BREEDPLAN Tips

New Zealand Angus Selection Indexes

There are currently three different selection indexes calculated for New Zealand Angus animals. These are:

- Self Replacing Index
- Dairy Index
- Angus Pure 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.

Self Replacing Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd (self replacing herd run in a temperate environment) in which some females are retained for breeding and surplus females, along with all males, are slaughtered. Steers are assumed marketed at 525 kg live weight (280 kg carcase weight and 10 mm fat depth) at 16 months of age.

Dairy Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial dairy herd targeting the production of dairy beef progeny from dairy cows and heifers where all progeny are slaughtered. Steers are assumed marketed at 520 kg live weight (280 kg carcase weight and 6 mm fat depth) at 20 months of age. While calving ease is by far the most important profit driver in the Index, growth and to a lesser extent meat yield also contribute.

Angus Pure Index - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd (self replacing herd run in a temperate environment) in which some females are retained for breeding and surplus females, along with all males, are slaughtered. Steers are assumed marketed at 565 kg live weight (300 kg carcase weight and 10 mm fat depth) at 20 months of age with a significant premium paid for marbling.

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.

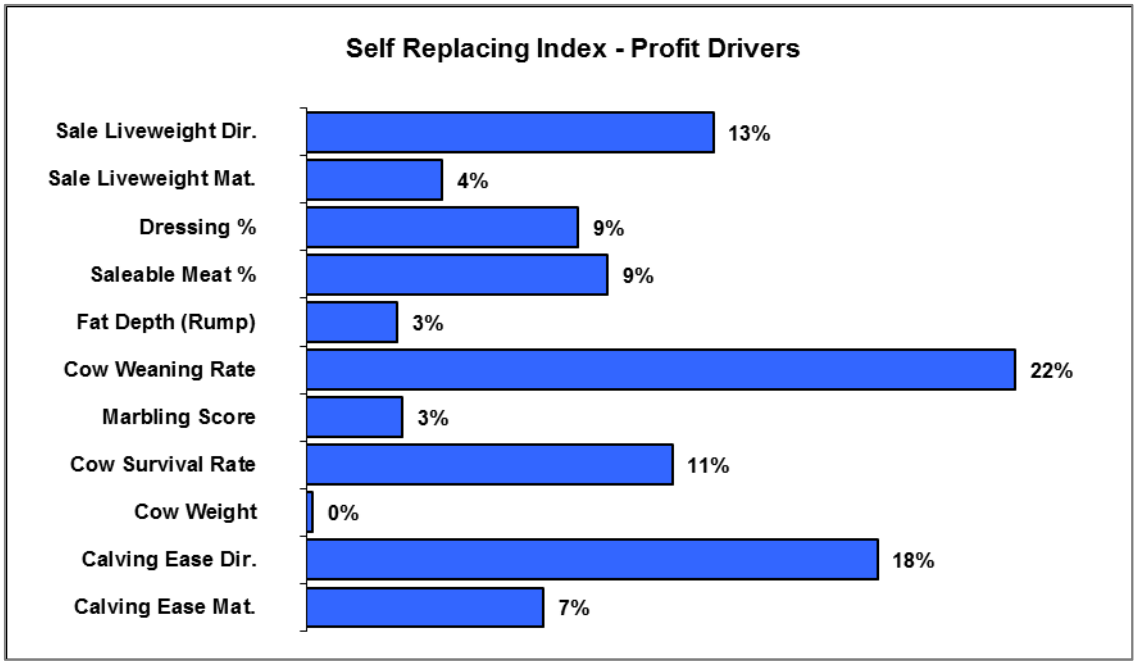
If you have any further queries regarding New Zealand Angus Selection Indexes, please do not hesitate to contact staff at the New Zealand Angus Association.

