

Australian Charolais Selection Indexes

There are three standard selection indexes calculated for Australian Charolais animals. These are:

- ❑ Domestic Index (Dom)
- ❑ Export Index (Exp)
- ❑ Northern Terminal Index (N Term)

Each selection index has been developed for a different production/market scenario

Domestic Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd with a British cow base (e.g. Angus) targeting grass-finished production for the domestic trade. This Index assumes pasture grown & finished steers weighing 430 kg (240 kg HSCW and 6 mm P8 fat depth) at 12 months. Daughters are retained or sold for breeding therefore maternal traits are of importance. In response to industry feedback positive emphasis has been placed on finishing ability.

Export Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd with a British cow base (e.g. Angus) targeting the production of steers for export markets. This Index assumes pasture grown & finished steers weighing 700 kg (380 kg HSCW and 9 mm P8 fat depth) at 29 months. Daughters are retained or sold for breeding therefore maternal traits are of importance. In response to industry feedback positive emphasis has been placed on finishing ability.

Northern Terminal Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd in Northern Australia (i.e. Brahman cows) targeting the production of grass finished steers for the Jap Ox market. Steers are sold direct to slaughter at 630 kg (345 kg HSCW and 5 mm P8 fat depth) at 28 months. All progeny are slaughtered. In response to industry feedback positive emphasis has been placed on finishing ability.

All selection indexes are reported as an EBV, in units of net profit per cow mated (\$) for a given production/market scenario. 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 self replacing cow herd (where applicable).

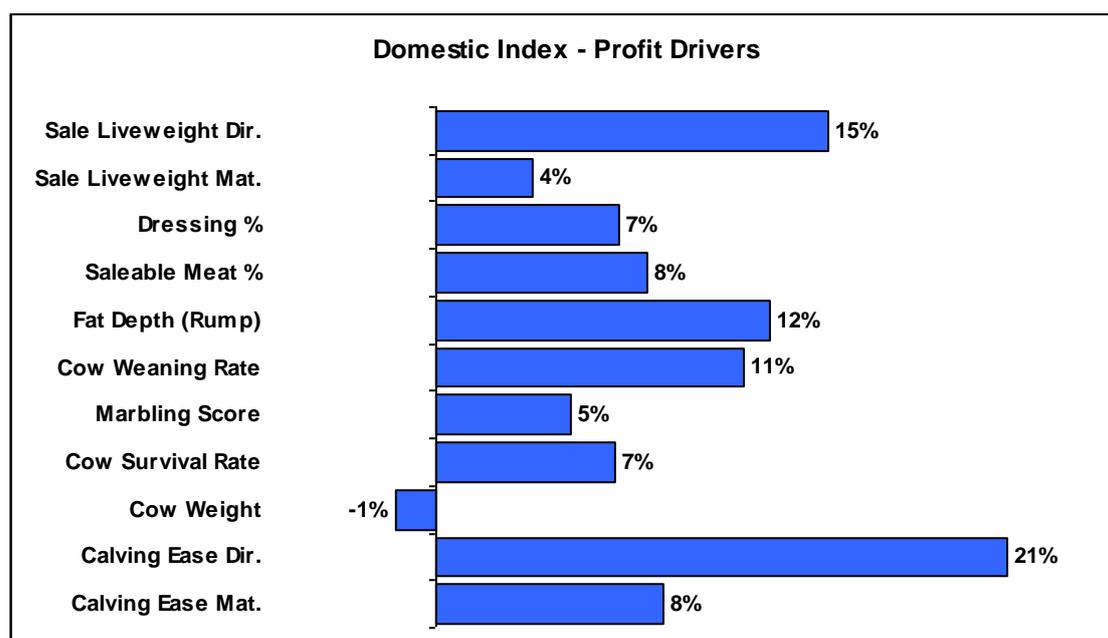
All selection index values have been derived using BreedObject technology. More detailed information regarding each selection index is provided on the following pages.

