

New Zealand Simmental Selection Indexes

There are currently two different selection indexes calculated for New Zealand Simmental animals. These are:

- ❑ Maternal Index
- ❑ Terminal Index

Each selection index describes a different production/market scenario and relates to a typical commercial herd in New Zealand that is targeting the following specifications.

Maternal Index - Estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial cross bred herd using Simmental bulls over British breed females where some females are retained for breeding and surplus females, along with all males, are slaughtered. Steers are assumed marketed at 540 kg live weight (300 kg carcass weight and 10 mm fat depth) at 16 months of age. In response to industry feedback, positive emphasis has been placed on calving ease and finishing ability. As some daughters are retained, maternal traits are also of importance.

Terminal Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial cross bred herd using Simmental bulls over either British breed or dairy cross females where all progeny are slaughtered. Steers are assumed marketed at 540 kg live weight (300 kg carcass weight and 10 mm fat depth) at 16 months of age.

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 (where applicable).

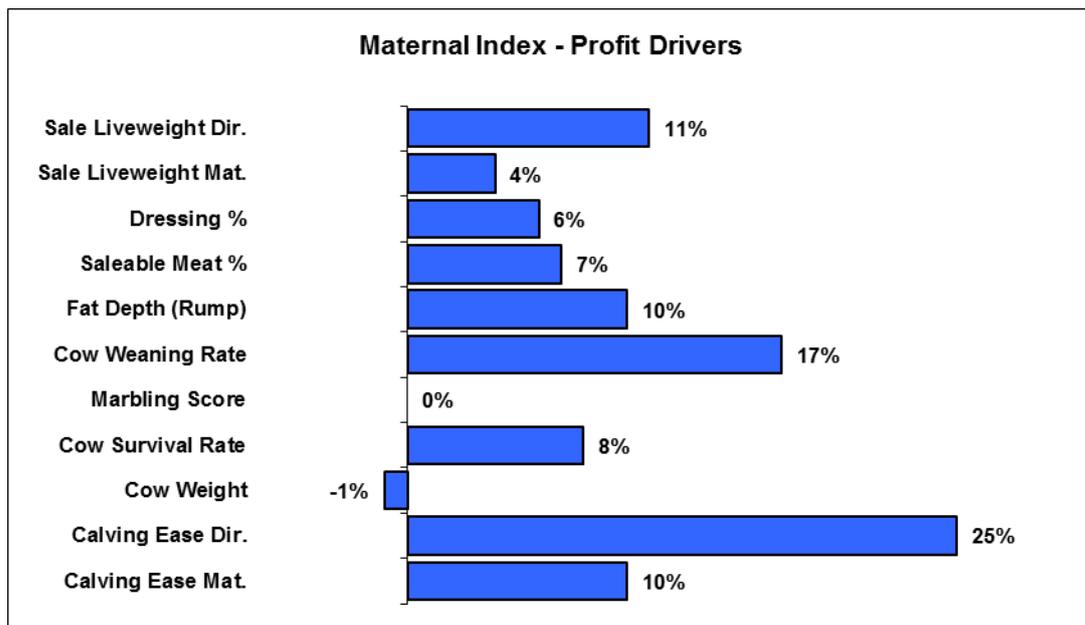
All selection index values have been derived using BreedObject technology. More detailed information regarding each selection index is provided on the following pages.

If you have any further queries regarding New Zealand Simmental Selection Indexes, please do not hesitate to contact staff at the Simmental Cattle Breeders Society of New Zealand.

