Equal Opportunity

A South Carolina heifer development program turns out top-notch heifers and learning opportunities for producers.

by Becky Mills, field editor

For Scott Sell, former manager of the Clemson University Edisto Research and Education Center (EREC) forage bull test, the creation of a heifer development program was the logical next step.

"Over 25 years ago, I was involved in the Heifer Evaluation and Reproductive Development (HERD) program in Georgia," Sell explains. "I knew it worked. With the Edisto Forage Bull Test, it was the perfect opportunity for a sister project."

As a result, Sell and his coworkers welcomed the first heifers to the program in December 2019. Although he left Clemson this spring, October 2022 will mark the third sale for heifers developed, evaluated and bred in the program.

Whether they participate as consignors or buyers, Sell says the heifer program is custom-made for smaller producers who may not have the facilities or time to develop and breed their own replacements. As a bonus, since the program is run by Clemson, data is collected and evaluated by a nonbiased third party.

There is also the advantage of being a forage, rather than grainbased, test.

"We believe this is the only forage-based test in the country," says Liliane Silva, forage-livestock specialist based at EREC.



"Since the heifers are developed on forage, it shows how they'll do on forages. If an animal is raised on grain, when she goes on to lowerquality warm-season grasses, her performance might suffer."

Cattle folks agree.

In years one and two, there were 50, then 70 heifers in the program. This year, sale numbers should top 130 head.

Producers from across the state,

and the Southeast if there's room, are invited to enroll their potential replacement heifers. EREC only has 600 acres of pasture available. Part of that is set aside for the bull test program and resident cow herd, so they can only take a maximum of 150 heifers. Consignors can enter one head on up to 10.

To be eligible for the test, the heifers can be registered or commercial, but they must be



homegrown. The breed of the sire is required, but the registration number of the actual sire is preferred. Their

birthdates have to be between Sept. 1 through Jan. 31, with a minimum weight of 700 pounds (lbs.).

A deposit of \$75 is required at delivery. Total cost of the test and sale usually runs between \$500 and \$600, and is due at the end of the test.

The test starts in mid-December with a

two-week warm up period. Heifers get a ration of soyhulls, corn gluten and cracked corn, along with free-choice Tifton 85 hay. At this point they're in groups of 25 and are held in pens.

"We have to doctor a few of them if we get extreme weather," says program assistant, Gillian Courtney.

They are also dewormed and get booster vaccinations for viral and bacterial diseases. Samples are taken to test for bovine viral diarrhea persistent infection (BVD-Pl). They run DNA testing, which allows for added selection on maternal and other traits. The heifer crew, which includes Courtney and Harry McAlvany, also records weights and disposition scores.

After the warmup groups are combined to around 50 head each, they are moved 10-acre paddocks of ryegrass and triticale.

"Our goal is for them to gain 2 lbs. a day to meet their needed weight for breeding," Courtney says.

In early January, about the time they go on winter forages, the heifers are revaccinated and weights and hip heights are taken and recorded.

If the weather is bad and the forage isn't growing, heifers are



Monitoring heat cycles

"I think it is the future of cow reproduction," says University of Georgia ambulatory veterinarian Michael Lowder.

He's talking about CowManager®, a cow monitoring tool in use at the Clemson University EREC heifer development program. Lowder, who consigns the heifers from his own Angus herd, also does the reproductive work for the heifer program.

"It is pretty accurate at showing when they're coming in heat, and other than two or three heifers, it has been on the money showing if they're pregnant."

Individual ear tags track heifer movement, which signals when or if a heifer is in heat. Scott Sell, former manager of the EREC heifer development program, is another fan of the monitoring program, marketed by Select Sires.

"It was designed for dairy cattle and the health component is not quite as applicable in beef cattle as it is in dairy cattle, but it quickly identifies estrous cycle problems," he says. "Within four weeks we knew which heifers had irregular heat cycles, and we could either treat and fix them or cull the heifers."

There is a drawback, though. The ear tags transmit the data to the internet, and without reliable Wi-Fi, which can be hard to come by in rural areas, it can be a challenge.

EREC program assistant Gillian Courtney laughs when she shares another drawback to CowManager, which she monitors on her smartphone.

