

## ***Australian Brangus Selection Indexes***

There are two different selection indexes calculated for Australian Brangus animals. These are:

- ❑ Domestic Steer Index
- ❑ Export Steer Index

Each selection index describes a different production/market scenario and relates to a typical, self replacing Brangus herd targeting the following specifications.

**Domestic Steer Index** - Estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial herd (run in a temperate environment) producing steers for the domestic trade. This index assumes that steer progeny are pasture grown to feedlot entry then feedlot finished for a short (75 day) feeding period before being marketed at 490 kg live weight (265 kg HSCW and 10 mm P8 fat depth) at 15 months of age. Daughters are retained for breeding.

**Export Steer Index** - Estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial herd (run in a tropical environment) producing steers for the export trade. This index assumes that the steer progeny are pasture grown and finished before being marketed at 620 kg live weight (325 kg HSCW and 16 mm P8 fat depth) at 30 months of age. Daughters are retained for breeding.

All selection indexes are reported as an EBV, in units of relative earning capacity (\$) 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.

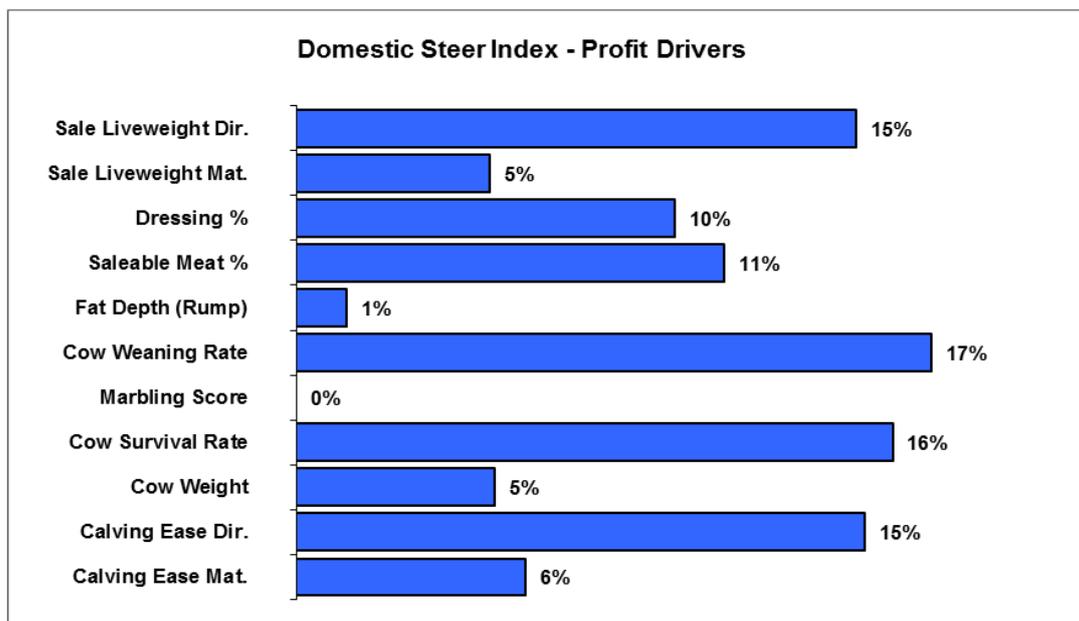
All selection index values have been derived using BreedObject technology. More detailed information regarding each selection index is provided on the following pages. Further information is also available in the Tip Sheet titled “Selection Indexes – A General Introduction”.

