

DROIMEANN CATTLE SOCIETY
Breeding Programme

DROIMEANN CATTLE SOCIETY LTD

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Review & History

Published	Revision	Description	Approved by Council	Submitted to DAFM
01/10/2016	V1.0	First document version		
03/12/2017	V1.1	Update to the division of the herd book main section and update to registration procedure		
07/01/2018	V1.2	Update to the division of the herd book Main Section		
04/06/2018	V1.3	Removal of Birth Notification Form &		

		addition of zoo technical certificate classification		
09/06/2019	V1.4	Update of legacy herd book rules to conform to Breeding programme		
22/02/2020	V1.5	Update to capture derogation allowing registration of female animals sired by a pedigree registered Droimeann Bull into section D		
09/03/2021	V1.6	General update to align to Breeding programme requirements as per DAFM request		
19/09/2023	V1.7	Further general & formatting updates to Breeding Programme		
14/02/2024	V1.7	Further general & formatting updates to Breeding Programme		

Name

The name of the breed is the Droimeann.

Aims of the Breeding Programme

The aim of the breeding programme is to reconstruct, preserve and improve the Droimeann breed by adhering to a strict breeding programme which maintains the breed characteristics and using all available technology to improve the breed.

Reconstruction of the Breed

The Droimeann is the oldest native breed of Irish cattle tracing back in Irish history and folklore.

There are currently only 560 breeding females and only 20 of these are in the main section outlining their endangered status.

The breed purity has been diluted down through the years due to cross breeding and through reconstruction it is hoped to build back a viable population of purebred breeding animals.

It is hoped to develop a niche market for their beef which is marbled thereby giving it a unique flavour and have it on the menu at places of historical interest such as Bunratty castle, Muckcross house etc. this will also help to promote the breed.

Geographical territory

The geographical territory being the Republic of Ireland for the Society to conduct its breeding programme.

Breed Characteristics/Breed standard

The Droimeann is a small to medium sized animal. They are generally even tempered with a placid disposition and are intelligent in nature. They are dairy like in shape and produce milk high in solids. When fattened and killed their meat is marbled and has a distinct flavour. They come in various colours ranging from nearly all black or red to white with dark ears and muzzle. More often they are dark sided red, black or blue with a distinctive white back and underside. They do better than other breeds on poorer forage which they convert easily to milk and meat. The Droimeann cow is very fertile and is very early maturing. Females can often start cycling at 4 to 5 months of age.

Characteristics of a Droimeann Cow:

1. Colour:

The Droimeann cow can come in a variety of colours from nearly all black and red to all white with dark ears and muzzle. They also come speckled sided, but the most common colour is dark sided black, red or blue with a white back and underside. They generally have a white tail and a white diamond shape on their flank. Their front legs are usually darker in colour than their hind ones and their ears, muzzle and hooves are always dark.

2. Head and neck:

Horns: they are a horned breed. The horns are usually curved and at a slight upward angle.

Eyes: their eyes are set neatly into their head and have a docile expression with no white showing.

Face: the face can be described as tulip shaped. It is not over long and is sometimes dished on the nasal bone just below eye level. It is usually dark sided with a mottled front dark ears and muzzle.

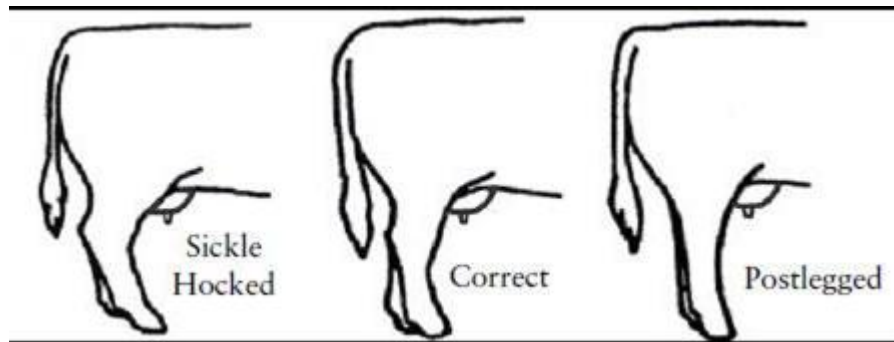
Neck: the neck should be of medium length, deep but not too thick. It should fit neatly into the shoulders being dark along the sides white on the crest and with a white ring around the throat just behind ears. A tear drop effect just under the eye is also another unique feature.

