

Genomics Test Strategies Explored

Three prominent commercial Angus producers discuss DNA-testing ideas.

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Every day, bulls and breeding stock are selected with the help of genomic tools.

Whether producers know it or not, DNA testing affects most cow herds by way of their seedstock suppliers.

However, those who are more intentional about it are reaping the benefits.

“I am still a big believer in making visual appraisal on phenotype, but the main thing that you’re doing there is for soundness,” says Sam Hands of Triangle H, near Garden City, Kan. His family operates a cow herd and feedlot where they have retained ownership of calves for 40 years. They use all the data for culling the herd, so when Hands got DNA results back on some of his mature females he says he was shocked.

They used GeneMax™ (GMX) to evaluate their potential for gain and grade, which is ranked on a scale from 1 to 99.

“As we went through this herd, I was happy we had 60% to 70% of them, but it was a good 10% that I’m embarrassed to say snuck by me,” Hands says, noting their scores ran the whole gamut from 1 to 99.

“The younger ones in the herd were mostly at the upper end, so at least that told me that my genetic source was doing a good job,” he says, yet it still bothered him to see those low scores. “They were counterfeits.”

Hands says this could help producers sort cattle from home first, generating a pool from which they can select. In his case, Hands is looking for the ones that will make the most money in the feedlot.

“Pounds pay the bills, but if we want to get more for those pounds, they need to be high quality,” he says.

Evaluating raised replacements

Joe Mayer of Guymon, Okla., follows that reasoning as he rebuilds his herd after a forced sale of mature cows due to a multi-year drought (see cover story, October 2013 *Angus Beef Bulletin*).

He bought 500 heifers from different ranches after trying to research their



backgrounds. Still, Mayer admits, “We were kind of like a guy in a cave because all we really knew about the cattle was the write-up in the catalog and a vague idea of the genetics behind them.

“We were looking for anything that would help us decide which of those cattle we wanted to keep in our herd and multiply and which ones we wanted to feed or do something else with,” he says.

That’s when Mayer, too, found GMX and tested 10% of each group of females. He set the threshold high — a score of 80 or higher — for those heifers he’d retain after checking the rest of those in the top two groups.

“We don’t know how this is going to work, but we had that flashlight in that dark cave,” Mayer says. “GeneMax gave us a little bit to see where we might be headed.”

Evaluating purchases

When it comes to replacement heifers, Ashland, Kan., veterinarian Randall Spare is on the other end of the equation.

“Several years ago there was an opportunity to buy some heifers, breed them and resell them,” he says. “Our goal was to add value and then sell the known quality of genetics.”

That worked, so his “Profit Proven” group kept buying from the same ranchers for the past seven to eight years, DNA-testing them for the first time this year.

“Now there are cattle that are better, but at least we can tell people, ‘This is what they are,’ with an average GMX score of 75,” Spare says.

They’ve always given buyers information like sires and health programs, but, Spare says, “Today, I don’t think that is good enough. We want to give the people who buy from us a known quality, not just from a health standpoint, but also from a genetics standpoint.”

To show how much difference that can make, he cited one client who earned a \$181-per-head premium for fed cull heifers. They were 100% Choice, including 40% Prime.

Profit provides obvious incentives.

Mayer plans to use the GMX Sire Match feature on calves to help evaluate bulls used in multiple-sire pastures.

“We are always trying to prove up our

bulls and decide if this bull is siring some great calves or not,” he says.

As a feeder, Hands knows most customer cattle so well that he has no plans to test calves coming into the yard, but he says many feedlots could benefit from such data. A few customers can help themselves with the technology. One who has never had an identification program — and thus no way to correlate carcass

data to the herd — recently started DNA-testing.

“He realizes what he’s been missing, but at the same time he can quickly catch up by using the GeneMax program,” Hands says.



Editor’s Note: *Miranda Reiman is assistant director of industry information for Certified Angus Beef LLC.*

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