



technical brief

Shorthorn Selection Indexes....Key Points

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Selection Indexes take the hard work out of knowing how much emphasis to give to each of the growth, fertility, maternal and carcass EBVs when selecting a commercial herd sire.

They focus on –

- **what drives profit in a commercial herd** – for example
calving ease weaning rate sale weight
yield maintenance cost, marbling (in some
markets)
- **the relative economic importance of those traits to the target market, and**
- **the best weighting for EBVs of those traits to give optimum long-term herd profit**

An index is in fact a multi-trait EBV that estimates the combined value of an animal's traits to your chosen market goal - reflecting differences in the earning capacity of a sire, per cow joined, in a self-replacing commercial herd.

Indexes are reported as an EBV, in units of relative earning capacity (\$'s) for a given market.

They reflect both the short-term profit generated by a sire through the sale of his progeny, and the longer term profit generated by his daughters in a sustainable cow herd.

Essential compromises between traits, such as the flow-on effects of selection for increased growth rate on birth-weight and cow maintenance are accounted for when indexes are calculated.

Animals can be compared using selection index values in the same manner as comparing them using EBVs for single traits.

Remember - Indexes (and EBVs) don't estimate the **level** of performance of individual animals, rather they estimate the **difference** in performance between

individuals, and you expect to get half of each parents difference reflected in the progeny.

After the initial screening based on indexes, you can fine tune your selection for individual traits within the bounds of acceptable performance for your herd, for example, the maximum birth weight EBV you are prepared to accept.

Where sufficient trait information is available, Shorthorn selection indexes are reported for four market categories of sale progeny –

Domestic Supermarket index

Domestic Restaurant index

Export maternal index

Shorthorn SB3 Carcase index

For more information on Shorthorn indexes, see Understanding Shorthorn Selection Indexes on the Shorthorn Beef website.