



Advice for ensuring your females breed with ease.

by **Christy Couch Lee**

Oh, if only there was a magic wand to ensure a female — whether a first-calf heifer or a mature cow — would breed on the first try, every time. Alas, there is not.

“Successful breeding is a combination of things done way ahead of breeding season, and things done at the moment of inseminating a female,” says Max Stotz, GKB Cattle, Waxahachie, Texas. “But there is no magic key. It’s simply a combination of many things that I’ve found over the years to be helpful in accomplishing the goal.”

Through trial and error and decades in the business, Stotz; Marty Lueck, Journagan Ranch/Missouri State University (MSU), Springfield, Mo.; and Kyle Gillooly, CES Polled Herefords, Wadley, Ga., say they’ve discovered what works for their operations and for their regions of the country.

Stotz has been involved in the Hereford industry since childhood. After graduating from The Ohio State University, he began working for Ace Cattle Co., which became Star Lake Cattle Ranch. Last year, he began managing the cow herd at GKB.

For 32 years, Lueck has overseen Journagan’s 3,300 acres and 480 purebred and 150 commercial cows with four employees. Each year, the operation hosts an annual sale and markets up to 100 bulls through the sale and private treaty.

Gillooly was raised in the Hereford and Angus business in Indiana. He met his wife, Jennifer, while showing Herefords, and when they were married in 2006, he began managing her grandfather’s cattle operation.

Getting Her Bred

Currently, the CES herd consists of 200 Hereford cows, 150 Angus cows and 600 commercial females. They are typically 60% fall calving and 40% early spring calving.

These men say nutrition, vaccination, handling and bull quality all factor into a successful breeding program.

Necessary nutrition

Lueck says by April they are preparing for breeding with a strong focus on nutrition.

“Our idea of nutrition is to make sure they’re on a gaining plane,” he says. “We maintain a mineral program year round, and by April, the grass is hopefully coming.”

A post-calving body score of 4.5 to 5.5 is ideal, Lueck says.

“This allows for enough backfat to help make the reproductive transition,” he says.

Heifers at CES begin grain supplementation at weaning, which continues through breeding, Gillooly says.

“Depending on the time of year, we also rely on winter grain — rye,” he says. “We try to balance it out in the fall with grain through breeding. We typically move to rye after we get them bred.”

All three men agree — mineral supplementation is critical. And not just any mineral will do, Lueck says.



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“Our mineral is custom made,” he says. “We did tests on our forages to determine what we lacked. Soil tests can also help you determine what is lacking — maybe it’s copper, zinc or selenium. We think mineral is important and feed it year round.”

Stotz says finding a good mineral program can take some time and patience.

“We’ve gone three or four routes and always come back to the same one,” he says. “Find something that works for you, and something you can afford.”

Gillooly says mineral supplementation should never be underestimated.

“Minerals are a key issue,” he says. “Sometimes, I wonder if people know just how important mineral supplementation is. They get tied up with things, and forget to make sure minerals are on site year round. Not just for first-calf heifers, but for females getting bred back, as well.”

Gillooly begins grazing cattle on rye from December through early April. He also has conducted testing on his ground to ensure he supplements only what is needed — and nothing more.

“Depending on the environment and region of the country, selenium should be supplemented,” he says. “However, in our area, we can get too much selenium with the grasses grazed, causing toxicity and breeding problems. We’ve known producers who supplemented with high-selenium mineral, and they dealt with deaths and sicknesses. It’s important for producers to know the minerals they need.”

A strong vaccination and health program is also essential. Stotz recommends establishing a relationship with a veterinarian who can help develop a health protocol for your herd.

“You want to be sure the cattle are vaccinated against IBR/BVD/PI3/BRSV, leptospirosis 5-way and

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vibriosis,” he says. “You also need a good worming protocol, and this all should be done 30 days before breeding season. Timely applications of vaccines and breeding go hand in hand.”

Once a nutrition and vaccination program is established, determining the best breeding protocol for your operation is key to successful breeding.

Proper protocols

At Journagan Ranch/MSU, Lueck says, timed breeding protocols are used. All heifers are bred via artificial insemination (AI) twice, and, sometimes, cows are bred twice, too.

At nine days after timed AI, CIDR®s (controlled internal drug release) are reinserted. CIDRs are left in for seven days, at which point they are pulled.

