



IRISH HEREFORD BREED SOCIETY LTD.
Irish Hereford Breeding Programme
Adopted by IHBS Council on 16/09/2021

Contents

- 1. Name of Breed**
- 2. Geographical Territory**
- 3. Hereford breed characteristics**
- 4. Aim of Breeding Programme**
- 5. Definition of breeder and breeder herd**
- 6. Animal identification**
- 7. Division of the Irish Hereford Breeding Book/Herd Book**
- 8. System for recording pedigrees**
- 9. Procedure for entering animals into the Breeding Book/Herd Book**
- 10. Artificial Insemination**
- 11. Embryo Transplant**
- 12. DNA Profiling, Genomic Testing**
- 13. Service Sires**
- 14. Herd Register**
- 15. Herd Inspection**
- 16. Zootechnical Certificate**
- 17. Selection and breeding objectives**
- 18. Performance Testing/Genetic Evaluation**
- 19. Genetic Defect Screening**
- 20. Outsourcing of Specific Technical Activities**
- 21. Derogations Granted**
- 22. Interpretation of rules of the Breeding Programme**
- 23. Alterations to the Breeding Programme**
- 24. Disclaimer**

This Irish Hereford Breeding Programme may be found on the Irish Hereford Breed Society Ltd., website at www.irishhereford.com



Irish Hereford Breeding Programme IRISH HEREFORD BREED SOCIETY LTD.

The Irish Hereford Breed Society Ltd. is the body recognised by the Minister for Agriculture, Food & Marine and approved to maintain the Irish Hereford breeding programme of Hereford Cattle in the Republic of Ireland

1. Name of Breed: Hereford

2. Geographical Territory: Republic of Ireland.

3. Hereford breed characteristics

- GENERAL:** Overall appearance of alertness combined with docility, should parade well and appear healthy, smooth frame and fleshing free from coarseness: coat fine and silky.
- COLOUR:** It is desirable that the body should be red while the face, crest, underside, socks and brush to tail should be white.
- BODY:** Back should be long and broad with a level topline, ribs should be well sprung, loins should be wide and deep for good expression of eye muscle, firm to touch, flank, brisket and belly should carry no waste.
- HINDQUARTERS:** Rump should have good width and be well muscled: tail head should be set flush with the topline: thighs should be wide and well-muscled: legs should be set wide apart without being either too crooked or straight: testicles should be of adequate and even size.
- LEGS AND LOCOMOTION** Legs should be set squarely: feet should be even and straight: walking action should be free and smooth, not rolling hips, twisting or crossing legs and straddling.
- FOREQUARTERS:** Shoulders should be smooth and well covered with flesh, should not be too prominent for the sake of ease of calving: brisket neat and trim with no waste, legs should be straight, even and set well apart.
- HEAD AND NECK:** Forehead broad; face in proportion with look of alertness; muzzle broad; neck of good length; throat clean and not too full, jaw must be well set neither over or under shot.

Irish Herefords are hardy adaptable cattle suitable to intensive or extensive farming systems. The breed is very suitable for ease of calving and crossing for the efficient production of beef from the dairy herd and beef suckler dams. The Hereford cross dam is an outstanding beef suckler dam, providing a hardy, thrifty, docile, easy and regular calving dam with excellent

mothering abilities. The Hereford sire within the beef herd is an ideal cross on continental type dams providing ease of calving and early maturity together with top class eating quality. The breed's ability to colour mark its offspring with the distinctive white head is much valued.

4. Aim of Breeding Programme

To improve in Ireland the breed of cattle known as Herefords and to promote impartially, the breeding of the various tribes, families and strains of such cattle. To promote and foster an appreciation of and to improve and maintain in Ireland the breed of cattle known as Hereford in its Horned and Poll strains of such cattle, adhering to a breeding programme using all available technology.

5. Definition of breeder and breeder herd

Entry of animals to the Herd Book/Breeding Book will only be accepted from Hereford cattle breeders who are paid up members of the Irish Hereford Breed Society Ltd, living in the Republic of Ireland and Hereford cattle of which they are the owners. The breeder of an animal shall be the Society member(s) who owns the animal at the time of birth or purchases an animal from a breeder and is the owner of the animal at the time of entering the animal into the breeding book. The breeder/member is responsible for identification and notification of the calf to the Society.

6. Animal identification

6.1 All animals are identified in the Breeding Book by their unique national bovine identification number displayed on an ear tag since the introduction of same. Animals imported from a third country, i.e., UK, must be retagged on entry to Ireland as required by EU law. All breeding animals are named using a breeder Herd Name or Prefix and an animal name

6.2 Herd Name – Animal Name:

- Animals entered in the breeding book will also be assigned a Herd Name and an animal name.
- In the case of a Polled Hereford Herd name the digit '1' is inserted between the Herd Name and Animal name.
- ET calves will carry the designation ET at the end of the name.
- Animals tested for the genetic tests will have the following acronyms after their name where space permits:

Carriers: Hypotrichosis Carrier (HYC), Diluter Carrier (DC), Idiopathic Epilepsy Carrier Carrier (IEC),

Non- Carriers: Hypotrichosis Non Carrier (HYF), Diluter Non Carrier (DF), Idiopathic Epilepsy Non Carrier (IEF).