3. Feet and legs:

Legs: they should be of medium length with a nice clean quality of bone. Over coarseness of bone is to be avoided as this can lead to calving difficulties.

Feet: the hooves are always dark brown or black. This colour makes them very hardy and durable.

Locomotion: it is important that the cow moves freely with no sign of stiffness. From a rear view the hocks should not be touching. The hind legs from a side view should neither be sickled or straight at the hocks but in between with a good steep angle to the foot.

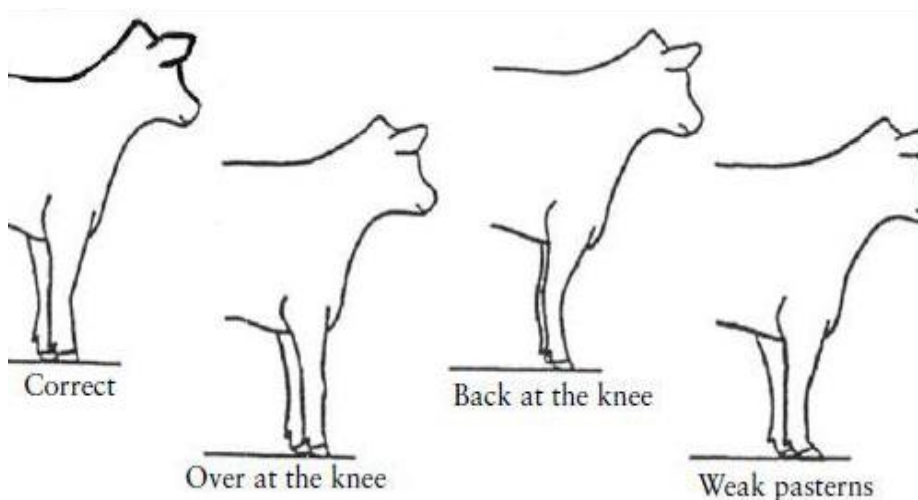


The fore legs should be correctly placed being neither over nor back at the knee with a good steep angle at the pastern.

4. Frame:

The Droimeann is a medium sized cow that is hardy in nature and easy to maintain. The ideal cow should average around 130cm (30”) at the shoulder and always looks in proportion. She should be deep bodied with a flexible rib giving her the capacity to store large quantities of forage. This will enable her to thrive on poor quality pasture. A good with between the hip bones is desirable for easy calving.

The top line should be level the shoulders smooth and neatly fitting into the body and not very wide at the top. There should be some angularity at the shoulder is desirable as this is a sign that the cow can produce milk. The tail setting should be level and a high tail setting should not be encouraged. The slope of the rump should ideally be level but a little sloped is allowed. From a side view the thigh muscle should be well developed and at a right angle to the top line. However, this is not always possible and so the closer to 90 degrees the better.



5. Udder:

A good udder attachment, medium sized teeth with a good placement is desirable. The growth rate of the calf at foot rather than the size of the other will determine milking ability. Each quarter should be evenly sized with the other not dropping below the level of the hocks. This is important because the udder tends to drop as the cow gets older.

Characteristics of a Droimeann Bull:

