

What is EBV Accuracy?

- Indication of the amount of information that has been used in the calculation of that EBV and the stability of the EBV.
- The higher the accuracy, the more likely the EBV is to predict the animal's true breeding value and the lower the likelihood of change in the animal's EBV as more information is analysed for that animal, its progeny or its relatives.
- EBV accuracy is reported as a percentage (%) between 0 – 99%.
- Every EBV that is published by BREEDPLAN will have a corresponding accuracy figure.

Interpreting EBV Accuracy

BREEDPLAN provides the following which may be useful in interpreting EBV accuracy:

- Less than 50% accuracy
 - The EBVs are preliminary.
 - EBVs in this range will have been calculated based on very little information.
 - These EBVs could change substantially as more direct performance information becomes available on the animal.
- 50-74% accuracy
 - The EBVs are of medium accuracy.
 - EBVs in this range will usually have been calculated based on the animal's own performance and some limited pedigree information.
- 75-90% accuracy
 - The EBVs are of medium-high accuracy.
 - EBVs in this range will usually have been calculated based on the animal's own performance coupled with the performance for a small number of the animal's progeny.
- More than 90% accuracy
 - The EBVs are a high accuracy estimate of the animal's true breeding value.
 - It is unlikely that EBVs will change considerably with addition of more progeny data.

Accuracy in Selection

- Although the accuracy of an EBV should be considered, animals should generally be compared on EBVs regardless of accuracy as they are still the best estimate of an animal's breeding value.
- In the case where animals have similar EBVs, the animal with the higher accuracy may be less risky, assuming all other factors are equal.

What Influences EBV Accuracy?

Many factors influence EBV accuracy including:

- The heritability of a trait
 - Portion of the phenotypic variation between individuals that is due to animal's genetics and that is passed onto the offspring,
 - The higher the heritability of a trait the higher the EBV accuracy, all other variables being equal.
- The accuracy of the parents
 - An animal that has sire and/or dam with high EBV accuracy will generally have higher accuracy EBVs compared to an animal with parents of lower accuracy as more information is known about the relatives of the animal.
- The amount of performance information available
 - EBV accuracies will increase as more performance information is analysed for a specific trait.
 - This includes performance information on the animal itself, as well as progeny records.
- Contemporary group size
 - Animals that are in large contemporary groups will generally have higher EBV accuracy compared to those in small or single animal contemporary groups.
- Genetic correlation with other measured traits
 - Genetic correlations between traits are utilised to calculate EBVs and associated accuracies.
 - For example, recording 200-day weight will also add information to the generation of the 400 Day Weight EBV.

More Information

Scan the QR code alongside or click [here](#) for the BREEDPLAN Help Centre.



Recommended further reading (search in the BREEDPLAN Help Centre):

- What is an Estimated Breeding Value (EBV)?
- Receiving BREEDPLAN EBV Results
- Understanding EBV Accuracy
- A BREEDPLAN Guide to Interpreting EBVs (with video)
- Comparing EBVs from Different Analyses
- A BREEDPLAN Guide to Animal Selection