Breeders Comment on Estimated Breeding Values

by Nancy Ann Sayre

66 Not too many people use Estimated Breeding Values more than I do. In fact," **Philip Abrahamson** of Sunny Slope Angus, Lanesboro, Minn., adds emphatically, "I don't want my performance information back without them—that's how important they are to me."

Richard McClung, manager and partner of Wehrmann Angus, Cairo, Ga., says he wants to put his money on cows that are backed by generations of high-performing cattle. "In other words," he explains, "I would rather use a heifer who didn't ratio quite as high as the next (with respect to weight) if she had a higher Estimated Breeding Value."

"Estimated Breeding Values give you a total picture of an individual based on all performance information gathered on that animal, its sire, dam and relatives. They tell you exactly what an animal ought to do and to try to breed cattle without them is like shooting fish in a rain barrel." **Tom Drake** of Drake Farms, Davis, Okla., sums up the value of these figures that way.

They are the most meaningful figures and combine a lot of information into a small set of figures. You can tell a lot very quickly by reading those three EBVs.— Philip Abrahamson, Sunny Slope Angus, Lanesboro, Minn.

Estimated Breeding Values (EBVs) do indeed give a comprehensive picture of an animal's potential as a sire or dam. As Roy Wallace of Select Sires Inc. illustrated in his article "A Cowboy's Guide to Estimated Breeding Values" (see the June-July 1982 issue of the ANGUS JOURNAL), EBVs are designed to provide a mathematical method of measuring an animal's genetic potential. These values, which combine the individual's performance and the average performance of relative groups into a single figure, give the best estimate of what a particular animal will do within the population (with respect to weaning, yearling and maternal ability). Wallace also points out that although EVBs are based on complex formulas, the calculations are done by the American Angus Assn. and all a breeder has to do is use the computer's figures to select for the traits of interest to him-that is to say, USE THEM.

These records are made for my use and for me to cull by. I use them for that purpose very distinctly.—Jim Griffin, Wil We Cattle Co., Colquit, Ga.

Many breeders have effectively used EBVs in their herds and for the nine who offer their comments here, results have been positive. By design EBVs are a selection tool for within-herd use. These performance-oriented breeders stress the value of EBVs in guiding selection decisions in their own programs and their thoughts also reflect some added benefits.

Replacement females are the strength of any progressive herd and EBVs can play a

vital role in identifying the genes that will work. Abrahamson has been participating in the AHIR program since 1960 and he now uses heavily the selection work sheet, which ranks animals in order of breeding value, in his selection decisions.

The more you study that data and use it, the more reliable it becomes . . . I've put more emphasis on EBVs the last few years because they mean more.—Tom Drake, Drake Farms, Davis, Okla.

"That list gets more emphasis than anything else, including visual appraisal. At weaning time we use it to determine what we register. Then the yearling work sheet gets careful scrutiny as we decide which animals go into our sale and which females we keep for replacements. I put the most emphasis on maternal and yearling values."

McClung also ranks his young females on EBVs and says: "We live by these. The heifers that we cull are the ones with low EBVs."

Ernest Sellers, Live Oak, Fla., culls his heifers and his cow herd the same way. "All my replacement heifers are selected on EBVs; we don't save anything initially with an EBV below 100 on the weaning work sheet. All of the cows have also been culled for several years on EBVs—I sell 15 to 20% of the bred cows each year to keep numbers constant and I use EBVs to pick out the bottom ones and sell them that way."

"These records are made for my use and for me to cull by," says **Jim Griffin**, manager of Wil We Cattle Co., Colquit, Ga. "I use them for that purpose very distinctly. We try to cull



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everything below 100 on maternal breeding value—that's pretty hard, but that's what we've got to do. And if we've got cows to be culled, they go to the stockyards."

Dr. C.K. Allen of Woodland Farms, Savannah, Mo., uses EBVs most heavily in his bire selection. By calculating his own index to rank sires listed in the annual Sire Evaluation Report, Allen ensures that any bull he uses has plus Expected Progeny Differences (EPDs) for growth traits and a high maternal breeding value (MBV). Although he has culled only those heifers unacceptable in growth or structure in recent years, his strict sire selection has kept the EBVs on his females strong.