1. Colour:

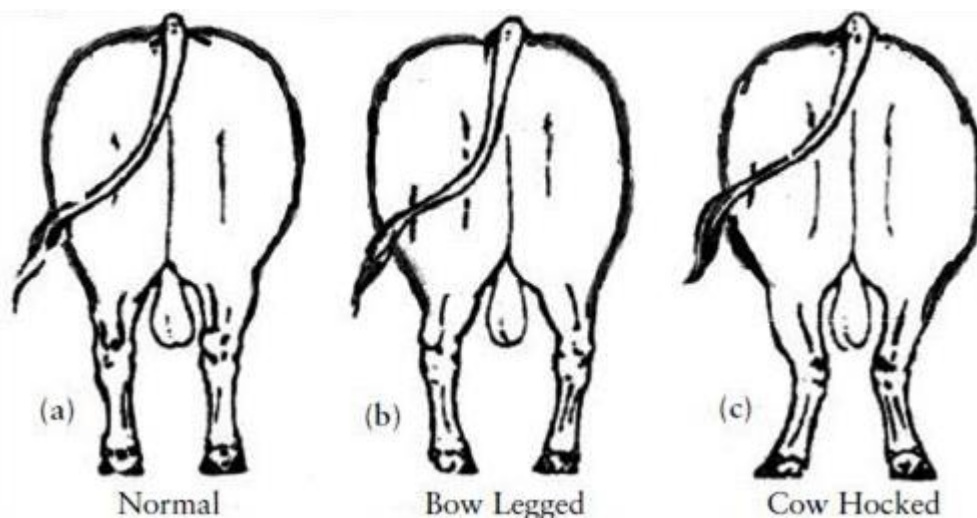
The same variation of colour as found with the Droimeann cow.

2. Head and neck:

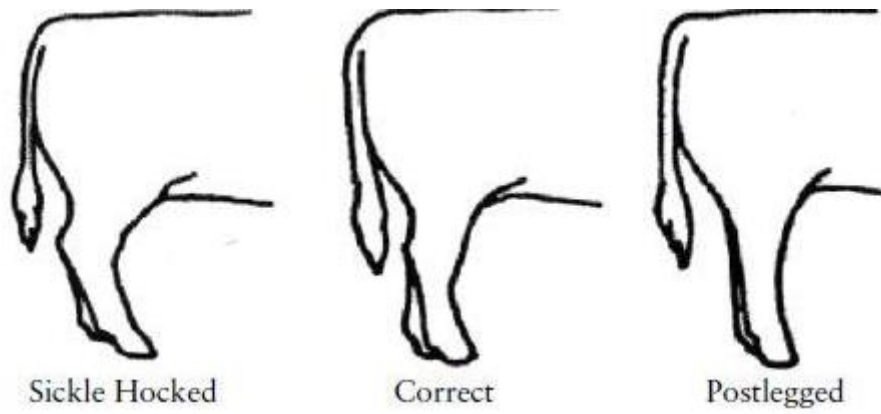
The head should be masculine in appearance the eyes bright and alert with a look at me attitude. It should be connected to the body with a muscled powerful neck.

3. Feet and legs:

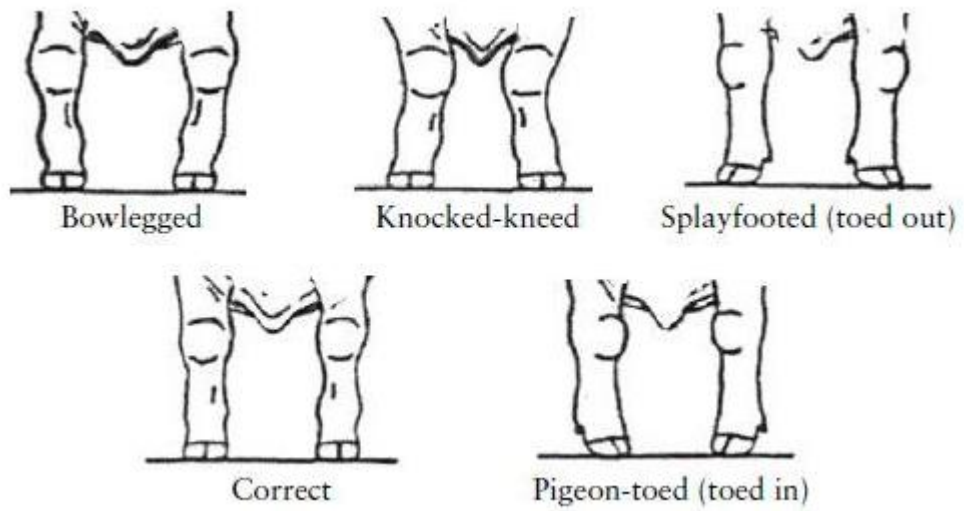
A medium length of leg with medium strength of bone is desirable. Too strong of bone could lead to calving problems. Hooves are either black or brown colour. White hooves are not desirable. It is important that the cow moves feely showing no sign of stiffness. The working frame carried by the back legs showing a natural width of stance slightly curved forward from the hock neither bow legged or cow hocked.