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

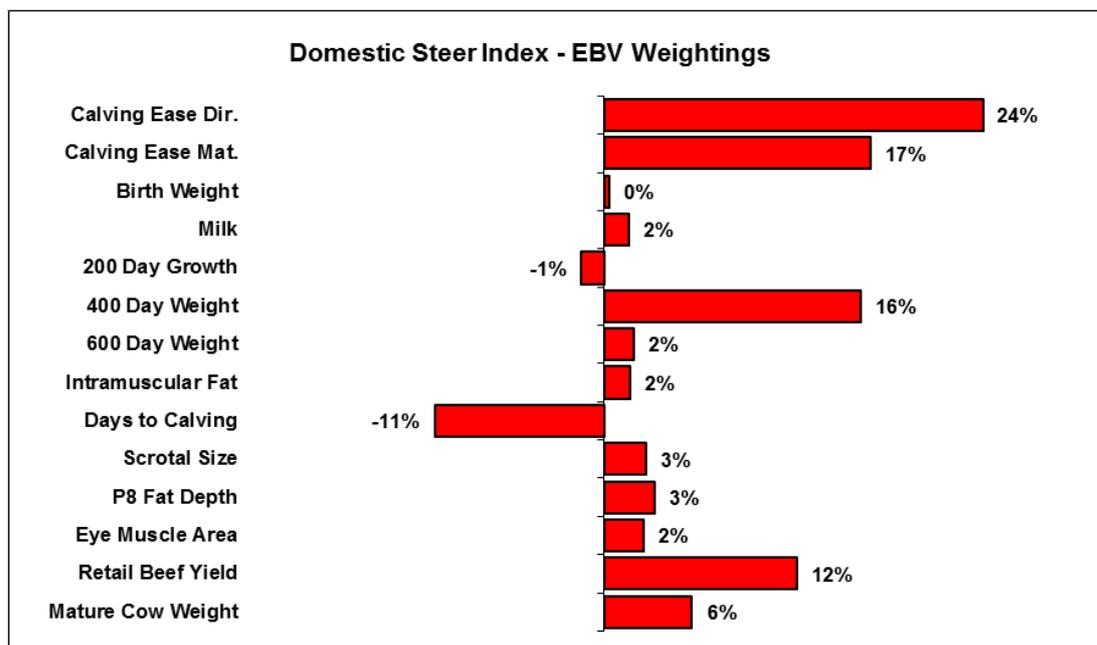
## ***Brangus Domestic Steer Index***

The Brangus Domestic Steer Index estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial herd (run in a temperate environment) producing steers for the domestic trade. This index assumes that steer progeny are pasture grown to feedlot entry then feedlot finished for a short (75 day) feeding period before being marketed at 490 kg live weight (265 kg HSCW and 10 mm P8 fat depth) at 15 months of age. Daughters are retained for breeding.

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 this production system and market.

