

Section 8

Animal Welfare



Introduction

Optimal animal welfare is an important part of Irish livestock farming. Irish agriculture and Irish farmers operate to a very high standard of animal welfare which is closely regulated by the Department of Agriculture, Food and the Marine (DAFM). Optimising the welfare of the calf during its first few days and weeks of life, through colostrum feeding, nutrition, housing, environment and overall treatment, is hugely important.

- ① Why is there increased concern around the issue of calf welfare?
- ② How will I achieve best animal welfare practices for calves on my farm?
- ③ What measures can be used on farm to assess animal welfare?
- ④ What are the main aspects of the European Communities Regulation on the welfare of calves?
- ⑤ What is the role of the stockperson in ensuring optimal animal welfare?
- ⑥ What regulations protect the welfare for animals during transport?

Animal Welfare

① Why is there increased concern around the issue of calf welfare?

Within the agricultural industry there is increased concern regarding the welfare of the artificially reared, dairy-born calf. There are a number of factors that have contributed to this concern, including:

- The increase in the number of calves born from the dairy herd that are destined for beef production and will be artificially reared.
- The increase in the average dairy herd size, meaning that farmers are under increased time pressure.
- The increase in the number of cross bred dairy cows (i.e. Jersey/Holstein crosses) whose calves are of low value.

KEY POINT:

It is important that both the dairy farmer who has bred the calf and beef farmer who buys the calf accept responsibility for the animal's welfare. This includes the feeding, housing, transport and general husbandry of the calf from the time of birth to the slaughter.



Calf welfare is increasingly important for producers and consumers.

② How will I achieve best animal welfare practices for calves on my farm?

The five freedoms provide a framework that underpins best practice to ensure animal health and welfare at farm level. (www.fawac.ie)

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

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

- Caring and responsible planning and management.
- Skilled, knowledgeable and conscientious stockpersonship.
- Appropriate environmental design (for example, of the husbandry system).
- Considerate handling and transport.
- Provision of ready access to fresh water and a diet to maintain full health and vigour.
- Provision of an appropriate environment including shelter and a comfortable resting area.
- Prevention or rapid diagnosis of disease and treatment.
- Provision of sufficient space and proper facilities.
- Ensuring conditions and treatment to avoid mental suffering.

③ What measures can be used on farm to assess animal welfare?

Two broad categories of parameters can be used for practical welfare assessment:

Environmental parameters

These are specific standards for housing and management systems, which include:

- Housing standards: space allowance, feeder space, number of teats on milk feeders, water drinker flow rates, floor types, bedding, air outlets/inlets etc.
- Husbandry and management standards: specific ages/techniques for castration/disbudding, training for stockpersons etc.



Legislation outlining accommodation standards benefit both the calf and the producer.

Animal based parameters

These include measures of the animal's reactions or responses to the calf rearing system, such as bodyweight for age, average daily gain, mortality, veterinary treatments, incidence of disease and injury etc.

④ What are the main aspects of the European Communities Regulation on the welfare of calves?

The following points summarise the main aspects of the Regulations regarding the welfare of calves:

- Materials used to construct calf accommodation and calf equipment must not be harmful to the calves.
- Electrical circuits and equipment shall be installed in accordance with the terms of the National Rules for Electrical Installation ET 101/1991 (2nd Edition).
- Insulation, heating and ventilation of the building must 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.
- All automated or mechanical equipment must be inspected at least once daily. Where defects are discovered, these should be rectified immediately. Where this is not possible, appropriate steps must be taken to safeguard the health and well-being of the calves until the defect has been rectified.
- Where an artificial ventilation system is used, provision must be made for an appropriate back-up system to guarantee sufficient air renewal in the event of the failure of the system, and an alarm system, independent of the mains electricity supply, should be provided.
- Calves must not be kept permanently in darkness. Calf accommodation must be well lit, by natural or artificial light, for at least eight hours a day. An adequate source of light must be available so calves can be properly inspected at all times.



All housed calves must be inspected by the owner or the person responsible for the animals at least twice a day and calves kept outside should be inspected at least once a day.

- Any calf that is ill or injured must be treated appropriately without delay. Veterinary advice must be sought as soon as possible for calves that do not respond to the stockperson's care.
- Where necessary, sick or injured calves should be isolated in adequate accommodation with dry, comfortable bedding.



The accommodation for calves must be constructed to allow each calf to lie down, rest, stand up and groom itself without difficulty.