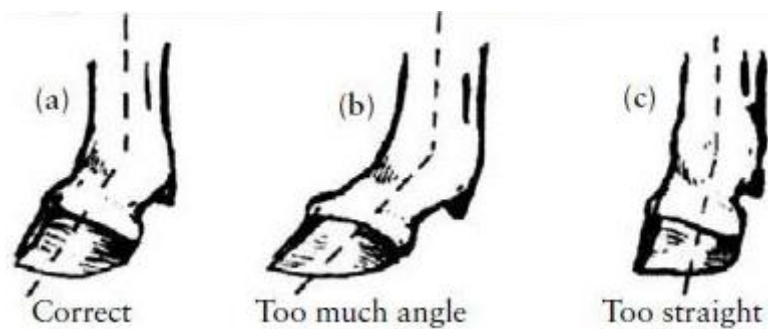
When viewed from the side it should be neither sickled nor straight but in between



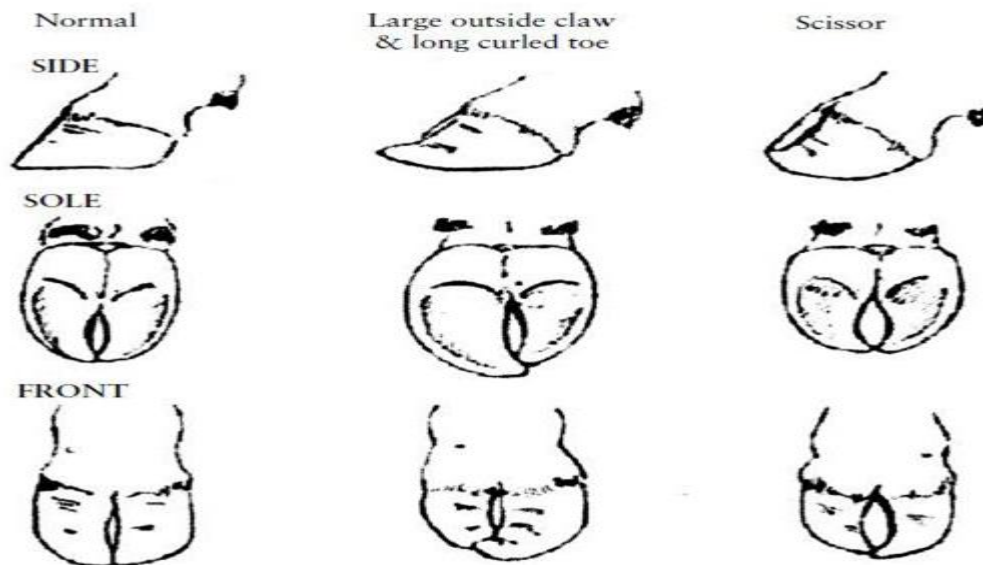
The four legs should be wide apart with adequate length of cannon bone and toes pointing straight ahead.



The pastern should be neither too straight nor too springy but somewhere in between.



The foot itself should be normal not scissor shaped or with uneven claws.



4. Frame:

The average height of a mature Droimeann bull is approx. 135cm (54") at the shoulder. He should be a good length with a wide deep body. It is important that a bull should have a wide rump. A good chest width is desirable. The top line should be level right through to the tail setting. The slope of the rump should be level and from a side view the thigh muscle should be well developed and at a right angle to the top line. A well fleshed bull is preferred as they are easier to maintain and better for meat production.

5. Scrotum and testicles:

Two testicles of even size should be present in the scrotum sac. As testicle size is directly related to fertility the larger the testicles the better. A mature bull of two to four years should have a testicle circumference of 32 to 34 cm or more. Studies have shown that bulls with larger testicles produce daughters of higher fertility. At rest the penis should retract fully into the sheath.