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

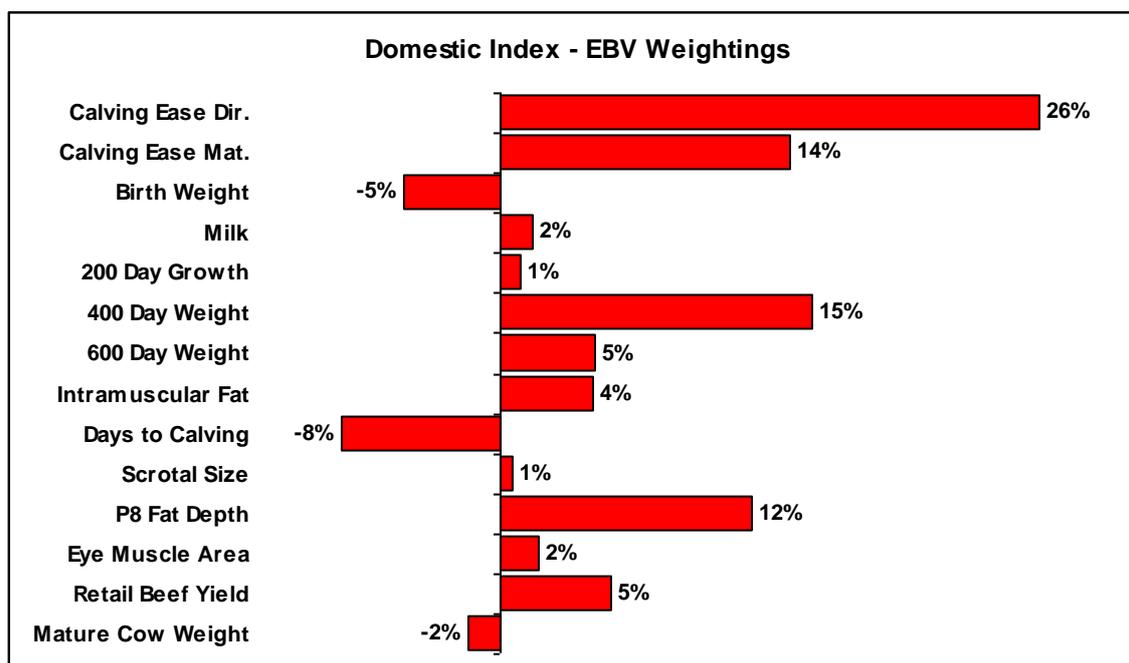
Charolais Domestic Index

Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd with a British cow base (e.g. Angus) targeting grass-finished production for the domestic trade. This Index assumes pasture grown & finished steers weighing 430 kg (240 kg HSCW and 6 mm P8 fat depth) at 12 months. Daughters are retained or sold for breeding therefore maternal traits are of importance. In response to industry feedback positive emphasis has been placed on finishing ability.

The following bar graph shows the key economic traits that are important in this selection index. The different trait emphases reflect the underlying profit drivers in a commercial operation targeting the domestic trade.

