

Using Australian Hereford Selection Indexes



Selection indexes assist beef producers to make selection decisions that take into account the relevant growth, carcass, fertility and efficiency attributes of each animal to identify candidates whose progeny will be the most profitable for a particular commercial enterprise.

Selection indexes provide an overall indication of an animal's genetic value for profit in a specific production system/target market and are calculated based on weightings placed on individual traits that are deemed to be important for that production system.

The weightings are calculated using [BreedObject](#) software that analyses all sources of costs and income for the production system represented by each selection index. As such, selection indexes account for both sides of the profit equation and reflect the short and long term profit possible through selection of superior genetics. For example, short term profit can be generated by a bull through the sale of his progeny, and the longer term profit generated by his daughters in a self-replacing cow herd.

Best Practice Guide to Animal Selection Using Australian Hereford Selection Indexes

Incorporating selection index information into breeding decisions takes the hard work out of trying to decide how much emphasis you need to put on individual EBVs when determining which animals you want to retain in your herd or purchase. The recommended strategy for selecting animals is to complete the following steps:

1. Identify the selection index of most relevance to your or your client's breeding objectives. This decision should be aided by the index descriptions at the end of this document.
2. Rank animals on the chosen selection index. This can be done via the web search facility available for the breed.
3. Consider the individual BREEDPLAN EBVs of importance. All breed level selection indexes are designed for the average of the production system specified in their description. This means that individual farm environments and management choices may require that their own thresholds are applied. For example, if looking for a bull to use over heifers, particular attention should be paid to Calving Ease and Birth Weight EBVs.
4. Consider other traits of importance. Structure, fertility (e.g. BULLCHECK™), temperament, genetic conditions and pedigree are all important additional considerations.

Further information is available in the [A BREEDPLAN Guide to Animal Selection](#) tip sheet that can be found in the [Help Centre](#) on the BREEDPLAN website.



Available Australian Hereford Selection Indexes

Herefords Australia Ltd. currently reports two different selection indexes. These are the:

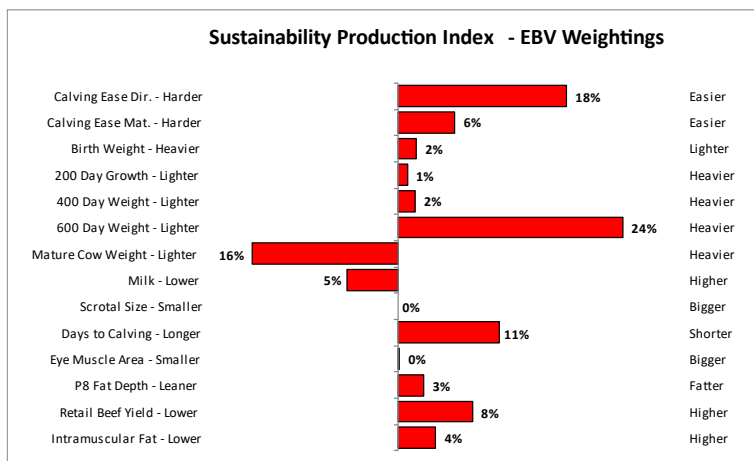
- Sustainability Production Index
- MSA Production Index

These indexes take a balanced approach and apply selection pressure to all trait categories that impact on productivity, quality of product and cost of production. Importantly both indexes have a focus on sustainable beef production which is achieved through improving the efficiency of the production system, as well as improving eating quality. Significant premiums are applied for increasing marble score up to a marble score of 3. Pressure is also applied to early life growth to maintain low ossification scores and good MSA compliance.

In addition, each selection index targets the following specifications.

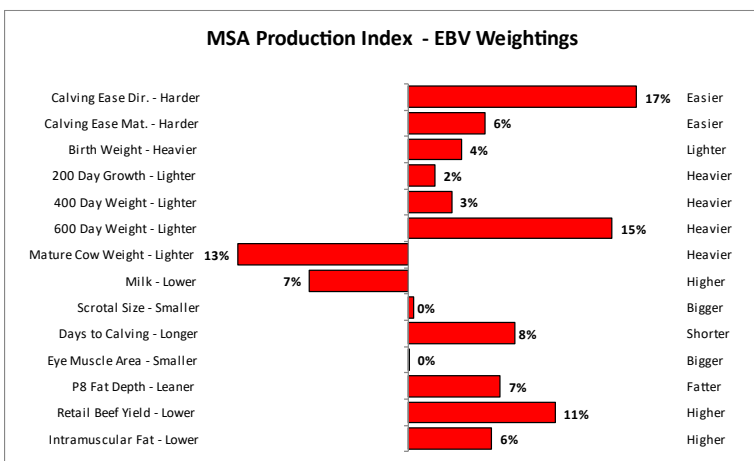
Sustainability Production Index

- Commercial self-replacing Hereford herd targeting the domestic market and with a strong focus on sustainability.
- Selected heifers are retained so maternal traits are important.
- Steers finished on grass.
- Steers target 300 kg carcasses with 10 mm P8 fat depth at 20 months of age.



MSA Production Index

- Commercial self-replacing Hereford herd targeting the domestic market.
- Selected heifers are retained so maternal traits are important.
- Steers grain finished in feedlot and target higher MSA grades.
- Steers target 340 kg carcasses with 12 mm P8 fat depth at 20 months of age.



Further details are available in the [Australian Hereford Selection Indexes: Technical Specifications](#) tip sheet that can be found in the [Help Centre](#) on the BREEDPLAN website.

If you have any further queries regarding the Australian Hereford Selection Indexes, please do not hesitate to contact staff at your BREEDPLAN processing centre.