Division of the breeding book:

The Herd book is divided into a main and supplementary section. The conditions for entry are outlined in detail below:

Main Section:

To qualify for entry in the main section of the herd book animals shall:

- Be descended from parents and grandparents entered in the main section of the breeding book of the Droimeann Breed.
- Be identified in accordance with Union animal health law on the identification and registration of bovines and the rules of this breeding programme.
- Have a pedigree established in accordance with the rules set out in this breeding programme.
- Be accompanied by a zootechnical certificate in the case of trade in or entry into the union

- of an animal and where that animal is intended to be entered in the breeding book.
- e) Be accompanied by a zootechnical certificate where an animal is produced from a germinal product which is traded, or which entered into the union and where that animal is intended to be entered in the breeding book.

The Society is availing of the derogation available as outlined in point 2, Article 19 of Regulation (EU) 2016/1012 to assist in the reconstruction of the breed which is seriously in danger of disappearing. This derogation authorises the breed society to enter, in the main section of the breeding book, descendants of purebred breeding animals of the breed to be reconstructed or any animal which is judged by the breed society to conform to the characteristics of the breed to be reconstructed and which, where applicable, fulfil the minimum performance requirements as laid down in this breeding programme. The period for establishment of the herd book is initially one year. A review will be carried out after the first year (November 2017). Details of those animals to be considered as purebred and eligible to be entered directly into the main section are outlined for males and females below. Breeders should contact the Society and request that their animals be considered under this derogation. In order to be judged by the breed society to conform to the characteristics of the breed, the breeder will be required to submit clear photographs of the animal from left and right sides. This will be viewed by a subcommittee for conformity of the breed.

Males:

Due to the scarcity of pure Droimeann bulls and conscious of the need to avoid in-breeding any male that is 100% pure or that has been identified by the society as being 85% and above as a result of genotyping and conforming to breed standards will be allowed into the main section.

Amendment as at 03/12/2017

All bulls 75% and greater as a result of genotyping will be regarded as pure.

All animals in this section of the herd book will be denoted as PED.

Amendment as at 07/01/2018

The period of derogation has been extended until the 31/12/ 2018 due to unforeseen delays in setting up the herd book.

The above derogation has been extended until 31/12/2024

Females:

Any female animal that is over 95% as a result of genotyping pure automatically qualifies for entry into the main herd book.

The main Section of the herd book shall be divided into two classes, Class I and Class II as follows:

- I. To qualify for entry in Class I of the Main section of the herdbook an animal shall comply with all the characteristics of the breed and be free from genetic defects and undesirable breed characteristics such as but not limited to: overshot or undershot jaw, born without eyes, born with limb abnormalities etc. Animals in this class are

recommended for breeding. All animals in this section of the herd book will be denoted as PED.

- II. To qualify for entry in Class II of the Main section of the herdbook an animal must meet the minimum criteria for entry in the Main Section as described above. However, the animal does not meet the criteria for Class I, as he/she may be identified as being a carrier of a genetic defect or have undesirable breed characteristics. All animals in this section of the herd book will be denoted as PE2.
- III. Animals may be re-classified within the main section of the herdbook at any period during their lifetime.

Supplementary Section:

This section is open to female animals only. To qualify for entry in the supplementary section of the herd book a female shall:

- a) Be identified in accordance with the herd book rules.
- b) Be judged to conform to the characteristics of the breed as outlined above.
- c) Has a minimum performance criterion as laid down by these rules as follows?

The Supplementary Section shall be divided into four sections: Section A, B, C and D.

Supplementary Section A: To qualify for entry in Section A of the Supplementary section of the herd book a female must be 85% to 94% Droimeann as a result of genotyping by a fully registered Droimeann bull or any females out of a grade B cow and a fully registered bull will be eligible into section A. Females in this Section shall be denoted by 'A' after its herd book number on their supplementary certificates. All animals in this section of the herd book will be denoted as ASR.

Supplementary Section B: To qualify for entry in Section B of the Supplementary section of the herdbook a female must be 70% – 84% Droimeann as a result of genotyping or any females out of a grade C cow and a fully registered bull will be eligible into section B. Females in this Section shall be denoted by 'B' after its herd book number on their supplementary certificates. All animals in this section of the herd book will be denoted as BSR.

