

# Farm Animal Welfare Advisory Council



## *Animal Welfare Guidelines for* **DAIRY FARMERS**



THE DEPARTMENT OF  
AGRICULTURE & FOOD  
AN ROINN TALMHAÍOCHTA AGUS BIA

## *Animal Welfare Guidelines For **DAIRY** FARMERS*

### **CONTENTS**

Introduction	2
The five freedoms concept	3
Good Stockmanship	3
Health – Good Husbandry/Hygiene	5
General Management Considerations	12
Housing/Facilities	15
Appendix 1 Welfare of the Artificially reared calf	18
Appendix 2 Housing	21
Appendix 3 Legislation associated with animal welfare	23
Appendix 4 Mastitis control programme	23

# **AN INTRODUCTION BY PROFESSOR PATRICK FOTTRELL**

## **Chairperson of the Farm Animal Welfare Advisory Council**

The Farm Animal Welfare Council was set up to allow representative groups with a variety of perspectives on animal welfare, meet and exchange views, seek consensus on various issues and developments relevant to the care of farm animals. These guidelines are the product of this consensus and have been adopted unanimously by the Council. Having reviewed existing guidelines within the European Union, the Council has developed these with the intention of encouraging dairy farmers to adopt and maintain the highest standards of husbandry.

The Council acknowledges that good farm animal welfare has been an integral part of Irish livestock farming which is largely grass based and extensive by nature.

The Council has adopted the best farm animal husbandry practices and welfare standards, which take account of the five basic needs;

1. freedom from thirst, hunger and malnutrition
2. freedom from discomfort
3. freedom from pain, injury and disease
4. freedom to express normal patterns of behaviour
5. freedom from fear and distress

In maintaining these guidelines dairy farmers can demonstrate Ireland's prominence in the practice of farm animal welfare standards.

***Professor Patrick Fottrell***  
***Chairperson***

## **THE FIVE FREEDOMS CONCEPT**

In essence, an animal welfare Code of Practice is the application of sensible and sensitive animal husbandry practices to the livestock present on the farm. Animal welfare is concerned with the well being of the animal and complements the objectives of quality assurance schemes that demonstrate the production of safe products to consumers and food chain stakeholders.

Welfare codes usually list five basic freedoms that should underpin animal welfare best practice at farm level. The five freedoms are listed below and provide an overall concept of animal welfare.

1. freedom from thirst, hunger and malnutrition
2. freedom from discomfort
3. freedom from pain, injury and disease
4. freedom to express normal patterns of behaviour
5. freedom from fear and distress

## **GOOD STOCKMANSHIP**

Stockmanship is a key factor in animal welfare. This requires the acquisition of specific stockmanship skills, which may be, developed on-farm, working with an experienced person, or by following a course offered by a suitable training organisation. Wherever possible, the training should be of a type, which leads to formal recognition of competence. The stockman should have training and or the necessary experience in dairy husbandry. Without competent diligent stockmanship animal welfare will be compromised.

A competent stockman should be able to:

- recognise whether or not the animals are in good health (signs of ill health include: loss of appetite, listlessness, cessation of cudding, abnormal discharge from eyes or nostrils, dribbling, persistent coughing, lameness, swollen joints, scouring, rapid loss

of condition or emaciation, excessive scratching, abnormal skin conditions or other unusual conditions)

- understand the significance of a change in the behaviour of the animals
- know when veterinary treatment is required
- implement a planned herd health programme (e.g. preventative treatments, vaccination programmes if necessary)
- implement appropriate animal feeding and grassland management programmes
- recognise if the general environment (indoors or outdoors) is adequate for the promotion of good health and welfare
- have management skills appropriate to the scale and technical requirements of the production system
- handle animals with care, avoiding undue stress



## *Herding*

A good stockman will individually inspect all animals at least once per day. Particular categories of animals will require more frequent inspection e.g. young calves or cows in late pregnancy etc. Formal training and/or experience working under the supervision of a competent stockman is strongly recommended where inexperienced persons are taking over responsibility for animal husbandry on a farm.

# **HEALTH - GOOD HUSBANDRY/HYGIENE**

## ***Herd Health programme***

Herd health programmes should form an essential part of a modern dairy herd management system (see Appendix 4). It is important that herd health problems should be regularly reviewed.