Please note breeders cannot rely on the name to denote results of genetic defects tests carried out as the character allowances may not allow for such results to be recorded as part of the name. (See section 19 Genetic Defect Screening).

- The maximum number of characters including spaces permitted for herd name and animal names including the addition of the digit '1', the addition of 'ET' or acronyms of genetic defect results (where relevant) is 30.

- Names of large towns or well-known places, are not acceptable nor any name covering a large area, to which a number of other breeders, might have an equally good claim.
- The society reserves the right to change the name assigned to an animal if the name submitted is deemed in its opinion to be inappropriate.
- In the case that the breeder wants to make a change to the name of an animal, the breeder must return the original zootechnical certificate and zootechnical certificates of all related progeny to the IHBS Ltd along with the completed name change form (form available at irishhereford.com and/or IHBS Ltd. Office). This change will only be carried out if appropriate, relevant and if there are enough characters in the name available (Max. 30) to make the change. There is an administration fee payable to the society for the making the name change and re-issuing the certificate(s). See appendix for fees.

7. Division of the Irish Hereford Breeding Book/Herd Book

7.1 The Herd Book contains a main section only. To qualify for entry in the main section of the Hereford Breeding Book/Herd Book an animal shall:

- a). Be descended from parents and grandparents entered in the main section of a Breeding Book/Herd Book of the same breed.
- b) Be identified according to Union animal health law and the rules set out in this breeding programme.
- c) Have a pedigree established according to the rules of this breeding programme;
- d) 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/Herd Book, that animal shall be accompanied by a zootechnical certificate;
- e) where an animal is produced from a germinal product which is traded or which is entered into the Union and where that animal is intended for entry in a Breeding Book/Herd Book, that germinal product must be accompanied by a zootechnical certificate.

7.2 The main section of the Breeding Book/Herd Book accommodates entry of the various Strains of the Hereford breed currently eligible for registration in the Republic of Ireland. The classes of the main section are as follows.

Class 1: Horned Herefords (Included are the strains previously identified as PED and PDX):

Eligible animals are of the Horned Strain upon which the breed was founded over 200 years ago. The history of these ‘horned herefords’ has been well documented over the years mainly through the “Herd Book of Hereford Cattle” first published in 1846 in the UK. These animals were previously designated **PED**. Eligible animals also include Horned Herefords previously designated **PDX** which were so designated due to a specific export demand some 30 years ago.

From July 1st 2020 animals previously designated **PED** or **PDX** are amalgamated and designated **PED**. For the purpose of identification, animals classified as Class 1 will have a herd name and an animal name. Class 1 with the abbreviation **PED** will be recorded on the Zootechnical Certificate.

Class 2: Polled Herefords:

Eligible animals are of the hornless strain i.e. Polled Herefords. For the purpose of identification animals classified as Polled Hereford will have the figure 1 inserted between the herd name and animal name. Class 2 with the abbreviation **PDP** will be recorded on the Zootechnical Certificate.

7.3 The Society accepts for entry any progeny resulting from a “cross” of the above Strains. Calves and their progeny born as a result of a mating between a “Horned Hereford” and a “Poll Hereford” will be entered in Class 2 PDP (Polled Hereford) even if developing horns.

7.4 The classification of an animal may change after entry into the breeding book if information becomes available which would indicate the animal would have been classed differently had the information been available at the time of entry.

7.5 An animal from another Member State within the European Union shall be entered in the class of the breeding book whose criteria it meets.

7.6 The relevant class that the animal is entered in will be recorded on the zootechnical certificate.

8. System for Recording Pedigrees

The electronic database system used for recording pedigrees is provided by ICBF and is known as Taurus. (See technical activities outsourced)

Where applicable information in relation to each animal including animal identification, date and country of birth, sex, name of animal, parents, grand-parents, twinning status, by embryo transfer, name and address of breeder, name and address of owner, section and designated class in Breeding Book/Herd Book, results of performance testing genetic evaluation, genetic defects and peculiarities, insemination or mating information and any other information to the registration process is recorded.

9. Procedure for entering animals into the Breeding Book/Herd Book

9.1 All purebred breeding animals are notified to the Irish Hereford Breeding Book/Herd Book through the Animal Events - AIMS system/database. The Animal events sheet or on-line registration must include all necessary information for registration i.e. the unique identification number, date of birth of each calf together with particulars of its sex, sire, dam and name of calf.

9.2 The breeder must also notify the Society directly on the designated ‘Calf Notification Form’ with entry fees, within 30 days of the date of birth together with supporting information/documentation (Natural service/AI/DNA) where necessary or requested.

Where such notification, fees or documentation are not included/provided, penalties may apply and increase incrementally for each week of delay after 30 days of birth (See 9.6 Late Registration). Where a breeder fails to provide the necessary back up documentation including information required for completing the application, within six (6) months the application for entry into the Breeding Book/Herd Book may be cancelled, fees paid may be forfeit and or an administration charge applied. See appendix for fees.

9.3 The society will not be responsible for lost or mislaid forms.

9.4 Where an error with the ‘Calf Notification Form’ occurs, the Society’s office will contact the member/breeder via phone, email or in writing informing him/her of the error and indicating how best to resolve the matter. The breeder should then endeavour to have the error corrected without delay. In the event that the breeder becomes aware of an error in his/her animal notification or zootechnical certificate please bring it to the attention of the Society’s office so that it may be rectified without delay.

