

## **Recording Multiple Sire Joinings with BREEDPLAN**

A multiple sire joining is where a group of sires are joined at the same time to a mob of cows rather than just a single bull. The following document outlines the main considerations that breeders should make to ensure they obtain effective EBVs for the progeny of multiple sire joinings.

### **Can BREEDPLAN calculate EBVs for the progeny of multiple sire joinings?**

Yes !! BREEDPLAN has the ability to calculate EBVs for the progeny of multiple sire joinings where the individual sire has not been identified.

However, it is important to note that the evaluation of progeny by multiple sire groups should not be viewed as an easier alternative to individual sire identification. In general, the EBVs calculated will be of lower accuracy and consequently much less effective where the individual sire has not been identified. The “multiple sire option” offered by BREEDPLAN is only intended for situations where no practical alternative is available.

*\*\* Nb. This option is not currently being utilised by all Breed Societies/Associations.*

### **How does the analysis of progeny from multiple sire joinings differ to those from single sire joinings?**

BREEDPLAN functions most effectively when animals have their full pedigree recorded. This is because BREEDPLAN calculates EBVs for an animal based on not only its own performance but the performance of its relatives. Where the individual sire is not known, the BREEDPLAN analysis will use the average EBVs of the component bulls in the multiple sire group as the “sire EBV”.

### **How do I record multiple sire joinings with BREEDPLAN?**

Multiple sire joinings should be recorded with your Breed Society/Association when you are recording the progeny of the multiple sire group. As such, you will need to contact your Breed Society/Association for information regarding their particular recording requirements.

Generally speaking, when recording multiple sire joinings :

- each multiple sire group should be given a unique ident (eg. ABC MULT Z1).
- the component sires that were included in the multiple sire group should be identified and recorded with the Breed Society/Association.

This unique ident given to the multiple sire group should be specified anywhere the Breed Society/Association requests information on the “sire” e.g. calf recording, mating/joining information etc.

### **What strategies can be used to optimise the effectiveness of your performance recording for the progeny from multiple sire joinings?**

- Minimise the numbers of bulls in the multiple sire group. Groups of up to five bulls are recommended, with a maximum of eight allowed. Multiple sire groups containing more than eight bulls will not be utilised by BREEDPLAN. The effectiveness of the analysis decreases proportionally as the number of bulls increases.
- All bulls used in a multiple sire group should ideally have both known pedigree and EBVs. Utilisation of bulls bred in multiple sire mobs is strongly discouraged.
- Ensure all sires in a multiple sire group are of similar breed. If you are using cross bred or composite sires, sires need to be of similar breed composition.
- Endeavour to minimise the variation in EBVs among the bulls in a multiple sire group. As BREEDPLAN will essentially utilise the average EBVs of the component bulls as the “sire” EBV, the closer each sire’s EBV is to the average EBV, the better the reliability of the subsequent EBV that is calculated for the calf.
- Consider using half brothers. Using bulls that are by the same sire will help reduce genetic variation among the sire group.
- Consider the utilisation of DNA profiling to identify the actual bull from the multiple sire group that sired the calf. This effectively turns the multiple sire joining into single sire joining groups.

### **Are there any other consequences that I need to consider if I have multiple sire joining groups?**

- EBVs can not be calculated for the progeny from multiple sire joinings at an Interim BREEDPLAN analysis. In other words, EBVs will only be updated for the progeny from multiple sire joinings at each GROUP BREEDPLAN analysis.
- Care should be taken when recording joining details for inclusion in the calculation of days to calving EBVs. If you are recording joining details for multiple sire groups, it is recommended you contact staff at BREEDPLAN to discuss the issues that you need to consider.

*For more information regarding the analysis of calves from multiple sire joinings, please contact staff at BREEDPLAN.*