## ***Good Husbandry***

Husbandry practices should minimise stress to the animal. However, the challenge to reduce stress to dairy cows increases with increasing intensification.

All farms must have proper animal handling facilities including pens and a crush where an animal can be restrained with minimum risk of injury or stress. Good handling facilities also benefit the safety of the personnel involved in handling the animals (Health and safety Act, 1989).

Sheds need to be cleaned regularly with safe disposal of animal manure and animals need to have clean and dry lying areas.

Early and positive frequent contact with competent persons particularly at an early age greatly reduces the stress to animals subsequently. Cows are gregarious animals who will socialise with each other. When young calves are individually penned they should be able to see other calves.

## ***Health and Safety***

All farmers are reminded that they have specific statutory responsibilities under the Safety, Health and Welfare at Work Act, 1989. Safety, Health and Welfare at Work (general Applications) Regulations, 1993. these should be addressed in your safety statement.

## ***Records***

The FAWAC would recommend that proper records\* are maintained on the farm. Some of

these records help producers to demonstrate that best practice has been implemented in relation to animal health, welfare standards and traceability. Key records include:

- Bovine Herd Register\* (Including disposal of animal carcasses)
- Animal Remedies Record
- Animal Feed Records
- Traceability records

The FAWAC recommends that producers maintain a planned herd health programme checklist. Some retailer assurance schemes also require producers to document recommended operating procedures in the event of an emergency (fire in a livestock shed, operational guidelines for replacement stockperson in the event that the stockperson is away)

### *Careful Veterinary Procedures*

Only authorized animal remedies must be sourced through the legal routes of supply. Common veterinary type activities must always be carried out in a manner that minimises stress. These activities include: disbudding, castration, dosing and injecting.

Common veterinary type activities (e.g. dosing, injecting, and castration) should not be attempted without direct appropriate supervision until the stockman is competent to carry out these activities. People already involved in animal management/husbandry should keep themselves updated in technological developments that can prevent or correct welfare problems.

### *Disbudding*

Disbudding calves at a young age is less stressful than dehorning older animals. Disbudding of calves is carried out to reduce animal injuries and to comply with Regulations under the Diseases of Animals Act, (1966) which prohibits the sale or export

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\*Record keeping is a legal requirement.

of horned animals. Disbudding procedures must be carried out in compliance with the Protection of Animals (Amendment) Act (1965).

It is illegal to disbud or dehorn calves over 14 days old without using a local anaesthetic (see castration below).

It is recommended that:

- A cauterisation method (i.e. using a heated disbudding iron) is used at one-two weeks to remove the horn buds
- A custom-built calf dehorning crate is used to minimise stress to the calf and for optimum safety to the operator

## *Dehorning*

Dehorning should only be carried out in exceptional circumstances and by a veterinarian. Local anaesthetics are classified as Veterinary Surgeon Only or VSO medicines. VSO medicines can only be administered by a veterinary surgeon or by a stockperson under the immediate direct supervision of a veterinary surgeon. Handling facilities should provide adequate restraint to minimise stress to the animal.

## *Castration*

Castration procedures must be carried out in compliance with the Protection of Animals (Amendment) Act (1965). It is illegal to castrate calves over six months of age without using a local anaesthetic. It is recommended that:

- male calves intended for castration should be castrated between two and six months of age.
- the operator should be trained in the burdizzo procedure.

## *Tail Docking*

The docking of calves tails is prohibited and must not be carried out as a routine management procedure ( S.I. 263 of 2003 ).





### *Caesarean Section*

Breeding policy should minimise the need for caesarean section at calving time. When a caesarean section is required to remove the calf from the uterus it should be undertaken by a veterinary surgeon with access to adequate help and proper facilities.

### *DIY Artificial Insemination*

Farmers wishing to undertake D.I.Y artificial insemination of cows are required to complete a Department of Agriculture approved training course and hold a valid D.I.Y.A.I. licence

### *Dosing*

Handling facilities that restrain the animal should be in place to enable the operator to administer medicine with minimum risk or injury to the animal.

Particular care should be taken to ensure that:

- the dosing equipment used is appropriate for the size of the animal
- dosing guns should be properly calibrated
- care is taken to avoid injuring the animal's throat
- where available consideration is given to the use of alternative suitable product formulations e.g. "pour on" treatments to minimise handling stress

## *Injections*

Stockpersons should always adopt recommended best practice when administering injectable medicines. Careless use and administration of injectable materials can lead to carcase damage, compromise animal health and welfare and lead to potential food safety problems.