9.5 All male animals notified for entry into the Breeding Book/Herd Book must be Genomic tested within six (6) months of birth. All first calving females must be Genomic tested within six (6) months of calving and before any progeny can be entered into the herd book or have zootechnical certificates issued for said progeny. All donor sires must be both sire & dam verified via genomic testing.

9.6 Late Registrations: Animals notified for entry or required documentation /fees received after 31 days may be entered in the breeding book on payment of additional fees and proof of parentage (sire and dam) via DNA/Genomic testing. The fees charged for a late entry will increase incrementally for every additional week of delay in notification. Late entry fees are charged at the discretion of the Council and will be decided by, and amended by the Council from time to time.

9.7 It is compulsory for a breeder to notify the Society of any instance in his/her herd of a polled or scurred calf being born to horned parents. A scur shall be defined as a horn like growth fastened only to the skin and not attached to the skull.

9.8 In the case of animals carrying poll blood and developing horns, such fact should be notified to the Society.

9.9. Animals entered in the Irish Hereford Herd Book sold for export out of the Republic of Ireland must be accompanied by a zootechnical certificate. If additional export paperwork duly certified by the Society is required it can be obtained at the relevant fee payable by the seller.

9.10 All imported animals eligible for entry shall be entered in the class of the herd book whose criteria it meets on payment of the appropriate “import recording” fee and is accompanied by a zootechnical certificate and relevant support documentation. Support documentation may include insemination or service information and DNA/Genomic profile for service sire. In the case of an embryo, it must be accompanied with the relevant embryo zootechnical certificates and DNA/Genomic profile for Donor dam and Service sire.

9.11 Breeders must submit a calf notification form for every calf born whether living or dead and must notify the Society of any instance of a dwarf calf being born or developing dwarf characteristics at a later date. Where the Society is notified within 30 days of birth that a notified calf has died within that 30-day period a full refund of the entry fees paid will be made.

9.12 All entries are subject to the decision of the Council as to their eligibility for entry in accordance with the Breeding Book/Herd Book rules. The Council reserves the right to refuse to accept the notification of birth of a calf where the data provided is deemed to be deficient, inaccurate or is in non-compliance with these rules.

9.13 The Council may from time to time set or make changes to fees or penalties e.g. for entry

(homebred or imported), late notification penalties, embryo registration, export certification and transfer of ownership and any other service charges in force.

9.14 In the case that the breeder wants to make a change to the name of a particular animal i.e. in the case of registering a male calf as a female calf by accident, the breeder must return the original zootechnical certificate to the society office along with the completed name change form. This change will only be carried out if appropriate, relevant and if there are enough characters in the name available to make the change (Max. 30). If there are progeny born from the animal in question, all zootechnical certificates belonging to all of the progeny must be returned to the society office before a name change can be considered. There is an administration fee for making the names changes and re-issuing certificates. See Section 6.2.

10. Artificial Insemination

10.1 A breeder/member shall be responsible for supplying to the Society with each birth notification form, a certificate signed by an Inseminator licensed by DAFM and the name and National Identification number or AI code of the bull and female concerned and the date of insemination. This information may be provided electronically via ICBF or the AI company carrying out the AI service. The Society may require such AI information to be substantiated through the provision of for example a monthly statement from the AI provider.

10.2 For DIY AI operators, a valid DIY licence is required by the Society. DIY AI is only acceptable within the herd of the operator or as approved by DAFM. The Society may from time to time request a list of semen purchased by the DIY AI operator.

10.3 Notification of animals served by DIY AI shall be submitted to the Society within three months of the insemination. Each DIY AI operator shall maintain in chronological order a record of all DIY inseminations carried out in the herd which should be available for inspection and a copy must be provided to the Society's inspector or the Society's office on request. Where these requirements are not complied with penalties may apply including refusal of entry to the Breeding Book/Herd Book.

10.4 Semen of animals entered in the Irish Hereford Breeding Book/Herd Book sold for export out of the Republic of Ireland must be accompanied by a Zootechnical Certificate (See section 21).

10.5 The Council may at its discretion give special permission for testing of male purebred breeding animals using semen collected from purebred breeding animals which have not undergone performance testing or genetic evaluation provided that the semen is solely used for the purposes of testing those males purebred breeding animals within the quantity limits necessary to enable the breed society carry out performance testing and/or genetic evaluations.

10.6 Royalty fees apply to some AI bulls. That is an additional charge that is payable to IHBS Ltd on registration of the progeny of said AI sires. AI sires that curtail royalty fees can be found at www.irishhereford.com or by contacting IHBS Ltd and enquiring.

11. Embryo Transplant

11.1 The breeder/member must notify the Society of their intent to carry out embryo transfer so that the Society can inform the breeder of the requirements in order to enter the progeny in the Breeding Book/Herd Book.

11.2 The breeder/member must return to the Society along with the relevant fees, and within the times fixed by the Society, completed certificates (on forms to be obtained from the Society), the relevant information as to the identity of all animals concerned, the pregnancy testing of the recipient cow and the blood typing/DNA profile of the bull and donor cow. If the Council of the Society is not satisfied with any such certificates the resulting calf may not be eligible for entry in the Breeding Book/Herd Book.