Supplementary Section C: To qualify for entry in Section C of the Supplementary section of the herd book a female must be 45% – 69% Droimeann as a result of genotyping or any females out of a grade D cow and a fully registered bull will be eligible into section C. Females in this Section shall be denoted by 'C' after its herd book number on their supplementary certificates. All animals in this section of the herd book will be denoted as CSR.

Supplementary Section D:

To qualify for entry in Section D of the Supplementary section of the herd book a female must be 10% – 44% Droimeann as a result of genotyping. This section will remain open for all animals born up until the end of the 2018. Females in this Section shall be denoted by 'D' after its herd book number on their supplementary certificates. All animals in this section of the herd book will be denoted as DSR.

Amendment as at 28/02/2020

Under the derogation as outlined in point 2 of Chapter III, Part 1 of Annex II of Regulation (EU) 2016/1012, female animals that are sired by a Droimeann bull of 75% + purity as a result of genotyping (regarded as Ped) may be recorded in the Supplementary Section D provided they are 30% or greater in purity when genomically tested. This derogation will end on the 31/12/2021.

Grading Up: A female animal whose dam (Section A) and maternal grand dam (Section B) are registered in a supplementary section of the herd book and whose sire, and two grandsires are entered in the main section of the herd book or of another EU approved herd book of the breed shall be eligible for entry in the main section of the herd.

Any animal found to have a genetic defect or genetic peculiarities following linear assessment or herd inspection shall have details of such published on its zootechnical certificate or any other official documents provided by the Society.

An animal from another Member State shall be entered in the class of the herd book whose criteria it meets.

System for Identifying Breeding Animals:

All animals are individually identified by their national identification number which is located by ear tag. All breeding animals are named which consists of the breeder's prefix and the name which commences with a year letter relevant to the year of birth i.e. 2023 births commence with the letter "N". The year letter is available from the Droimeann Cattle Society. The prefix and name of animals including spaces and denotations where relevant shall be limited to 30 letters. Inappropriate names shall not be accepted.

Animal's will be named as follows:

Females:

Herd Prefix
Cow Name
IE number

Males:

Herd Prefix
Bull Name
IE number

Amendment as at 03/12/2017:

Any animal being registered by a breeder but who was not born in that breeder's herd shall not carry the herd prefix of that breeder or any prefix but shall be given only the cow/bull name beginning with the letter which corresponds to the year of birth.

Procedure for entering animals in the breeding book:

1. The birth of every calf alive or dead to any dam registered in the breed book should be notified to the Society by inclusion of a pedigree name for the animal through the Animal Events recording system by the breeder or his/her representative/s within the prescribed time allowed by the Department of Agriculture, Food & the Marine.

2. On receipt of this birth notification all calves which are proposed to be entered will be issued a hair sample kit by ICBF. Samples should be taken by the breeders adhering to the instructions on the hair sample kit and returned to the ICBF.
3. Where an animal was not notified at birth it should be entered in the herd book by the time they are 12 months old. A breeder can contact the Society and request a hair sampling kit.
4. All calves must be DNA profiled through SNPs and parentage proved prior to entry into the herd book. The cost of the test shall be borne by the society. The tests are carried out on behalf of the society by Weatherbys Ireland Ltd.
5. The society will only accept registration from a bona fide breeder.
6. Breeders are requested to notify the society of any obvious genetic defect or serious deviations from breed type which may arise.
7. When the purity percentage result is returned to the Society and locked on the ICBF database, breeders will be contacted and informed of the cost for entering/recording the animal into the breeding book.
8. When all fees are paid a Zootechnical Certificate or Supplementary Certificate will be issued to the breeder
9. The society should be made aware of change of ownership within 30 days so that it can be transferred in the herd book. This should be done by the purchaser who must return the original certificate and the signed change of ownership form.
10. Birth notification, animal registration and change of ownership forms can be obtained from the society and photocopies can be made as necessary.
11. A schedule of fees is available on the Society's website. Please contact the office to obtain the most up to date schedule as the Society reserve the right to review and amend fees as appropriate.

