



ZIMBABWE HERD BOOK

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Members Guide to Orientation and Procedures

1 Membership

Membership of the Zimbabwe Herd Book (ZHB) rests with the Breed Societies which means that in order to register cattle, sheep and goats with ZHB, a breeder must first become a full member of the relevant breed society.

Provision can be made for a person breeding purebred livestock for which there is no active breed society and such application must be made to the Council of ZHB.

Breeders must abide by the Breed Society rules and regulations which must also conform with the Registration of Pedigree Farm Livestock Act [Chapter 19:11] and the Constitution and By-Laws of ZHB.

Where a breeder is under the age of eighteen (18), the application for enrolment as a breeder must be made with the assistance of a parent or guardian in the form of an endorsement and counter signature on all documents relating to registration stating that the minor breeder has been assisted by a parent / guardian.

2 Prefix and Herd Designation Letters

All breeders are required to register for their exclusive use, a Prefix and Herd Designation Letters (HDL). Breeders may use these for any breed they wish to register but transfer of a Prefix and HDL from one breeder to another is not allowed without special permission by ZHB in exceptional circumstances.

2.1 Prefix

A prefix is sometimes referred to as the stud name and is used as the first word in the naming of all animals registered by the Breeder.

A prefix should not exceed 14 characters which can include letters, numbers, and spaces, for example ALPHA 12345.

The actual name of the animal, limited to 16 characters, which follows the prefix may be a proper noun or number, whichever the breeder prefers.

<u>Prefix</u>	<u>Name</u>
ALPHA	SATELLITE
12345	123456789

2.2 Herd Designation Letters

Herd Designation Letters are used to uniquely identify animals. It is obligatory for each animal recorded with ZHB to carry an ear-tattoo, tag and/or brand which will consist of the HDL, year of birth and sequential number, for example ALP 1/90.

A second means of identification such as branding, drawing, notching etc must be used and reference should be made to your Breed Society for their rules in this regard.

All animals must be CLEARLY MARKED by two means and any animal which cannot be so identified will have its registration cancelled.

3 **Herd List**

Once you have become a member of the Breed Society and joined ZHB, you will then need to submit any registration certificates and birth notifications of animals in your possession from which your initial Herd List will be drawn up and then sent to you for your review and edit.

4 **Notifications**

Once an animal is registered with ZHB, it is required that ZHB be notified of the following:

- a. Births
- b. Deaths
- c. Sale Transfers
- d. Cancellations
- e. Culled / slaughtered or in any way disposed of.

4.1 Births

Birth Notifications (BN) should be submitted to the office within 60 of the birth, either on the prescribed manual forms or electronically using the HerdMaster programme. It is incumbent upon the Breeder to ensure that all details are correct so that delays in processing data are minimised.

In the event of twin calves, the Breeder must note this on the BN and state the sex of the other twin. If the dam was purchased “in calf”, the BN must be accompanied by a Service Certificate which should be provided by the Seller to the Buyer.

If the sire used was on loan from another Breeder, a certificate must be provided by the owner of the bull, giving the name and registered number of the bull, the period during which the bull was on loan and the name and address of the Breeder to whom the bull was loaned.

If an Embryo calf is born, the BN must be accompanied by a “Transplanted Embryo Certificate” which should quote the reference number of the Embryo Transplant Report.

Please ensure that the section marked “Name of Stud” is completed with the name under which all eventual registration certificates are to be registered.

The BN will be checked at the office and:

- i) returned to you if there are any problems with a note identifying the issue; or
- ii) your herd list will be sent to you if everything is in order. This is your record that the animal has been accepted by ZHB and is eligible for registration.

Please note the following:

Minimum acceptable CALVING interval: 280 days

Minimum acceptable GESTATION period: 260 days

Maximum acceptable GESTATION period: 304 days

4.2 Births not for Registration

If a calf is not intended for registration, (unknown sire, stillborn or died etc), the birth must still be notified to ZHB in order to keep the calving record of the dam up to date.

4.3 Deaths / Culled / Slaughtered / De-registered Animals

When animals are to be deleted from the Herd List for any of the above reasons, the Breeder should notify ZHB within 60 days, returning the registration certificates and a copy of the birth notification stating the reason for deletion and the date.

4.4 Transfers

The registration certificate or birth notification for the animal should be forwarded to ZHB within 30 days of the date of the sale.