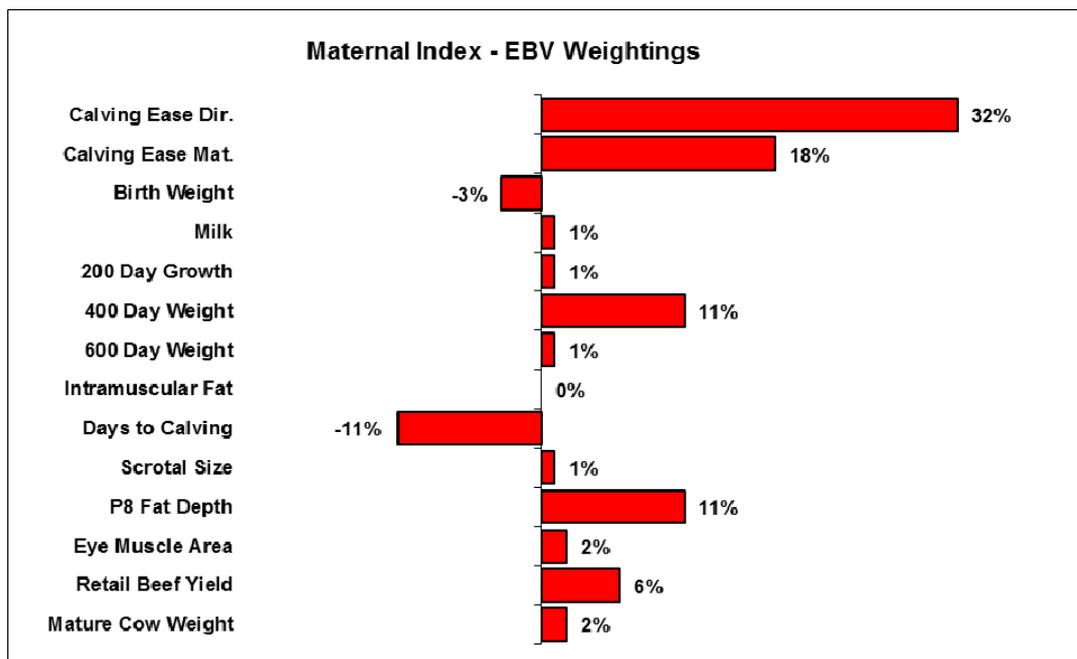
Simmental Maternal Index

The Simmental Maternal Index estimates the genetic differences between animals in net profitability per cow joined for an example self replacing commercial cross bred herd using Simmental bulls over British breed females where some females are retained for breeding and surplus females, along with all males, are slaughtered. Steers are assumed marketed at 540 kg live weight (300 kg carcass weight and 10 mm fat depth) at 16 months of age. In response to industry feedback, positive emphasis has been placed on calving ease and finishing ability. As some daughters are retained, maternal traits are also of importance.

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 self replacing commercial operation.