Control checks for recording pedigree of the breeding animal:

All animals eligible for entry are required to be genomically tested for both parentage & purity before being accepted for entry or recording into the breeding book.

Information on the system for recording pedigrees of purebred animals:

The system used for recording pedigrees of purebred animals is an electronic database system known as Taurus.

For each animal entered on the database the following information is recorded where applicable: name of the animal, date and country of birth, parents and grand-parents, sex, ear tag identification, name and address of breeder, name and address of owner, section of herd book and relevant class, twinning status, progeny of embryo transfer, purity percentage, results of performance testing, date of genetic evaluation, genetic defects and peculiarities, insemination or mating information, other relevant information to the registration process.

Selection and Breeding Objectives:

Breeding objective:

The breeding objective is to breed animals:

- a) that conform with the breed standard.
- b) that at maturity have a typical height of 130cm at the shoulder.
- c) that have weighting in the range of 400 to 500 kg for females and between 500 to 600kg+ for males.
- d) that have a calving interval of 370 days or less.
- e) that have a gestational length of less 285 days.
- f) that are mature enough to be calved down at 24 months.
- g) that have ease of calving without assistance.

Selection Objective:

The selection objectives are to select animals:

- a) That have a low in-breeding coefficient.
- b) That have high purity.
- c) That will improve docility.
- d) That will improve conformation.
- e) That will improve their genetic merit.

These traits are all identified, measured and the results published in the ICBF Eurostar indexes. The Eurostar index allows the Society to monitor the success of the breeding programme in respect of the aforementioned traits. Further detailed information on the evaluation carried out by ICBF for the Droimeann Society can be found at:

<https://www.icbf.com/wp/wp-content/uploads/2019/05/Beef-Evaluation-Document.pdf>

Performance testing and genetic evaluations:

The Droimeann Society undertakes 'Performance Testing' and 'Genetic Evaluation' as part of their breeding programme. These services are made available to breeders and are provided by ICBF.

There are 3 main objectives for the Droimeann breed:

1. Replacement: To breed future cows for the Droimeann herd.
2. Maternal: To breed cows of superior Maternal & milking ability.
3. Dairy Beef: To breed cattle that can either be fattened or produce suckler Dams when crossed with the dairy cow.

Following are the weightings of the traits in these indexes:

Index Trait Weightings			
	Dairy Beef	Replacement	Terminal
Calving	64%	16%	26%
Carcass	27%	39%	56%
Fertility		23%	
Milk		18%	
Docility		4%	2%
Feed Intake			16%
Other	9%		

Performance Testing:

The following data is collected as part of performance testing.

1. Calving Survey

Each breeder records ancestry and calving data on their calves through the 'Animal Events' recording system. The Calving Survey options are: 1=Normal Calving, 2=Some assistance, 3=Considerable difficulty, 4=Vet assistance. 'Abortion or 'Calf died at birth may also be recorded.

This data is used in the calculation of calving difficulty of an animal.

Genetic Evaluations:

The ICBF beef evaluation system uses 'Euro-Stars' as its main method of breeding value output. The Euro-Star Index is a breeding index designed to aid beef farmers in the selection of more profitable breeding animals. Euro-Star Indexes quantify the genetic component of an animal's performance across all traits of importance. The Euro-Star Index has two overall indexes – the Replacement Index and the Terminal Index. Breeders can use the appropriate index for their animals depending on their farming systems i.e., breeding replacements or for beef.

Replacement Index: There are 17 traits included in the Replacement Index. Each trait has its own Predicted Transmitting Ability (PTA). An animal's PTA is the amount of a trait that it can pass on to its progeny. The PTA for each trait is then multiplied by the Economic Weight (monetary value for each unit of the trait) to generate a Euro value contribution for the trait. All the values are added up to provide an overall Replacement Index.

Terminal Index: There are 8 traits included in the Terminal Index. Each trait has a PTA and an Economic Weight which are multiplied to give the Euro value contribution of that trait. All the relevant trait contributions are added up to provide an overall Terminal Index.