The Seller must complete all details pertaining to the Buyer and the Buyer or an authorised signatory must sign for the "Transfer of Sale". Disciplinary action may be taken against the Breeder who fails to forward certificates timeously.

5 Registration

Application for registration may be made by completing the relevant form and may depend on inspection according to the breed society rules and regulations.

6 Inspections

6.1 Breed Society Inspectors will carry out inspections.

6.2 Inspection sheets together with the birth notifications to which they refer must be signed by the Inspector and returned to ZHB as soon as possible.

6.3 ZHB do not carry out inspections but if a Breeder has undue difficulty in finding an Inspector to visit his farm, he may appeal to ZHB who will appoint an Inspector for this purpose.

7 Re-instatements

Animals whose registrations in the Herd Book have lapsed may be re-instated after inspection and approval by the relevant Breed Society. All requests for re-instatement must be made in writing and addressed to the Manager, ZHB. A re-instatement fee will be charged.

8 Re-issue and Duplicate Certificates

Certificates may be re-issued when alterations have been made and duplicate certificates provided in both cases, provided that the reasons for doing so are acceptable to both ZHB and the Breed Society.

All requests for re-issued and duplicate certificates must be made in writing and addressed to the Manager, ZHB.

9 Alterations

Should a Breeder find it necessary to alter or amend any birth notification or registration certificate after it has been processed, the Breeder should apply in writing stating the reason for the alteration and / or amendment.

10 Joint Ownership

An animal may be jointly owned by more than one registered breeder. In this case, it will appear on the herd lists of all the joint owners and will be levied as part of each herd list on which it appears.

11 Artificial Insemination Sires

When semen or artificial insemination (AI) has been used instead of natural service the following will apply in order to qualify the calf for acceptance in the Herd Book:

- 11.1 The bull must be registered with a recognised Stud Book or Herd Book.
- 11.2 The Breeder must be prepared to obtain a 3-generation pedigree (this is the minimum acceptable and a 5-generation pedigree is preferred.)
- 11.3 A DNA profile is required in respect of the bull. (In the case of imported semen, it is the importer's responsibility to obtain the analysis.)
- 11.4 The Breeder must obtain the foreign identification number of the bull concerned as it is vitally important that the Breeder should quote the full correct registered name of the bull.
- 11.5 Once the above documentation has been lodged with ZHB, the animal will be issued with an AI Sire registration number which signifies that the bull has been accepted. An AI sire list will be started for the breeder, similar to the herd list.
- 11.6 A levy fee will be charged once only in respect of each bull used for AI and not annually as is the case for animals on the herd list. This levy will be determined from time to time by the Council of ZHB.

12 Embryo Transplants

If it is the Breeders' intention to register calves that are the result of an Embryo Transplant, the following is applicable:

- 12.1 An "Embryo Transplant Report" must be completed and submitted within 120 days of the flushing.
- 12.2 A birth notification must be completed at the time of the birth which also records the reference number of the Embryo Transplant Report.
- 12.3 Sires and dams used in embryo programmes must both have had DNA profiles carried out. ZHB reserve the right to profile progeny for confirmation of parentage.

13 Transfers *in Utero*

When a foetus *in utero* or embryos flushed from a donor female undergo a change of ownership, the resultant progeny shall be eligible for registration provided all regulations have been complied with. A certificate recording the change of ownership must be lodge with ZHB. The resulting progeny shall carry the prefix of the new owner.

14 Appendix Schemes

Several Breed Societies operate Appendix Schemes for the upgrading of livestock. These Schemes vary from society to society and you should refer to your particular society for information on the procedure to apply.

15 Annual Herd Returns

During January of each year, Breeders will receive a copy of their herd lists which must be checked to ensure that there are no errors or omissions and returned to the office. All animals over a certain age are subject to a levy which is payable annually.

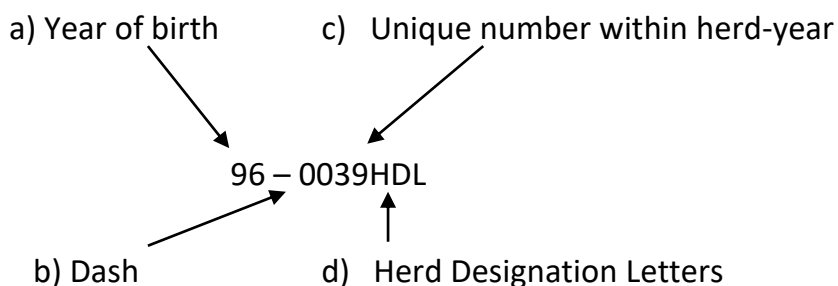
16 Beef Performance Recording

The software for beef performance recording is operational at ZHB and both Breeders of stud animals and commercial producers are invited to submit performance data.

