

Taking AI Tips from Dairymen

A Tennessee beef producer uses dairy practices to keep conception rates high.

Story & photos by
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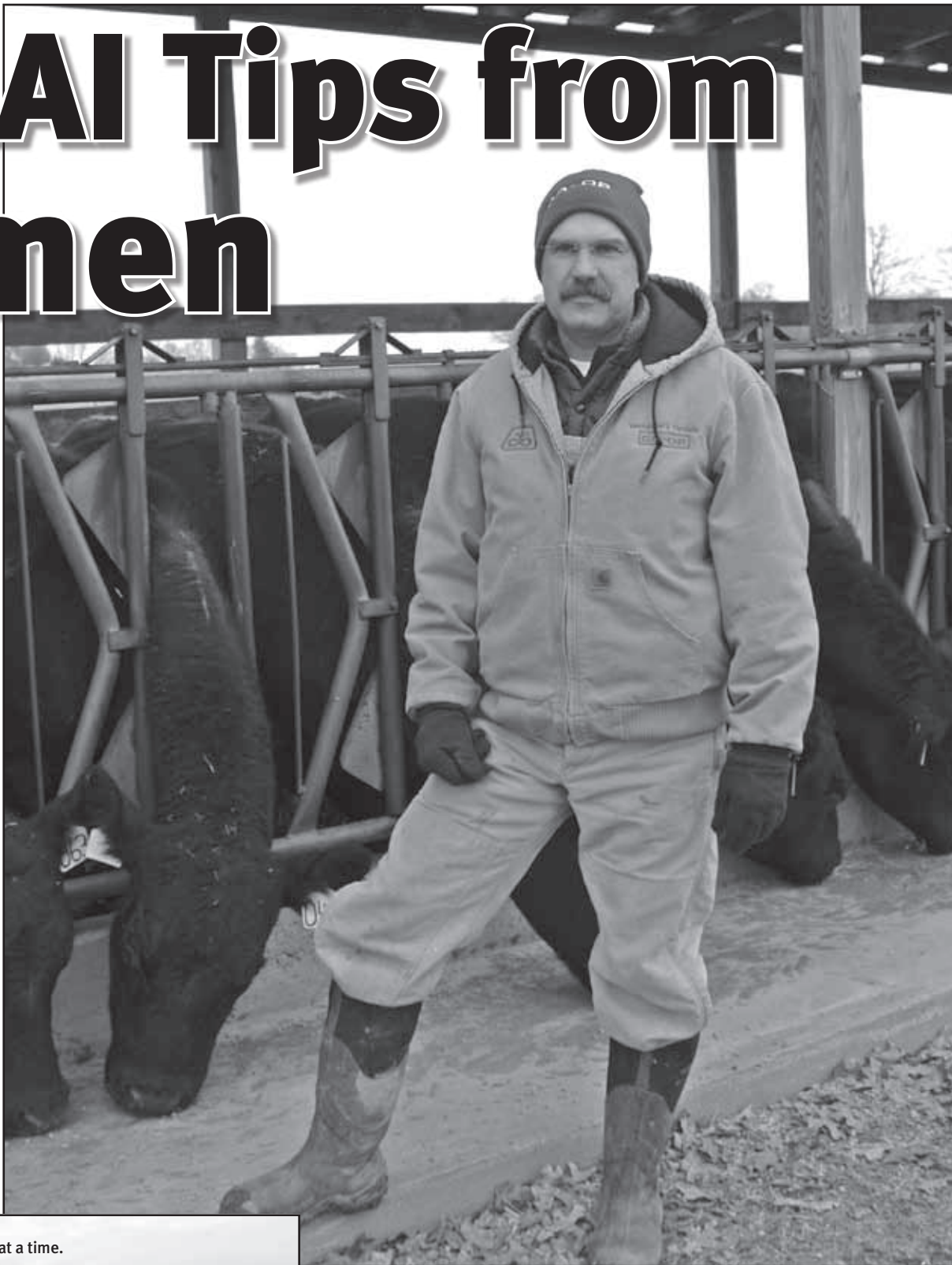
Gary Williams had every intention of owning a dairy. He graduated with a dairy science degree from Mississippi State University and managed a dairy in the state for five years. But life took him in a different direction and, as a result, he and his family own a 44-cow commercial beef herd in middle Tennessee.

It's that dairy background, though, that helped the Cedar Hill producer turn the herd into a top-quality enterprise and keep artificial insemination (AI) pregnancy rates in the 90% range. Here are the key points:

1. Use AI

This is a no-brainer for Gary, who explains, "I can use the best bulls in the country. AI is a faster way to improve your herd."

The Williams cow herd started in 1998 when he and a friend partnered on 44 commercial black heifers from



John Williams religiously checks heat twice a day for 30 minutes at a time.



Tennessee producer Gary Williams uses management tips from the dairy industry to successfully AI his beef cows. He relies on the lockups in his stanchion barn to make AI chores easier on him and his cows.

the sale barn. His friend purchased the heifers, and Gary bred them AI. They intended to sell them as bred heifers, but the market crashed and Gary ended up buying out his partner. Since, he has continuously upgraded his herd by using semen from top Angus bulls.

The one exception was in 2005 when a job change made him forego AI and use a Hereford bull, which accounts for the black baldies in the herd.

Using Angus semen during the upgrading process was a given.

"We wanted to develop a good maternal line of cows with calves that

would sell good and look good," Gary says. He has reached that goal. His steers sell in CPH 45 sales, which are Kentucky preconditioned sales. The bred heifers sell in special Kentucky sales for replacements. The quality and management requirements for both sales are stringent.