"My husband did not appreciate the moo sound it made at 4 a.m. when it notified me a heifer was in heat," she says.

supplemented with hay and minimal amounts of feed. Mostly, however, the crew relies on carefully managed rotational grazing to keep the winter forage and the heifers growing. They try not to turn heifers into a paddock until the ryegrass and triticale is at least 6-8 inches (in.) tall, then move them when it gets down to 4 in.

During the last week of February, reproductive tract scores, weights, pelvic areas and disposition scores are collected. If a heifer isn't cycling and/or doesn't have an acceptable reproductive tract maturity score, she is removed from the program.

For the heifers that make the cut, the seven-day co-synch

program is started with CIDR®s and an injection of gonadotropinreleasing hormone (GnRH) to synchronize estrus. The first week of March, CIDRs are removed and a prostaglandin injection is given. In 54 hours the heifers are artificially inseminated (AI) to a calving-ease Angus bull.

While consignors are permitted to provide semen from other sires or breeds, Sell says the majority are bred to the same Angus sire.

"Angus cattle have the strongest and best data set behind them," he says. "These heifers can be bred with moderate birth weight semen, and we

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can have confidence they can have a calf they can handle but will take off and grow when it hits the ground. Along with the demand for Angus cattle, that was the logical choice."

Select Sires helps consignors hold down costs by providing the semen at a discounted rate and doing the actual AI breeding at no charge.

The third week of March, clean-up bulls, also calving-ease Angus, are turned in with the heifers.

The end of March, heifers are weighed, hip heights are measured, disposition scores are taken, the heifers are graded, and blood is drawn to see which heifers settled to the Al sire.

If the weather cooperates, the heifers stay on ryegrass and triticale until mid-May, then move to Bahia grass, Bermuda grass and crabgrass pastures. By mid-June, the millet is usually ready to graze. Clean-up bulls are typically removed as well, after a total of 60 days with the heifers. Thirty days later, a final preg-check is done. Heifers must be pregnant, or they aren't eligible for the sale. Watkinsville, Ga., Angus breeder Michael Lowder agrees with this requirement.

"They are selecting for fertility. If she doesn't get bred, it doesn't matter what her EPDs are," he says.

Lowder sends six to 10 heifers a year to the heifer program. He takes part of them back home for his herd and sells the rest in the sale.

The test stretches out longer than conventional heifer development tests since heifers are developed primarily on forage, but Lowder says it suits him just fine.

"By the time of the sale, they're only a couple of months from calving."

While the heifer development program gives smaller breeders like Lowder an economical way to develop and market their heifers, as well as collect volumes of useful data, forage-livestock specialist Silva says the program is designed to benefit all producers, whether they consign or buy heifers or not. She says they're planning on renovating part of the permanent pastures and adding alfalfa drilled into Bermuda grass.



Liliane Silva and Gillian Courtney educate producers on forages and the data collected on the heifers at the Clemson University Edisto Research and Education Center forage test.

There will be field days and short courses to share their experiences. "At the end of the day, this is for education," she says.

Editor's note: For more information on the Clemson University Edisto Research and Education Center heifer development program, see: www.clemson.edu/ extension/bulltest/edisto/2020/ ehdp2021rulesinfo.pdf

Full circle education

The Clemson University Edisto Research and Education Center (EREC) heifer test is tailor-made for producers like Mindy Sandifer. The Barnwell, S.C., high school ag teacher is slowly building an Angus-based commercial herd with her husband and son. To add to their numbers, they purchased three bred heifers at the EREC sale in 2020, followed by an Angus bull, also from EREC, in 2021.

"Gillian Courtney and Scott Sell have always been helpful to us as newcomers to the cattle business," Sandifer says.

In the case of Courtney, it was payback time. She was one of Sandifer's first students when she started teaching high school agriculture.

"Gillian took the time to show me around the heifers before the sale and answered my questions on the data." Sandifer says, adding that she feels fortunate to have EREC — and Courtney — near, both for her and her family and her current students. "It has been really cool to have as many as eight of my former students working full-time at EREC in multiple areas of agriculture. It is a full-circle moment when they get to teach me."

