

Basic Notions

It is important to understand first what are EPDs and genetic selection indexes to use efficiently information provides by the GenOvis genetic program. What are they? How to use them? The better you will understand these notions, the better you will use the genetic evaluation to improve your flock performance.

What is an EPD?

An EPD (Estimated Progeny Difference) is an estimation of the genetic value that an animal will pass on to its progeny. An EPD uses all performance information on the relatives of the animal as well as the animal's own performance and its progeny performance as well. Animals with the best EPDs for a trait have the highest probability of producing exceptional progeny for that trait.

EPDs can be used to compare all animals within a flock, no matter the management group. They can also be compared across flocks if the animals are the same breed (for purebred only) and blood ties exist between flocks. The GenOvis program estimates EPDs for 15 important economic traits.

What is the accuracy of an EPD?

Accuracy is an indication of how much information was available to evaluate the trait for an animal. Accuracy ranges from 1% to 99%. As the accuracy improves the EPD value becomes more stable. A value with an accuracy of 90% is not expected to change very much even as new information is added to the evaluation. But an EPD with an accuracy of 30% can change considerably.

What is a percentile (%)?

This number reflects the position, in terms of percentile rank, that this EPD is in for the animal's breed. It allows a comparison of an animal performance to those of all animals of the same breed which have been evaluated in GenOvis. For example, an animal with an 80th percentile for one trait indicates that 80% of animals within that breed are inferior to it for that particular trait whilst 20% are superior.

The 50th percentile represents the average of a trait within a breed. An animal having a percentile of 50% and more is expected to be better than the average of the breed. Top animals in a breed are in the 90th percentile and more. In maternal breeds, we look to MAT-HP or MAT-UHP index. In prolific breeds, selection is done on MAT or MAT-U index. For terminal breeds, breeders use GAIN or CARC index.