INTERNATIONAL BEEF RECORDING SCHEME BREEDPLAN

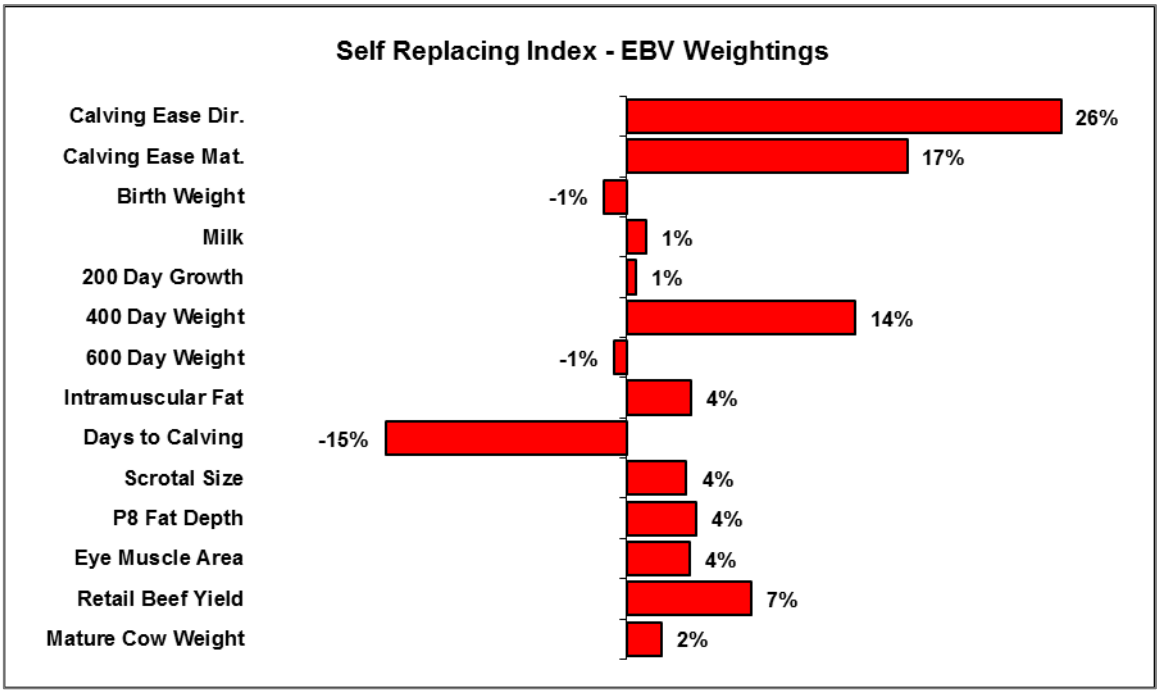
Angus Self Replacing Index

The Angus Self Replacing Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd (self replacing herd run in a temperate environment) in which some females are retained for breeding and surplus females, along with all males, are slaughtered. Steers are assumed marketed at 525 kg live weight (280 kg carcase 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 typical self replacing commercial operation.



