Understanding Weight EBVs

TIP SHEET

Within the Australian commercial beef industry, a major determinant of the price received for an animal is live weight. Consequently, in most economic analyses, positive emphasis on increasing live weight is warranted, with higher live weights leading to higher profitability. All Weight EBVs are expressed in kilograms (kg).

INTERPRETING WEIGHT EBVs

BREEDPLAN currently calculates three Weight EBVs; 200 Day Growth, 400 Day Weight and 600 Day Weight.

These EBVs are the best prediction of the animal's ability to grow to weaning (200 day), yearling (400 day) and later ages (600 day). Therefore, 200 Day Growth EBVs are important to vealer breeders, 400 Day Weight EBVs to yearling breeders and 600 Day Weight EBVs for breeders of heavy steers. These EBVs are closely linked genetically but there is some scope to select for them individually.

BREEDPLAN also calculates a Mature Cow Weight EBV. Further information can be found in the Understanding Mature Cow Weight EBVs tip sheet, available in the Help Centre on the BREEDPLAN website.

200 DAY GROWTH

200 Day Growth EBVs are estimates of the genetic differences between animals in live weight at 200 days of age due to their genetics for growth.

This EBV is a measure of an animal's early growth to weaning. It is an important trait for breeders turning off animals as vealers or weaners. Larger, more positive 200 Day Growth EBVs are generally more favourable. For example, a bull with a 200 Day Growth EBV of +30 kg would be expected to produce heavier calves at 200 days of age (or weaning) compared to a bull with a 200 Day Growth EBV of +10 kg.

400 DAY WEIGHT

400 Day Weight EBVs are estimates of the genetic differences between animals in live weight at 400 days of age. This EBV is important for breeders turning off animals as yearlings. Larger, more positive 400 Day Weight EBVs are generally more favourable. For example, a bull with a 400 Day Weight EBV of +50 kg would be expected to produce heavier calves at 400 days of age than a bull with a 400 Day Weight EBV of +30 kg.

600 DAY WEIGHT

600 Day Weight EBVs are estimates of the genetic differences between animals in live weight at 600 days of age. This EBV is important for breeders targeting the production of animals suited for heavy weight grass or grain fed markets. Larger, more positive 600 Day Weight EBVs are generally more favourable. For example, a bull with a 600 Day Weight EBV of +70 kg would be expected to produce heavier calves at 600 days of age than a bull with a 600 Day Weight EBV of +40 kg.

Of course, it is important to consider that selection on increased growth alone may result in changes to other economically important traits that may indirectly affect profitability. For example, selection for animals with increased growth may result in an increase in birth weights and subsequently more calving difficulty, or alternatively an increase in growth may increase the mature weights of your breeder herd, resulting in higher feed costs.

For more information regarding Weight EBVs, please contact staff at your BREEDPLAN processing centre.