

## **Understanding Mature Cow Weight EBVs**

The weight of mature cows in a commercial beef enterprise has a considerable influence on profitability. In particular, mature cow weight will have a major effect on:

- ❑ Cow Feed Requirements – in general, lighter cows will tend to eat less and consequently have lower feed requirements and be less expensive to maintain.
- ❑ Cull Cow Values – the major determinant in the value of cull cows in a commercial herd will be live weight. Consequently, heavier cows may provide higher returns from the sale of cull cows.

Achieving an appropriate balance is an important consideration for commercial cattle producers.

### **Interpreting Mature Cow Weight EBVs**

Mature Cow Weight EBVs are estimates of the genetic differences between cows in live weight at 5 years of age. Mature Cow Weight EBVs are expressed in kilograms (kg).

Animals with higher, more positive Mature Cow Weight EBVs would be expected to produce progeny with a higher mature weight than animals with lower Mature Cow Weight EBVs.

What level of Mature Cow Weight EBV is optimal will depend on the individual herd and its breeding objective. For example:

- ❑ Breeders looking to decrease the mature weight of their cows may look for lower Mature Cow Weight EBVs.
- ❑ Breeders looking to increase their returns from the sale of cull cows may look for higher Mature Cow Weight EBVs.
- ❑ Breeders looking to maintain the mature size of their breeding cows while maximising the growth of their progeny to say 600 days may look for moderate Mature Cow Weight EBVs.

### **Recording Information for Mature Cow Weight**

Mature Cow Weight EBVs are calculated from the live weight performance of mature cows.

Importantly, BREEDPLAN will only analyse the weight of a mature cow if the cow has a calf with a weight recorded within 2 weeks of when the mature weight was taken and further, the calf was between 80 – 330 days of age when it was weighed.

Therefore, in layman's terms, the mature weight for a cow needs to be recorded at the same time as the 200 day weight is taken for its calf.

Breeders looking to optimise the effectiveness of the mature cow weights that are recorded, should also consider the following:

- ❑ Weights should be recorded to the nearest kilogram.
- ❑ As with all weights, mature cow weight should be recorded using appropriate (and accurate) scales. Do not guess/estimate weight or use measuring tapes to calculate weight. Either weigh the cows using appropriate scales or don't record weights.
- ❑ BREEDPLAN can analyse up to 4 mature weights for each cow. Therefore, all cows with a calf at 200 days should be weighed each year. Do not try to “guess” whether a cow has had 4 weights taken previously – the BREEDPLAN analysis will sort it out for you.
- ❑ For temperate breeds, BREEDPLAN will only analyse a mature cow weight if the cow is older than 2.4 years of age (870 days) at weighing. For tropical breeds, this age is 3.0 years (1090 days).
- ❑ BREEDPLAN will only analyse the mature cow weight performance of a cow if her first valid mature cow weight has been taken before she is 6 years of age (2200 days). If not, then none of her mature weights will be analysed.
- ❑ It is essential that correct management group information is recorded with mature cow weight performance.

Management groups work slightly differently for mature cow weights. If no management group information is defined for a set of mature cow weights, the BREEDPLAN analysis will use the management groups submitted with the 200 day weights of their calves to sub-group the weights of the cows. Therefore, if you have correctly recorded the management group information with the 200 day weight performance for your calves, then you only need to assign a different management group to a cow that has experienced an effect on her weight that is different to that experienced by her calf. For example, if the cow was injured/sick or has been supplementary fed.

If both the mature cow weights and the 200 day weights for their calves are submitted without management group information, the BREEDPLAN analysis will assume all cows and calves have been run under similar management conditions.

- ❑ Optionally, cow condition score can also be submitted with mature cow weight information. Condition scores are not currently included in the BREEDPLAN analysis however they may be used in the future when determining Mature Cow Weight EBVs. If breeders wish to record condition scores, it is important that the standard fat scoring system of 1-6 be used (whole scores only; see below) and that the same person scores all cows in the herd at a particular weighing.

The condition of the cows should be scored using the following criteria:



# BREEDPLAN Tips

Fat Score	Fat Depth	Fat Score Description
1	P8: 0-2 mm 12 <sup>th</sup> Rib: 0-1 mm	Animal is emaciated. Ribs and short ribs are sharp. There is no fat around the tailhead. Hip bones, tailhead and ribs are prominent.
2	P8: 3-6 mm 12 <sup>th</sup> Rib: 2-3 mm	No fat beside tailhead. Short ribs and long ribs are easily distinguished. Spines feel rounded rather than sharp. Hip bone and ribs are hard. Ribs are no longer visually obvious.
3	P8: 7-12 mm 12 <sup>th</sup> Rib: 4-7 mm	Short ribs are prominent, rounded but still easily felt. The ribs are easily felt using firm pressure to distinguish between them. Fat that is easily felt covers either side of the tailhead.
4	P8: 13-22 mm 12 <sup>th</sup> Rib: 8-12 mm	Short ribs cannot be felt. There is some fat cover around the hip bone. Small mounds of fat which are soft to touch are present around the tailhead. Ribs are hard to feel.
5	P8: 23-32 mm 12 <sup>th</sup> Rib: 13-18 mm	Short ribs cannot be felt. Tailhead and hip bones are almost buried in fat. Ribs appear 'wavy' due to fat folds. There is fat in the brisket and udder, and squaring-off in the flank area.
6	P8: >32 mm 12 <sup>th</sup> Rib: >18 mm	Short ribs cannot be seen. Tailhead and hips are completely buried by large 'rounds' of fat. Ribs are 'wavy' due to fat folds. The brisket and udder are heavy. The flank is squared off and has a blocky appearance. The animal's mobility is reduced to a walk.

Mature cow weight information should be submitted directly to the BREEDPLAN office at ABRI.

The main method of submitting mature cow weight information is by completing the BREEDPLAN "mature cow weight" forms. These forms are similar to the normal BREEDPLAN "performance recording forms". "Mature cow weight" forms will be sent out as standard when the 200 day weight forms are sent for your calves or can be requested by contacting staff at BREEDPLAN.

- Alternatively, mature cow weight information can be submitted electronically via either:
- a BREEDPLAN compatible herd recording computer program
  - the performance submission facility offered on some Breed Society/Association websites
  - the BREEDPLAN compatible Microsoft Excel template

*For more information regarding Mature Cow Weight EBVs, please contact staff at BREEDPLAN.*