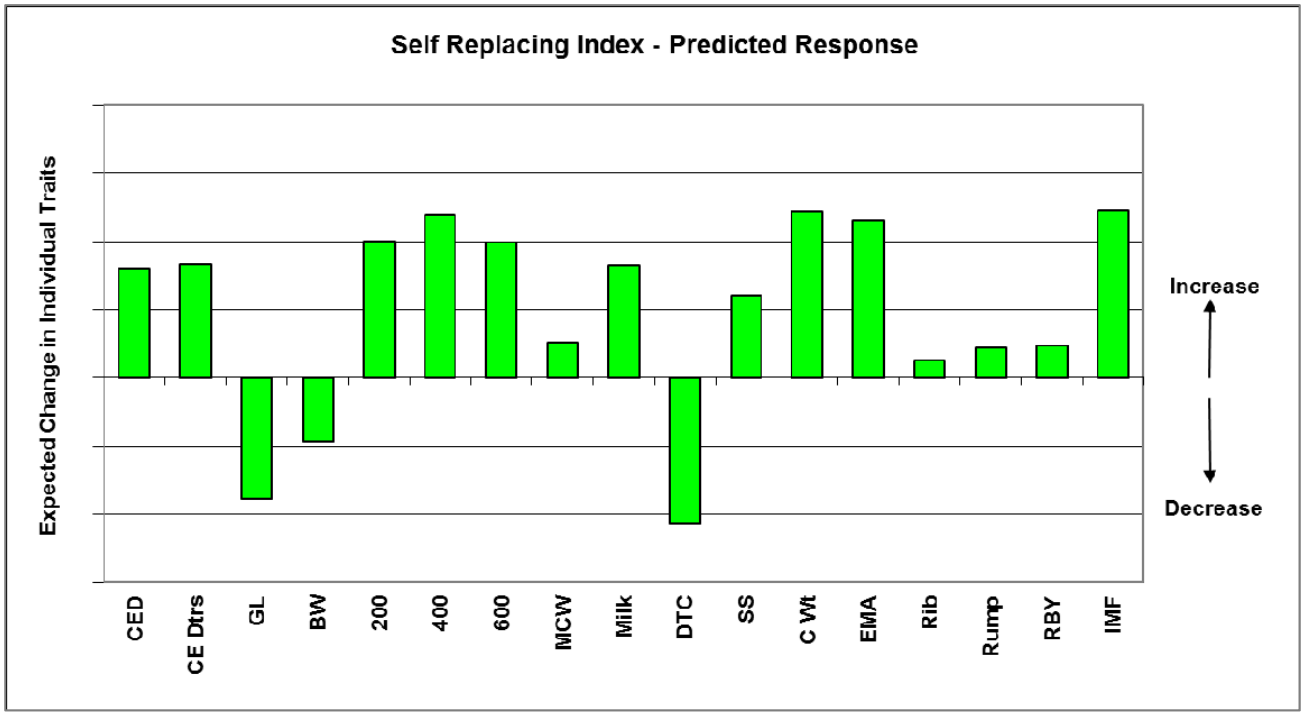
Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis. For example, greater 400 Day Weight EBVs and shorter Days to Calving EBVs are favoured.



November 2011

While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Self Replacing 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 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.

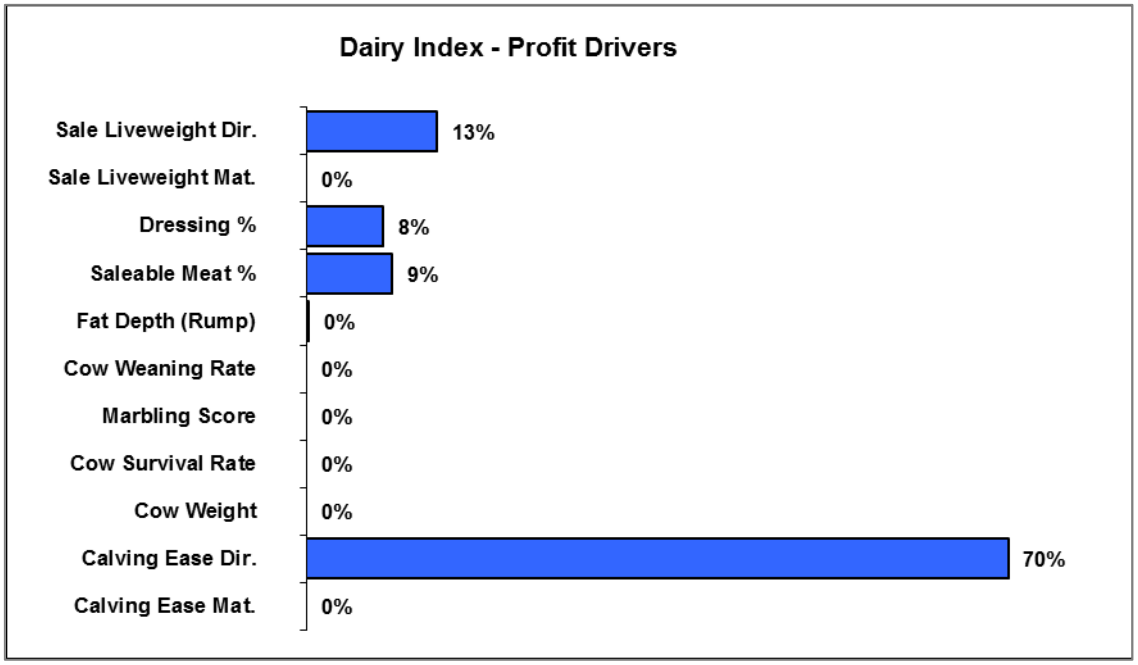
The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Self Replacing Selection Index. The graph reflects the relative change if the Angus Published Sires (at the October 2011 Australasian Angus GROUP 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.