11.3 Notification indicating the intent to use ET must be made in writing to the Society. Notification must be made prior to artificial insemination or natural service of each female from whom it is intended to remove embryos.

11.4 The Embryo Transfer Form to be completed and returned to the Society's office within 30 days of collection/implantation giving details of number and identification of embryos recovered, number frozen and or implanted together with unique ID of recipients where applicable. A separate recording fee per cow per collection is payable. This form can be downloaded from irishereford.com.

11.5 An Embryo Amendment Form is required to notify changes in circumstances (i.e. sale or implantation) to embryos registered with the Society and should be returned to the Society within 14 days of change of circumstances. This form can be downloaded from irishereford.com.

11.6 Only Embryo Units licensed by the DAFM may be used for removal, insertion, or storage of embryos.

11.7 Only licensed operators approved by the DAFM may be used to carry out whether by surgical or non-surgical methods the removal of embryos from donor females and/or the insertion into recipient females.

11.8 Progeny born as a result of ET will be designated ET in the breeding book/herd book and ET calves will carry the designation ET at the end of the name.

11.9 DNA/ Genomic profile in respect of the donor cow and sire used must be lodged with the Society. DNA/Genomic samples for typing of donor cows and service sires should be taken no later than at the time of successful embryo recovery. All calves born through ET require parentage analysis (sire and dam) via DNA/Genomic testing prior to registration.

11.10 The Society shall reserve the right to Blood type/DNA/Genomic test any embryo transfer calf it considers necessary.

11.11 The breeder of a calf born as a result of ET shall be the owner of the recipient dam at the time of birth. The calf shall be registered bearing the National Identity Tag Number of the herd of birth and bearing the herd name of that breeder.

11.12 The birth of every calf born as the result of embryo transfer shall be notified to the Society through the Calf Notification forms. These forms obtainable from www.irishhereford.com.

11.13 A special transfer form obtainable from the Society must be submitted upon the sale or transfer of each recipient female in-calf by ET. Normal transfer fee shall be payable.

11.14 A special transfer form obtainable from the Society must be completed for the sale, transfer or disposal of embryos. Normal transfer fee shall be payable.

11.15 Members wishing to export embryos must be accompanied by an embryo zootechnical certificate (See section 21).

11.16 Members wishing to import embryos should contact the Society in advance to clarify any requirements, which may apply. Embryos must be accompanied by the appropriate zootechnical certificates for Donor dam and service sire together with Embryo recovery documentation and relevant DNA/Genomic profiles. Import recording fees apply to the Service sire and Donor dam if not already recorded in the Irish Herd Book.

11.17 Calves born as a result of ET are subject at any time to a visual inspection by a person or persons authorised by the Society.

11.18 In addition to the normal registration fee an additional registration fee will apply to each animal registered born as a result of ET.

12. DNA Profiling, Genomic Testing Requirements

12.1 Herd Sires joining the herd from 1st July 2021 must be sire and dam verified.

12.2 From 1st July 2020 all testing on purebred Hereford animals requiring DNA typing should be carried out via Genomic (SNP) technology. All A.I. sires entering AI from 1st March 2020 must be DNA/Genomic profiled (sire and dam verified) and have undergone a genetic evaluation.

12.3 Since 1st July 2014 it is a requirement that prior to its first progeny being recorded in the breeding book a female should be sire verified via DNA/Genomic testing. All first calvers should be Genomic tested and sire verified within six months of calving otherwise the progeny may not be accepted for entry into the Breeding Book/Herd Book.

12.4 Since 1st March 2013 it is a requirement for entry that all bull calves be sire verified via DNA/Genomic testing within six months of birth.

12.5 Parentage verification via DNA /Genomic testing is the responsibility of the breeder. Where the notified pedigree is deemed incorrect it is the responsibility of the breeder to identify the correct pedigree via genomic testing. No zootechnical certificate will issue until such time as the issue arising has been clarified. Where a zootechnical certificate has been issued and subsequent testing shows the sire or dam to be incorrect the certificate should be returned to the society along with the letter from ICBF stating the correct parent – signed by the breeder.

12.6 It is a requirement of entry that all calves born via embryo transfer are parentage (sire and dam) verified. In addition, the donor dam which provides the oocytes or embryos must have undergone performance testing or genetic evaluation.

12.7 The Council shall have the right to request a DNA/Genomic report on any animal its dam or sire at any time.

12.8 Breeders are encouraged to have their purebred breeding animals genomically tested as a means to enhance their animal genetic evaluations.

13. Service Sires

13.1 Where a member has a cow or heifer served by a bull prior to purchasing/moving that cow or heifer into their own herd, he/she is required to furnish a service certificate completed by the owner of the bull. This certificate is available on the website at irishhereford.com or by contacting the IHBS office via irishhereford@gmail.com or by phoning 044 9348855 and when completed must be forwarded to the Society together with the notification of the resultant calf. Service certificates should be accompanied with the zootechnical certificate and passport to the buyer from the seller when the transaction has been completed. Breeders should ensure animal movements meet Department of Agriculture requirements.

13.2 The Society reserves the right to DNA any off Spring that requires a service certificate to complete registration and gain entry into the breeding programme.