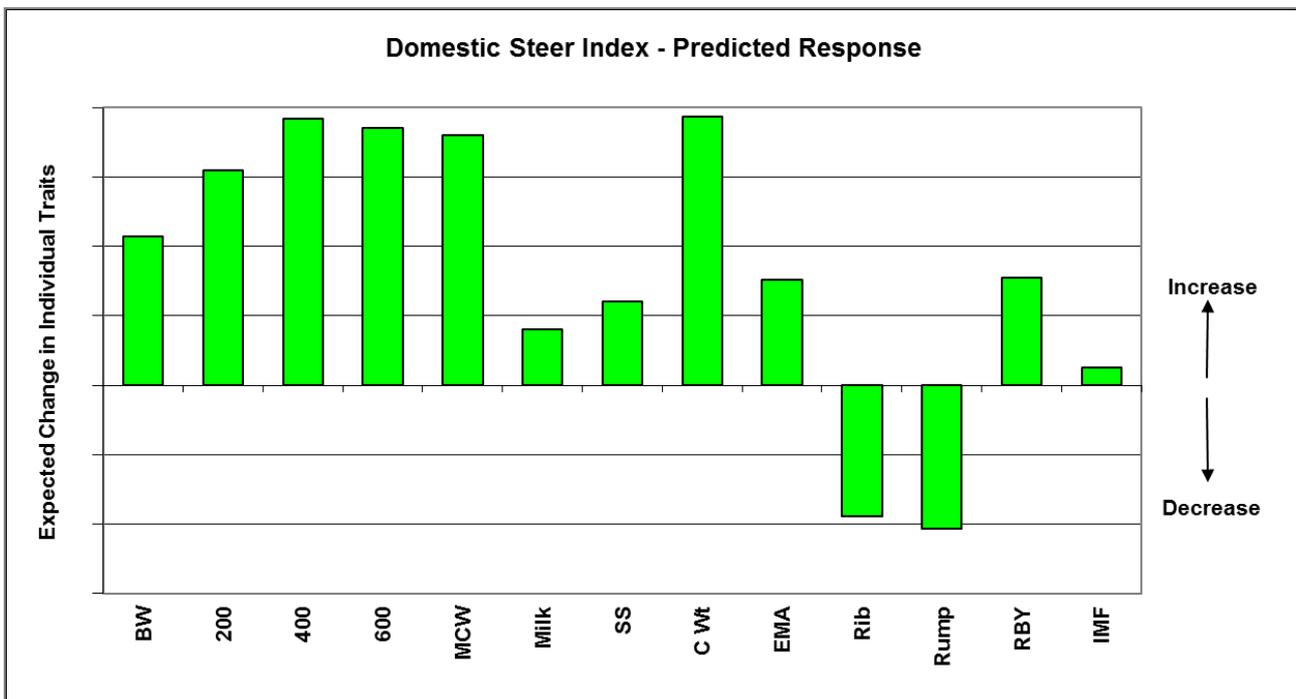


Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis. For example, greater 400-Day Weight EBVs and shorter Days to Calving EBVs are favoured.



While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Domestic Steer 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 only a slight weighting on 600 Day Weight in this selection index, it would be expected that growth to 600 days would increase as there is a large weighting on 400 Day Growth.

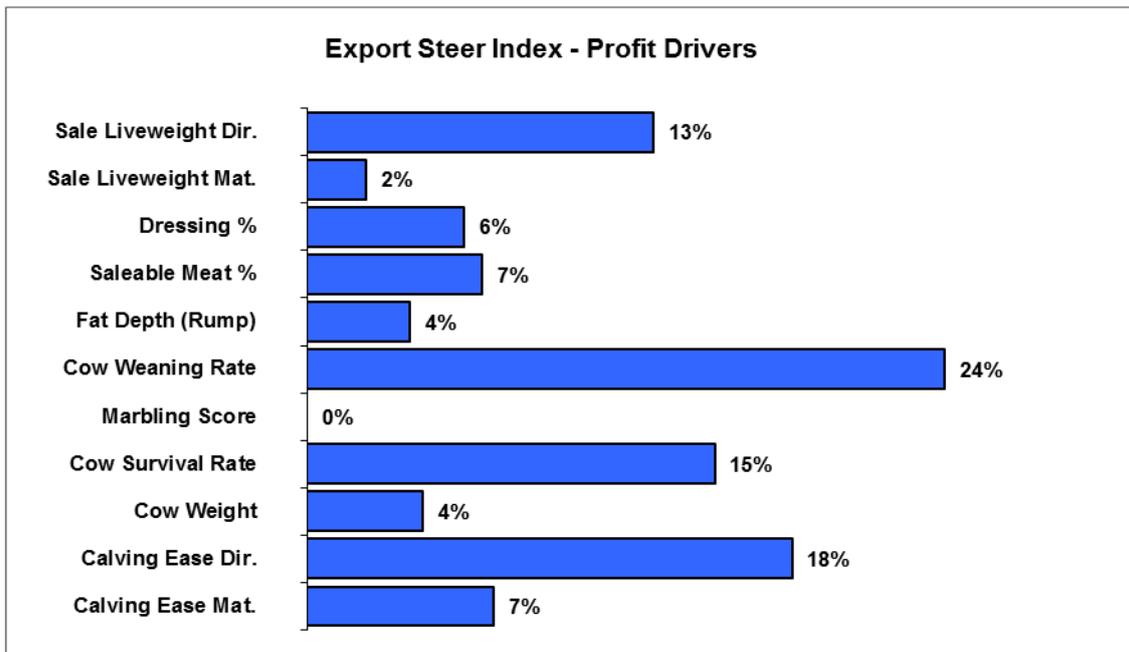
The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Domestic Steer Index. The graph reflects the relative change if a group of over 300 well used Brangus Sires (at the September 2011 Brangus GROUP 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.



