

Recording Docility Scores in Australian Herefords

One question I am asked by Hereford breeders is “Given Herefords are such a quiet breed, why should I measure docility?” While Herefords have a justifiable reputation for being a quiet breed of cattle, variation for temperament in Herefords does exist, just as there is variation for other traits within the breed. The percentile bands for the 2014 Hereford calving drop show a Top Value for Docility EBV of +19, while the lowest one percent value for Docility EBV was -20 – this is a spread of 39%.

In the last six months I had the opportunity to visit a number of Hereford stud herds across Australia. The variation in temperament of Herefords and use of docility EBVs was raised in a number of discussions. While these breeders agreed that the majority of their calves were of quiet temperament, they also spoke of having the occasional calf or calves in each calving drop that were not quiet. One Hereford breeder told me he had culled all of the calves by a particular sire due to poor temperament. These discussions highlighted that there is considerable variation in temperament due to genetics within the Hereford breed.

Understanding which sires and dams are likely to produce a majority of calves with a desirable temperament, and those which are not, allows producers to make more informed selection decisions. While assessing the temperament of an individual animal allows you to gauge how quiet the animal is, Docility EBVs allows you to assess how quiet the progeny of the animal are likely to be. This is particularly useful when using AI sires, where you may not have the opportunity to observe the animal yourself, or when buying animals from sales, where the level of handling each animal has had prior to the sale may vary. What Does The Docility EBV Mean? Docility EBVs are estimates of genetic differences between animals in temperament. Docility EBVs are expressed as differences in the percentage of progeny that will be scored with acceptable temperament.

Higher, more positive, Docility EBVs are more favourable. For example, a bull with a Docility EBV of +5 would be expected to produce 7.5% more progeny with unacceptable temperament than a bull with an Docility EBV of +20.

How Do I Record Docility Scores?

Docility EBVs are calculated from docility scores recorded on calves when they are between 60 and 400 days of age. The recommended time of scoring is at weaning or shortly afterwards. The advantage of scoring at weaning is that all calves should have had similar treatment so variation in handling prior to scoring should be minimised.

Animals can be scored for temperament using either a yard or crush test.

Crush Test

This is the most common test as calves can be scored during routine jobs such as weighing. The

calves are individually held in the crush or weigh scales for about 30 seconds. Do not record docility scores after doing other animal husbandry tasks (e.g. castration or vaccination).

1	Docile	Mild disposition, gentle and easily handled, stands and moves slowly during handling, undisturbed, settled, somewhat dull, exists crush calmly.
2	Restless	Quiet but slightly restless, may be stubborn during handling, may try to back out of crush, some flicking of tail, exits crush promptly.
3	Nervous	Manageable but nervous and impatient, and tail flicking. Does not settle in the crush and exits briskly.
4	Flighty	Jumpy and out of control, Tries to climb out of the crush. May jump when penned individually, exhibits long flight distance and exits crush wildly.
5	Aggressive	May be similar to score 4 but with added aggressive behaviour, fearful, extreme agitation, and may exhibit attack behaviour when handled alone.

Yard Test

Where calves do not exhibit sufficient variation in behaviour in the crush test a yard test can be used. The calves are individually put into a small square yard and the handler should attempt to hold the animal in one corner for about 30 seconds.

The animals are scored on a scale of 1 to 5, as described below. Half scores can also be used.

Score	Code	Description
1	Docile	The animal is easily held in the corner and the handler can get close enough to put their stick on the animal.
2	Restless	Manageable but nervous and impatient, and tail flicking. Does not settle in the crush and exits briskly.
3	Nervous	The animal is not easily held in the corner even when the handler is some distance back from the animal. Continual movement and tail flicking.
4	Flighty	Flighty The animal cannot be held in the corner, frantically runs the fenceline and may jump when penned individually, exhibits long flight distance.
5	Aggressive	Aggressive Similar behaviour to Score 4 but is also aggressive towards the handler, stares at the handler and threatens to charge or charges (handler is advised to exit the yard before the animal actually charges).

When recording docility scores:

- There needs to be some variation in the scores for them to be used effectively by the BREEDPLAN analysis. That is, scoring all animals in a group with a docility score of 1 will not identify any genetic differences in docility so the scores are not used in the analysis.
- BREEDPLAN can accept half scores if animals exhibit behaviour which is intermediate to the above scores.
- Animals should be assigned a different “temperament management group” if they have had a different level of handling prior to scoring.
- The method of scoring used should be specified when submitting the docility scores.
- When recording docility scores, it is important that they are scored under consistent conditions and the same person scores all animals that are being assessed in the herd on that particular day.

Submitting Docility Scores

Docility scores should be submitted directly to the BREEDPLAN office at ABRI.

For further information on recording docility scores or on interpreting Docility EBVS, please contact Catriona Millen, SBTS Technical Officer, on (02) 6773 3357 or via email catriona@sbts.une.edu.au.