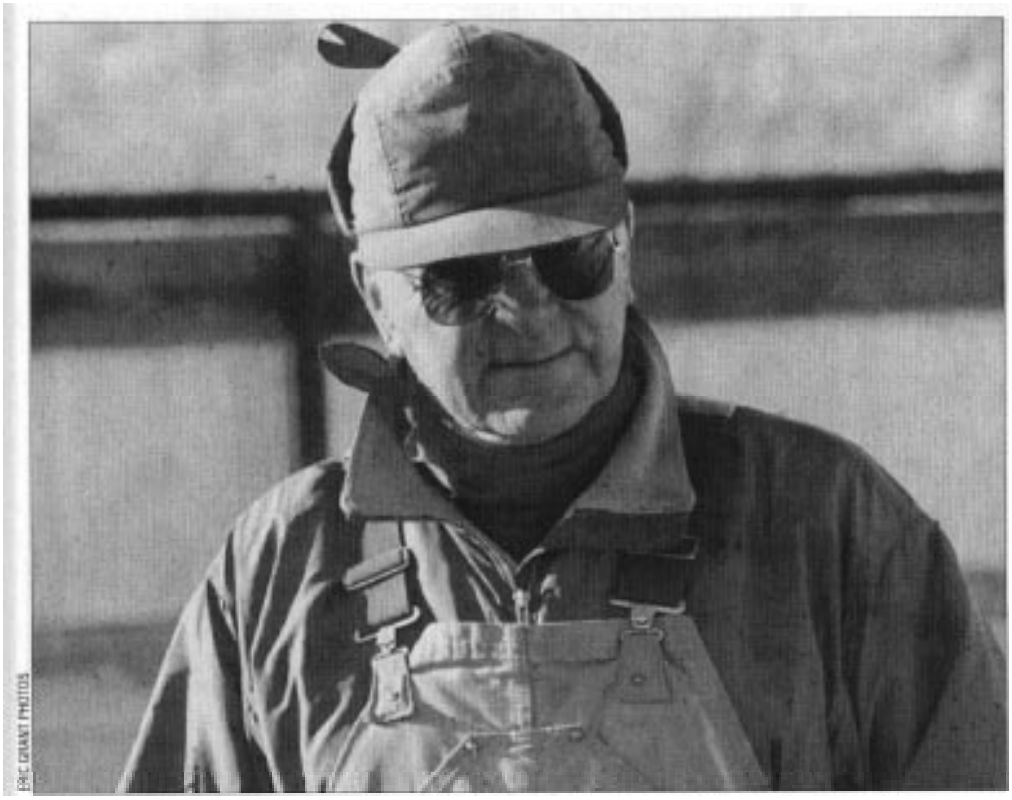
A Fast Track to IMPROVEMENT

Angus plays a crucial role in big-time heifer AI programs.

BY ERIC GRANT



Breeding first-calf heifers artificially to Angus bulls with desirable EPDs has helped Jim Baker, Muddy Gap, Wyo., rancher, accelerate genetic improvement in his herd.

A growing number of commercial producers wouldn't give up their heifer artificial insemination (AI) programs for anything in the world. They see the improved quality of their replacement replacements, watch their steer calves push the scales down like never before and wonder why it took them so long to see the light.

It's no mistake that commercial producers use Angus sires, either. They like the breed's superior calving ease, top-notch performance on the ranch and in the feedyard – not to mention superior carcass quality combined with fertility and mothering ability of their replacement females.

Fact is, for most cow-calf operations, whether they're great big or really small, heifer AI enables them to rapidly build uniformity into their cow herds, improve carcass quality and consistency and expand their marketing options. Best of all, mass-breeding programs accelerate genetic improvement compared to using just natural service, and the costs are surprisingly low. Plus, heifer AI gives producers access to leading and time-tested genetic-top sires that they wouldn't be able to afford for their own use in natural service.

