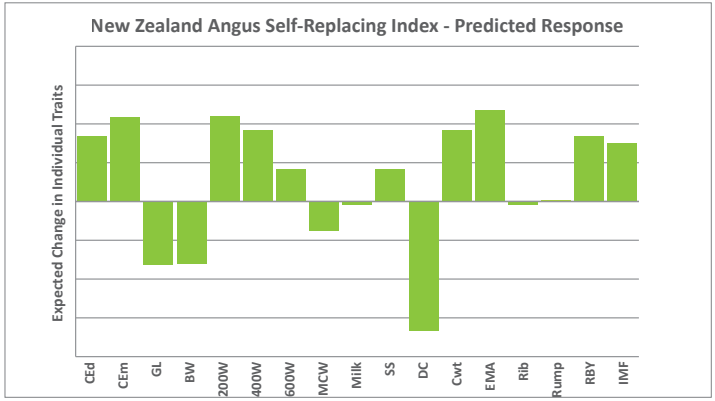
INDEX DESCRIPTIONS

The following three graphs reflects the relative change if the New Zealand Angus Published Sires (at the Mid-August 2020 TransTasman Angus Cattle Evaluation) were ranked on this selection index and the top 10% were used within a breeding program. Given that the Published Sires are the sires of the next generation(s) of New Zealand Angus cattle and have more highly accurate EBVs (due to having progeny) than the average animal in the database, these graphs represent the approximate selection response one would expect to see in the breed from using this index.

Self Replacing Index (SRI)



Above the 0 line (X axis) selects for more positive numbers and below the line selects for more negative numbers. For some traits (e.g. growth), a positive response is desirable and for others (e.g. days to calving), a negative response is desirable.

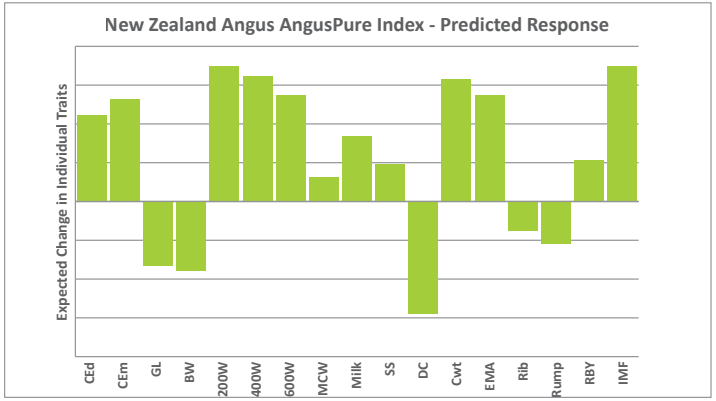
Genetic Selection of bulls using only the SRI tool will on average over time develop a cow herd with the following:

- Improved weaning rate through increased fertility and easier calving
- A slowly decreasing cow size, milk and slowly increasing body condition
- Progeny will be prime at a younger age for slaughter

These characteristics are ideal for an environment where the herd is exposed to prolonged seasonal feed deficits and feeding supplement is unlikely.

Checking individual EBV's relevant to your herd is advised.

Angus Pure Index (API)



Above the 0 line (X axis) selects for more positive numbers and below the line selects for more negative numbers. For some traits (e.g. growth), a positive response is desirable and for others (e.g. days to calving), a negative response is desirable.

Genetic Selection of bulls using only the API tool will on average over time develop a cow herd with the following:

- Improved weaning rate through increased fertility and easier calving
- A slowly increasing cow weight/size, and milk production
- Progeny will be prime at heavy carcase weights where the improved marbling and subsequent eating quality traits can be expressed.

These characteristics are ideal for an environment where the cow herd can be managed with extra feed if seasonal feed deficits occur.

Checking individual EBVs relevant to your herd is advised.

Comparison of SRI and API

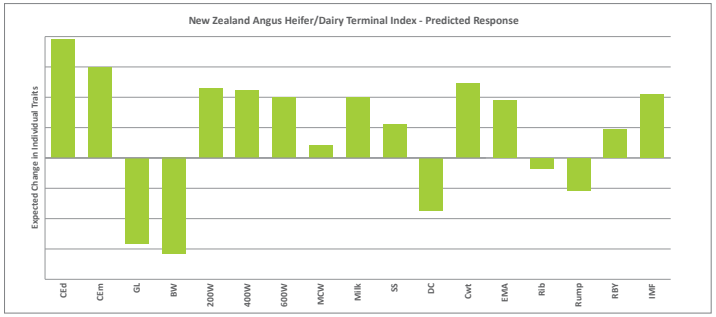
SRI is a maternal trait emphasised index. **API** is also a maternal driven index with added carcase trait emphasis.

API selected animals can produce more net profit per animal through extra performance when feed is abundant. Finished progeny can be taken to heavier weights with increased likelihood of achieving marbling premiums.

SRI selected animals can produce more net profit per animal through extra performance in environments where the cow herd is likely to be challenged by regular seasonal feed deficits, maintaining body condition is critical to longevity and feeding out is not a viable option.

Checking individual bull EBVs to make sure the index and the EBVs match your expectations are advised.
Using the flow chart may help you with your decisions.

HDT Index (heifer/dairy terminal)



Above the 0 line (X axis) selects for more positive numbers and below the line selects for more negative numbers. For some traits (e.g. growth), a positive response is desirable and for others (e.g. days to calving), a negative response is desirable.

This index is primarily driven by getting live calves on the ground, and producing an early maturing prime animal with added carcase traits for improved carcase yield and marbling with no direct selection for maternal traits.

NB. It is important point to be aware that while no emphasis has been placed on some traits, for example maternal traits in the HDT, they still may be selected for indirectly through positive or negative correlations with other traits, as is the case with Days to Calving in the HDT.