

Simplified Selection



PHOTOS BY MICHAEL RUEBER

How three Angus breeders ventured into genomic-enhanced selection and surfaced with convenience and more accurate data.

by *Crystal Albers*

There's a lot of cattle producers out there who don't know much about genomic-enhanced expected progeny differences (EPDs) — and many who do might be wondering just how it pencils out. At least, that's what three Angus breeders in different parts of the country were thinking when they first heard about the technology offered through Angus Genetics Inc.® (AGI) and its partnership with Merial Igenity.®

Nevertheless, they looked into it, took some samples and, in a matter of weeks, reaped the benefits. Here's how it worked for them.

Remote convenience

In southern New Mexico's rough country, Norma Brennand spends her day like most cattle ranchers. With her husband, David, she works hard, repairs fences and carefully manages their purebred Angus herd on the region's dry landscape.

For 20 years, the two have worked on their remote ranch near Pinon, splayed across the 6,000-foot-plus elevation and miles off the paved road. There, it's just Norma and David.

With little outside help — their children were grown when they settled there — Norma says she cherishes the remoteness of

the place. Not to say their locale and team of a meager two is problem-free. It poses its share of challenges, she admits.

“For smaller breeders like myself who are about 100 miles from town, it's so costly to coordinate people like ultrasound techs and veterinarians to come out here,” Norma says. “The mileage fee alone is killer. And we can't scan the cattle in our regular working pens without electricity, so we need to bring them up here by the house. It just doesn't work well for our scenario.”

So when she read about the American Angus Association's genomic-enhanced EPDs last fall, she was intrigued.

The high-accuracy genomic-enhanced EPDs incorporate the Association pedigree, carcass and ultrasound performance data with genomic profile results using the animal's DNA to produce EPDs for carcass merit.

With a simple blood sample, the Brennands could get genomic-enhanced carcass trait EPDs along with Angus-specific profile scores for seven additional traits beyond carcass.

Norma says the selection tools provide exactly what she needed — convenience and accuracy.

“It's so much more convenient to do this. I just can't tell you how easy it is,” she says.

Target: Quality beef

Meanwhile, 1,300 miles away, Doug Rueber and his wife, Marcia, are busy raising their Angus herd near Arlington, Iowa, with part-time help from their nephew Bob James. The family sells about 50 bulls a year, continuing a nearly 48-year tradition.

Doug was 12 years old when his father first bought a few Angus cows in 1962. Back then, the Ruebers were impressed with the docile Angus breed and its ability to deliver growth, carcass and maternal results. Doug says the family's commitment to the breed has been key to their success, as well as their long-term vision and focus on the end product.

“If you're going to raise cattle, you've got to be in it for the long haul,” Doug says.

That philosophy drove him toward genomic-enhanced EPDs for carcass traits.

Doug says the technology has provided a convenient way to make genetic progress in a shorter time frame than traditionally possible.

“We've always been interested in trying to focus on carcass traits,” he says. “When you put marbling and tenderness together you

have a really good eating experience, and that's what we shoot for."

But aiming for that goal can be a somewhat slow process, Doug admits.

Genomic-enhanced technology implemented into a weekly carcass national cattle evaluation (NCE) speeds the process considerably, says Sally Northcutt, Association genetic research director.

"Incorporating the high-accuracy Igenity profile for Angus provides a low-cost way to significantly increase accuracy beyond an animal's own records and several progeny — at any time in the calf's life," she says. "In the case of a female, using the profile may be the equivalent of nearly a lifetime of production in terms of data on her progeny."

Better selection tools allow cattlemen to select for a more consistent product — they just have to be willing to jump in and use them, Doug says.

"It's kind of like buying a new computer. If you keep waiting until the next latest, greatest model comes out, you'll never jump in and buy one," he says. "The DNA technology is expanding about that fast, but if you didn't ever start, you'd miss out."

Contemporary group of one

Colorado rancher Don Mitchell was one of those people missing out on valuable information.

He had seen a lot during his years as a commercial cattleman near Collbran and more recently as a purebred Angus breeder — and he'd always stuck to what works. So when Mitchell heard about genomic-enhanced EPDs, he was skeptical.

"I remember thinking, 'How can that pay?'" he says.

But after the longtime rancher learned more about high-accuracy EPDs, he liked what it had to offer his 30-head herd.

"I really needed more information on them," he says, referring to his cattle with small contemporary groups. "An ultrasound probably would have helped, but it seemed like the wind was blowing us in the direction of doing the genomic testing."

So Mitchell decided to capture that needed information with genomic-enhanced carcass trait EPDs. In all, Mitchell sent blood samples on 18 cows to AGI for analysis.

"Now I have information on the main part of my herd that will be useful from here on out," he says. "It straightened out almost all of the problems I was having."

That's not surprising, Northcutt says. Genomic-enhanced technology implemented into a weekly carcass NCE can significantly increase accuracy, she notes.

On the ranch

Regardless of herd size or location, the

The high-accuracy genomic-enhanced EPDs incorporate the Association pedigree, carcass and ultrasound performance data with genomic profile results using the animal's DNA to produce EPDs for carcass merit.

technology benefits all Angus producers, Bill Bowman, AGI president, says. "Producers can be confident this technology will help to improve their selection decisions, to indicate the genetic merit of their animals, and to increase the accuracy of EPDs."

To get started, breeders apply a few drops of blood to an FTA card. Then they submit a profile order, available online, and mail samples to AGI. Genomic-enhanced EPDs and profile scores usually arrive back to the breeder in about four weeks.

All three breeders say it's a simple process.

Norma takes samples while they're bringing calves in for their second set of shots, and Doug says, "It's just a few more minutes while you're running a trip through. It just takes one person."

And the results?

Norma says they're invaluable, even in tough times. "When you're in a severe drought and you need to start culling your numbers, this pretty much tells you which gal to keep and which you should get rid of?"

The Angus-specific profile costs \$65, but Mitchell says the cost is worth the results.

"To get a vet out and to do other tests I'd probably end up spending \$30 to \$40 a head by the time I'd pay setup fees and all that. So I thought I'll just go ahead and spend a little extra money and be up on the game," he says.

Doug suggests producers consider the costs from a longer-term perspective.

"You invest in something today knowing it will increase the value for your product down the road," Doug says. "It's helped us with our bull sales this year, but it's more than a sales gimmick. It's trying to breed in a solid, consistent genetic package for the customer."

That's how it will pay for itself in the long-run, Doug says.

"It's not going to be a magic wand that's going to pay big dollars tomorrow, but if you're in it for the long haul, the average bull goes out and sires 100-125 calves in his lifetime in commercial operations. So you're talking somewhere between 50¢ and 75¢ a calf for knowing the DNA of your herd bull out there. That's less than the cost of a plastic tag to put in their ear.

"When you start looking at it that way, it's not a big cost per animal," he continues.

"There's places you can cut corners in tough times, but knowing what your genetics are isn't a place to be cutting corners."

To learn more about genomic-enhanced EPDs, visit www.angus.org or contact the Association at 816-383-5100.



Editor's Note: *Crystal Albers is assistant director of communications and web editor for the American Angus Association.*



► "If you're going to raise cattle, you've got to be in it for the long haul," Doug Rueber says. That philosophy drove him and wife Marcia toward using genomic-enhanced EPDs for carcass traits.