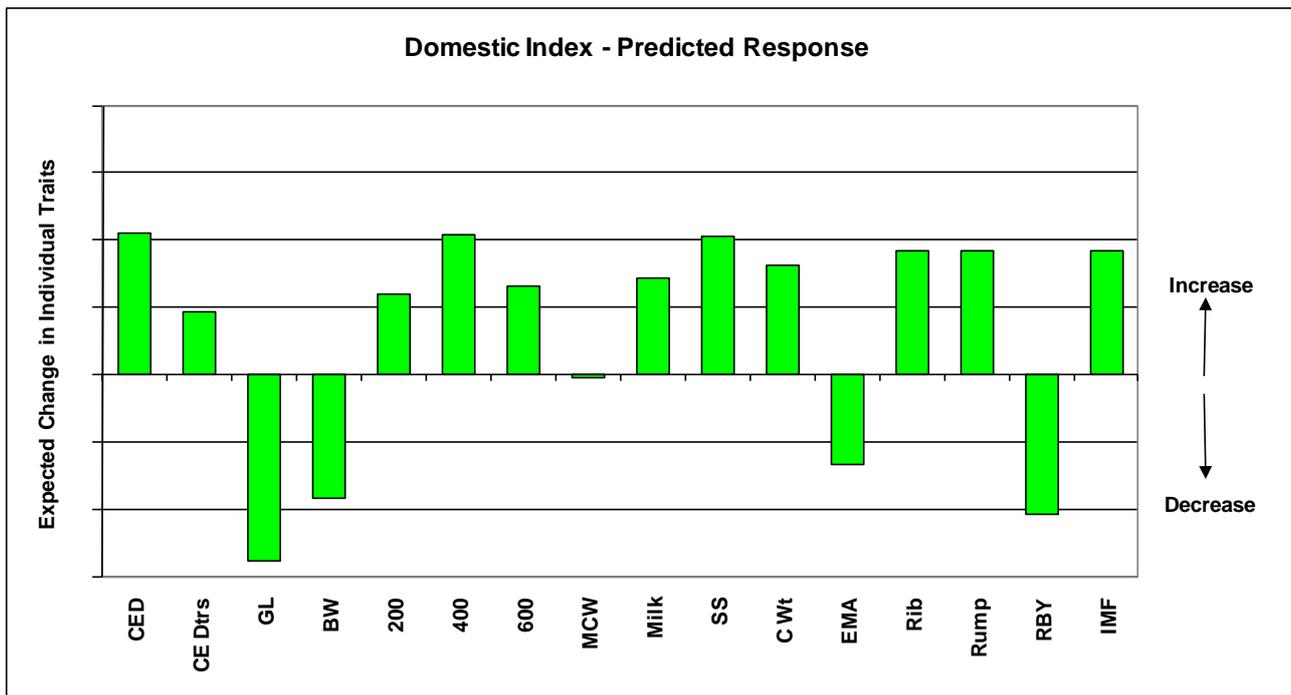


Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis. For example, greater 600 Day Weight EBVs and shorter Days to Calving EBVs are favoured.



While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Domestic Selection Index, they do not illustrate the likely change that will occur to each individual trait if producers select animals using this selection index. The response to selection will also be influenced by such factors as the genetic relationship between traits and the animals that are available for selection. For example, while there is a slight weighting on 200 Day Weight in this selection index, it would be expected that growth to 200 days would increase considerably as there is a large weighting on 400 Day Weight.

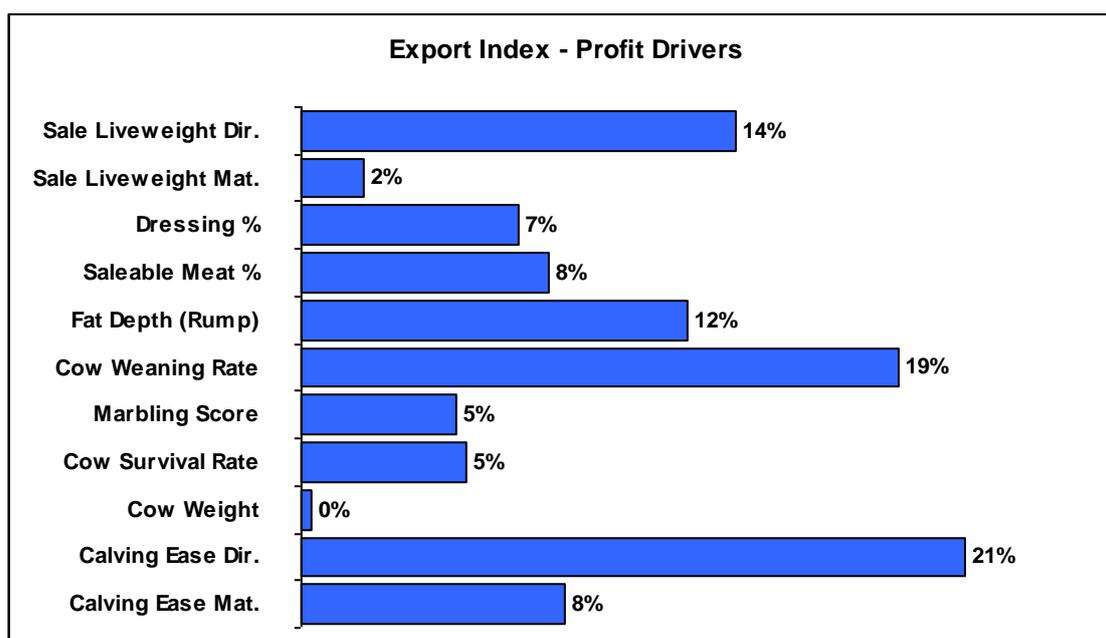
The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Domestic Selection Index. The graph reflects the relative change if the Charolais Published Sires (at the February 2011 Charolais GROUP BREEDPLAN analysis) were ranked on this selection index and the Top 10% selected for use within a breeding program. The response to selection may differ if a different group of animals were available for selection.



