Scanning Heifers for Profit

Producers use ultrasound to evaluate females.

by Miranda Reiman

Many producers work to improve their herds through more than just bulls. Maternal pedigrees and expected progeny differences (EPDs) have helped them build the female side.

A few have taken the next step, using ultrasound to evaluate carcass merit and as an early, precise pregnancy test. Coats, Kan., producer Nathan Lee has been scanning his replacement heifers for the past decade.

“The main reason is to determine who goes into our AI (artificially inseminated) herd, the top 10% to 15% of our cows,” says Lee, who manages 1,100 cows with his parents. “We don’t use that information to cull on until she’s already bred, so we know if she settled AI or not.”

Lee hires Kristi Gordon of Central States Ultrasound Services, Kensington, Kan., to scan the cattle during heat synchronization.

“We’ll schedule them to go through the chute for their Lutalyse® shot and to be shaved and scanned,” Lee says, noting the labor efficiency. “It’s a good time to check them, around 14 months of age. They’ve got enough fat cover, and it allows that intramuscular fat to express itself if it’s going to.”

The scan data — intramuscular fat percentage (%IMF), fat thickness and ribeye area — show part of the picture Lee sees when selecting females. If a heifer has visual appeal but poor scans and was bred by natural service, she’ll be sold. An AI-bred heifer with a mediocre scan will likely stay, but Lee will “add up the strikes against her.”

He either retains or sells most of the heifers as replacements. To make rapid change, cows are sold by their fifth birthday, based partly on progeny data.

“First and foremost, we’re looking at all the carcass quality we can get, as long as the other traits are in an acceptable package,” Lee says. “Those other traits include low birth weights, no calving difficulties and the ability to breed back quickly.

A member of U.S. Premium Beef (USPB) since 1998, his data on more than 3,800 calves shows a current average premium of $43 per head. “We watch that dollar premium go steadily up,” he says, “but it’s a slow, slow process.”

Ultrasound technician Toby Muller of UltraOva, Adair, Iowa, says the technology is beginning to grow in popularity with commercial producers.

“There are many people who use it because they recognize that the bull is only half of the genetics,” he says. “Most aren’t culling just on the IMF or ribeye, but it’s another piece of information.”

Those records can be helpful throughout a cow’s lifetime, Muller says.

Lee certainly agrees. “We’ll have that information for years down the road when we decide who is going to be culled and sold at some point,” he says. “In a lot of cases it becomes more valuable one to three years later.”

“The good part,” Muller says, “is that you can build a database on your cows. If you take pictures when they’re 1, you’ll have them when that cow is 8, 9 or 10 years old. You can use that to weed some of them out later on.”

Preg-checking

Another application of the technology is quickly catching on with cattlemen.

“Using ultrasound for preg-checking is the fastest-growing part of our business. It’s an application everybody can use,” Muller says. “(Some states require pregnancy-checking by ultrasound be done by a licensed...”
Cows can be scanned as early as 25 to 30 days postbreeding, but most jobs are for 60 to 100 days, still months earlier than traditional palpation.

“It’s very accurate if your technician has experience,” Muller says. “We can usually predict it within five days of conception.”

Customer Doug Steele of Steele Land and Livestock, began using ultrasound for pregnancy-checking nearly 10 years ago for his heifer development program.

“We used to manually preg-check to get our AI percentage,” the Anita, Iowa, producer says. “We ended up having to preg-check them twice with palpation. We switched to ultrasound because we could do it once, and we could do it early.”

University of Missouri Extension beef specialist Dave Patterson has seen use of the technology grow in his state.

“Once producers get that pregnancy diagnosis and see they can use it to make management decisions early, as opposed to waiting until mid- to late fall to get an open or pregnant call, it just changes an operation,” he says. “It gives you very descriptive information very early on, relative to how the breeding season went.”

The accurate conception date call shows exactly which females were bred AI.

“It’s very obvious if you’re looking at a 70-day pregnancy vs. a 60-day or 50-day,” Patterson says.

Steele says that conception date is important for management during calving, too.

“In our climate, it’s nice to know when they’re going to calve. We sort cows by calving groups according to ultrasound,” he says. In addition to his heifer development program, Steele has a registered Angus herd. In all, Muller scans more than 750 females for Steele annually.

Economic advantages

Ultrasound gives more information to those selling bred heifers or cull cows.

“If you’re marketing heifers, it means a whole lot to the customer to know when they’re going to calve,” Patterson says. “It’s also significant in terms of what it can mean when marketing cattle.”

Steele admits it’s a secondary perk.

“We’re getting rid of open cows before weaning, when the cull market is higher,” he says. “By identifying those opens earlier, you pick up some money there.”

It saves dollars, too.

“With feed and land costs where they’re at, to keep those females around even an extra month is a considerable expense,” Steele says. “We’re getting rid of them much, much earlier than we would have under manual palpation.”

Muller says the precision of ultrasound shows up in the bottom line.

“I would hate to think how many traditional preg-checks are inaccurate,” he says. “You could be selling some of your best cows that were called open, or saving that 5% that are actually open. That’s a lot of money in terms of missed opportunity and feed costs.”

For building carcass quality in a herd, determining which females are AI-bred and saving money with exact due dates, these cattlemen have found ultrasound to pay its way.