14. Herd Register

Members shall keep a herd register containing a true and accurate record of all cattle eligible for entry by the Society. The unique identification number, date of birth, sex, sire, dam and name of each calf (twins should be recorded separately and clearly identified as such) should be recorded therein before notifying the birth to the Society and completion of the Animal Events sheet or on-line notification which is forwarded to the Department of Agriculture, Food and the Marine. This register shall be available at all times for inspection by an authorised representative of the Society.

15. Herd Inspection

15.1 The Council shall have the right to instruct that a member's herd, herd register, animal birth notification documentation submitted or any animal within that herd be made available for inspection by an authorised representative of the Society. If such a request is not facilitated within 30 days no registrations or transfers will be affected from that herd until a satisfactory inspection has been conducted and report completed. Inspectors are appointed by the Council and will act in an independent and non-discriminatory manner and will not inspect stock in which they may have a vested interest.

15.2 Herds where issues of noncompliance, suspect data or doubtful data arise may be required to notify births within seven days of birth. Birth weights in excess of 50 kg should be notified to the society's office within 48 hours of birth. Where such birth weights are not reported standard birth weights of 40 kg for heifers and 45 kg for bulls will be used.

15.3 The maximum weight gain permitted for Male Hereford calves 1-90 days old is 1.5 Kgs. per day in addition to their birth weight. A maximum weight gain of 1.7 Kgs. per day permitted from 90 to 120 days. The maximum weight gain permitted for Female Hereford calves 1- 90 days old is 1.4 Kgs. per day with their birth weight. A maximum weight gain of 1.6 Kgs. is allowed from 90 – 120 days. Where calves exceed these weights, a further inspection will be arranged within 30 to 40 days. Where calves fail to maintain the weight, gain recorded at the initial weighing the breeder will automatically be required to notify all new births to the Society

within 7 days of birth for a period of 12 months after which time the requirement will be reviewed by council. Failure to comply with this requirement may lead to refusal of entry into the Breeding Book/Herd Book or heavy fines. Where in the opinion of Council serious breaches occur calves may be banned from exhibition at society events including shows and sales. Such herds may be subjected to regular inspection during the period of restriction with the member liable for the cost of inspection. A printout of animal weights will be provided to the member by the inspector.

15.4 Each member shall co-operate with any inspections that the Society may call to do as random spot checks etc. from time to time, with a minimum period of 24 hours, notice. If a breeder refuses to co-operate in allowing an inspection for up to three weeks all calves in the herd under 3 months of age may be deemed ineligible for entry into the breeding book, may be banned from Society run events and the herd banned from all society events for up to two years. No zootechnical certificates or transfers will be processed for the herd until a satisfactory inspection takes place at the breeder's expense. All animals requested for inspection should be penned and available for inspection and weighing with relevant documentation available.

15.5 The Society reserves the right, to carry out at its discretion, random DNA/Genomic testing for parentage verification at the breeder's expense, on all animals. In the event of more than one animal failing parentage verification, the Council may decide to have all animals in the herd DNA/Genomic tested or to have all animals proposed for entry DNA/Genomic tested for parentage verification as an entry requirement at the breeder's expense for a period of time as is deemed necessary.

15.6 The Society and its servants or agents shall not be responsible for any injury, loss or damage to a person or property, occurring during or arising out of such inspections.

16. Zootechnical Certificates

16.1 A zootechnical certificate will be issued for each eligible animal that meets with the criteria for entry into the Herd Book. The official zootechnical certificate printed on Society's paper with the animal's ancestry shall be issued to the member by the Society as soon as all entry criteria are met within 30 days. Any discrepancy should be notified immediately to the Society. The onus is on the member to ensure that on receipt of the zootechnical certificate that all details are correct and that any discrepancies should be immediately notified to the Society either by written or oral submission to the Registration & administration section of the society. The Society will undertake to replace the document with the necessary correction without delay and at no cost to the member. In the event of a zootechnical certificate being withdrawn no refund of fees will be made. The name(s) and address of the breeder (See section 5) will be printed at point 10 on the zootechnical certificate. The name and address of the current owner(s) at the time of printing the certificate will be printed at point 11 on the zootechnical certificate, whether that be the breeder of the animal or the new owner if the animal has been sold and transferred to a new owner.

16.2 Any zootechnical certificate issued by the Society must on written request be returned to the Society when the Society so chooses for inspection, review, reissue or cancellation of that documentation. No alteration will be permitted on such certificates and duplicate certificates will only issue under exceptional circumstance and on payment of fees at the discretion of Council.

16.3 On ‘Change of Ownership’ a new zootechnical certificate will be provided to the new owner(s), who may or may not be a registered member(s) of the society, bearing his/her name(s) on surrender of the animal’s zootechnical certificate and provision of adequate new owner details together with payment of the relevant fee by the seller. Where an animal has transferred ownership and no transfer of ownership fee has been paid, a transfer of ownership fee must be paid before any progeny of this animal can be entered into the breeding book.

16.4 No animal, which has been notified to the Society for which a zootechnical certificate has not been issued, should be sold, exhibited or advertised as a purebred breeding animal until the issue of such a zootechnical certificate has confirmed its status. Where such breaches occur Council may impose fines up to €150 per animal involved. This sale/exhibition requirement may be waived at the discretion of Council for an unweaned calf which is shown at foot where the calf has not reached the age of 6 months. A zootechnical certificate for each animal exhibited should be available for inspection at each show at which an animal is exhibited.

