



High-quality AI sires result in a herd of high-quality females in Barry Cronin's commercial operation.



AI breeding his commercial cow herd allows Barry Cronin to use proven, accurate, high-quality Angus sires.

Whole-herd AI

Georgia cattleman and AI technician see AI as the ladder to the next level.

Story & photos by
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Other than a pesky drought, things were rocking along pretty good in 2006 for Barry Cronin. Top-notch Angus bulls bred to his quality commercial cows, all grazing on well-managed forages, made his operation a sight to see. But the Canon, Ga., cattleman isn't one to coast.

"We had AI'ed (artificially inseminated) heifers for four years and were really tickled with the way the AI sires worked on them," Cronin says. "We wanted to take the cow herd to the next level. We wanted to do that with high-accuracy sires and use \$Values to put the traits we wanted in the cow herd. Plus, our goal has always been to have our cows like peas in a pod. The only difference we want to see in them is the ear tag number."

AI was the logical answer. But Cronin and his AI technician and

friend Nick McGee couldn't quite get up the nerve to AI the cow herd. Then, Kansas Angus breeder Mark Gardiner gave them the nudge they needed.

"Mark told me you can get about half the cows pregnant with one round of AI," Cronin recalls. "Then it was a no-brainer."

With advice from the Gardiners, Cronin and McGee tweaked their seven-day CIDR®-based heifer synchronization program to fit the cow herd. First, to make the numbers more manageable, they divide the herd into two groups of 80 to 100 head each and set up to breed one group at a time.

On Day 0, they insert a CIDR, a progestin-secreting device, into the cow's vagina. In addition, they give an injection of gonadotropin-releasing hormone (GnRH). On Day 7 they remove the CIDRs and give an injection of prostaglandin (PG). While timed insemination of the whole group after 72 hours is

an option with that protocol, Cronin and McGee choose to watch heat and breed approximately 12 hours after they see a cow in heat.

"The youngest calf is probably 45 days old at that point, but still, there will be some cows not cycling yet," McGee says. "We don't want to waste semen on them."

Those non-cycling cows are generally few and far between.

"We'll see some heats in 24 hours. They'll keep coming in heat for two days at least, sometimes on to the third day," McGee reports. By the time he finishes, typically at least 70% of the cows settle to the one round of AI breeding. After cleanup bulls are turned in, pregnancy rates are normally in the 95% range for the 60-day season.

Demonstrated success

David Patterson, University of Missouri Extension animal scientist, gives high marks to the protocol. "It is very effective and gives a lot of

bang for your buck," he says.

Patterson normally recommends producers do a timed-AI breeding (breeding at a set time, not by heat detection) with a second injection of GnRH at around 66 hours after CIDR removal and the prostaglandin injection. This saves them the time and labor that goes with heat detection.

Thanks to a U.S. Department of Agriculture (USDA) National Research Initiative integrated grant in animal reproduction, Patterson and his team have been able to do on-farm field demonstrations around the state.

"These demonstrations, using fixed-time artificial insemination, were conducted with 73 herds involving 7,028 cows. All cows were synchronized using the seven-day Co-Synch + CIDR protocol and were fixed-time inseminated at 66 hours after CIDR removal and a

Making it work

As anyone who has ever actually attempted synchronization and artificial insemination (AI) knows, success doesn't just happen. Here are tips from farm owner Barry Cronin and AI technician Nick McGee:

Start early. Really early. Cronin starts his cow synchronization and AI program by building fertility into his herd via his heifers. The same day they insert the CIDR®s in the heifers, Cronin has his vet check the heifers and give them a reproductive tract score. If a heifer isn't actively cycling, she goes in the cull pen.

"The first year we culled 10% on their reproductive tract scores," Cronin says. "The cull rate is now down to about nothing, maybe one or two."

"It is usually one of the prettiest heifers," McGee says. "It really hurts to cull them, but it makes my job a piece of cake. Their reproductive tracts are now so much more mature."

Cull open cows. "At preg-check time, anything that doesn't fall in our 60-day window is gone," Cronin says.

Nutrition, nutrition, nutrition. "You've got to have a cow at a body condition score (BCS) of 5.5 (1 being emaciated, 9 being obese)," Cronin says. "That's important if you're using bulls, too. A cow can't cycle without a little flesh."

Cronin keeps his females in breeding shape with carefully managed pastures of novel endophyte fescue, clover and Bermuda grass, as well as winter annuals. He also invested in a commodity barn so he can supplement them as needed during droughts or tough winters.

Facilities. "We wouldn't attempt this without good pens and chutes," Cronin says.

Easy does it. "Handling has a lot to do with it," McGee says. "Work those cows as easy as you can, and

take your time." He adds, "Barry's cows are almost trained. They are like old dairy cows that know to go to the milk barn."

Commitment. "You have to have a plan and stick to it," Cronin says.