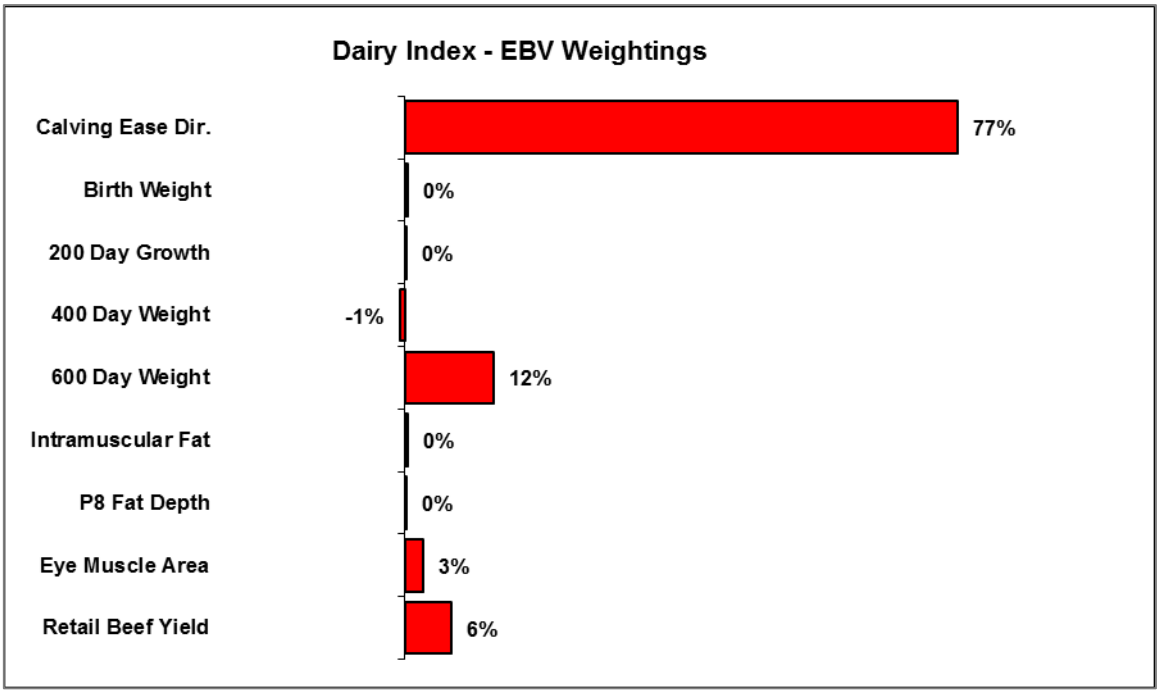
Angus Dairy Index

The Angus Dairy Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial dairy herd targeting the production of dairy beef progeny from dairy cows and heifers where all progeny are slaughtered. Steers are assumed marketed at 520 kg live weight (280 kg carcase weight and 6 mm fat depth) at 20 months of age. While calving ease is by far the most important profit driver in the Index, growth and to a lesser extent meat yield also contribute

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 production of dairy beef progeny.