16.5 The Society reserves the right to withdraw at any time the zootechnical certificate issued in respect of any animal entered in the Breeding Book/Herd Book (without refund) where DNA/Genomic profiling fails to authenticate the parentage as notified to it and recorded therein. Its progeny, if any, will also be deemed unqualified and lose its status. It is the responsibility of the Member/Breeder to rectify any discrepancy in pedigree identified through DNA/Genomic profiling via written submission to the registration & administration section of the IHBS, after genomic results have been returned. Where the animal’s parentage is later verified by Genomic profiling, it with its progeny on clarification and acceptance of the new data in writing by the member/breeder will be reinstated and a zootechnical certificate issued.

16.6 In issuing a zootechnical certificate the Irish Hereford Breed Society Ltd accepts no responsibility for the contents of the document. Where an error occurs the Society’s liability will be limited to:

- The replacement of the defective documentation where possible at no cost to the member.
- If the above remedy is not applicable, to refund any fees paid by the member to the Society for the defective documentation.

16.7 In issuing a zootechnical certificate the Society relies on all statements made by or on behalf of the Member as to name, parentage and date of birth of the calf in the notification of its birth to the Society. The responsibility for its accuracy therefore, rests solely with the Member/Breeder and not the Society.

17. Selection and Breeding Objectives

The breeding objectives are formulated to maintain and improve through careful selection and genetic improvement the long-time characteristics of the breed i.e. docility, ease of calving, mothering ability, ease of fleshing, efficient growth at moderate feed levels and top-class eating quality. The breed should calve easily and regularly, reach maturity quickly at suitable slaughter weight and carcass quality for current market requirements at economic cost in an environmentally favourable manner.

These objectives to be achieved using careful selection through visual appraisal, high levels of stockmanship together with pedigree and performance recording in association with the judicious use of modern technology such as genomics where appropriate and advantageous.

Co-operation with the ICBF (data collection/evaluations/genomics) is seen as an essential component to achieving these objectives. The traits outlined above are identified, measured and the results published in the ICBF Eurostar indexes. These indexes allow the Society to monitor the success of the Breeding Programme with regard to these traits. Further detailed information on the evaluations carried out by ICBF can be accessed at <http://www.icbf.com/wp/wp-content/uploads/2019/05/Beef-Evaluation-Document.pdf>

18. Performance Testing / Genetic Evaluation

In order to improve the beef production potential of the breed and provide selection tools to breeders, the Society is involved in a programme of animal evaluation which includes the collection and recording of calving surveys, birth weights, gestation lengths, weaning weights, Linear Scoring and carcass data in conjunction with and recorded on the database systems provided by the Irish Cattle Breeding Federation (ICBF). All animals in the breeding book receive a genetic evaluation.

Performance testing:

The following Performance testing data for the Hereford breed is collected

- Calving Ease: Calving difficulty data is collected automatically at calf registration. Survey options are: 1 = Normal Calving, 2 = Some assistance, 3 = Considerable Difficulty, 4 = Veterinary assistance. Abortion or Calf died at birth may be recorded.
- Whole Herd Performance Recording (WHPR): Services to enable the collection of additional data are Whole Herd Performance Recording (WHPR). Breeders involved in the WHPR programme will make their whole herd available for weighing and measuring by an ICBF technician. This will facilitate validating birth dates and young stock performance to ensure accuracy of data collected. Participating in this programme will ensure accurate euro star reliability of stock born on farm along with enabling bulls born on the farm to be entered into the stock bull finder. Details of the many benefits and what is involved in participating in WHPR may be accessed at https://www.icbf.com/wp/?page_id=254

Under WHPR data is collected on the following traits:

- Maternal Bull Breeder Programme: The Society and its members each year participate in the testing of young Hereford sires as part of the Gene Ireland Beef Programme. These young sires are selected by a panel representing ICBF, the Breed Society, a Breed Society Member, an AI representative and a commercial farmer. Selection is on genetic merit as determined by the ICBF Taurus system together with a visual assessment and the agreement of the selection committee. Following purchase and entry to AI, 1,000 doses of semen are collected from each bull selected. The bull is then sold on or slaughtered. A quantity of semen is distributed to commercial beef producers whilst a quantity is retained in storage in the event that the sire is proven to be of superior genetic merit and can in the future be mated with genetically superior females thus enhancing the Hereford breed and the national herd. Data recorded includes insemination records, calving difficulty, birth weights, docility, growth rate, female milk and fertility. Commercial progeny of these bulls are purchased by Gene

Ireland and moved to the ICBF progeny performance test station at Tully, Co Kildare. Traits including growth potential, feed conversion, muscle and skeletal traits are measured, docility, functionality, ultrasound fat and muscle measurements are recorded. At the end of the test period animals are slaughtered with slaughter/carcass data recorded. Meat cuts are assessed for eating quality. These results combined with previously recorded commercial animals and the data coming from the pedigree herd enhance the accuracy of the 'Euro Star' index. Further details at <https://www.icbf.com/wp/?p=464>

Other data: Performance data is collected and provided to ICBF from other different sources for each animal. This data includes animal events data (calving interval, age), AI data (gestation), Carcase data (kill out, age of slaughter), genomic data (bloodlines & star evaluations) & weight recorded data.