- Up to eight weeks of age calves may be kept in individual pens where they must have direct visual and tactile contact with other calves. After eight weeks calves must not be confined in an individual pen unless certified by a veterinarian.

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- 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. 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 1.5m² for each calf with a liveweight of less than 150kg, at least equal to 1.7m² for each calf with a liveweight of 150kg or more but less than 220kg.
- Calves should not be tethered, with the exception of group-housed calves, who may be tethered for periods of not more than one hour at the time of feeding milk or MR. Where tethers are used, they must not cause injury to the calves and should be inspected regularly and adjusted as necessary to ensure a comfortable fit.
- Housing, pens, equipment and utensils for calves must be properly cleaned and disinfected. Faeces, urine and uneaten or spilled food must be removed and bedding changed as often as necessary to minimise smell and avoid attracting flies or rodents.
- Floors should be smooth but not slippery. The floors must not cause injury or suffering to calves standing or lying on them.
- Floors must be suitable for the size and weight of the calves and form a rigid, even and stable surface.
- Appropriate bedding shall be provided for all calves less than two weeks old.
- All calves must be provided with an appropriate diet adapted to their age, weight and behavioural and physiological needs, to promote good health and welfare.
- A minimum daily ration of fibrous food should 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 must not be muzzled.
- All calves must be fed at least twice a day. Where calves are housed in groups and not fed *ad lib* or by an automatic feeding system, each calf shall have access to the food at the same time as the others in the group.
- All calves over two weeks of age must have access to a sufficient quantity of fresh water or be able to satisfy their fluid intake needs by drinking other liquids. Fresh drinking water must be available at all times to sick calves or during periods of hot weather.
- 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 should be designed and maintained as to minimise, as far as is practicable, the exposure of the calves to spills of feed or water, or to faeces and urine.
- Calves must be cared for by a sufficient number of suitably experienced personnel.

KEY POINT:

Each calf's welfare is of equal importance, regardless of their saleability or economic value.

5 What is the role of the stockperson in ensuring optimal animal welfare?

The stockperson is key to ensuring optimal animal welfare. Specific stockperson skills can be developed on-farm, through working with an experienced person or by following a course offered by a suitable training organisation. Formal training and/or experience working under the supervision of a competent stockman



The lying area should be comfortable, clean and adequately drained.

is strongly recommended where inexperienced persons are taking over responsibility for animal husbandry on a farm.

Common veterinary type activities (e.g. dosing, injecting, and castration) should not be attempted without appropriate supervision until the stockperson 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.

A competent stockperson should be able to:

- Recognise whether or not the calves are compromised or in good health.
- Understand the significance of a change in behaviour of the animals.
- Know when veterinary treatment is required.
- Implement a farm health programme i.e. vaccination, preventative measures etc.
- Implement appropriate feeding programmes for calves.
- Recognise if the environment is adequate to promote good calf health and welfare.
- Handle calves with care, avoiding unnecessary stress.

⑥ What regulations protect the welfare of calves during transport?

Council Regulation (EC) No 1/2005 on the protection of animals during transport and related operations is the legislation that governs the welfare of calves during transport in Ireland.

When calves are being transferred from the farm of origin it is vital to ensure that the calf is 'fit' for the journey so as not to compromise their welfare. This is the responsibility of both the dairy farmer selling the calf and the purchaser of the calf.

In brief, guidelines include:

- Calves must be bright and alert, hooves worn and firm, have a dry navel and no scours.
- Transport conditions must be guaranteed not to cause injury or unnecessary suffering.
- Journey length - calves must be 10 days of age if undergoing journeys >100km.
- Journey time - the transportation of calves less than 14 days of age on journeys

exceeding eight hours is not permitted unless they are accompanied by their mother.

- If animals fall ill or are injured during transport, they must be separated from the other animals and receive first-aid treatment promptly.



Transport conditions are a function of the initial fitness of the animal, the transport vehicle, planning, transport management and environmental circumstances.



Section 8

Health and safety around Calving and Calf Facilities



Introduction

Accidents and illness related to farming are not inevitable and can be prevented through planning and careful work organisation. A quarter of Irish farm accidents and one fifth of farm deaths in older farmers are livestock-related. Attacks by recently-calved cows are a common cause of such accidents. Ensuring appropriate facilities are in place to provide comfort and safety for themselves, other farmworkers and their animals is the responsibility of the farmer.

- ① Housing.
- ② Calving facilities.
- ③ Calf houses.
- ④ Loading and unloading ramps.

