

The Hereford Cattle Society is moving from Micro-Satellite testing to SNP Testing from 1st July 2018



Weatherbys will be phasing out Micro-Satellite testing (MS) over the next 12-18 months and during this period the cost of MS testing will exceed that of SNP testing. Your Council have therefore made the decision to move quickly and introduce SNP testing at the beginning of the next financial year.

The benefits in moving over to SNP testing are highlighted in the table below:

MS v SNPs

18 Microsatellite markers	50,000 SNP Chip (IDBv3)	Benefits
Parentage Verification	Parentage Verification	Pedigree Registration Correct Genomic evaluation
Limited parent search (dam required)	Parent Discovery (sire discovery without dam)	Pedigree Registration Correct Genomic evaluation
	Genes of economic interest	Myostatin –e.g. save vet bills-difficult calving
	Genetic Diseases	Managed Breeding - (e.g. Genetic Defect Traits)
	Genomic Evaluations	Early decisions on replacements/animals for sale-Herd improvement
	Breed Composition	Market Quality assurance
	Traceability	Food integrity (Farm to Fork)

How does this change affect Members and what do you need to do?

Costings:

As you will note in the section on fees included in this Newsletter, there are some significant changes in DNA costings, including some considerable savings. Unlike MS testing, SNPs offers the option of testing for the three genetic defects separately. Your Council have agreed that only hypotrichosis will be mandatory at a cost of £10 per animal, with the other two traits being optional. There is also a considerable saving on testing for the Polling gene.

Due to MS and SNP testing being incompatible, there will be a significant cost/investment by your Society (*not to the Membership directly*) in transitioning from one testing method to another. To make this transition smooth and as cost effective as possible, it would help the administration to know which Hereford sires breeders will be using to register progeny over the next 12-18 months. Can you please email through the names of the sires you intend to use to Tracey tracey.thomas@herefordcattle.org who will collate and send them to Weatherbys for processing.

Finally, there will be no future batch discounts as breeder sample sizes are too low and so are not conducive to Weatherbys workstreams.

IMPORTANT - Sampling

Instructions for Hair Sample Collection from Cattle for DNA Extraction



Quality samples are the key to getting good DNA from your cattle. Weatherbys will continue to accept hair samples but have highlighted that ear tissue samples have a higher success rate. At present the failure rates for samples are as follows: 5%-8% for hair samples and 1% to 1.5% for ear notch samples.

A quality sample of hair is taken from the tail and has the follicle, or root, still attached to the hair. Tail hair is preferable to coat hair due to the size of the root ball that is extracted from the tail versus the coat. The sample must NOT be excessively dirty and must contain 40-60 hair follicles.

Gather 40-60 hairs and grasp them tightly as close to the skin as possible with hands or pliers. As an animal gets older the hairs become harder to remove so the use of pliers often aids in removal. Pull the hair slowly and firmly away from the tail making sure to get the roots.

Taking a good sample for Parentage Verification and Genetic Defects testing will save you time and money – additional charges will be incurred if Weatherbys are unable to successfully achieve a result due to the submitted hair samples not carrying sufficient roots/follicles, or being contaminated.

It is therefore extremely important that you ensure that the samples collected are carefully plucked with sufficient roots/follicles attached and are not cut.

It is also important to ensure that the samples are in no way contaminated or cross contaminated with any hairs of a different animal.

Finally, another area where care should be taken is when an animal is shedding its hair. Such hair does not normally include live roots/follicles, so again, please ensure plucked hairs carry enough roots/follicles needed to complete the test successfully.