Perhaps he and many breeders look farther than EBVs to make sire selections, but those simple and concise figures provide an easy way to eliminate bulls which are below average (or whatever is a breeder's own particular level of acceptance).

I'll guarantee that if she's in the bottom 20% this year, she'll be there next year ... so we might as well get rid of her.— Ernest Sellers, Live Oak, Fla.

Like Allen, Nancy McLaughlin of Rock River Farms, Byron, Ill., considers EPDs and MBV in selecting sires for A.I. use. She and her father strongly insist on EBVs above 100, though. "Anything below 100 just doesn't belong—no matter how good the management, they will never help you and they do harm that is realized years later," she says. "We just can't accept that, we must always be improving." We breed this herd with the commercial man in mind. With EBVs he can select for maternal purposes or he can select for a terminal-cross sire . . . he can tailor-make his cow herd.—Richard McClung, Wehrmann Angus, Cairo, Ga.

And Griffin agrees on that point of improving a herd through strict sire selection. He uses the Sire Evaluation Report to narrow down the bulls in which he is interested to just a few. "I use those values to find the bulls that can make a great contribution to our herd... if we can't do something to improve the top end of our cows, we're falling down. Sure you can find a bull that's going to improve the middle or bottom of most any cow herd, but the most important thing is to make progress with your really good ones."

These breeders, sincere in the effort to improve their herds, pay close attention to accuracy figures of EBVs as well. The accuracy level of a breeding value appears on Performance Pedigrees, Performance Registration Certificates and Produce of Dam Summaries.

The accuracy level means a lot to Drake when he analyzes his herd. "When that figure gets into the 90s, you can pretty well bet that's where the EBVs are going to stay and they'll hold true with the progeny. And I can definitely see more consistency and reliability in our breeding values since we've been on AHIR several years. The more you study that data and use it, the more reliable it becomes . . . I've put more emphasis on EBVs the last few years because they mean more."

Sellers has been using AHIR for several generations of his herd and his comments

are similar to those of Lawrason Sayre of Waffle Hill Farm, Churchville, Md., also a longtime believer in records. Both feel their EBVs provide an accurate prediction of what an animal will do in their herds; this fact is reflected, they say, by the way a cow or heifer will remain near the top, middle or bottom of her contemporary group from weaning to yearling and during production.

Sellers, in fact, has found that it was a mistake to keep a cow an extra year with the thought that she might move up within his herd. "That really doesn't happen. I'll guarantee that if she's in the bottom 20% this year, she'll be there next year... so we might as well get rid of her."

Sayre will mention that although his heifers and cows may change in their ranking, there are no drastic changes. Once there is some performance and accuracy behind the EBVs, he finds, the top 25% stay near the top and likewise for those on the bottom.

The key to improving the predictability of performance figures and the strength of a breeding program lies with selection. Strict selection pressure and the use of EBVs to

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zero in on certain traits enables a breeder to mold his herd any way he wants. Most importantly, as reinforced by several of these cattlemen, he can shape the genetics to produce whatever his market demands.

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To McClung that means bulls for the southeastern commercial cattle producer. "We are in this business to stay," he offers, "and we breed this herd with the commercial man in mind. And we intend to provide factual, complete performance information so that this man can come here and buy a bull or number of bulls to fit his needs. With EBVs he can select for maternal purposes or he can select for a terminal-cross sire. If a man can get this kind of information, he can tailor-make his cow herd."

And if selection pressure with direction such as McClung's is used to build a herd, the breeding program itself will help sell the product.

Robert Petty, Nolan, Texas, effectively centers his selection program around EBVs. Although he also makes figures available, most of his customers follow his suggestions rather than buying bulls on the basis of ratios or EBVs.