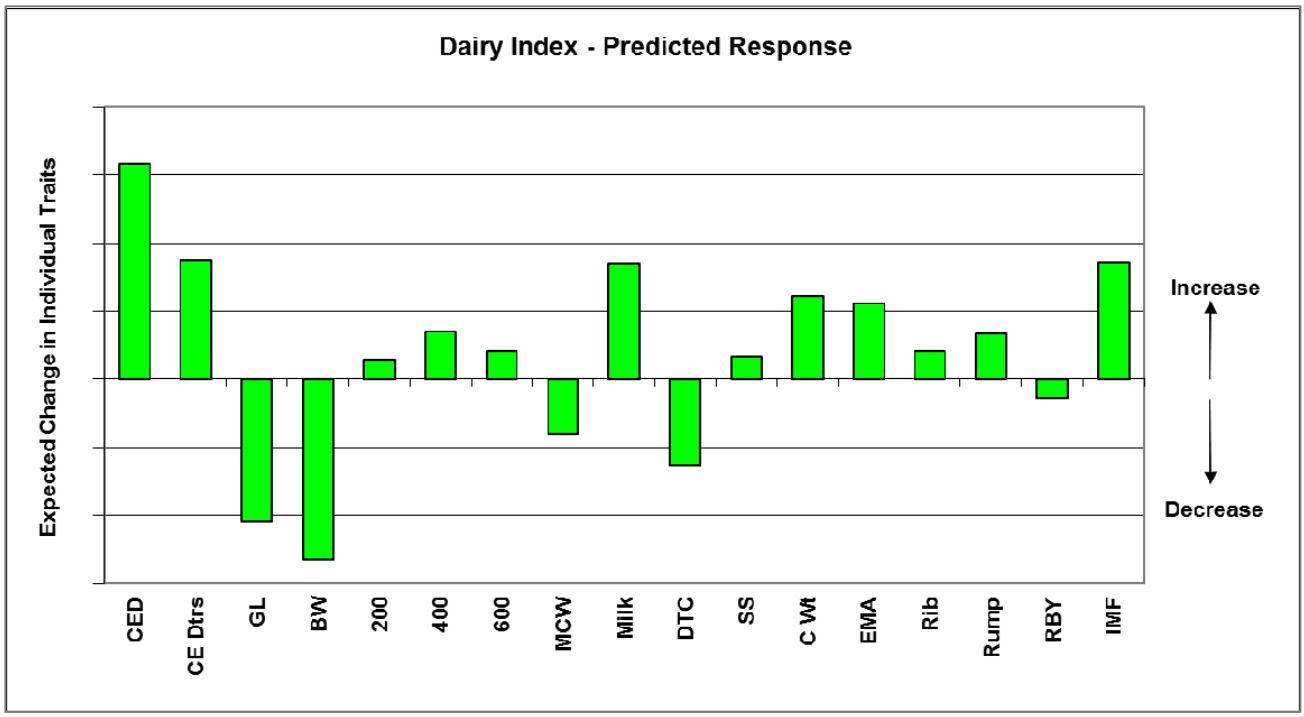
Considering the genetic relationship between the key profit drivers and the EBVs that are available, this transposes to the following EBV emphases. The sign indicates the direction of the emphasis.



November 2011

While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Dairy 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.

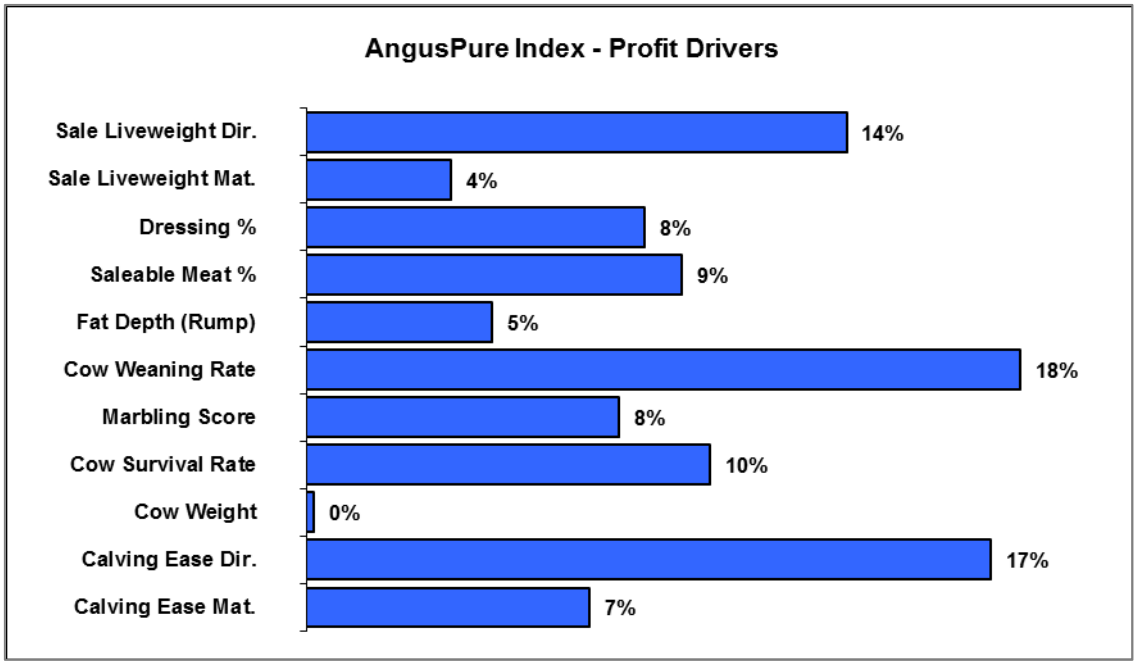
The following bar graph provides an indication of the relative change that would be expected in each individual trait if producers select animals using the Dairy Selection Index. The graph reflects the relative change if the Angus Published Sires (at the October 2011 Australasian Angus GROUP BREEDPLAN 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.