It is recommended that producers:

- ensure that animals are handled and restrained in a manner that seeks to minimise stress
- adhere to manufacturer recommendations for dosage rates and injection procedures
- avoid injecting animals in the loin, hindquarter or other high value meat cut areas
- maintain strict hygiene standards during injection
- use single use (disposable) needles and syringes
- in the rare event that a needle breaks when administering an injection, the broken needle should be removed in a safe hygienic manner under veterinary supervision if necessary. Failure to remove a broken needle can give rise to animal welfare and potential food safety problems

## *Parasite Control*

Parasite control is an important consideration in the welfare of all livestock and appropriate action should be undertaken to control and/or prevent parasitic infection. External parasites or ringworm, resulting in skin irritation, cause the animal to scratch and be uncomfortable. Internal parasites including stomach worm, hoose, liver fluke and coccidia unless appropriately treated will result in morbidity and even mortality.

It is recommended that:

- husbandry and grassland management practices should aim to minimise parasite problems where practical (e.g. moving calves to "clean" pasture in midsummer to reduce exposure to stomach worms)
- preventative parasite control programmes (e.g. lice treatment in housed stock,

anthelmintic treatments for young calves at pasture) are implemented to prevent undue parasite burdens in susceptible stock

### *Sick or Injured Animals*

- Isolation facilities should be provided when necessary for the separation and care of sick or injured animals.
- Special consideration on care should be given to casualty animals and every effort must be made to prevent them from suffering including swift veterinary treatment or euthanasia (as appropriate).
- A bedded convalescent area should be provided with non-slip flooring and access to a clean water supply.

### *The downer cow*

The cause of the downer cow is multi-factorial, however the management is vital to avoid trauma associated with surface contact and poor circulation. The downer cow must be managed in appropriate housing where there is sufficient bedding and access to mechanical lifts. A downer cow needs to be actively managed and carefully handled whether indoors or outdoors and a culling decision kept under constant review.

### *Lameness*

Lameness is a significant animal welfare concern. Poor farm facilities have been identified as a major cause of lameness in dairy cows. The development of lameness is mainly as a result of poor maintenance of farm roadways, inadequate housing and underfoot conditions in over-winter housing.

Correct hoof trimming is of primary importance in the treatment of claw lesions. This is occasionally supplemented with antibiotic therapy following veterinary surgeon examination. Use of footbaths is necessary in the control of the interdigital conditions, heel horn erosion and Mortellaro.

The most common problems associated with lameness include small cubicles,

overcrowding and inadequate nutrition. Cows housed in space-sharing cubicles, provided with good bedding (mats or sawdust), have increased lying times and better claw health.

Feeding high levels of concentrate may increase the incidence of lameness in dairy cows. Increasing the fibre content of the concentrate helped protect against lameness.

An issue to be considered in a lameness preventive programme should include genetics.

Poor maintenance of farm roadways (especially the road surface) is the main cause of lameness outdoors.

## *Culling*

While culling of cows is inevitable and desirable to avoid welfare problems, the culling rate should be reduced to a minimum.

When a decision is made to cull, the procedure should be done without delay.



## *Reproduction*

Good animal health and welfare standards are essential components of the dairy cow reproductive programme.

Management of the dairy heifer is vital in order to avoid welfare problems associated with dystocia. Heifers should reach full maturity before calving. Choice of bull is also important to ensure appropriate calf size and the avoidance of a long gestation period.

## *Calving*

- Body condition score within the range 2.5 to 3.0 for the cow at calving is desirable.
- Provide safe calving facilities to ensure minimum stress and risk of injury.
- For indoor calving a bedded pen should be available.
- In the case of abnormal or difficult calvings prompt intervention should take place including veterinary assistance where necessary to avoid distress or even death to the cow and/or the calf.
- Care should be taken when using a calving jack and particularly so when early use is being considered.
- Assist the calf in obtaining adequate amounts of colostrum within 2 to 4 hours of birth. For a calf remaining with the cow, provide conditions, which will promote bonding between mother and offspring.
- New born calves with a wet navel should not be offered for sale.