Genetic Evaluations:

Genetic evaluations are provided on each breeding animal entered into the breeding book via genomic testing.

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. Table 1 details the traits included in the Replacement Index as well as their respective Economic Weights.

Table 1 Replacement Index

Euro-Star Replacement Index			
Trait	Economic Weight (€ Unit)	Trait Emphasis	Trait Type
Maternal Calving Difficulty	-4.98	6%	Cow Traits 71%
Age 1st Calving	-0.99	6%	
Calving Interval	-5.07	9%	
Survival	8.86	8%	
Milk	5.58	18%	
Heifer Intake	-0.76	8%	
Cow Intake	-0.55	6%	
Cow Docility	77.27	4%	
Cull Cow Weight	0.91	7%	Calf Traits 29%
Calving Difficulty	-5.12	7%	
Gestation	-2.48	2%	
Mortality	-5.87	1%	
Docility	14.72	1%	
Feed Intake	-0.07	4%	
Carcass Weight	2.1	10%	
Carcass Conformation	10.22	3%	
Carcass Fat	-5.44	1%	

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 a overall Terminal Index. Table 2 details all of the traits included in the Terminal Index as well as their respective Economic Weights.

Table 2 Terminal Index

Euro-Star Terminal Index		
Trait	Economic Weight (€ Unit)	Trait Emphasis
Calving Difficulty	-4.65	18%
Gestation	-2.25	4%
Mortality	-5.34	3%
Docility	17.03	2%
Feed Intake	-0.1	16%
Carcass Weight	3.14	41%
Carcass Conformation	14.77	11%
Carcass Fat	-7.86	5%

Eurostars make the Index value easy to understand by providing a visual component. They show where an animal's genetic index ranks within the population. Eurostars are formed on a percentile basis from the Index Value. Five stars means the animal is in the top 20% of the population, with each star representing 20% of the population. The Index is calculated prior to a Star Rating being applied. The cut offs for each star rating change with each evaluation as they are reflective of the entire population. Within Breed stars are for ranking purebred

animals from the same breed. Across Breed stars show where the animal's index ranks against animals across all other breeds. For example, a bull may be 5 stars for a trait 'Within Breed', but 1 star 'Across Breeds', if the bull's breed has a lower Breed Average than the All 'Breeds Average' for that trait.

Further detailed information on the evaluations carried out by ICBF can be accessed at <http://www.icbf.com/wp/wp-content/uploads/2019/05/Beef-Evaluation-Document.pdf>

Evaluations for the breed are also performed across-country through Interbeef. Breeders can assess the genetic merit of a bull in the Irish condition via his Interbeef ranking. These breeding values cannot be compared to the national breeding values.

All information is combined at the end of test with previous performance tested animals and with commercially recorded data including calving and gestation information, weaning weight and calf value from the livestock marts, linear type classification from pedigree beef herds, carcass weight, carcass fat and carcass conformation data from the factories, as well as pedigree ancestry information. These results allow a genetic profile of all animals with records and related animals to be computed in the form of a Euro-star index.

Genomics:

Genomic testing is carried out by the ICBF from DNA (SNP markers) extracted from Hair/Tissue samples taken from an animal. SNP markers: These are a single nucleotide polymorphism located throughout the genome. From this DNA information the following benefits can be achieved:

- Parent verification: A genotyped animal can have its Sire & Dam confirmed
- Higher reliability Eurostar figures: Genotyping increases reliability% figures even before the animal has produced any offspring
- Breed verification: Genotyping will be able to identify an animal's breed make-up
- Genetic Disease: An animal's carries status for a number of diseases and major genes (e.g. Myostatin is also possible).
- Traceability: Genotyping ensures that from birth there is full traceability of every meat sample

The ICBF evaluation system uses 'Euro Stars' as its main method of breeding value output.

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

Communication and Use to breeders:

The results of official performance recording and genetic evaluations for an individual animal can be found on www.icbf.com and a link to updated results are provided on the animal's zootechnical certificate, breed Society Sale Catalogue and participating livestock mart boards nationwide.

Performance testing, genetic evaluation and genomics are made available to breeders and provided by ICBF.

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 rating are assigned to multiple indexes and traits
- The PTA for the specific index or trait first.

The Trait Emphasis is the average contribution of each trait to the index of the average, proven AI bull. 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;

- IHBS Online Herdbook at https://webapp.icbf.com/v2/herdbook/index.php?source_org=HE
- ICBF Animal Search <https://webapp.icbf.com/v2/app/bull-search/>
- AI Bull Listing https://www.icbf.com/wp/?page_id=206
- Herdplus Reports (where relevant) <https://www.icbf.com/wp/wp-content/uploads/2018/05/ICBF-Beef-User-Guide.pdf>

19. Genetic Defect Screening

19.1 It is mandatory since 7th November 2013 that all Donor Dams and Hereford bulls entering AI or having semen taken for on farm use have a genomic test to identify any of the following non-lethal genetic defects, Hypotrichosis, Diluter and Idiopathic Epilepsy. Carrier Animals will be denoted thus Hypotrichosis Carrier (HYC), Diluter Carrier (DC), Idiopathic Epilepsy Carrier (IEC), Non- Carriers will be denoted thus Hypotrichosis Non Carrier (HYF), Diluter Non Carrier (DF), Idiopathic Epilepsy Non Carrier (IEF). The cost of the tests will be borne

by the breeder.

