



## Experts discuss tools for finding the right replacements to help meet breeding objectives.

Story & photo by Lindsey Sawin, editorial intern

Selecting replacement heifers can be overwhelming. There is a lot to consider: What heifers fit my breeding goals? On what expected progeny differences (EPDs) should I focus? What role does environment play? The list goes on, but perhaps the most important question is: What are my breeding objectives?

Selecting replacement heifers is an expensive and time-consuming job, but it is one every producer must do. Whether buying them from someone else or producing them at home, there are some parameters and tools commercial cattlemen can use to select the right ones for their operation.

### Where it starts

Selection often begins before the calf is born, says Kelli Retallick-Riley, president of Angus Genetics Inc. (AGI).

“We’re trying to use those EPDs before those females may even be created,” she says. She encourages

producers to use EPDs to establish breeding targets and guide breeding decisions. Doing so allows cattlemen to mate their cows to the right bulls to produce a good cohort of females from which to select replacements.

Often producers look at calving ease direct (CED), but when breeding for replacement heifers, they should also pay attention to calving ease maternal (CEM), Retallick-Riley says. That’s what predicts the future heifer’s ability to lay down and have a calf.

Heifer pregnancy (HP) predicts the heifer’s ability to get pregnant as a virgin female, she explains.

### Beyond EPDs

EPDs are great selection tools, but they are not the only selection parameter. Phenotype plays an important role in who stays in the herd and who does not.

Selecting heifers that are structurally sound and with the correct temperament provides a great place to start, says Retallick.

Phenotype plays a large role in Jimmy Taylor’s selection process.

“I don’t like cattle that hurt my eyes,” says the commercial cattleman from Cheyenne, Okla. “I like to enjoy looking at my cattle, and then they’ve got to grow.”

He pays great attention to each heifer prior to breeding, and looks for qualities that will keep them in the herd.

“Generally, I would encourage producers to evaluate their production records, because they are helpful in determining growth potential and identifying the calves

that are from above-average-producing cows,” says Kacie McCarthy, University of Nebraska-Lincoln beef cow-calf specialist.

### Environment

Even after a study of EPDs, phenotype and past production records, environment may get the final say in which calves stay as replacement females.

A producer should consider what their environment can support and what environmental factors play a role in the decision to cull a heifer, says Esther McCabe, American Angus Association director of performance programs.

Sometimes the biggest, most growthy female isn’t the best fit if a producer’s environment does not have the feed resources to match, says Retallick-Riley.

The earlier a producer can identify the females that require a higher level of maintenance, the better, McCarthy says.

“Developing heifers in cost-effective, low-input



heifer-development systems may help identify subfertile heifers early that need additional nutrient resources and are unable to sustain reproductive function under limited nutritional environments as a cow,” she says.

## The advantage

There are many tools, tests, tips and websites available for producers to use when selecting replacement heifers.

Retallick-Riley suggests GeneMax® Advantage™ as one that’s available for commercial Angus producers.

It offers a look at every individual that goes through the testing process and the option for parentage verification, she says. Parentage has a twofold benefit: One, it offers a look at the bull battery, so a producer can see which bulls are doing their jobs and which are not.

Secondly, producers get an in-depth look at the heifers in the selection pool, with reports detailing 10 individual maternal traits, seven carcass and gain records, as well as three economic indexes.

Taylor credits GeneMax Advantage with some of his operation’s success.

“I circle those numbers in the traits they are deficient in so that then, when I am assigning a bull, I’ve gone over each trait,” Taylor says. “I go to that line. Wherever there is a circle I say, OK, this one needs milk reduction, needs growth, needs marbling. Then I

will go pick an AI (artificial insemination) bull that fits that.”

Keeping an eye on eating experience and what works at the ranch, this information helps him do both, Taylor says.

The test also gives him a look at how heifers are doing when compared to steers from the same herd. Taylor looks at the data he receives from the feedlot on his retained-ownership cattle and compares it to similar heifers he has kept back.

“I charted them really in-depth from 2012 to 2018, tracking ribeye. The steers in the feedlot and the replacement heifers’ averages tracked pretty close. Right at the last, the feedlot ribeye showed a little bit down, and that replacement group of heifers nosed down just a little bit, too,” Taylor says. “So, the GeneMax data was saying the same thing as the feedlot.”

The data makes culling decisions, breeding decisions and historical tracking of a cow herd easier, says Retallick-Riley.

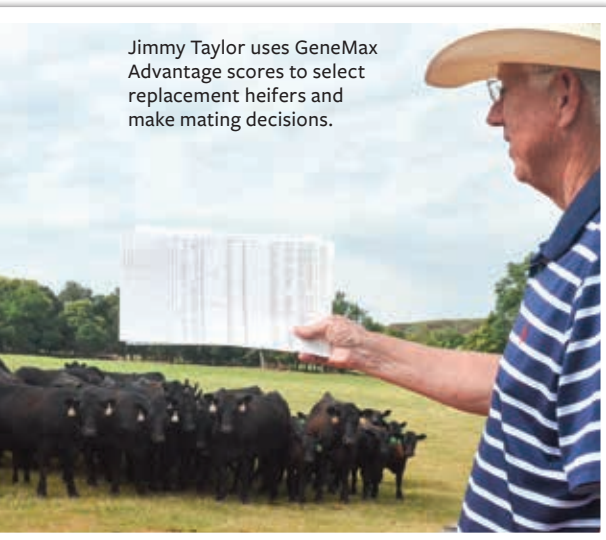
## Staying the course

It’s all about long-term goals, Retallick-Riley says.

“Once you set your breeding objective, don’t get distracted by the fad or what might be popular at the moment. Stay the course,” she says. “Try to track how you are doing and track the progress and results, so you know how well you are doing.”

Across the board, no two operations are going to have the same breeding goals, says McCabe. That means selection criteria will differ.

“What you’re focused on versus what your neighbor down the road is focused on may be two different things, and that is OK, and that takes two different types of cattle,” she says. |



Jimmy Taylor uses GeneMax Advantage scores to select replacement heifers and make mating decisions.

PHOTO BY SHAUNA HERMEL

Editor’s note: A student at West Texas A&M University, Lindsey Sawin was the 2022 *Angus Beef Bulletin* summer intern.