspected and trimmed when necessary. A foot-care programme for the herd should be part of the farm's written health and welfare plan. Foot trimming is of value for all cattle, not just for cows that are lame. Stock-keepers should not attempt foot trimming unless they are properly trained and have restraining facilities for the animals. This is because poor foot trimming can cause lameness. If in any doubt, advice should be sought from a veterinary surgeon.



Cattle



Natural Service – Bulls

126. Where natural mating is used, young bulls should only be introduced to small groups of cows (ideally 10-15). Feeding of young bulls should be managed appropriately to ensure that they achieve the optimum growth and body condition score before the breeding season.

127. All bulls should have good and safe service conditions. Slippery conditions underfoot (e.g. in yards, cubicles, passageways and on slatted floors) and a combination of a high floor level (from over-deep bedding) with a low roof, are not suitable for mating animals.

Artificial Insemination (AI) and Embryo Transfer

Under the Artificial Insemination of Cattle Regulations (Northern Ireland) 1988 (S.R. No. 339) (amended by S.R. 1990 No. 418 and S.R. 1997 No. 35), artificial insemination may only be carried out by a veterinary surgeon, a competent full-time employee of a licensed supply centre or, in the case of cows in his ownership, by a farmer or his employee who has been trained to the satisfaction of the Department.

Under the Bovine Embryo (Collection, Production and Transplantation) Regulations (Northern Ireland) 1996 (S.R. 1996 No. 389) (As amended by S.R. 1998 No. 45):

Embryo collection may only be undertaken by someone who is a member of an approved embryo collection team and acting under the authority of the team veterinarian;

Embryo transfer may be undertaken only by a veterinary surgeon or by a member of an approved embryo transfer team acting under the responsibility of the team veterinarian;



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Before embryo transfer takes place, the recipient cow must be clinically examined by a veterinary surgeon (within 30 days preceding transfer if the person who is to carry out the transfer is not a veterinary surgeon). The veterinary surgeon must certify that the recipient is suitable to receive the embryo, and that there is no reason at the time of examination to believe the recipient would not be able to carry it to term and to calve naturally;

Embryo transfer and embryo collection may only be made if the animal concerned is given an appropriate anaesthetic (usually an epidural); and

Epidural anaesthesia may be only given by a veterinary surgeon, or by somebody trained and acting under conditions specified in the Veterinary Surgery (Epidural Anaesthesia) Order 1992 (S.I. 1992 No. 696).

128. Cows for artificial insemination should be kept in surroundings familiar to them until the inseminator is ready, at which time they can be moved to an appropriate stall nearby, inseminated immediately and then released back into the herd.
129. Embryo transfer (the transplanting of an embryo from one cow into the uterus of a surrogate dam) should always be carried out in line with The Bovine Embryo (Collection, Production and Transplantation) Regulations (Northern Ireland) 1996 (S.R. No. 389) (As amended by S.R. 1998 No. 45). 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 transplanted 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. This procedure should not be used 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 tailhead and lower back).



Cattle



Ultrasound Scanning

132. Ultrasound scanning through an animal's rectum is an invasive procedure that needs skill and training on the operator's part. The Veterinary Surgery (Rectal Ultrasound Scanning of Bovines) Order 2002 requires lay operators to have attended a Defra approved training course, undertaken a number of supervised scans and obtained a 'certificate of exemption' from Defra, before they can carry out the procedure.

Bull Pens

133. The welfare of bulls should not be neglected. Breeding bulls, where possible, should be kept with other stock, for example dry cows except when matings are not planned. 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 16m². For bulls weighing over one tonne, the sleeping area should be at least 1m² for every 60 kg liveweight. If the bull is not regularly and routinely exercised outside the bull pen – or the bull pen is used as the service area – the pen should include an exercise area at least twice as large as the sleeping area.

134. The pen and exercise area should have the facilities to enable the bull to be securely restrained with a yoke or similar device. This is so that routine husbandry procedures can be carried out (such as cleaning out the bull pen) and so that the bull can receive any treatments for ill health.



Cattle



DAIRY COWS

General

135. It is recommended that at least once a month, the daily milk yield of each lactating dairy cow should be recorded and monitored against the appropriate lactation curves for the yield level of the herd. These figures and other available data should be used as a management tool in order to identify possible welfare problems.
136. When cereal/grain based concentrates are offered on their own to dairy cows, the amounts should normally be limited to a maximum of 4kg in any one feed. This is to reduce the risk of rumen acidosis (i.e. too much grain in the rumen leading to digestive problems) and other metabolic disorders. To make sure that the animals have enough to eat, stock-keepers should make alternative feeds freely available at all times.
137. To allow cows to eat as much forage as they want, stock-keepers should offer more than they would expect them to eat each day. Any old or stale feed which could contaminate fresh feed and reduce the animals' appetites should be removed.
138. Dairy heifers should be carefully introduced 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 introducing cows of high genetic potential into a dairy herd (i.e. cows that have been bred for high milk yield), expert advice on nutrition will be needed. 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.

These animals potentially need a higher standard of management and nutrition to maintain a satisfactory standard of welfare.