"They don't understand EBVs generally," Petty comments, "but I've built up a trade based on integrity and explaining what is good or bad about an animal. It helps that they know I'm using sons of the top-ranked performance sires—they trust me to present

I really use the records in selecting bulls. I index the bulls in the Sire Evaluation Report . . . all my females are sired by proven bulls with strong maternal breeding values.—Dr. C.K. Allen, Woodland Farms, Savannah, Mo.

the best possible product to them and take my word on how I interpret EBVs."

McLaughlin makes a similar point and says they sell many bulls over the phone, sight-unseen. Customers are drawn by ads centered on the Rock River breeding program and they trust the breeder's knowledge and selection of the best. "If you've done your homework, they'll sell themselves."

Sayre and Sellers actually use the EBVs to rank and price their yearling bulls. Sellers is pleased with what he finds: "I priced my bulls based on EBVs and they sold almost exactly in that order, from the highest down . . . buyers definitely use the EBVs and the questions they ask indicate they understand them."

Even if buyers do not make their decisions on the basis of understanding EBVs, Sayre and others note that the presentation of the information provides an excellent opportunity to educate potential customers.

Customers will naturally ask why a certain individual is priced higher than another. And when Sayre establishes his prices strictly by EBVs, he finds it gives him a chance to explain breeding values, his thoughts on performance and his program. "They realize then what we're trying to do and the figures become more important and better accepted

Selling provides a chance to do some explaining . . . they realize what we're trying to do and the figures become more important and better accepted.—Lawrason Sayre, Waffle Hill Farm, Churchville, Md.

in a matter of time . . . The fact that EBVs appear more and more often in a standard form helps these breeders recognize them too."

Most of these nine performance-minded breeders sharing their reasoning can see a definite increase in their customers' knowledge and understanding (both in the purebred and comercial worlds).

A marked improvement has been noticed in the last three to five years by McClung. "I've been keeping records since 1964 and I'd always volunteer information. But just in the last few years I'm being asked for the figures on a regular basis... The volume buyers I have sold to—the people who are serious about this cattle business and have a real commitment and investment—can read a Performance Pedigree and understand this information better than many purebred breeders."

Griffin claims there are very few people that come by Wil We that do not use the figures he gives them; if they do not understand, he explains. At Drakes', progress is evident as well, but customers are still primarily using weights and ratios in their decisions when buying young bulls. "Five years ago, though," says Drake, "they didn't ask for any performance information."

Why do these breeders emphasize EBVs and encourage their use? The reasons all

trace back to the simplicity and comprehensive nature of these values.

Abrahamson, who uses EBVs to scan cattle he is buying as well as using them in his selection program, sums up his reasons for looking at EBVs first: "They are the most meaningful figures and combine a lot of information into a small set of figures. You can tell a lot about an animal very quickly just by reading those three figures and the accuracies behind them."

Reducing the margin for error by selecting on EBVs rather than weights and ratios is of primary importance to Sellers; McClung and McLaughlin also appreciate the increased predictability in EBVs.

Sayre stresses that the use of EBVs helps a purebred producer keep those traits of economic importance in perspective and they reduce the guesswork involved in breeding cattle. "Weaning, yearling and maternal breeding values together indicate efficiency of beef production," he summarizes, "And that should be of utmost importance to the purebred producer . . . Facts on several generations are provided in a Performance Pedigree—that makes a pedigree mean something."

It helps that customers know I'm using sons of top-ranked performance sires. They trust me to present the best possible product to them and take my word on how I interpret EBVs—Robert Petty, Nolan, Texas.

Petty emphasizes that EBVs refer to an animal's performance on the average within the population. "One calf won't give a true picture of a sire or dam's breeding value. Superior EBVs mean superior on the average and this is what will keep a producer in business—bulls that produce superior calves on the average."

EBVs become more and more reliable as a breeding program is built around them. Accuracy levels and predictability increase with years of selection pressure and use of records. All nine of these particular breeders are seeing just such results now.

Drake brings a final point home: "You've got to start at square one to get anything ten years down the road—it's never too late to start."