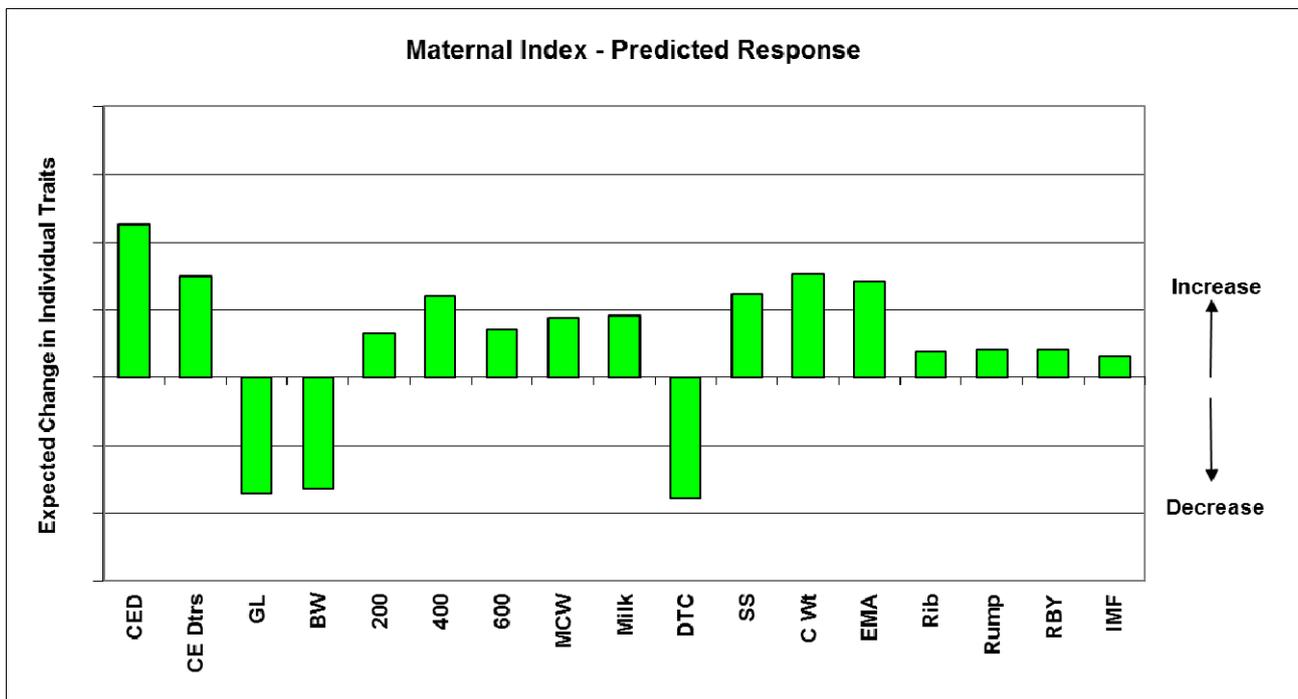


Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis. For example, greater 400 Day Weight EBVs and shorter Days to Calving EBVs are favoured.



While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Maternal 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 slight weighting on 200 Day Weight in this selection index, it would be expected that growth to 200 days would increase as there is a large weighting on 400 Day Weight.

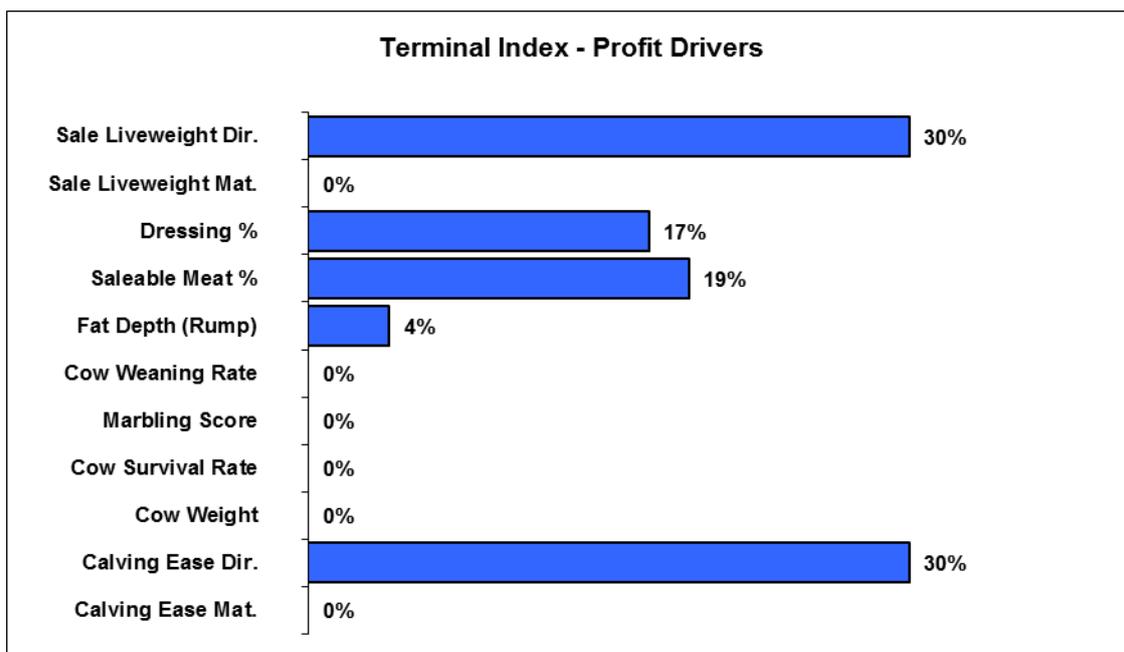
The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Maternal Selection Index. The graph reflects the relative change if the Simmental Published Sires (at the October 2011 Simmental Trans-Tasman GROUP 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.