Estimated Breeding Values are calculated from the data for an entire breed within the country. Non-genetic effects (ie differences between herd environments) are accounted for and valid comparisons can be made between any animals from the database examined. This is the most powerful tool available to breeders and has been a major contributor to the very rapid progress made by cattle breeders in many countries.

16.1 Numbering System

A standardised system of numbering animals has been used as follows:



a) Year of Birth

The last two digits of the year in which the animal was born

b) Dash

This must be included in all written records. It may be omitted from a tattoo if necessary.

c) Unique Number Within Herd-Year

Any variation of these four digits may be used, providing that no two animals within herd and year have the same number. You may prefer to start from 0001 each year and / or use the first digit to indicate sex (for example, 1059 = female; 2060 = bull). No letters may be used and when completing manual forms, the leading zeroes must be included. Leading zeroes are not necessary on tattoos, tags and brands.

d) Herd Designation Letters

These are the breeder's unique letters authorised by ZHB.

16.2 Tattoos

When tattooing, tagging or branding an animal, the layout of the number may be changed to suit the circumstances and should be the same as the Society identification number.

95		9532		HDL
32	OR	HDL	OR	9532
HDL				

Calves which die at birth and even aborted fetuses must be given a number and birth notified. They will not be registered but will update progeny records for cows and bulls.

16.3 Performance recording

Performance begins with submission of the calf's birth notification which includes ancestry, details of its birth and its first weight (birth weight). It also contains information of its parents' performance (calving ease). Data is entered into the programme and a report indicating those accepted and rejected, with the reasons for rejection, is generated and returned to the Breeder.

The return also includes a weigh sheet which shows the calf's identification and acceptable dates for its next official weigh. The universally accepted and used weights are those taken at:

- i) birth
- ii) 205 days;
- iii) 400 days
- iv) 600 days.

For entire males, scrotal circumference at 600 days is also recorded.

Birth weight is best taken with 24 hours of the birth.

16.4 Genetic evaluations

EBV's and Estimated Progeny Differences (EPD's) are calculated from a variable blend of ancestral performance data, and animal's own performance data and that of its progeny. When the animal has no data of its own (when it is still too young), the estimates are based entirely upon its ancestor's data and reliability of the estimate is fairly low. Once its' own data is included in the estimate, less emphasis is placed on

the ancestral component and accuracy increases. The inclusion of progeny data, which is a direct measure of the animal's genetic potential, increases accuracy significantly. When data from 20 – 30 progeny are included, accuracy rises to +75% and the estimates of breeding values can be used with greater confidence in the selection of animals.

Another factor which strongly affects accuracy figures is the volume of data which is included in the analysis. As data volume increases, so do the genetic linkages and the number of progeny evaluations, both of which improve the accuracy of the estimates made.

Ancestral data has a second very important function in genetic analyses. By establishing and using genetic links between animals in different environments, it is possible to determine and account for differences in performance, after taking into account these non-genetic factors. This is how it becomes possible to validly compare the estimated breeding values of animals in different herds. Providing sufficient genetic linkages can be made. All animals, both male and female, from the same analysis can be compared with each other.

16.5 Collection of Historical Data

Genetic analysis depends upon several generations of ancestry for most animals to establish genetic links between them. This is used to both estimate inherited performance potential and to measure differences between the numerous environments from which the data is derived. Once the database is established, new animals and performance figures are added each year.

It is the responsibility of the Breeder to provide as much historic information for their breed as possible.

17 Summary of Services offered by ZHB

- 17.1 Registration and certification of ancestry and ownership of stud animals;
- 17.2 Maintenance and certification of pedigree information of stud animals;
- 17.3 Receipt and storage of performance data from both stud and commercial herds;
- 17.4 Collation and maintenance of these databases for each breed; and
- 17.5 Genetic analyses of performance traits for each breed and provide EBV's for all animals.