Health and safety around Calving and Calf Facilities

① Housing.

- All houses should be adequately ventilated allowing for an adequate supply of fresh air, allowing heat dissipation and preventing the build-up of carbon dioxide, ammonia or slurry gases.
- Surfaces that cattle walk on should be designed, constructed and maintained to avoid discomfort, stress or injury to the animals. Surfaces should be even and non-slip to avoid dangerous underfoot conditions. Uneven surfaces cause bruising of the feet and smooth surfaces can cause slipping.
- The accommodation should contain sufficient sources 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.
- Each building should have a suitable smoke or fire alarm system installed in order to detect fire or smoke. All electrical fittings should meet Health and Safety requirements

② Calving facilities.

Calving can be an anxious time. Good calving facilities, such as calving cameras, calving gates and non-slip calving jacks can reduce the stress on both the farmer and the animals.



Calving facilities should be designed to minimise stress for the mother and calf and maximise safety for the stockperson.

The calving area should provide adequate space, be tidy and well-bedded with clean dry straw, free of obstructions with good lighting. Well-designed calving pens and gates minimise

the direct physical contact between the cow/heifer and the farmer.

- The facility should provide the farmer with access to both sides of the animal.
- Calving jacks and mechanical lifting aids, such as a pulley system, in the calving pen can help to prevent back injury.
- The floor must be free of tripping hazards such as twine, stones or pieces of timber.

KEY POINT:

Farmers should also be aware of zoonotic infections which can be contracted by humans around calving.



Farmers/vets should always wear arm length gloves and washable protective clothing and boots.

③ Calf houses.

With housed calves there is a lot of manual work, whether it be feeding, cleaning the pens, drenching, vaccinating or if a calf simply needs to be lifted. The basic requirements for calf housing have been defined in law (SI24:2009, www.agriculture.gov.ie). These specifications also provide a safe facility for working with calves.

Calf facilities must be:

- Constructed to provide clean, dry, warm and draught-free accommodation without risk of injury to the health of animals and workers.
- Designed to allow for appropriate feeding, cleaning, disinfection and general hygiene.
- Designed to allow thorough inspection of calves and easy stock management.
- Adequately ventilated at all times.

- Designed so that air circulation, dust levels, temperature, relative humidity and gas concentrations are kept within limits that are not harmful to the animal.

Calf facilities must have:

- Adequate unobstructed floor space.
- Facilities for storing and handling wastes.
- Accommodation for the isolation of sick calves.
- Adequate natural and artificial lighting.
- Adequate drinking water.
- Adequate drainage.

④ Loading and unloading ramps.

Many injuries arise when loading and unloading cattle. A suitable loading ramp is essential for safe loading of trailers or trucks.

All ramps must have ramp gates in place which are strong, secure, operate freely and lock securely when closed. It is important that you are patient and calm when loading calves, and allow adequate time for cattle to load.

When loading, take care when closing up the ramp gates. Always stand to the side when lifting the ramp and seek assistance wherever possible so as to avoid back injury.

Any steps for cattle must be less than 20cm high and the ramp angle less than 15 degrees (HSA-Guidance on Safe Handling of Cattle on Farms). Non-slip surfaces are important and in some instances straw or hay should be spread on the loading ramp.

When the ramp is lowered to unload, step well to the side. If slow to unload, let the animals come off in their own time.

KEY TIPS:



Don't rush animals when unloading them as they will be more difficult to manage and will always want to leave the trailer on subsequent journeys.

More information

Teagasc has more detailed information and advice on all aspects of calf rearing and dairy calf to beef systems on its website. Scan code below to access.



Further information

Further information can be sought from the following websites:

Teagasc website.	https://www.teagasc.ie/animals/
Animal Health Ireland.	http://animalhealthireland.ie/
Department of Agriculture, Food and the Marine.	https://www.agriculture.gov.ie/
European Commission.	https://ec.europa.eu/food/animals/welfare/practice/farm/calves_en http://ec.europa.eu/food/animals_en
European Food Safety Authority.	http://www.efsa.europa.eu/
Dairy NZ.	https://www.dairynz.co.nz/
Calcare Canada.	http://calcare.ca/
Scotland's Rural College.	https://www.sruc.ac.uk/
Health and Safety Authority.	http://www.hsa.ie/eng/Your_Industry/Agriculture_Forestry/
United States Department of Agriculture.	https://www.usda.gov/wps/portal/usda/usdahome