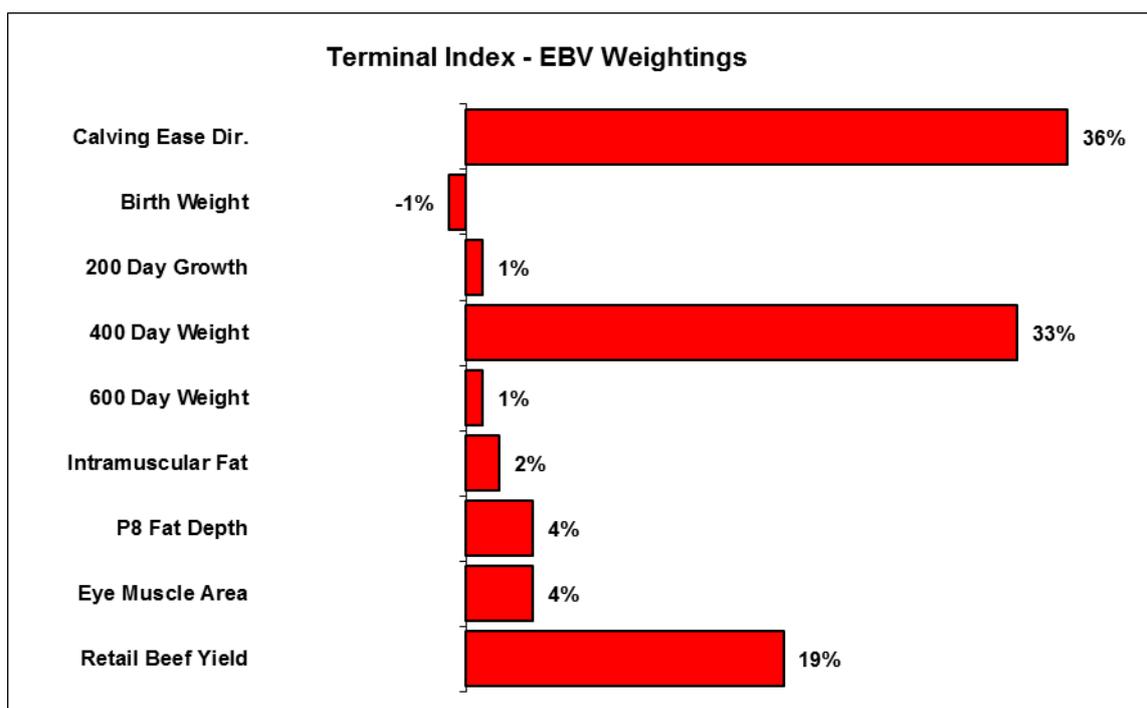
Simmental Terminal Index

The Simmental Terminal Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial cross bred herd using Simmental bulls over either British breed or dairy cross females where all progeny are slaughtered. Steers are assumed marketed at 540 kg live weight (300 kg carcass weight and 10 mm fat depth) at 16 months of age.

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 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 Terminal 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 slight weighting on 200 Day Weight in this selection index, it would be expected that growth to 200 days would increase 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 Terminal Selection Index. The graph reflects the relative change if the Simmental Published Sires (at the October 2011 Autumn Simmental Trans-Tasman 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.

