

What You Should Know to Read a Sire Evaluation Report or Performance Pedigree

by John Crouch
Director of Performance Programs

Since the first performance pedigree was issued in 1973, a continual barrage of questions has been directed toward the Association's performance programs department regarding interpretation of the figures. This article may be "old hat" to many breeders; however, for the sake of new people in our industry, let's endeavor to define the terms used to report performance information:

RATIO—A ratio is simply an indicator of how a particular animal performed in comparison to its herdmates. For example, if 20 calves are treated alike, weighed at the same time, and processed through AHIR, the average weight of the entire group of 20 will be reported with a weight ratio of 100. A ratio of 110 means a particular animal weighed 10 percent more than the average of the group; whereas a ratio of 90 indicates an animal weighed 10 percent less than the average of the group.

EBV—Estimated Breeding Value (EBV), as reported on all AHIR forms, performance pedigrees, and performance registration certificates, is nothing more than an estimate of the value of that animal as a parent. EBVs are reported for weaning and yearling growth and maternal traits. Many people become a bit confused when trying to separate those three EBVs. To help clarify this situation, let us take a look at the information used in the calculation of weaning, yearling and maternal EBVs.

Weaning EBV

- the individual's weaning ratio
- the average weaning ratio of the progeny of the individual
- the average weaning ratio of the progeny of the sire
- the average weaning ratio of the progeny of the dam

Yearling EBV

- the individual's yearling ratio
- the average yearling ratio of the progeny of the individual
- the average yearling ratio of the progeny of the sire
- the average yearling ratio of the progeny of the dam

Maternal EBV

- the average weaning ratio of the progeny of the individual (if a female)
- the average weaning ratio of the daughters of the individual
- the average weaning ratio of the progeny of the dam
- the average weaning ratio of the progeny of the daughters of the sire
- the average weaning ratio of the progeny of the daughters of the paternal and maternal grandsires

Maternal EBVs are designed to express milk production; therefore, they only consider weight ratios of progeny of specified cows in the pedigree.

It must be remembered that all EBVs are based on **direct** comparisons within contemporary groups, and express a cumulative assessment of an individual's genetic value based on performance in different contemporary groups throughout the entire Angus breed.

EBVs calculated without progeny information are based entirely on individual and ancestral progeny ratios. As progeny records of the individual become available, less emphasis is placed on individual and ancestral progeny records. When sufficient progeny records are available, individual and ancestral records are not used in the calculation of EBVs since these are no longer meaningful.

EPD—Expected Progeny Difference (EPD), a relatively new manner of reporting per-

formance information, is found in Angus Sire Evaluation Reports. EPDs represent the difference in pounds a breeder can expect from sires if those sires are randomly mated to a given population of cows. The system of analysis considers differences in birth, weaning and yearling weights of the progeny of 23,000 bulls which sired calves with weights processed through AHIR.

A first look at the 1982 Angus Sire Evaluation Report reveals a lot of figures which initially seem hard to understand. However, by spending just a little time reading the preface, one can readily realize interpretation of the data is simple. All one must do is pick out bulls of interest, then through the simple process of subtraction one can easily determine the differences which will be expressed in pounds (dollars) if these bulls are randomly mated to a given group of cows.

In Summary

To briefly summarize, Angus breeders are provided a vast amount of factual information through participation in AHIR. When properly analyzed and put to use, this data can be of tremendous assistance to breeders who wish to make constructive changes in herd improvement. However, as in cases throughout history, skeptics tend to criticize progress. As one old fellow in the mountains told me, "Son, I've seen lots of changes in my time, and I've been agin 'em all!" As long as this attitude prevails in the beef industry, progress will be tedious and painful.

We are at a point in history which is the most exciting time ever. Tools are available for breeders to use in strengthening the position of Angus cattle in the beef industry. We must capitalize on them. Spend some extra time analyzing just where we have been, where we are, and where we are going. Study the Sire Evaluation Report, study your AHIR records. You just might find them exciting.

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