## **GENERAL MANAGEMENT CONSIDERATIONS**

### *Feed*

It is vital for the dairy cow to have a balanced diet and sufficient energy to meet peak demands at calving time. This is particularly important in relation to high genetic merit cows who can go into negative energy balance post-calving. Silage analysis is advisable so that the requirement for supplementary feed can be assessed.

Condition scoring is a useful tool to assess the additional nutritional needs. The feeding regime must also address the needs of all breeding stocks.

### *Water*

Water availability and quality is important. Avoid contaminated dirty water that may restrict the animals' water intake.

It is recommended that:

- cows have unrestricted access to a clean fresh water supply
- water troughs or drinkers should be regularly cleaned and inspected daily to ensure that they are fully functional
- water troughs should be protected or raised high enough (e.g. 750mm high) to prevent fouling by other animals or by wildlife such as badgers
- water supply is adequate to meet peak animal requirements i.e. will drinkers fill sufficiently quickly to avoid any animals in a group remaining thirsty
- the water supply should be designed to minimise the risk of the water freezing in the supply line, and thereby cutting off the supply to the cows

## *Fencing*

- Pastures should be properly fenced. Proper boundary fencing prevents contact with other groups of animals from neighbouring herds and reduces the risk of infectious disease transferring to the herd. Intrusions of neighbouring cows can also cause distress and unease that could lead to aggressive behaviour and/or injury to animals in the herd.
- Fences should not contain any hazards, which could cause injury to the cows.
- Electric fencing should always be operated as per manufacturer instructions.



## *Shelter*

Protection from wind and rain should be provided where possible particularly for young stock outdoors for the first time.

Outwintered cows should have access to a well drained lying and feeding areas along with adequate shelter.

## *Behaviour Problems*

- At housing, cows of broadly similar age and size should be penned together where possible. This social group should be allowed to develop and reallocation of animals to other pens should be minimised. Sick animals should be segregated from other animals if the sick animal is being compromised by other animals.
- During the daily inspection(s) of animals, check for any abnormal behaviour. At meal feeding check that all animals have equal desire to feed. Failure by an animal to go to the feed trough may be an early indication of illness or timidity.
- Ideally, do not mix heifers and steers in the same pen or adjoining pens if possible. A heifer on heat attracts the attention of the steers and the mounting behaviour can result in undue stress to the female and the risk of injury to the animals.

## *Management and Feeding*

### *Weaning of Calves*

- Weaning of calves should be done with the minimum of stress.

### *Movement of Animals*

- Animals should be treated and handled in a manner, which avoids injury and stress. The use of goads or electrical prodders is unacceptable.
- The movement of animals from one paddock to another, or to penning facilities,

should be done without recourse to excessive force. Beating the animals or having an untrained aggressive dog, which causes the animals to panic, is unacceptable.

- At the time of movement, checks may be carried out for any abnormalities such as lameness, reluctance to move or isolation from the remainder of herd.
- Have adequate help available to move the animals.
- Cows need to see where they are expected to move to, i.e. if going indoors or into a truck make sure that lights are on and corridors are clear.
- Cows are wary of new events and need to be gently handled to allow them adjust to a new situation.
- The welfare of calves should be taken into consideration during their transport.

## **HOUSING/FACILITIES**

Cows are normally outdoors at pasture for a number of months but this varies with the grazing season, soil types and climatic conditions. Where cows have to be housed for periods as long as 6 months, the design of the house is critical (see Appendix 2)



### ***Feed Barrier***

- The feed trough should be sufficiently large so that animals have adequate access to food at all times.



- Avoid any sharp edges or projections on the feed barrier or on the pen divisions, which could cause injury to cows.
- The feed should be kept within reach of the animal.

## *Pasture Management*

The pasture allocation for the animal should be sufficient to meet the animal's feed requirements.

- A supply of clean fresh water should be available at all times.
- The pasture area should be free of hazards, which may cause disease or injury to the animal.
- An adequate supply of good quality pasture for dairy cows in spring and early summer ensures rapid weight recovery, good milk production and good reproductive activity in the cows. Paddock grazing or the use of a buffer area allows better budgeting of the grass available, thereby matching the demand of the animals with grass supply.
- In order to maintain condition score, supplementary feeding is desirable and body condition score (BCS) should not deteriorate during the pre-calving period.
- Any outdoor feeding areas should be located on hard-standing areas in order to avoid poaching and subsequent lameness.