Breeders must provide the official test results to the Society. From 1 November 2018, the results of such tests will be recorded at point 13.3 on the animal's zootechnical certificate. Results will also be published in the IHBS online herdbook.

Voluntary testing for non donor animals may also be carried out at the expense of and by the organisation of the breeder. Breeders should provide the official test results to the Society, From 1 November 2018, the results of such tests will be recorded at point 13.3 on the animal's zootechnical certificate. Results will also be published on the IHBS online herdbook

No administration fee will be charged for recording genetic test results at point 13.3 on the zootechnical certificate or in the online herd book.

19.2 Please note previous herdbook rules referred to the denotation of the genetic results as part of the animal's names. However, due to the restrictions on name lengths (see section 6.2) this may not be the case. **Therefore, breeders should not rely on the name to denote results of genetic defects tests carried out.**

In the case that the breeder want to add the genetic result acronym to the animal's full name, the breeder should return the original zootechnical certificate and zootechnical certificates of all progeny to IHBS Ltd along with the completed name change form (form available at irishhereford.com and/or IHBS Ltd. Office). This change will only be carried out if appropriate, relevant and if there are enough characters in the name available (Max. 30) to make the change. Please note also that if there are character allowances for only some of the genetic defect test results to be denoted in the name, HYF/HYC will be given first preference. There is an administration fee payable to the society for adding the genetic test result acronym to the animal's name and re-issuing the certificate. See appendix for fees.

20. Outsourcing of Specific Technical Activities

Specific technical activities are outsourced to the

Irish Cattle Breeding Federation,

Highfield House, Shinagh, Bandon, Co. Cork, Ireland, P72 X050.

Contact name: Sean Coughlan CEO –

Tel: +353 (023) 8820222 - Email: query@icbf.com - Website: www.icbf.com

The following activities are outsourced:

Database: Taurus (Electronic system for recording & maintaining pedigree of breeding animals entered into the herd book)

Performance Testing and Genetic Evaluations

Catalogue Service

21. Derogations Granted

A derogation has been authorised by the competent authority in line with Article 31(1) of Regulation (EU) 2016/1012 for the following listed Semen Collection or Storage Centres and Embryo Collection or Production Teams to issue Zootechnical Certificates for germinal products on behalf of the Irish Hereford Breed Society Ltd.

a) Approved Bovine Semen Collection Centres

Dovea Genetics
Bova AI
National Cattle Breeding Centre (Enfield)
National Cattle Breeding Centre (Naas)
National Cattle Breeding Centre (Cork)

b) Approved Bovine Semen Storage Centres

Munster AI Farm Services Group Ltd
Dovea Genetics
Elite Pedigree Genetics
Eurogene AI Services (Ireland) Ltd
Coney Island Genetics
Dúnmasc Genetics Ltd
XYZ Genetics, T/A World Wide Sires Ireland
Celtic Sires - (Angela & Gerard Brickley)
Bullbank
Kevin Genetics

c) Approved Bovine Embryo Collection Teams

Champion Embryos
Genexcel Ireland Limited
Mr. Laurence Dunne MVB MRCVS
Bovi Genetics - (Trading as Cowmaster Ltd)
Mr. J.F. Brody
Bova AI - (Trading as Bova Embryo & Scanning Technologies)
Dúnmasc Genetics Ltd
Animal Reproductive Technologies Ltd
Gerard Beirne
Thomas Griffin
Glengoyne Genetics
Daire Markham

22. Interpretation of Rules of the Breeding Programme

The Council reserves the sole and absolute right to interpret these or any other prescribed conditions and regulations and to settle and determine all or any matters, questions or differences in regard to their interpretation, or otherwise arising out of or in connection with or incident to these regulations. All members shall be subject to the Rules, Orders and Regulations of the Society.

23. Alterations to the Breeding Programme

The regulations contained in the Breeding Programme of the Irish Hereford Breed Society Ltd., will be revised and notified to all members as and when the Council of the Society sees fit to make amendments thereto.

24. Disclaimer

The Society or its agents accept no liability as to the accuracy of evaluations on purebred breeding animals. No representation or warranty expressed or implied is made or given by the IHBS Ltd. or its agents as to the accuracy, reliability, completeness of any evaluation reports. The IHBS Ltd. shall not be liable for any losses (whether direct or indirect), damages, costs or expenses whatsoever, incurred or arising from any use of evaluation reports or performance data.

APPENDIX 1

Schedule of fees 2021

- Entry into breeding book Fee Male or Female €45
- ET – Flush recording fee €45
- ET Registration Fee – Male or Female €65
- Late Registration Fee €5 per week late
- Ownership Transfer Fee €15
- Duplicate Certificate Fee €15 - Non-Members €20
- Name changes made on the zootechnical certificate including addition of Genetic Test results acronym to name: €15
- Import Recording Fee €100
- Export Fee €45
- Herd Inspection Fee €250
- Royalty Fees €25

Methods of Payments:

Fees may be paid by Standing Order, Direct Debit, Debit Card, Credit Card, Bank transfer or Cheque.

The IHBS office can be contacted to make an automated payment over the phone.

Cheques should be made payable to the Irish Hereford Breed Society Ltd. or to IHBS Ltd.