Serious Beef Breeders Take EPDs To Heart

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100-cow breeding operation, keeps careful performance and EPD records on the animals he sells.

Now, it's up to the smaller Pennsylvania breed operations to more closely examine and put to use what breeders in other states have come to know — why EPDs can save money and prove profitable to beef enterprises.

Makes a difference

"It's a matter of awareness," said Anderson. "People just think they need a bull, that's all, it doesn't make any difference what he is. But it makes *quite* a difference."

Although about 60 percent of Anderson's business is in Pennsylvania commercial herds, a hefty 40 percent (20 percent purebred and 20 percent commercial) of the breeders are in other states.

And that's what Pennsylvania breeding operations must understand, according to John Comerford, Penn State beef specialist. To remain competitive and to take the business seriously, Pennsylvania breeders must come up to par.

Recently, Penn State began an on-site demonstration project involving two donated bulls to commercial herds in southwestern Pennsylvania. Comerford said the demonstration project is intended to compare bulls of known genetic potential through EPDs and performance records with bulls of unknown genetic ability in the same herd. Two ordinary bulls have been placed on seperate herds. The resulting data in their offspring will be studied to determine what the actual value of the two donated bulls are in the herds.

Can be profitable

"What we're trying to do with this whole bull selection program is to convince (breeders) that it can be a profitable enterprise. Buying bulls is like buying seed corn — the initial expense must be compared to potential production and profitability," said Comerford. "We can tell a beef animal is a bull by just looking at him, but we don't know if he is a potential herd sire unless we have the records to prove it."

Many bull buyers balk at the idea of spending $1,500 on a bull — but spread over the entire herd, the more profitable genetic characteristics more than make up for the cost.

Comerford said that a bull with an EPD of +20 (compared to the one at 0 EPD) would be 20 pounds per calf, worth about $16 today. "That increased value will be correct for each year he is used. The total *additional* value of the bull in a 30-cow herd would be almost $2,000 if the bull is used for four years," he said.

Many Pennsylvania breeders don't realize this, and the on-site project will provide the evidence on the importance of learning about and using EPDs.

Herd database

At Meadow Mist Farms, Anderson keeps an Angus Herd Improvement Records (AHIR) database. As a veterinarian who oversees more than 3,000 dairy cows, Anderson also manages his Angus cow/calf operation, keeping records on all progeny.

In the personal computer database, Anderson lists all detail regarding his herd, including performance data (in addition to registration number, birthdate, etc.) and a chronological sequence of data, from calf weight at birth, 205 days, one year, etc. (see the chart listed with this story). Also, records on EPDs are carefully obtained and monitored. The data can be sorted and printed out by any number of parameters.

The most important element about the database, according to Anderson, is that it gives him "something I cannot get anywhere else," he said.

"A person's ability to judge the value of a beef animal, up until 30 years ago, was soley on the basis of a judge giving an animal a blue ribbon at a show," he said. "And that means that animal looked good to somebody for five minutes in one show ring, and had absolutely nothing, in the foggiest, to do with the genetic value of that animal. Nothing to do with it. But it looked nice."

Dr. Burleigh Anderson, Meadow Mist Farms, manages a 100-cow breeding operation and keeps careful performance and EPD records on the animals he sells. He sells semen for about $15 a straw, $30 for an AI certificate. Here, Anderson checks the registration number on an embryo straw. ***Photo by Andy Andrews.***

Hard evidence

Performance and EPD data provide the hard evidence for the performance of an animal.

Anderson said the dairy industry also keeps a "composite index" for herdstock, which includes, in Anderson's Angus cattle, "a low birthweight.

"So with this program, we can select on the basis of low birthweight, maximum weaning weight, maximum milk production (in the EPDs on cows), and maximum yearling weight," he said. "We can select on the basis of the expected progeny differences, and then also select on the basis of actual performance within the herd."

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Here, Anderson pours liquid nitrogen into a shipping container for embryos. About 20 embryos were on their way to Ohio recently. Sometime next year, Anderson will conduct a sale of about 75-80 cows, perhaps with the help of the Virginia Angus Association, in Culpepper, Va.

Name: MEADOW MIST PD 724-836		Tag	: 836
Tattoo	: 836	Dam's tag	: 724
Appended tattoo	:	Sire's tag	:
Registration number	: 11103315	Embryo Recip's regis. #	: 00000000
Sex	: C	Weaning mgmt code	: 3
Mult. birth indicator	:	Calving ease	: 1
Artificial insem.	: Y	Birth Code	:
Embryo transplant	:	Birth date	: 01-21-1988
Genetic defect #1	:	Birth weight	: 100
Genetic defect #2	:	Adj. birth weight	: 106
Genetic defect #3	:	Birth ratio	: 1.16
Genetic defect #4	:		
Genetic defect #5	:	**Weaning**	
Genetic defect #6	:	Weaning weight date	: 88
Bloodtyped	:	Weaning weight	: 570
Dam tattoo	: M724	Weaning height	: 45.0
Appended dam tattoo	:	Weaning scrotal circum.	: 0
Dam registration #	: 10506756	Cow weight	: 0
Dam birthdate	: 01-13-1984	Weaning age (days)	: 182
Sire tattoo	: 80	Adj. weaning weight	: 645
Appended Sire tattoo	:	Adj. weaning height	: 46.0
Sire registration #	: 09894245	Weaning ratio	: 1.00
1 if pathfinder	: 0	Weaning gain	: 2.58
Yearling		**2nd Yearling**	
Sex at yrlng	:	2nd yrlng weigh date	: 0
1st yrlng weigh date	: 89	2nd yrlng weight	: 0
1st yrlng weight	: 1048	2nd yrlng height	: 0.0
1st yrlng height	: 53.0	2nd yrlng scrotal circ.	: 0
1st yrlng scrotal circ.	: 0	2nd yrlng age in days	: 0
1st yrlng age (days)	: 426	2nd yrlng adj. wt.	: 0
1st yrlng adj. wt.	: 959	2nd yrlng adj. ht.	: 0.0
1st yrlng adj. ht.	: 51.5	2nd yrlng ratio	: 0.00
1st yrlng ratio	: 1.06	2nd yrlng gain	: 0
1st yrlng gain	: 196		
140 Day Test		**The EPD's**	
140 day test date	: 0	Birth wt. perf. value	: +6.1
140 day test wt.	: 0	Birth wt perf val accu	: 0.34
140 day test gain ratio	: 0.00	Weaning wt perf value	: +27.0
140 day test avg dly gn	: 0	Weaning wt perf val accu	: 0.30
		Maternal perf. value	: +3.0
		Maternal perf. val. accu	: 0.21
		Yrlng wt. perf. value	: +46.0
		Yrlng wt perf val accu	: 0.24

At Meadow Mist Farms, Anderson has designed a software program to help operate his AHIR database. The software is unique to his farm. In the database, Anderson lists all detail regarding his herd, including performance data (in addition to registration number, birthdate, etc.) and a chronological sequence of data, from calf weight at birth, 205 days, one year, etc.