Genomics

The Society facilitates the usage of genomics by breeders to help better predict how well an animal will perform in the future from an earlier stage. Genomics can increase reliability figures (by about 20%) even before animal performance data becomes available, provides accuracy to gauge potential performance of the animal from the genetic traits and confirms parentage of the animal (assuming parents are genotyped) or can predict a sire. The Droimeann Cattle Society also provides % purity as an output of their genetic test and is completed by Weatherby's Scientific from data supplied to them by society obtained from the ICBF genomic testing. More details on the ICBF Genomics service can be found at: https://www.icbf.com/wp/?page_id=7876

Methodology

ICBF extracts the performance, pedigree and genotype data from the database 6 times per year. The ICBF Animal Evaluation unit uses SAS for pre-processing and post-processing of data before and after the genetic evaluation run itself. 'Mix 99' is used for variance component estimation and for the actual running of the genetic evaluations. The ICBF genetic evaluations are computed 6 times per year. Further information on the genetic evaluation schedules can be found at:

https://www.icbf.com/wp/?page_id=11285 The rules and standards applied for genetic evaluation are those established by Interbull.

Further details can be found at:

- https://wiki.interbull.org/public/beef_guidelines?action=print&rev=64

Communication and Genetic Evaluations Results

The star rating system (1-5 stars where 5 stars being good, 1 star being poor) is incorporated into the Euro-Star Index to assist breeders in assessing the results for their breeding animals and using this information when considering their selection objectives. However, breeders must note.

- Stars 'within' and 'across' breed stars.
- Star ratings are assigned to multiple indexes and traits.

Breeders should consider which trait is of importance to their breeding programme and the corresponding percentage assigned to this trait.

The Reliability figure gives an indication as to how confident that an index or trait figure will not change in the future as more data is recorded.

Further information on the Eurostars can be found on:

https://issuu.com/herdplus/docs/euro-star_system_explained
<https://www.icbf.com/wp/?p=12929>

Information to breeders on Genetic Evaluations is available through:

- ICBF Animal Search: <https://webapp.icbf.com/v2/app/bull-search/>
- Herdplus Reports (where relevant): <https://www.icbf.com/wp/wp-content/uploads/2018/05/ICBF-Beef-User-Guide.pdf>
- Zootechnical Certificates

Technical activities outsourced:

The technical activities of the Droimeann Cattle Society are outsourced to the Irish Cattle Breeding Federation (ICBF). ICBF provide.

- the Taurus data base which contains all data relevant to the Droimeann Cattle Society breeding book.
- all performance testing and genetic evaluations for the Droimeann Cattle Society.
- training for Droimeann Cattle Society staff in matters relevant to the Droimeann Cattle Society data base.

ICBF's contact details are:

Irish Cattle Breeding Federation
Link Road,
Ballincollig,

Co. Cork.

Tel: 00353 23 8820452 / 00353 23 8820222

Email: query@icbf.com

www.icbf.com

Zootechnical certificate:

The Zootechnical certificate provides information on the owner and breeder of an animal. In the context of Zootechnical certificates, the breeder is the person who owns the dam when entering the animal in the breeding book.

The Zootechnical certificate is issued to a breeder for an animal within two months when it fulfils the rules of the breeding programme and is entered into the breeding book.

Results of relevant genomic tests / genetic evaluations are published on the Zootechnical certificate.

A twin animal will have the circumstances of its twinning (twin to male, twin to female) published on its Zootechnical certificate or any other official documents provided by Society.

An animal found to have a genetic defect or genetic peculiarities following linear assessment or herd inspection shall have details of such published on its Zootechnical certificate or any other official documents provided by the Society. In the event of an animal not being inspected breeders must notify the Society office of any genetic defect or peculiarities on an animal, which shall have details of such published on its Zootechnical certificate or any other official documents provided by the Society.

The procedure for the change of ownership is that the new owner receives the Zootechnical certificate when taking ownership of a purebred animal and submits it to the Society office. Where if everything is in order the Zootechnical certificate will be reissued to the new owner with the name of the new owner displayed on the Zootechnical certificate.

A supplementary certificate is issued to breeders for animals recorded in the supplementary section of the breeding book.

Derogation on the issuing of Zootechnical Certificates

No derogation has been availed by the Society currently to permit germinal centres issue zootechnical certificates for germinal products.

