

Can-Do Attitude and the Right Tools

While many commercial cow-calf operators think AI is best left to seedstock breeders, a Virginia producer applies it to his entire herd.

Story by
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They said it couldn't be done. According to conventional wisdom, a young couple starting from scratch wasn't likely to succeed in the beef cattle business. A lot of well-meaning folks warned Tim and Cathy Sutphin that making a living would be tough. Buying land and paying for it with cattle alone would be nearly impossible.

It's not that southwestern Virginia isn't good cattle country. Described as having a "Goldilocks climate" — not too hot; not too cold — the region's 47 inches (in.) of annual precipitation typically provides for ample forage production. Historically, beef cattle have been a mainstay on farms scattered throughout the Blue Ridge Mountains. Most herds are modest in size, however, owned by producers also having off-farm occupations.

Both of Tim Sutphin's parents had jobs in town, but the family lived and raised beef cattle on a small

farm. While neither of his siblings took a liking to livestock, Sutphin knew, by age 7, that he wanted to be in the cattle business. That's all he wanted to do.

Today, Sutphin and his wife are raising four kids near Dublin, Va. They own just more than 1,000 acres of pasture and hay ground, and they lease about that much more. Their Hillwinds Farm includes some 800 commercial Angus-cross females, a stocker enterprise and a bull test facility.

They started out small and highly leveraged, but managed to service their debt and grow their business. It's been profitable, in spite of rising land prices and other increasing costs. It took a willingness to diversify and adopt management and marketing practices with a potential for boosting profitability. For no aspect of the operation is that more true than for Hillwinds Farm's primary enterprise — the cow herd.

"There are several measures used to gauge [herd] productivity — percent calf crop weaned, weaning weight, average daily gain, percent

Choice or better. All are factors in profitability, but achieving maximum levels in any one of these usually hurts overall profitability. Net return is the one measure that we would like to maximize," Sutphin says.

"I believe some of the best ways to increase net return are through estrus synchronization, artificial insemination (AI) and retained ownership through slaughter. These things, in combination, have made a big difference in our bottom line."

Working their way up

Like many cattlemen, Sutphin started out working for somebody else. Armed with a Virginia Tech University animal science degree, he gained practical experience as a farm manager. Eventually, after the operation's absentee owner decided to disperse his cattle, Sutphin leased the farm. During the next several years, he and Cathy bought and sold several other small places. By "trading up" the couple eventually

Table 1: Comparison growth and harvest wt. according to level of AI influence

Group	Harvest wt., lb.	Days on feed	Avg. daily gain, lb.
AI-sired x AI-sired dam	1,311	170	3.21
AI-sired x non-AI-sired dam	1,260	172	3.18
Natural-sired x AI-sired dam	1,241	179	3.14
Natural-sired x non-AI-sired dam	1,235	189	3.13

Table 2: Carcass comparison by level of AI influence

Group	Choice	YG 3 or better	Premium	Carcass value*
AI-sired x AI-sired dam	97%	94%	\$78	\$972
AI-sired x non-AI-sired dam	85%	92%	\$67	\$917
Natural-sired x AI-sired dam	74%	100%	\$56	\$857
Natural-sired x non-AI-sired dam	61%	100%	\$32	\$797

*Carcass value less costs of feed and trucking



Tim Sutphin says it's hard to find and buy the kind of moderate-framed, balanced-trait bulls he wants to use on his herd of 800 commercial Angus females. Suitable AI sires aren't easy to find either, but when he identifies a proven sire that fits his criteria, Sutphin has more confidence in his predictability.

accumulated their current deeded acreage, which includes the original leased farm as well.

Accumulation of their cow herd came gradually, too. At first, custom-grazing and calf-backgrounding services provided needed cash flow. But it wasn't much fun, Sutphin admits, not for someone whose heart is in the cow business. But partnering on cows with a friend provided the opportunity to start building his own breeding herd.

"We tried to manage our forage as best we could through rotational grazing. By stockpiling fescue pastures, we can usually graze cattle 10 months of the year. And good forage management helped increase our carrying capacity," Sutphin says.

"We tried to use quality genetics as we built numbers. We sold calves through graded feeder calf sales held at area auction markets. But we decided we needed to add more value to the calves and try to capture it for ourselves by retaining ownership and sending them to a custom feedyard," he adds. "That's when we learned about real differences in value — differences of up to \$250 per head among cattle that looked very similar."