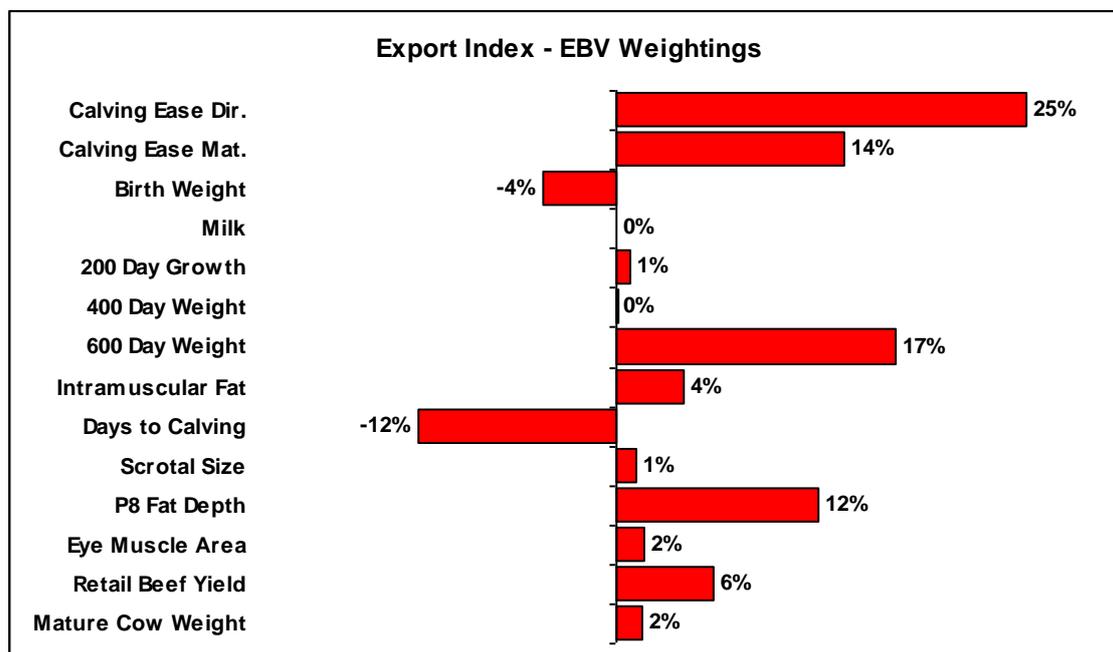
Charolais Export Index

Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd with a British cow base (e.g. Angus) targeting the production of steers for export markets. This Index assumes pasture grown & finished steers weighing 700 kg (380 kg HSCW and 9 mm P8 fat depth) at 29 months. Daughters are retained or sold for breeding therefore maternal traits are of importance. In response to industry feedback positive emphasis has been placed on finishing ability.

The following bar graph shows the key economic traits that are important in this selection index. The different trait emphases reflect the underlying profit drivers in a commercial operation targeting the export trade.