## *Indoor Feeding*

The indoor feed supply should allow the animal to readily satisfy its daily appetite.

- Concentrates should be introduced gradually and sufficient roughage should also be available.
- The feeds offered indoors should form a balanced diet with respect to protein, energy, vitamins and minerals. Deficiencies of any of the above may result in impaired performance and an increase in susceptibility to disease.

## *Mineral Supplementation*

- It is good policy to provide balanced mineral-vitamin mixtures to cows pre- and post-calving during the winter months. Magnesium supplements may be needed to prevent grass tetany (hypomagnesaemia) during the spring and autumn in recently calved cows.
- Low calcium diet pre-calving is essential to avoid hypercalcaemia.

## *Other Management Considerations*

Facilities must be provided on farms to allow the handling and loading of animals with minimum stress and risk of injury to livestock and humans.

- Paints, preservatives, disinfectants and other chemical compounds must not be stored in the feed stores or near to animals.
- All electrical installations must be protected and inaccessible to stock.
- Buildings should be adequately cleaned between batches of animals. Organic material should be removed from all livestock contact surfaces (e.g. floors, pen divisions). Where bedding is provided, it must be regularly changed and/or topped up.
- All animal buildings should have adequate lighting, either fixed or portable, to ensure that animals can be thoroughly inspected at any time.
- All stockpersons should consider having an emergency plan to cope with disasters such as flooding or fire. An outlined plan of the feeding/management programme is beneficial in the event of needing emergency staff to care for the animals at short notice.
- Particular care and attention must be given to the danger to stock and people from the removal and agitation of slurry and resultant gases.

## **APPENDIX 1:**

# **WELFARE OF THE ARTIFICIALLY REARED CALF**

The following summarises the main aspects of the European Communities (Welfare of Calves and Pigs) Regulation 2003.

1. Materials used for the construction of calf accommodation and equipment with which calves may come into contact shall not be harmful to the calves. Those parts of the accommodation with which the animals come into contact shall be thoroughly cleansed and disinfected, using an approved disinfectant to prevent cross-infection and the build-up of disease-carrying organisms.
2. Electrical circuits and equipment shall be installed in accordance with the terms of the National Rules for Electrical Installation ET 101/1991 (2nd Edition) so as to avoid electrical shocks.
3. Insulation, heating and ventilation of the building shall ensure that the air circulation, dust level, temperature, relative air humidity and gas concentrations are kept within limits which are not harmful to the calves.
4. All automated or mechanical equipment essential for the calves' health and well being shall be inspected at least once daily. Where defects 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 calves until the defect has been rectified, notably by using alternative methods of feeding and maintaining a satisfactory environment.
5. Where an artificial ventilation system is used, provision shall be made for an appropriate back-up system to guarantee sufficient air renewal to preserve the health and well-being of the calves in the event of the failure of the system, and an alarm system, independent of the mains electricity supply, shall be provided to warn the owner or person in charge of the breakdown or in the event of fire. The alarm system shall be tested at a minimum once a month and maintained in proper working order.
6. Calves shall not be kept permanently in darkness. To meet their behavioural and physiological needs, the accommodation shall be well lit, by natural or artificial light, for at least 8 hours a day. Every source of artificial light shall be mounted so as

not to cause discomfort to the calves. An adequate source of light shall be available to enable the calves to be properly inspected at any time.