Sutphin had been buying some of the best performance-tested bulls he could find. He figured proven AI sires would be better yet, to achieve goals for improved and more consistent feedyard performance and carcass quality, while raising functional females. He had some experience with AI, having used it to breed replacement heifers. Sutphin decided to take a big leap in 1999 by applying synchronized AI on a whole-herd basis. Since then, all cows are inseminated on Day 1 of the breeding season, after which cleanup bulls are turned out with the cows.

Benefits outweigh the costs

Many cow-calf producers shy away from AI, considering it too expensive for use in their commercial operations. Sutphin admits that it does cost more than natural service. He calculates the cost of one-time AI, including semen, synchronization protocol, and other costs, at about \$39 per pregnant cow (assuming a 65% conception rate). In Sutphin's experience, using a \$2,800 bull for four years makes natural service cost about \$33 per pregnant cow (assuming a 90% conception rate). So, according to Sutphin's figures, the cost per pregnant cow is \$6 higher for AI. However, he believes the benefits far outweigh the additional cost.

Among the benefits is improved reproductive performance. Sutphin cites a 2% improvement in pregnancy rate since implementing AI, with more calves born early in the calving season. During the past six years, pregnancy rates have ranged from 95% to 97.5%, with 85%-90% of calves born in the first 30 days of a 65-day calving period. The average age of AI-sired calves is 27 days older than the average age of calves resulting from natural service. The



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average age of all calves is 16 days older than before AI was implemented.

Sutphin says benefits also include less dystocia and, thus far, improved calf health. Among AI-sired calves, 1.3% have required assistance at birth, while 2.9% of naturally sired calves need help. Sutphin credits the difference to higher-accuracy

birth weight (BW) and calving ease direct (CED) expected progeny differences (EPDs) for the AI sires used. He says the older AI-sired calves appear to have more resistance to pneumonia and scours. From birth to harvest, death loss among AI-sired calves averages 3.5%, with an average 5.5% loss among naturally-sired calves.

Also credited to the use of proven genetics, through AI, is the increased feedyard performance and carcass merit of Sutphin cattle. As an example, Sutphin offers a comparison of 2006 steer calves, divided into four groups, according to respective AI influence. All were February-March calves weaned in early September,

backgrounded for 45 days and shipped to a Nebraska feedyard (See tables 1 and 2 for group data).

Posting the best results were AI-sired steers whose dams were AI-sired. Generally older and heavier going into the feedyard, the group gained an average of 3.21 pounds (lb.) per day during a 170-day period. Ninety-seven percent of this group graded Choice, with 94% stamped Yield Grade (YG) 3 or better. Their average value (minus feed and trucking) was \$972.

Compare that to the group consisting of naturally sired steers born to dams that also were naturally sired. These steers gained an average of 3.13 lb. per day over the course of 189 days. Only 61% graded Choice, and their average adjusted value was \$797.

“It shows that the value of our calves is improving with increasing AI influence,” Sutphin states. “If we compare a calf that is AI-sired and out of an AI-sired cow, with a calf that is sired by a cleanup bull and a non-AI-sired cow, the difference in the end value is \$175. That’s worth the little bit extra that it costs to AI.”

Investing in predictable quality

Sutphin says it’s hard to find and buy the kind of moderate-framed, balanced-trait bulls he wants. Suitable AI sires aren’t easy to find either, but when he identifies a proven sire that fits his criteria, Sutphin has more confidence in his predictability.

“I look at every AI sire as a sire of potential replacement females. Frame score five is big enough, and I watch yearling weight EPDs to keep a lid on the mature size of females. But we’re going to retain ownership of the calves so we have to have respectable performance. The \$Beef Value is a pretty good indicator. And I like to see them rank in the top 10% for marbling and ribeye area,” Sutphin explains.

While the cow herd is the operation’s centerpiece, Sutphin still buys up to 1,000 stockers each year, growing the calves at home before having them custom-finished. Hillwinds Farms also serves as the Southwest Virginia Bull Test Station. The latter, Sutphin says, offers valuable interaction with seedstock breeders involved with the Virginia Beef Cattle Improvement Association, which sponsors the annual bull test. The varied enterprises lend diversity to the operation and provide multiple revenue streams. To keep it all running, Sutphin relies heavily on valued employee Mike Hall.

“When we first started, people said we probably wouldn’t make it. Some said we might, if we could find the right niche,” Sutphin recalls. “But I wanted to be involved in the mainstream cattle business. That’s what we set out to do, and the system has worked for us. We’ve been able to pay for our land, grow the operation, build equity and be extremely happy doing it. I look forward to getting up every day and going to work.”