

Contemporary Groups

It takes more than one calf to generate EPDs.

by Corinne Patterson



It may be the most important aspect of comparing cattle. No, it's not one man's visual appraisal against another's — it's the contemporary group from which the animal obtains its figures.

Contemporary groups are the cornerstone of genetic comparison, says Sally Northcutt, genetic research director for the American Angus Association. They allow performance information to be used in deriving expected progeny differences (EPDs).

An EPD, defined in the *Beef Improvement Federation (BIF) Guidelines*, is “the difference in performance to be expected from future progeny of an individual compared to the average.” *Difference* implies a genetic comparison, which can only be made when all factors not directly related to genetics are constant.

While visual appraisal is important, EPDs unlock genetic clues about the nation's Angus population and begin with producer-created contemporary groups.

Group creation

BIF guidelines define a contemporary group as “a group of cattle of similar age that are of the same breed and sex and have been raised in the same management group (same location, on the same feed and pasture, etc.)”

Contemporary groups are formed to allow genetic differences from one animal to another to be compared without the influence of the environment or other factors that could affect performance not attributed to genetics, says Bill Bowman, vice president of information and data programs for the American Angus Association.

“A contemporary group is a set of animals that have had an equal opportunity to perform,” Northcutt adds. “Individual animals are evaluated on how well they performed compared with their herdmates raised under similar environmental conditions.”

Northcutt says two or more animals of the same sex are necessary in a contemporary group for EPDs to be calculated. Why does it take at least two animals in a group? “Each animal is

compared relative to the performance of the contemporaries in the defined group,” she says.

Contemporary groups never gain animals — they can only get smaller. Angus breeders should define their contemporary groups at weaning, Northcutt says, and “contemporary groups cannot be recombined after herdmates are separated from their defined groups.” She says one example is taking two bull calves from a contemporary group of 10 defined at the ranch to a regional bull test and leaving eight of the calves at home.

While bull tests allow for gain to be measured in a common environment, the mass of bulls on test are not a contemporary group because management and environment prior to coming to the test weren't the same. Only the two bulls brought from the same ranch, in this example, are a contemporary group, and their performance data will be compared against only each other to compute their EPDs.

A solid cornerstone

It's important that producers understand the value of contemporary groups and the importance of keeping as many animals in a grouping as possible, Northcutt says. “One animal deviated from itself tells you nothing. That's why proper contemporary grouping is the foundation of the EPD.”

That's why Russellville, Mo., Angus producer Duane Robertson takes his entire group of bull calves to the Professional Beef Genetics (PBG) feedlot for testing and development. He says all his bull calves remain in their contemporary groups, allowing him to gain the most accurate EPDs on his cattle.

“We try to keep the data all together if we can,” Robertson says. “It makes the data a little more meaningful if we can keep as many of them in the same group as possible.”

Robertson calves around 130 cows each year, half in the fall and half in the spring. His contemporary groups are well-defined. He

keeps his 2- and 3-year-old cows in one group so their calves make two contemporary groups, one for bulls and another for heifers. The same approach is taken for his cows 4 years of age and older. Their calves are in two contemporary groups, one for bulls and another for heifers. So, each fall and spring Robertson has four contemporary groups with approximately 20 calves in each.

He says this grouping technique keeps environmental factors and the management of cows in balance. After weaning, only a few calves drop out, mainly bull calves that aren't suited to become herd sires and are culled for marketing in another fashion. The heifers remain in their contemporary groups until they reach a year of age, and only then do a very few fall out for poor performance or phenotype reasons.

“A lot of that is just common sense,” Robertson says of defining contemporary groups. “If you have an animal in a contemporary group that is not on equal footing, for whatever reason, you need to look at that and remove those cattle in order to keep your data accurate.”

“The system relies on us as breeders to make that data accurate. If we as individual breeders don't do a good job of contemporary-grouping our cattle, then obviously it takes away from the accuracy of the data that we get back through AHIR (Angus Herd Improvement Records) and the accuracy of our sire evaluations,” Robertson says.

Bowman echoes the same sentiment. The membership is a vital statistic of the American Angus Association, and it's the members who have created the largest beef cattle performance database in the world.

“Breeders are responsible for the integrity of contemporary grouping, so they have to be the ones to make the judgment call that the pasture this set of animals was on was substantially different from the environment or management to which this group of animals was exposed,” Bowman says.