

White Park Cattle Society Ltd

Breed Improvement Policy

A. The White Park

is a specialist beef breed adapted most efficiently to **non-intensive systems** of management. It is distinctive in its **appearance** (especially its colour pattern), **heritage value**, **ancient provenance** traced back 10,000 years, and great **genetic distance** which gives significant hybrid vigour in crossing programmes.

The policy of the Society prioritises selection of breeding stock to enhance those qualities through the following objectives:

1. **Ensure the ongoing purity of the breed** through the system of registration and particularly by DNA testing
2. **Ensure survival of all bull lines and female families** to avoid loss of traits held on Y-chromosome and mitochondrial DNA respectively.
3. **Develop the distinctive and valuable qualities of the breed** through an ongoing improvement programme with the active participation of interested breeders.
4. **Promote and publicise** both the heritage value and commercial qualities of the breed to increase both its numbers and its quality.

B. Registration of Bulls

The most important element of the breed improvement programme is the system for the registration of bulls which includes inspection by approved inspectors.

Since 1980 the bull inspection procedure has **excluded animals with defects** and has recorded undesirable traits.

Since 1998 **linear assessment measurements** have been included as part of the bull registration procedure.

Since 2002 **DNA testing** has been carried out and enables parent verification as part of the registration process to ensure purity of pedigree.

The following conditions govern the procedure for the registration of bulls:

1. **Age at inspection:** Bulls must be inspected after 21 months of age although ideally inspection should be delayed until 24 months of age in order to maximise accuracy of prediction. Any variation from the age limit requires official approval.
2. **Condition at inspection:** Condition is evaluated by the inspector with a score between '1' (very thin) to '10' (very fat). Owners are advised to present bulls for inspection with a score between '4.5' and '7.5' and bulls outside these limits may not be inspected.
3. **Linear assessment:** Measurements are taken at the time of inspection. An algorithm which allows for age, condition, management and inbreeding enables a calculation of the mature type and merit of each bull, which is classified Pass Plus, Pass or Fail according to the result.

4. **DNA testing:** The primary purpose of DNA testing is parentage verification but it also is used to evaluate an animal of unknown parentage by comparison with the DNA profile of the breed.
5. **Inspection:** The inspector records the type of the animal and its particular traits. Undesirable traits may cause a bull to be down-graded. Inspection of the dam and relatives of the bull is undertaken during the visit, when advice to the owner also can be given.
6. **Pedigree:** Evaluation of the pedigree of the bull, including calculation of inbreeding, will be undertaken before inspection. The quality of ancestors in recent generations of a bull's pedigree will influence his genetic merit.

C. Evaluation of cows

Cows contribute to the quality of their progeny through both their nuclear DNA and their mitochondrial DNA (mtDNA).

Selection of a cow as the dam of a bull calf to be retained for breeding is an essential part of the breeding programme.

The following items comprise the evaluation:

- a. **Type.** A cow must conform to the breed standard and be free from major defects.
- b. **DNA.** Cows which possess rare mtDNA should be prioritised in order to avoid the loss of a female family.
- c. **Performance.** Records of performance traits should be utilised. In particular regularity of breeding (fertility), ease of calving, milk yield measured by growth rate of calves to 200 days of age, thriftiness (ability to maintain body condition under non-intensive conditions of management).
- d. **Temperament.**

D. Progeny Test

When a bull has sired sufficient recorded progeny the average performance of the progeny will be entered in the comparative listing of progeny test results.

Progeny results may be derived from entire sons (registration procedure), castrated sons (growth, carcass quality) and daughters.

E. Advice to breeders of White Park cattle

The Society seeks to provide advice to members through various channels of communication.

The Society website (especially the Bull Assessment page), Facebook and Newsletter all permit regular interaction with members; the 'open forum' session at AGM is an annual opportunity while the herd book is less frequent.

There is a wide range of objectives and priorities within the membership and all are important to increase the value of the breed. They vary from purely aesthetic traits (mainly colour) or conservation of a heritage breed at one extreme to commercial value (conservation grazing, meat marketing, pedigree breeding) at the other.

The breed history, 'Breeding the Best', contains a comprehensive description and analysis of the various options.

Detailed individual advice, relating primarily to breeding programmes and selection of breeding stock for commercial value, is given during herd inspections or bull inspections:

1. **Breeding programmes** including evaluation of individual animals, bloodlines, control of inbreeding, linebreeding and compensatory mating.
2. **Choice of sire**
 - a. Select bulls with the specific qualities that suit the breeding objectives of the herd.
 - b. Use a bull that is graded Pass Plus if the intention is to sell sons for breeding.
 - c. Measure the merit of the bull through the performance of entire sons at registration, and the age, weight and grade at slaughter of other progeny.
3. **Choice of dam**
 - a. Identify cows as potential dams of bulls by their ability to regularly and consistently rear a good calf (i.e. milkiness, which is best measured by 200-day weight), longevity, conformation and temperament.
4. **Choice of calf** (to retain for breeding)
 - a. Both sire and dam must be registered.
 - b. Be selective by keeping entire only a bull calf that is considered to have potential to fulfil an intended specific purpose; it is likely to be sired by a Pass Plus bull out of an 'elite' cow.
 - c. Greater latitude can be applied with heifer calves provided they do not have a serious defect.
 - d. The calf must conform to the breed standard.
 - e. Weigh the calf at 200 days of age, or at weaning.
 - f. Cattle of both sexes not deemed fit for breeding and kept for finishing should be weighed at 900 days of age and details of carcass quality recorded.

February 2020