Rancher Jim Baker is one of those producers. He manages close to 1,000 head of black-baldie and Red Angus-cross cows on 150,000 acres of tough country near Muddy Gap, Wyo. A couple of years ago, an Ohio-based semen company helped Baker develop a heifer AI program that's improving his cow herd by leaps and bounds.

The program is easier than he ever anticipated. He gathers each spring 200-plus yearling heifers and places them in a 50-acre pasture where he feeds a roughage ration with MGA for 14 days. Seventeen days after he takes them off MGA, he administers a dose of prostaglandin. In the following 96-hour window, he AI's all the heifers that come into heat, then after the window closes he follows up by mass AI breeding the remaining females. Immediately afterwards, he turns out clean-up bulls.

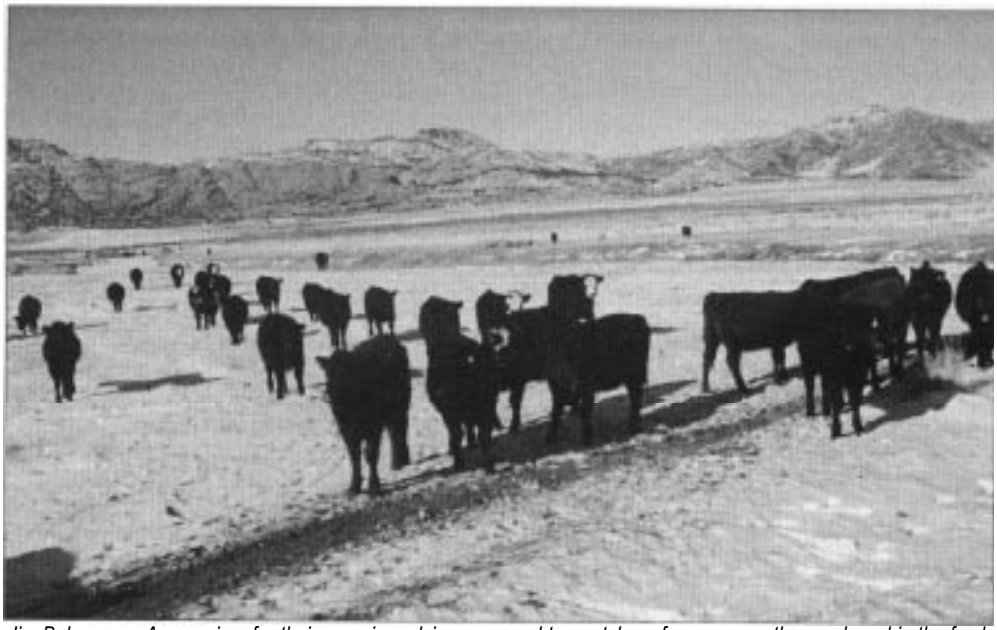
Over the last several years, he has achieved a 66 percent conception rate by AI, although 89 percent of the heifers get bred when he figures in the work of the clean-up bulls. Baker doesn't fool around with using a bunch of Al sires, either. He uses a single low birth weight bull each year, That helps build uniformity into his calf crop, and he likes the fact that a single, superior bull sires the bulk of his calves. They're consistent, uniform and they come easily at birth.

"Take a look at the calves we're getting," Baker says, "and you can't help but see the improvements we've made in a very short period of time. Of all the heifers we keep for replacements from the whole cow herd – which includes a

majority of his older cows – half of them are out of the AI heifers. I think that's one of the really big advantages of the program."

What's even better, all the heifers have calves on the ground the following spring within a 28-day window. 'We get those calves in a very short calving period," he says. "Our heifers aren't spread all over the map during calving season."

The AI-sired calves also outperform their counterparts once they hit breeding age. Conception rates of his home-raised heifers out of AI sires check in at 94 percent, much better than the 83 percent conception rate for the replacements he purchases.



Jim Baker uses Anqus sires for their superior calving ease and top-notch performance on the ranch and in the feedyard. He runs 1,000 head of cows on his 150,000 acres of tough Wyoming country.