"One night when we were breeding cows we had tornadoes all around the area. We'd stop when the lightning got too bad, then start up again," McGee adds. "We finally finished at 11 or 12 that night."

Team effort. "It takes a village to be successful," Cronin says. "We wouldn't be in this game without Nick, Mike Certain, Bill Sell and Melvin Porter." Certain is his farm manager, Sell is a retired University of Georgia Extension forage specialist who guides him on forage management, and Porter supplies him with cleanup bulls and advises him on selection. "They are good folks," Cronin emphasizes.

Angus all the way

Barry Cronic has used nothing but Angus bulls since the mid-1990s. “We had two horned Hereford bulls before then and had more calving problems, udder problems and less growth. Just about every problem we had traced back to them.

“There is so much EPD (expected progeny difference) information from Angus,” he continues. “It is amazing. Our udders are good. Our weaning weights are pretty good. The steers average 625 pounds (lb.) and the heifers average 575 pounds.”

He adds, “The carcass data has been good.” He retains ownership on at least a percentage of his steer calves every year and normally around 70% of his cattle grade Choice.

On a recent closeout of 100 steers, high feed and fuel prices made margins extremely tight, despite average daily gains of more than 3.5 lb. and dry-matter conversions under 6.0. He only made \$1,576 over costs on the steers, compared to what he could have sold them for at weaning. “We wouldn’t have done that without the carcass premiums,” he notes.

“Straight breeding has been good to us,” Cronic concludes. “Dollars don’t lie.”

with accuracies of 90% or better,” Cronic says.

“It allows you to use bulls you couldn’t afford,” McGee says. “Very few people can afford to have a ‘Retail Product’ in their pasture.”

“We are tightening the genetic package even more, getting more predictability,” he adds. Currently, there are 68 heifers in

(Continued on page 44)



Barry Cronic and Nick McGee are fully committed to Cronic’s whole-herd AI program.

PG injection. The average fixed-time AI pregnancy rate for the 7,028 cows that were inseminated was 62%, which meant that 62% of the cows conceived on the first day of the breeding season. Now there is a huge interest in that program.”

He says timed AI is successful in part because the CIDR does help induce cycling in cows that have not yet returned to heat after calving. However, he says, “There is the flexibility with this protocol to use heat detection.”

He stresses, though, that it is important to do what Cronic and McGee are obviously doing. “You have to be serious about it and do a good job.”

McGee says, “We put on Estrus Alert® patches when we take the CIDRs out. Those are a great invention. But we still watch heat, too.”

Patterson says a third option is similar to what Cronic and McGee do with the heifers — check heat and breed up to a point, for example 72 to 84 hours, then time-breed the females that haven’t shown heat.

Since they’ve found an option that works for them, both with the cows and heifers, Cronic and McGee are sold on a whole-herd AI program.

“We are able to use proven genetics

Barry Cronin uses synchronization and AI to increase the uniformity of the cattle in his commercial herd.



Whole-herd AI *(from page 43)*

Cronin's pasture, all sired by the same bull, waiting to deliver their first calf.

"Synchronization and AI tighten up the calving season," Cronin adds. "The calf crop is much more uniform. That helps when you go to the feedlot. They need them the same size."

Cronin and McGee are so pleased with

the results of AI breeding the cow herd they are now mulling over following the Gardiner's example by doing two rounds of AI before turning in the cleanup bulls.

But, Cronin says, "The truth of the matter is we are so worn out after the first round we don't want to take on another. We're like little children at Christmas. We can't wait to get started, but we're awfully glad to unwrap that last present, too."

McGee adds, "We sure look forward to the outcome, though. When I look at the backsides of the replacement heifers, I can just see the ribeyes. Then I'm ready to go at it again."



Selection works with Angus

Whether he is choosing an artificial insemination (AI) sire or a cleanup bull, Barry Cronin has selection priorities.

"We don't want anything that will give us calving problems. We stay in the two's on birth weight EPDs (expected progeny differences) with as much growth as we can get. If they don't grow they don't make money."

However, he says, it is a balancing act. "We want do-ability. The \$Values are the greatest thing ever. We want a plus \$Value for maintenance. I think we may have gotten our cows a little big and need to take off a little on the mature size."

On selection for carcass traits, he says, "Seven or eight years ago, when we first started picking out carcass traits to work on, we worked on ribeyes. It is amazing what we've done. Now we want to work on marbling."

Cronin also says predictability plays a major role in his selection.

"That is one thing collecting carcass data will do for you, show you the variability in your cattle," he observes. In a recent pen of cattle, the top calf brought \$147.19 per hundredweight (cwt.), had a carcass weight of 853 pounds (lb.) and was eligible for the *Certified Angus Beef*® (CAB®) brand. The lowest-selling calf brought \$17 less a cwt., graded Select and had a carcass weight of 1,000 lb. "We've got to work on the marbling and get rid of the heavies."

Although he still hasn't quite reached his goals, Cronin says he is on the right track. "Those darn EPDs work, especially in Angus."