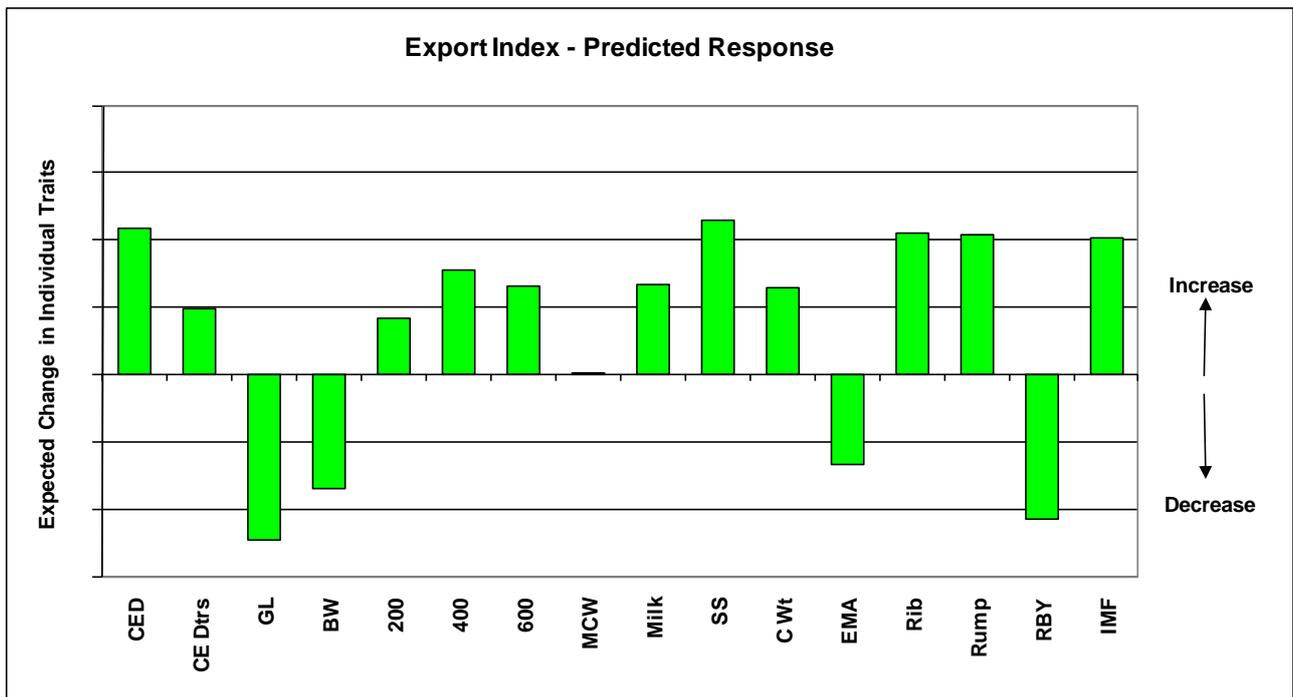


Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis. For example, greater 600 Day Weight EBVs and shorter Days to Calving EBVs are favoured.



While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Export Selection Index, they do not illustrate the likely change that will occur to each individual trait if producers select animals using this selection index. The response to selection will also be influenced by such factors as the genetic relationship between traits and the animals that are available for selection. For example, while there is a slight weighting on 200 Day Weight in this selection index, it would be expected that growth to 200 days would increase considerably as there is a large weighting on 600 Day Weight.

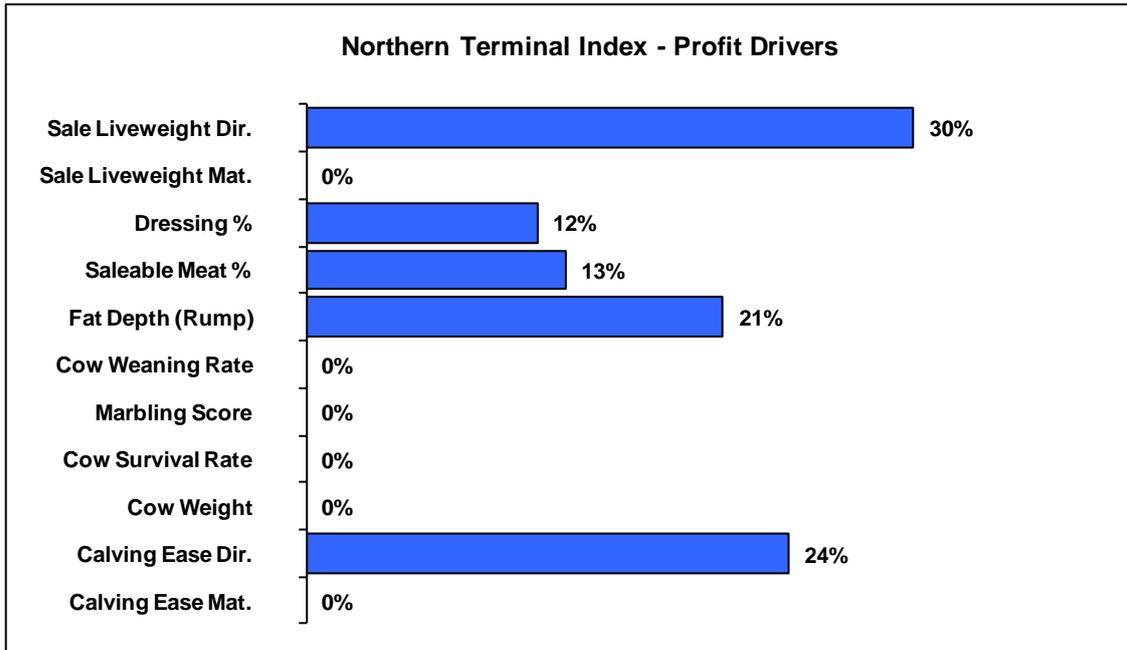
The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Export Selection Index. The graph reflects the relative change if the Charolais Published Sires (at the February 2011 Charolais GROUP BREEDPLAN analysis) were ranked on this selection index and the Top 10% selected for use within a breeding program. The response to selection may differ if a different group of animals were available for selection.



