Custom-Made Herd With AI

Commercial cattleman uses artificial insemination to access more, different genetics.

STORY & PHOTOS BY BECKY MILLS

With only 20 cows, many producers simply would turn the bull in and be done with the breeding season. Not Paul Drake. He is customizing his crossbred cow herd with artificial insemination (AI).

"I can look at each cow individually and match her up with a sire that complements her frame, muscling and milking ability," says the Pinetops, N.C., cattleman.

Drake started his herd eight years ago with three purchased cows and heifers. The next year he bought six more. Then, in January 1997, he began an AI program to help build the quality as the herd was also growing in numbers.

When it comes to quality, he has a specific set of standards. "I want a sire that will give me a thick animal, high yearling weights and milking ability in the heifers," he explains. "I've experimented a lot to see what fits."

To reach and to maintain his goals, he has both Angus and Simmental semen in his tank. However, when it comes to his heifers, as well as his cleanup bull, only Angus will do.

"My cleanup bull … seems to complement the AI bulls; he has the same characteristics," Drake says. "I use an Angus bull for cleanup because, if I do have heifers that don't get bred AI, I don't have to worry about calving problems."

Pinetops, N.C., cattleman Paul Drake is customizing his crossbred cow herd with artificial insemination (AI). He matches each cow with an AI sire that complements her.

To give Drake a sound start in his first AI season, Edgecombe County Extension agent Ralph Blalock did all the actual AI breeding. The second year, Drake bred a couple on his own. The third breeding season, he bred most of them.

As for Blalock, Drake says, "It is nice to have somebody around with experience. I would recommend anybody going into it have someone like Ralph around. Also, attend a school put on by the Extension service or an AI company."

Blalock's experience and Drake's willingness to learn have paid off in AI conception rates around 65%.

"I'm still learning. I have a long way to go, especially with only 20 or 25 head to do a year," Drake says. "AI requires intense management. Nutrition is the main part."

His cows are on winter annuals during the breeding season, as well as grass hay, but he also supplements with ground feed, both for the added energy and to make them easy to handle.

Know the drill

Drake says the AI procedure is critical. "The biggest question is, 'Did I get the gun in the right spot?' The only thing that answers that is experience."

He adds, "AI takes a lot of time and commitment." When he is checking for signs of heat, he usually checks at least four times a day — early morning, midday, late evening and midnight.

To keep his days of heat checking to a minimum, he synchronizes his herd with Syncro-Mate-B® (SMB). He puts in the SMB implants, then removes them 10 days later. The cows start cycling approximately 48 hours after he removes the implants, then most of the herd comes into heat during a three-day period.

"That is the time-consuming part," he comments. Thankfully, Drake is in and out of his operation several times a day to tend to his contract hog operation.

He advises paying close attention to the time you are scheduling cows to cycle. He ended up having to breed cows on his anniversary. "Fortunately my family enjoys doing what I do," he says.

There is also the threat of bad weather — a real risk during his January breeding season. "When it is 25 degrees and there is a 10-mph wind, my dad reminds me there is a mighty good bull standing out in the pasture," he laughs.

Drake says that those considering AI should invest in a roof over their squeeze chute.

Weigh the advantages

Still, Drake says the advantages of AI outweigh the disadvantages. "We get a 50-pound-heavier calf with AI," he states.

When he weans the calves in the first part of July, the steers and heifers weigh between 580 and 670 pounds (lb.). When he first weans them, he starts them on ground feed, then rotates them to either Bermuda grass or millet. By the time he sells them two months later, they are up to 700-800 lb.

Drake says AI is cost-effective: "The cost of the equipment is competitive with the cost of owning more than one bull, and the cost of semen is competitive with the cost of maintaining a bull for a year."

"With AI, I have access to a different and greater amount of genetics. In the long run, that will improve my cow herd."

He estimates he has $900 invested in the storage tank and the AI kit. The materials for synchronization with SMB run approximately $5/head, and his semen costs average around $15/head.

"We probably spent a little extra money buying semen the last two years. We're trying to build up an inventory, and I'm doing some experimenting, trying to see which bulls complement my herd."

He still has the cost of his cleanup bull. He says he is not experienced enough to trust his entire calf crop to his AI skills.

After three seasons of AI, Drake says he is looking forward to the biggest advantage.

Drake started his AI program to help build quality as his herd was growing in numbers.

"The other producers in the area tell me I'll really see the benefits when I AI the heifers who are AI-sired. This will be the first year for those calves."

Blalock agrees. "The big boost for Paul is it gives him flexibility in introducing new genetics on the female side. He's trying to save all his replacement heifers out of his AI sires."

Drake adds, "With AI, I have access to a different and greater amount of genetics. In the long run, that will improve my cow herd."

There's more than one way

Although Syncro-Mate-B® (SMB) worked well for Paul Drake, it has been taken off the market. It may become available again, but if not, John Spitzer, Clemson University reproductive physiologist, says there are workable alternatives.

"We've gotten along very well with a modification of the CO-Synch program developed by Colorado State," he says. "There are a lot of other options, but that is the one that worked best in our hands."

Spitzer starts with an injection of gonadotropin-releasing hormone (GnRH), which is available from a veterinarian. On Day 6 he starts checking heat and breeds any animal that is in estrus. On Day 7 he gives a prostaglandin injection (also available from a veterinarian) to any cow or heifer that didn't show heat on Day 6.

When he gives the prostaglandin injection, he removes the calves for 48 hours. "We probably get a 10% better conception rate by removing the calves," he remarks.

During those 48 hours, he breeds any cow in heat. After another 48-60 hours, he artificially inseminates any cow that hasn't been seen in heat through the chute, AIs her and gives her a second shot of GnRH.

On the average, Spitzer says conception rates with the CO-Synch program are usually a little greater than with SMB. The expense varies according to how many injections are required. The GnRH costs between $2.50 and $5/dose, while prostaglandin usually runs $2.50 to $4/injection.

"It is a little more expensive than SMB," Spitzer remarks. "Potentially, you have to run them through the chute three times … . The synchrony is not quite as tight. Cows are in heat over a four- to five-day period."

Still, Spitzer says it has worked in their operation. In his and his wife's 42-cow herd, 25 cows were observed in heat and inseminated. Fourteen of those became pregnant. Of the 17 cows bred without a detected heat and given the second GnRH injection, 14 became pregnant. Of the original 42 cows inseminated, 28 head (67%) became pregnant after a single AI service.