Some observations about the state of the Angus gene pool.

Eye Muscle Area

There are 1108 Active, Published Sires recorded in New Zealand Breedplan Angus sires.

- The breed average for Eye Muscle Area (EMA) is +3.9 as at December 2013
- The number of active published sires which have an EMA EBV of between +6 and +12 is 140 animals.
- The number of active published sires that have an EMA greater than +4 is 336.
- The number of active published sires that have an EMA less than +3.9 is 776 – I cannot account for the discrepancy – these are numbers that the search gave me.

Therefore it is safe to assume that the average EBV for EMA for Active Published Sires is influenced by the 140 animals that have an EMA greater than +6. No effort has been made to calculate the number of registered animals which are directly influenced by these 140 bulls. Of those 140 Active Published sires their genetic make up is thus:

- 59 animals trace their lineage directly back to GAR Precision 1680 (usually via CA Future Direction 5321 but not in every case) and VDAR New Trend 315 (usually via B/R New Design 036) – for the animals with EMA EBV's closer to +12 these two animals often appear multiple times. GAR Precision 1680 and B/R New Design 036 carry between them the three lethal genetic defects.
- 29 animals trace their lineage directly to VDAR New Trend 315 – again multiple appearances in the animals with the larger EMA EBV.
- 9 animals trace their lineage directly to 1680 – as with VDAR NT 315 the more times 1680 appears the larger the EBV for EMA.
- 17 animals trace their lineage to QAS Traveller – these links are a little further away due to the age of QAS Traveller but he too appears multiple times in some pedigrees.
- 23 animals trace their lineage to QAS Traveller, VDAR New Trend 315 and GAR Precision 1680.
- 1 animal which was reported as an Active Published sire was disregarded as he had only 1 progeny recorded – another bull which did not have any progeny recorded.
- 1 animal was Pono Of Kawatira whom we drew to ABRI and the Association's attention in our letter of 2012 when his 92% accurate EMA EBV changed from +4.3 to +7.6 (93%) accurate between 2008/09 – the expected deviation for this level of accuracy is a maximum of 1.1 – Pono's changed 3.3 with 26 carcase progeny recorded – to date we have not received any advice as to whether this was investigated further or not and was not discussed at our meeting with the Association in 2012.
- 1 animal traced his lineage back to VDAR New Trend and PS High Pockets.

Therefore it is safe to say that of the 140 bulls which would be most likely used in an attempt to achieve above breed average for EMA and therefore Index figures only 20 have no links to three bulls and only 1 (Pono) has no pedigree links to VDAR New Trend 315, GAR Precision 1680 and QAS Traveller –this is an indication of the narrowing of the gene pool within the Australasian Angus herd.

It would be safe to assume based on the above that many other Active, Published Sire bulls ranking at the breed average of +3.9 to +6 for EMA will also have one, two or all three of the bulls B/R New Design 036, GAR Precision 1680 or QAS Traveller in their pedigrees also – +6 - +12 seemed like a reasonable range to begin with which why it was selected.

Angus Pure Index
There are 1108 Active, Published Sires recorded in New Zealand Breedplan Angus sires as at December 2013

- The breed average for Angus Pure Index is $104
- The number of active published sires with an Angus Pure Index of $104 or above is 695
- The number of active published sires with an Angus Pure Index of more than $200 is 16
- The number of active published sires with an Angus Pure Index of more than $180 is 45
- The number of active published sires with an Angus Pure Index of more than $160 is 149.
- This was the group surveyed as it was close to the number of Active Published Sires with an EMA of between +6 and +12.
- 48 animals trace their lineage back to GAR Precision 1680 and VDAR New Trend 315
- 29 animals trace their lineage back to VDAR New Trend 315
- 4 animals trace their lineage back to GAR Precision 1680
- 3 animals trace their lineage back to GAR Precision 1680, VDAR New Trend 315 and QAS Traveller
- 25 animals trace their lineage back to QAS Traveller
- 21 animals trace their lineage back to QAS Traveller and VDAR New Trend 315
- 12 animals trace their lineage back to QAS Traveller and GAR Precision 1680
- 1 animal traced their lineage back to AAR New Trend the sire of VDAR New Trend 315
- 1 animal had no relation to any of these pedigrees
- 5 animals were not looked at as they were PRAC recorded and therefore deemed to of little relevance to the registered herd – based on the above it would be safe to assume that most of those animals would have at least one pedigree link to the bulls listed above.

As with EMA those bulls with multiple links to either one, two or all three of these bulls usually had higher valued indexes than those which did not. Breeders wishing to increase their Angus Pure Index would be most likely to use one of these 144 active published sires. N Bar Emulation and Mytty in Focus featured often in those pedigrees with an Angus Pure Index greater than $160 – narrowing the gene pool further. It is probably safe to assume that many animals with API above breed average also have pedigrees which contain these five bulls.