2. Check heat

Like many dairies, Gary relies on his cows' and heifers' natural heats to breed them. He works full-time as a livestock specialist with the Tennessee Farmer's Coop and says it works better for him to breed a few at a

time rather than trying to breed the majority of his females at once with synchronization. That means checking heat is critical.

“My Dad does all the heat-checking,” Gary says. “He does a great job. He watches heat in the morning and evening for 30 minutes. Not 29 minutes, but 30 minutes. Uninterrupted. He doesn’t do anything else at the same time. That’s what it takes to make this successful.”

“I try to check heat at the same time every day,” says John Williams, Gary’s father. “I try to check them out in the pasture, too, not in the stanchion barn. If they are on concrete they may not mount.”

When Gary has the cows up for breeding, he chalks all their tailheads with white all-weather chalk, another trick he learned in dairying. “If they don’t have a white tailhead, that gives Daddy something to focus on until he can get around and see their ear tag number. They all have nice big ear tags, too.”

While the system does work for Gary and John, University of Florida animal scientist Cliff Lamb says it’s easier to check heat in synchronized groups.

“When only one or two cows come into heat, the opportunity for detecting them in heat is less than when multiple cows come in heat at once,” he explains. “When multiple cows come in heat at the same time, as with estrous synchronization, the cows are mounted more frequently, and heat detection success is greater.”

Another advantage of estrous synchronization is the ability to stimulate non-cycling cows to start cycling, says Lamb. “In my opinion, estrous synchronization works even better for smaller producers than larger producers.”

3. Bend the a.m./p.m. rule

The general rule of thumb with AI is to breed cows found in heat in the afternoon the next morning. If they are in standing heat in the morning, breed them that afternoon. Gary can’t manage that because of his morning work schedule, so he breeds cows found in heat in the morning and afternoon the same afternoon. The exception is on weekends, when he can follow the a.m./p.m. rule.

Even with once-a-day breeding, he says, he normally gets a 90% pregnancy rate in a 60-day breeding season.

“Last year we used a cleanup bull for the last 30 days,” Gary says. “We had 10% open cows. The year before we didn’t use a bull at all and watched heat and bred for 60 days. We had 10% open.”

This past year he also had an 82% first-service conception rate, which is about normal for his operation, he adds. “I normally just buy enough semen to breed one time. I’ll buy maybe five extra straws.”

Once again, while bending the a.m./p.m. rule works for Gary, Lamb says, “Many dairies breed once a day and are satisfied with the results. However, we still recommend using the a.m./p.m. rule because research indicates AI breeding 12 to 16 hours after initiation of estrus is best. Shifting to a once-a-day breeding may work in many situations, though.”

4. Stanchion Barn

The centerpiece of Gary’s AI program is a dairy-style stanchion barn with 50 lockups. “It makes it easier to AI,” he says. “You don’t have to sort them, and you aren’t chasing them around in the mud.”

He adds, “It keeps the cows calm because they are standing next to each other.”

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The Dairy Herd Monitor helps Gary and John Williams keep track of which cows are due in heat and due to calve.

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John adds, “The cows being calm goes a long way.”

Gary says, “It takes about two weeks to break an open heifer. I start them without the bars in the lockups. If they don’t come around, they are on my short list to get rid of.”

John feeds the cows and heifers in the

stanchion barn twice a day. If any are in heat and due to be bred that afternoon, he has them locked up and ready for Gary to breed when he gets off work.

“We’ve had the barn since 1999 and the stanchions last forever,” says Gary. He says used stanchions can be found at dairy sales for around \$40-\$50 each.

Although lights for the stanchion barn are still on his wish list, he uses a headlight like miners wear to breed in the afternoons since it is normally dark when he gets home from work. When he gets through breeding, he chalks the tailheads of all the females while they are locked up.

5. Dairy Herd Monitor

In a page right out of the dairy play

book, Gary uses a Dairy Herd Monitor to help he and his father keep track of breeding and calving dates.

“You can tell at a glance what is about to happen for the day,” says Gary. “I put down who I breed to, when they come in heat, when they are due to come back in heat, and when they are due to calve. Then I can give a list to my dad of cows that might return to heat.”

Dairy Herd Monitors can be purchased new through Nasco for \$165 or used at dairy sales.

6. Details, details, details

Like any good dairyman, Gary is a believer in tending to details. He starts with his vaccination program.

“We vaccinate the cow herd 30 days before calving with a Novartis killed product for IBR (infectious bovine rhinotracheitis), PI₃ (parainfluenza-3 virus), BVD (bovine viral diarrhoea), BRSV (bovine respiratory syncytial virus) and five strains of leptospirosis. We vaccinate the heifers when they are open, before breeding, with Bova-Shield Gold FP5 VL5.”

He also deworms the cows and heifers twice a year.

“We use the best forages we can,” he continues. Along with the fescue and clover pastures and hay, he uses Rumensin in the minerals and supplemental feed. “It helps them utilize the forage more efficiently and maintain their body condition better.”

During breeding season he supplements the females in the lockups with 4 pounds (lb.) per head per day of a 14% protein pelleted feed in addition to free-choice hay fed in the pasture.

“I want the cows in a 5.0 to a 6.0 body condition score (BCS) at calving,” he says. “The heifers are probably a 6.0 to a 7.0. We breed them at 15 months or less and they weigh around 820 to 850 pounds.”

“I also follow a strict semen handling protocol,” he says. This includes testing the warm-water bath used for thawing semen with two thermometers before breeding season begins.

“It is all the little stuff that adds up,” he says. And, in his case, proof that no knowledge, especially dairy knowledge, is wasted.



John Williams supplements the cows with 4 lb. per day of a 14% pelleted feed. He usually has the cows to be bred in the lockups by the time son Gary gets home from work and is ready to AI them.