Cattle



140. Before high-yielding dairy cattle are fed on conserved forages (such as silage and hay) samples of feed should be analysed to check their nutritional value. If necessary, stock-keepers should get expert advice on how to supplement the diet to match the animals' requirements which are normally based on liveweight, milk yield and composition and body condition. The quality of purchased feeds (including by-products such as brewer's grains) should also be analysed if the supplier does not provide such information.
141. Stock-keepers should dry off lactating cows quickly and put them on an appetising forage diet, which will maintain their body condition. From two to three weeks before calving, the cows should be gradually introduced to the production ration (i.e. 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 animals distress and suffering so should therefore be controlled. Despite the overall reduction in clinical mastitis, the level of environmental contamination with the disease causing organisms has hardly changed. Dairy farmers should exercise good stockmanship and environmental management which will help them to control mastitis infection. More information can be found in the booklet, 'Treatment and prevention of mastitis in dairy cows' (see the Appendix), as published by Defra.

Milking

143. Lactating dairy cows should never be left un milked 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.



Cattle



144. A milking machine that is working properly is essential for:

- the cows' comfort;
- optimum milking performance; and
- udder health.

During each milking session, simple checks should be made on the milking equipment (e.g. on the vacuum level and the pulsation rate) and carry out routine maintenance to make sure that the milking machine is working properly.

145. The milking machine should be maintained in good working order with the cyclic vacuum fluctuations within the recommended range, so that no damage is caused to the cow's teats by the machine. Specialist advice for this may be required.

146. New or refurbished installations should be 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. The amount of time cows have to wait to be milked should be minimised. The stalls 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.



Cattle



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.



Cattle



APPENDIX

Useful Publications

A. Defra Publications Related to Cattle Welfare

| PB No. | Title |
|--------|---|
| 0409 | Code of Practice – the welfare of animals in livestock markets |
| 1147 | Emergencies on livestock farms |
| 1151 | Lameness in beef cattle and dairy followers |
| 3335 | Improving calf survival |
| 4020 | Lameness in dairy cattle |
| 4192 | Identification of injurious weeds |
| 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 |
| 7190 | The Weeds Act 1959 – Guidance note on the methods that can be used to control harmful weeds |
| 9326 | Farm fires: protecting farm animal welfare |

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

Defra Publications

Admail 6000

London

SW1A 2XX

Telephone enquiries: 0845 955 6000

E-mail: defra@iforcegroup.com

Website: <http://www.defra.gov.uk>

These publications are updated regularly. For more information on the most current versions and new publications, please contact Defra's Animal Welfare Division on 020 7904 6521.



Cattle



B. DARD Publications and Advice Related to Cattle Welfare

Title

Guidance on the Welfare of Animals (Transport) Order (Northern Ireland) 1997

Biosecurity Code for Northern Ireland Farms

Dealing with Tuberculosis in your herd

Copies of these publications can be obtained, free of charge, from DARD's local Divisional Veterinary Offices (contact details Appendix E).

Noxious Weeds

Herbicides for the Control of Noxious Weeds in Grassland

Fact sheet can be requested from DARD Quality Assurance Branch

Telephone: 028 9052 4874



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C. Legislation Related to Cattle Welfare

| SR/SI No. | Title |
|-----------------------------------|---|
| – | Veterinary Surgeons Act 1966 |
| – | Welfare of Animals Act (Northern Ireland) 1972 |
| S.I. 1977 No. 52 | Noxious Weeds (Northern Ireland) Order 1977 |
| S.R. 1988 No. 339 (As amended) | Artificial Insemination of Cattle Regulations (Northern Ireland) 1988 |
| S.R. 1996 No. 389 (As amended) | Bovine Embryo (Collection, Production and Transplantation) Regulations (Northern Ireland) 1996 |
| S.R. 1996 No. 558 (As amended) | Welfare of Animals (Slaughter or Killing) Regulations (Northern Ireland) 1996 |
| S.R. 1997 No. 346 (As amended) | Welfare of Animals (Transport) Order (Northern Ireland) 1997 |
| S.R. 1998 No. 27 | Cattle Identification (Enforcement) Regulations (Northern Ireland) 1998 |
| S.R. 1998 No. 202 | Welfare of Calves at Markets Regulations (Northern Ireland) 1998 |
| S.R. 1998 No. 279 | Cattle Identification (No. 2) Regulations (Northern Ireland) 1998 |
| S.R. 1999 No. 265 | Cattle Identification (Notification of Births, Deaths and Movements) Regulations (Northern Ireland) 1999 |
| S.R. 1999 No. 324 | Cattle Passport Regulations (Northern Ireland) 1999 |
| S.R. 1999 No. 326 | Welfare of Animals (Staging Points) Regulations (Northern Ireland) 1999 |
| S.R. 2000 No. 270 | Welfare of Farmed Animals Regulations (Northern Ireland) 2000 |
| S.R. 2000 No. 293 | Transport of Animals and Poultry (Cleansing and Disinfection) Order (Northern Ireland) 2000 |
| S.I. 2002 No. 2584 | The Veterinary Surgery (Rectal Ultrasound Scanning of Bovines) Order 2002 |
| S.R. 2003 No. 495 | Animal By-Products Regulations (Northern Ireland) 2003 |
| S.R. 2004 No. 420 | Identification and Notification of Cattle Regulations (Northern Ireland) 2004 |