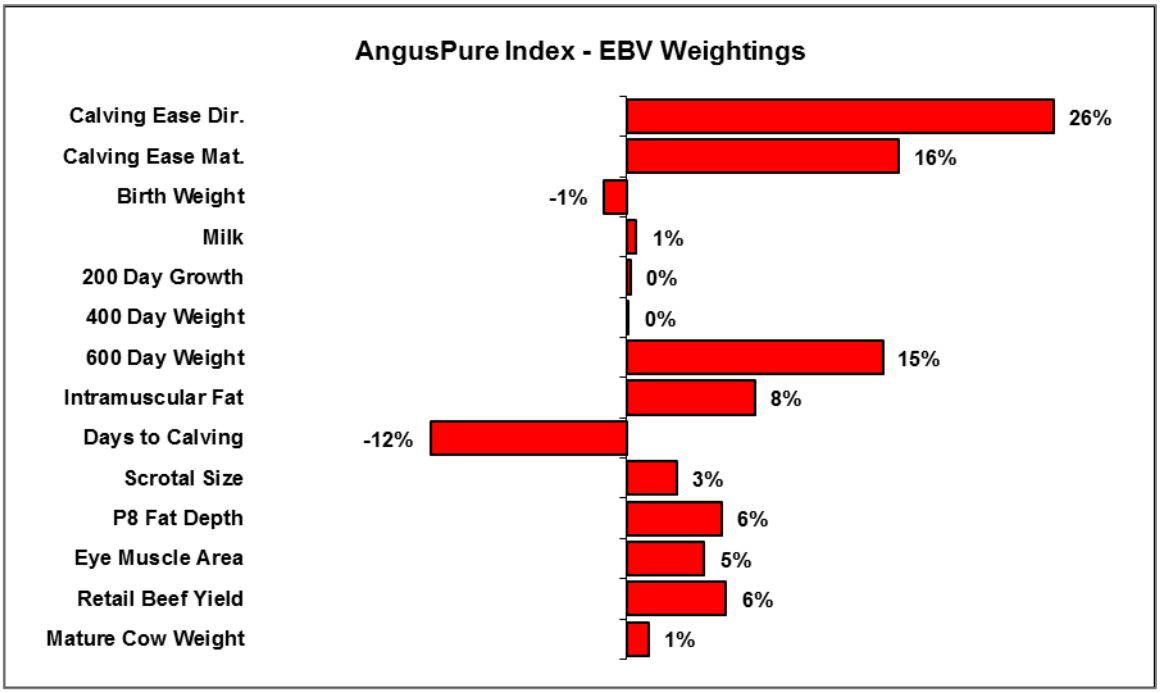
AngusPure Index

The AngusPure Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd (self replacing herd run in a temperate environment) in which some females are retained for breeding and surplus females, along with all males, are slaughtered. Steers are assumed marketed at 565 kg live weight (300 kg carcase weight and 10 mm fat depth) at 20 months of age with a significant premium paid for marbling.

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 AngusPure program.



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.



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While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the AngusPure 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 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 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 AngusPure Selection Index. The graph reflects the relative change if the Angus Published Sires (at the October 2011 Australasian Angus 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.