Clarence Abney, Paris, Ky., shares Baker's enthusiasm. Abney runs 125-plus females on an BOO-acre diversified operation. He got started a couple of years ago when he and a group of other producers met with the University of Kentucky to develop ways of improving the genetics of their cattle. They also wanted to expand their marketing options.

The program they came up with is called the Bourbon County Elite Heifer Program. Each spring, the dozen or so producers mass breed many of their replacement heifers to top-of-the-line, low birth weight EPD Angus sires.

For the last three years, the cooperating producers have sold, many of the resulting heifer calves through Elite Heifer sales, held in the spring for open females and in the fall for bred heifers. Demand for the top-quality replacements has been so hot, Abney predicts they can sell more than 1,000 head of heifers per year in the future.

Dave Patterson of the University of Kentucky estimated last year that cooperating producers have grossed several hundred thousand dollars through the sales since it began. That's dollars that wouldn't have been generated had they not forged ahead to develop the AI program.

Best of all, Abney sees astonishing improvementa in his cow herd. "I wish you were in Kentucky so you could see the calves we're getting," he says. "Just this year we're getting calves out of AI-sired heifers. This kind of improvement would have taken forever the way we were going. "

For Graham Hooper, a ZOO-head commercial producer and feeder from Bliss, Idaho, heifer AI improves carcass quality and consistency. He sees it as a tool to breed a lot of females to carcass-quality bulls. And he plans to stack those pedigrees in his cow herd, which he hopes will improve predictability, too.

'We want to produce cattle that will hit Choice grade and still be Yield Grade 2 or better, especially since packers are moving to quarter-inch trim," Hooper says. "From what I've seen, we can take a calf with carcass genetics top and bottom in his pedigree and bring him up to 1,150 to 1,200 pounds, and hit Choice and make YG2 or better with great consistency."

Hooper plans to increase the number of heifers he AI's this year from about 60 head to more than 100. Unlike Abney and Baker, he keeps them penned up after he AI's the first time, so he can breed those that didn't settle a second time. Bight now, he's getting 80 percent conception rates.

Hooper stresses that proper vaccination and nutrition programs are essential to making heifer AI successful. "You need to get your heifers on a good plane of nutrition," he suggests, 'but don't get them in too soon. The first year we got the heifers too fat, and our conception rates suffered."

A month or so before breeding, it's a good idea to weigh, evaluate body condition and measure for frame score. If possible, producers should score and evaluate uterine tract development.

A heifer AI program is a good tool to breed your females to carcass-quality bulls.

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Measuring pelvic areas is also crucial. Generally, a target is 150-square centimeters. Baker, a practicing veterinarian, believes producers should check both width and height of the pelvis, because shape plays as great a role as size in determining calving ease. He also warns against selecting for size alone, because pelvic area is directly correlated to frame score. "If a guy is asleep at the wheel," Baker says, 'he could wind up with some pretty big replacements."

Baker also stresses the importance of using low birth weight AI sires. The lower the birth weight EPD, he says, the more successful the program will be. "Make sure you've got some technical assistance to help pick out the heifers that are ready for breeding," he advises, "because it will make everything go a lot easier."

A legitimate concern is cost. Generally, estimates for heifer AI run between $16 to $22 per head, although they vary from operation to operation, depending on available labor, size of herd and AI sires. Most producers who employ the practice believe the costs are competitive with using just natural service. "If I get most of my heifers bred by AI, then I don't need as many bulls around," says Hooper. "I can run one clean-up bull without any problems, without worrying that he'll go bad because his work load isn't as steep."

Most importantly, producers make vast improvements in a short period of time — improvements they couldn't have made any other way, "It's hard to put a dollar value on replacement heifers that are this high in quality," says Abney. "We're recovering expenses for labor and time with a tighter calving season, and the steer calves we're producing are 50 pounds heavier.

"Heifer AI is the best and quickest way to improve the genetic base of your cattle," he continues. "I couldn't afford to buy the worst bull that these AI studs own. But I can still breed my heifers to those superior bulls at a reasonable price and shorten my calving period at the same time. That's what I like best about this program."

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