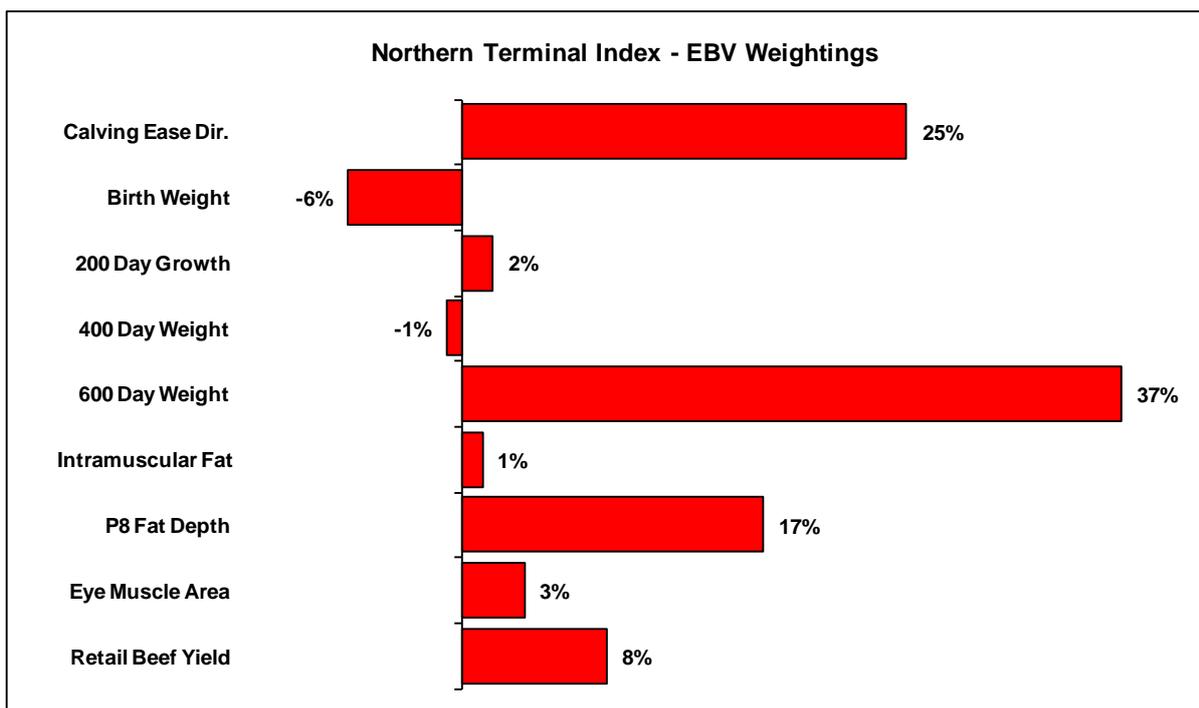
Charolais Northern Terminal Index

The Charolais Northern Terminal Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd in Northern Australia (i.e. Brahman cows) targeting the production of grass finished steers for the Jap Ox market. Steers are sold direct to slaughter at 630 kg (345 kg HSCW and 5 mm P8 fat depth) at 28 months. All progeny are slaughtered. In response to industry feedback positive emphasis has been placed on finishing ability.

The following bar graph shows the key economic traits that are important in this selection index. The different trait emphases reflect the underlying profit drivers in a commercial operation targeting the live export trade, where all progeny are assumed to be for slaughter.



Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis.



While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Northern Terminal Selection Index, they do not illustrate the likely change that will occur to each individual trait if producers select animals using this selection index. The response to selection will also be influenced by such factors as the genetic relationship between traits and the animals that are available for selection. For example, while there is a slight weighting on 200 Day Weight in this selection index, it would be expected that growth to 200 days would increase considerably as there is a large weighting on 600 Day Weight.

The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Northern Terminal Selection Index. The graph reflects the relative change if the Charolais Published Sires (at the February 2011 Charolais GROUP BREEDPLAN analysis) were ranked on this selection index and the Top 10% selected for use within a breeding program. The response to selection may differ if a different group of animals were available for selection.

