**Australian Red Angus Selection Indexes**

There are currently three different selection indexes calculated by the Red Angus Society of Australia. These are:

- Supermarket Index (SUP)
- Vealer Index (VLR)
- Northern Steer Index (NTH)

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

**Supermarket Index (SUP)** - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting the domestic supermarket trade. Steers are either finished on grass or grain (e.g. 70 days). Steers are marketed at 450 kg live weight (250 kg HSCW and 12 mm P8 fat depth) at 15 months of age. Daughters are retained for breeding. In response to industry feedback regarding eating quality and tenderness, a small premium has been placed on marbling.

**Vealer Index (VLR)** - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting vealer production. Vealers are finished on grass and are marketed at 320 kg live weight (180 kg HSCW and 4 mm P8 fat depth) at 9 months of age. Daughters are retained for breeding. No marbling is required.

**Northern Steer Index (NTH)** - Estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd in Northern Australia with Bos Indicus cows targeting grass finished steers for export. Steers are marketed at 600 kg live weight (330 kg HSCW and 10 mm P8 fat depth) at 27 months of age. Daughters are retained for breeding. In response to industry feedback regarding eating quality and tenderness, a small premium has been placed on 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.

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 Red Angus Selection Indexes, please do not hesitate to contact staff at your BREDPLAN processing centre.*
Red Angus Supermarket Index

The Red Angus Supermarket Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting the domestic supermarket trade. Steers are either finished on grass or grain (e.g. 70 days). Steers are marketed at 450 kg live weight (250 kg HSCW and 12 mm P8 fat depth) at 15 months of age. Daughters are retained for breeding. In response to industry feedback regarding eating quality and tenderness, a small premium has been placed on 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 domestic supermarket 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 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 Supermarket 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 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 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 Supermarket Selection Index. The graph reflects the relative change if the Red Angus Published Sires (at the March 2011 Red 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.
**Red Angus Vealer Index**

The Red Angus Vealer Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd targeting vealer production. Vealers are finished on grass and are marketed at 320 kg live weight (180 kg HSCW and 4 mm P8 fat depth) at 9 months of age. Daughters are retained for breeding. No marbling is required.

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 vealers.

![Vealer Index - Profit Drivers](image)

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 200 Day Growth EBVs and shorter Days to Calving EBVs are favoured.

![Vealer Index - EBV Weightings](image)
While the graphs on the previous page show the different profit drivers and emphases that have been placed on each EBV within the Vealer 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 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 200 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 Vealer Selection Index. The graph reflects the relative change if the Red Angus Published Sires (at the March 2011 Red 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.
Red Angus Northern Steer Index

The Red Angus Northern Steer Index estimates the genetic differences between animals in net profitability per cow joined for an example commercial herd in Northern Australia with Bos Indicus cows targeting grass finished steers for export. Steers are marketed at 600 kg live weight (330 kg HSCW and 10 mm P8 fat depth) at 27 months of age. Daughters are retained for breeding. In response to industry feedback regarding eating quality and tenderness, a small premium has been placed on 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 production of crossbred steers.

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 Northern 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 a slight 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 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 Steer Selection Index. The graph reflects the relative change if the Red Angus Published Sires (at the March 2011 Red 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.