7. All housed calves shall be inspected by the owner or the person responsible for the animals at least twice daily and calves kept outside shall be inspected at least once daily. Any calf, which appears to be ill or injured, shall be treated appropriately without delay and veterinary advice shall be obtained as soon as possible for any calf, which is not responding to the stock-keepers care. Where necessary, sick or injured calves shall be isolated in adequate accommodation with dry, comfortable bedding.
8. The accommodation for calves must be constructed in such a way as to allow each calf to lie down, rest, stand up and groom itself without difficulty. No calf shall be confined in an individual pen after the age of eight weeks, unless a veterinarian certifies that its health or behaviour requires it to be isolated in order to receive treatment. The width of any individual 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 pin bone, multiplied by 1,1. For calves kept in groups, the unrestricted space allowance available to each calf shall be at least equal to 1.5 m<sup>2</sup> for each calf with a liveweight of less than 150 kg, at least equal to 1.7 m<sup>2</sup> for each calf with a liveweight of 150 kg or more but less than 220 kg and at least equal to 1.8 m<sup>2</sup> for each calf with a liveweight of 220 kg or more.
9. Calves shall not be tethered, with the exception of group-housed calves, which may be tethered for periods of not more than one hour at the time of feeding milk or milk substitute. Where tethers are used, they shall not cause injury to the calves and shall be inspected regularly and adjusted as necessary to ensure a comfortable fit. Each tether shall be designed to avoid the risk of strangulation or injury and to allow the calf to move in accordance with point 7.
10. Housing, pens, equipment and utensils for calves shall be properly cleaned and disinfected to prevent cross-infection and the build-up of disease carrying organisms. Faeces, urine and uneaten or spilt food shall be removed and bedding changed as often as necessary to minimise smell and avoid attracting flies or rodents.
11. Floors shall be smooth but not slippery so as to prevent injury to the calves and so designed as not to cause injury or suffering to calves standing or lying on them.

Floors shall be suitable for the size and weight of the calves and form a rigid, even and stable surface. The lying area shall be comfortable, clean, and adequately drained and shall not adversely affect the calves. Appropriate bedding shall be provided for all calves less than two weeks old.

12. All calves shall be provided with an appropriate diet adapted to their age, weight and behavioural and physiological needs, to promote good health and welfare. To this end, their food shall contain sufficient iron to ensure an average blood haemoglobin level of at least 4.5 mmol/litre and a minimum daily ration of fibrous food shall be provided for each calf over two weeks old, the quantity being raised from 50 g to 250 g per day for calves from 8 to 20 weeks old. Calves shall not be muzzled.



13. All calves shall be fed at least twice a day. Where calves are housed in groups and not fed ad libitum or by automatic feeding system, each calf shall have access to the food at the same time as the others in the group.
14. All calves over two weeks of age shall have access to a sufficient quantity of fresh water or be able to satisfy their fluid intake needs by drinking other liquids. However, in hot weather conditions or for calves which are ill, fresh drinking water shall be available at all times.
15. Feeding and watering equipment for calves shall be designed, constructed, placed and maintained so that contamination of feed and water is minimised. Equipment and fittings shall be designed and maintained in such a way as to minimise, as far as is practicable, the exposure of the calves to spills of feed or water, or to faeces and urine.

16. Calves shall be cared for by a sufficient number of suitably experienced personnel.
17. Up to 8 weeks of age calves may be kept in individual pens where they must have direct visual and tactile contact with other calves.

## **APPENDIX 2: HOUSING**

Housing provides shelter for animals and assists the farmer in caring for them. Housing also aids effective slurry and effluent control and provides labour efficient facilities for winter-feeding of stock.

All houses should be adequately ventilated allowing for an adequate supply of fresh air thus, allowing heat dissipation and preventing the build-up of carbon dioxide, ammonia or slurry gases.

The accommodation should contain sufficient source of natural or artificial light so as not to cause discomfort to the animals. Artificial light should also be provided to enable adequate inspection of the animals in particular for cows in late pregnancy and young calves.

Dairy cow housing can consist of straw bedded sheds or cubicle houses. In Ireland, cubicle houses are the most common mode of cow housing.

Where straw bedded sheds are used there must be a sufficient supply of straw.

Key areas of consideration are cubicle design, size, and appropriate bedding\*.

Cubicle design should take into consideration the size, shape and weight of the animals. Inappropriate cubicle housing can reduce a cow's lying time, which can predispose to lameness and may contribute to teat damage. A well designed cubicle permits a cow to stand comfortably with all four feet on the cubicle bed. It should be wide enough for the animal to rest without undue pressure on the body, which may restrict rumination, or cause damage to the legs and udder. There should be sufficient headroom for the cow

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\* Some farmers use rubber mats, carpets or mattresses, with or without a covering of straw or sawdust, which lie on top of the concrete base. Any mat or mattress should be provided with some form of bedding in order to keep teats, udders and flanks clean. Other farmers use beds of non-abrasive sand on lipped cubicle bases to a depth of 75-100mm. Unless they are raked daily, with all foul material removed, and replenished as necessary, these beds are likely to become unhygienic, compacted and uncomfortable. Whatever cubicle bedding is used, the primary purpose should be to ensure that the cow is kept in as comfortable and clean condition as possible.

to lie down and rise without difficulty. There should be a gentle downward slope from the front (head end) to the back, which will encourage a cow to lie facing uphill, so reducing rumen pressure on the diaphragm. It is also essential for drainage from the cubicle base.

