High EBV Bulls Produce a 41kg Advantage

While some beef producers are still unsure if EBVs can describe performance differences between animals, members of the North West Qld Branch of Beef Improvement Association have been left with no doubt in the value of EBVs for bull selection.

Alister McClymont’s property “Wernadinga”, mid way between Normanton and Burketown in the Gulf, hosted a Producer Demonstration Site to field test the value of EBVs.

When the steers were slaughtered at 40 months of age there was a 41kg weight advantage to the steers from high EBV bulls when compared with steers from low EBV sires.

To conduct this trial ten Brahman bulls were selected, based on their 600 Day EBVs. Five bulls were selected with high 600 Day EBVs for comparison with five bulls with low 600 Day EBVs.

It should be noted that the owners of all ten bulls used in the trial had judged their bulls worthy of having semen collected before the PDS team selected them for use in this trial.

To conduct the trial high grade Brahman heifers were randomly allocated to the ten bulls during a six week AI program. After weaning at “Wernadinga” the calves were grown at “Morungle”, Richmond.

At weaning there was little difference in weight between the progeny of the high and low EBV sire groups. However, as the EBV predicted, the calves from the high growth group of bulls continued to out-grow the calves from the low EBV sires.

The progeny of the high growth sire group were on average;

1 kg heavier at weaning  
15 kg heavier at 10 months  
22 kg heavier at 19 months  
23 kg heavier at 23 months  
31 kg heavier at 31 months  
41 kg heavier at 40 months  

The above weights show the progeny of the five high 600 Day EBV sires developed a significant advantage over the progeny of the five low 600 Day EBV sires.

Based on their 600 Day EBVs the five high growth bulls were expected to produce progeny that would, on average, weigh 20kg more at 600 days of age than the progeny from the low growth bulls.

A significant take home message from this trial is the accuracy with which the EBVs predicted the difference in performance. At 19 months of age the calves from the high EBV sires showed a 22kg advantage. The actual average weight difference was very close to that which the EBVs predicted.
At its conclusion the comment of trial host, Alister McClymont was; “As a consequence of the demonstration we now only select bulls for the breeding unit that have EBVs. We are confident that bulls with high EBVs will give better performance progeny than those with lower EBVs. As a result we only buy bulls with high EBVs”.

The “Wernadinga” trial clearly demonstrated the accuracy and value of EBVs as a bull selection tool. This served to reinforce the results of a similar trial run on “Birralee”, Collinsville. The same ten Brahman bulls were used at “Birralee”. At 18 months the progeny of the high EBV bulls were 16kg heavier. By 30 months the advantage had grown to 22kg. The 20kg difference in performance predicted by the EBVs was again within a couple of kilograms of the actual result.