Cattle



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

The Stationery Office Bookshop
16 Arthur Street
BELFAST
BT1 4GD

Telephone: 028 9023 8451

E-mail: belfast.bookshop@tso.co.uk

Website: www.opsi.gov.uk

D. Other Useful Publications Related to Cattle Welfare

Milk Hygiene on the Dairy Farm -The Dairy Products (Hygiene) Regulations 1995 (As amended) (Food Standards Agency). (Booklet can be accessed on the Defra website <http://www.defra.gov.uk/corporate/rds/shortguide.pdf> or requested from DARD Quality Assurance Branch, Telephone: 028 9052 0972).

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).



Cattle



E. Further Information or Advice

DIVISIONAL VETERINARY OFFICES

If you would like any more information or advice about this Code, please contact your local Divisional Veterinary Office.

ARMAGH

Mall West
ARMAGH
BT61 7JN
Tel: (028) 3752 9900
Fax: (028) 3752 9911

DUNGANNON

Crown Buildings
Thomas Street
DUNGANNON
BT70 1HR
Tel: (028) 8775 4777
Fax: (028) 8775 4888

BALLYMENA

Kilpatrick House
38-54 High Street
BALLYMENA
BT43 6DP
Tel: (028) 2566 2862
Fax: (028) 2566 2853

ENNISKILLEN

Inishkeen House
Killyhevlin
ENNISKILLEN
BT74 4EJ
Tel: (028) 6632 5004
Fax: (028) 6634 3043

COLERAINE

Crown Buildings
Artillery Road
COLERAINE
BT52 2AJ
Tel: (028) 7034 1111
Fax: (028) 7034 2235

LARNE

Crown Buildings
Pound Street
LARNE
BT40 1SH
Tel: (028) 2826 3222
Fax: (028) 2826 3220



Continued on next page

Cattle



DIVISIONAL VETERINARY OFFICES (continued)

LONDONDERRY

Crown Buildings
Asylum Road
LONDONDERRY
BT48 7EB
Tel: (028) 7131 9500
Fax: (028) 7137 2489

NEWTOWNARDS

9 Robert Street
NEWTOWNARDS
BT23 4DN
Tel: (028) 9182 5825
Fax: (028) 9181 3870

NEWRY

Glenree House
Unit 2, Springhill Road
Carnbane Industrial Estate
NEWRY
BT35 6EF
Tel: (028) 3025 3200
Fax: (028) 3025 3222

OMAGH

Sperrin House
Sedan Avenue
OMAGH
BT79 7AQ
Tel: (028) 8225 1020
Fax: (028) 8225 3400



Cattle



AGRICULTURAL DEVELOPMENT CENTRES

ARMAGH

2 Newry Road
ARMAGH
BT60 1EN
Tel: (028) 3751 5600

BALLYCLARE

18 The Square
BALLYCLARE
BT39 9BB
Tel: (028) 9332 2399

BALLYMENA

Kilpatrick House
38-54 High Street
BALLYMENA
BT43 6DT
Tel: (028) 2566 2800

BALLYMONEY

Crown Buildings
John Street
BALLYMONEY
BT53 6DS
Tel: (028) 2766 0160

COLERAINE

Crown Buildings
Artillery Road
COLERAINE
BT52 2AJ
Tel: (028) 7034 1111

DOWNPATRICK

Rathkeltair House
Market Street
DOWNPATRICK
BT30 6LZ
Tel: (028) 4461 2211

DUNGANNON

Crown Buildings
Thomas Street
DUNGANNON
BT70 1HR
Tel: (028) 8775 4777

ENNISKILLEN

Enniskillen Campus
Levaghey
ENNISKILLEN
BT74 4GF
Tel: (028) 6634 4800

LIMAVADY

4-6 Killane Street
LIMAVADY
BT49 0DS
Tel: (028) 7776 2521

MAGHERAFELT

31 Station Road
MAGHERAFELT
BT44 5DN
Tel: (028) 7930 2066

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Cattle



AGRICULTURAL DEVELOPMENT CENTRES (continued)

NEWRY

1 Cecil Street

NEWRY

BT35 6AH

Tel: (028) 3025 3300

OMAGH

Sperrin House

Sedan Avenue

OMAGH

BT79 7AQ

Tel: (028) 8225 1020

NEWTOWNARDS

2b Portaferry Road

NEWTOWNARDS

BT23 3NT

Tel: (028) 9181 3570

Further information can be obtained from DARD's Animal Welfare Section, Telephone: (028) 9052 5272.

Further Information or Advice on Health and Safety

Health and Safety Executive for NI

83 Ladas Drive

BELFAST

BT6 9FR

Tel: 0800 0320 121

Fax: (028) 9023 5383

Further information or Advice on Cattle Identification and Movement

Contact DARD's Identification and Movement Control Section, Telephone: (028) 9052 5266 or a local Divisional Veterinary Office (see Appendix E).



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Kintra Fordèrin**

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