Badly designed cubicles lead to cows spending long periods standing in the slurry passages or, commonly, half-in the cubicle with the hind feet in the slurry channel. Kerb height is most important as very high kerbs impose strain on the hind legs of animals which stand in this way. However, the kerb should not be so low that the bed of the cubicle becomes contaminated with slurry.

Cows which spend much time standing in the slurry passage or half-in cubicles are likely to run an increased risk of lameness. Those which refuse to use cubicles and lie in slurry passages will become unacceptably dirty with an increased risk of mastitis, abrasions to the hocks and lameness.

It is most important that there is at least one cubicle per cow. The provision of extra cubicles is desirable in that it means subordinate animals do not find that the only spare cubicle is next to a dominant cow.

The accumulation of slurry in the passageways of a cubicle house can predispose to foot problems. It is important to minimise the amount of slurry, either by scraping out the passageways at least twice each day or by use of slatted passageways and by daily removal of manure from the cubicle base.

The use of lime, or similar proprietary products, on the cubicle base may lower the incidence of mastitis by reducing wetness and, in the short-term, killing bacteria. The provision of adequate bedding in these circumstances helps to prevent the skin of the cow coming into contact with these types of product, which may dry out the skin causing cracking and chapping. These conditions can cause discomfort and pain and harbor bacteria, thereby increasing the risk of mastitis.

Each building accommodation should have a suitable smoke or fire alarm system installed in order to detect fire or smoke at an early stage.

Advice and specifications relating to housing for dairy cows are available from the Department of Agriculture and Food, Kildare Street, Dublin 2 and Teagasc, Moorepark, Fermoy, Co. Cork.

## **APPENDIX 3: LIST OF LEGISLATION ASSOCIATED WITH ANIMAL WELFARE**

There is a considerable body of national and EU regulations governing animal health, husbandry and welfare issues. A current list of relevant animal welfare legislation is available from the Animal Health and Welfare Division of the Department of Agriculture and Food, Kildare Street, Dublin 2. [www.gov.ie/daff](http://www.gov.ie/daff)

## **APPENDIX 4: MASTITIS CONTROL PROGRAMME**

### ***Mastitis***

The causes of mastitis are complex and varied, but a good control programme can minimize problems and losses. Management of three broad areas of dairy production is the key to mastitis control. These areas are 1: the environment, 2: cow susceptibility and 3: microorganisms that invade the teat end to establish mammary gland infection.

A mastitis control programme should be in place on all dairy farms. Key components include teat dipping, dry cow therapy, good housing hygiene, milking machine maintenance, recording of somatic cell counts (SCC), and culling of cows with high SCC. Early detection and treatment of clinical mastitis is vital, together with recording of cases.





All dairy herds are prone to a certain level of mastitis because complete eradication of udder inflammation is difficult. The herd level of mastitis is important as it reflects not only the rate of new infection, but also the duration or length of the time existing infections last.

An effective control programme will minimize the number of new cases and reduce the duration of existing infections. Procedures to control the rate of new infection must focus on reducing teat end exposure to infective microorganisms. This is accomplished by strict attention to sanitary measures on the cow and in the cow environment. Duration of existing mastitis (infection already present) is controlled by the use of laboratory detection tests to identify subclinical cases.

Then appropriate treatment or (culling if appropriate), as advised by the attending veterinarian should be carried out. Prompt action should begin when the infected cow is first identified to reduce potential spread to other cows. At that time, apply control measures to prevent spreading the infection to other quarters or cows, regardless of the source. Appropriate management techniques applied to infected animals are very important to control spreading of infective organisms.

For further information please contact:  
**The Secretary**  
**Farm Animal Welfare Advisory Council**  
**Animal Health and Welfare Division**  
**Agriculture House**  
**Kildare Street, Dublin 2**  
**[www.agriculture.gov.ie/fawac](http://www.agriculture.gov.ie/fawac)**