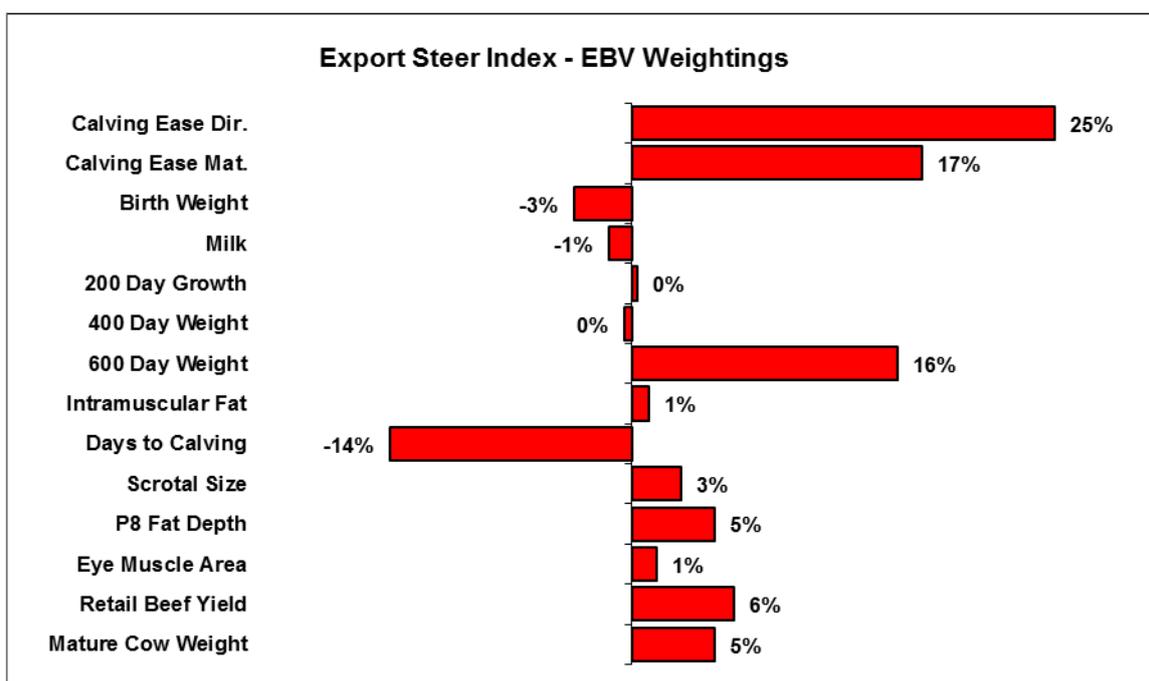
## ***Brangus Export Steer Index***

The Brangus Export Steer Index estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial herd (run in a tropical environment) producing steers for the export trade. This index assumes that the steer progeny are pasture grown and finished before being marketed at 620 kg live weight (325 kg HSCW and 16 mm P8 fat depth) at 30 months of age. Daughters are retained for breeding.

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 this production system and market.



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 Steer 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 no direct weighting on 400 Day Weight in this selection index, it would be expected that growth to 400 days would increase as there is a large weighting on 600 Day Growth.

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 Steer Index. The graph reflects the relative change if a group of over 300 well used Brangus Sires (at the September 2011 Brangus 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.