“We visually watch those cattle and breed what comes in off natural heat,” Lueck says. “Most will come back into heat within a two- to five-day period. We end up with 80 to 90% being bred.”

When possible, Gillooly says, natural heats typically result in better breeding results on his operation. He has increased conception rates by 10%, simply by watching cows for three weeks straight and breeding naturally, before programming begins in the fall.

“We try to breed off natural heats,” he says. “Mother Nature’s heat cycle is better than any manmade heat cycle, from what I’ve seen.”

However, breeding protocols also are greatly dependent on the amount of labor available on the operation, Gillooly says.

“We aren’t ‘over-employed’ on our operation, so for those not bred on natural heats, we typically do a

seven-day CIDR program in groups of 40-50,” he says.

And, Gillooly says, the program to choose is the one that works for you.

“We have used different protocols, and it all goes back to what works,” he says. “I am straight heat breeding, because I didn’t have a lot of success with timed breeding in our part of the country. But that’s not the case for everyone.”

What works well at one operation may not work well at another. As well, what works for a mature cow may not work for a first-calf heifer when it comes to breeding.

The cow versus the heifer

Lueck says his operation keeps first-calf heifers and mature cows separate.

“It’s not that we’ll pamper them,” he explains. “But we can take them into a drought, if necessary, and get them on a bit better plane of nutrition. The mature cows should be tough enough to be able to breed back.”

In the past, Lueck says, he often supplemented 6 to 7 lb. of grain to heifers per day. Today, that has dropped to 2 to 3 lb.

“After that process, we have more 2 year olds breeding back,” he says. “They may not look as pretty, but they get enough. And we have a 93-94% pregnancy rate, which is way above the national average for first-time heifers.”

Stotz says many producers try to breed first-calf heifers to calve 30 days before mature cows begin to allow for extra attention to be given to those heifers. Although he doesn’t practice that theory, he does recommend separating 2 year olds from mature cows.

“Grouping 2 year olds and harder-doing cows together can be good,” he says. “Sometimes, they need a little extra nutrition and energy, more than the mature cows.”

The same is true at GKB, Stotz says. Mature cows are kept on grass, while first-calf heifers are separated to be given extra attention, if needed.



Grouping cattle and supplementing 2-year-old and harder-doing cattle together can help increase conception rates.

“Younger cattle who may be thinner or harder doing will be supplemented with grain to keep body condition up,” he says. “We like to see the females in a gaining state during the breeding process.”

In addition to proper care and attention, Stotz says, facilities are also important for breeding success.

Cool and collected

“Keeping the facility as dark as possible, out of sunlight, can be beneficial,” he explains. “Set up your facility in a way that cattle are handled with ease. If a cow gets worked up, her body temperature rises, and a high body temperature can kill semen. If you do have a cow get worked up, it’s best to let her stand for a half hour to an hour, in order for her body temperature to drop again.”

Gillooly says hot weather days can also cause difficulty in breeding.

“If we’re still in a warming pattern in the fall, I will wait for the

temperature to come down before I go in with a straw of semen and expect it to work,” he says. “Last year, we didn’t make it to Denver. We had lined up fall-calving cows for breeding in January. The week we pulled CIDRs, the weather turned 75 and 80 degrees — it increased 20 degrees in a matter of days. Cows were hot and coming into heat, and it’s the worst conception rate we’ve had since I’ve been in Georgia.”

Because of the fluctuations of temperature during winter months in the south, Gillooly says, CES typically avoids breeding during months of vast temperature swings.

“So many times in Georgia, the temperature can be so up and down from December to February — and it’s tough on conception rates,” he says. “By the time April comes around, the temperature is back in the mid-70s and 80s, and the cows adapt and get bred back more easily.”

When the timing is right for breeding, proper heat detection is needed — a skill more critical than some might imagine.

Honing in on heat

Stotz says heat detection can be a great challenge in breeding, primarily for the time that can be involved.

“Many people have another job, and they don’t have the time to sit and watch their females several times a day — especially to watch several groups for 20 or 30 minutes each time,” he says. “Checking heat early in the morning and evening can be ideal. Many times, I check three times a day.”

Heat detection aids can be beneficial for those short on time, Stotz says.

“Paint and heat patches can work well — and you can get as advanced as a heat watch system,” he says. “I want to see them stand, visually. But

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Top tips from the experts

Marty Lueck, Journagan Ranch/Missouri State University (MSU), Springfield, Mo.; Max Stotz, GKB Cattle, Waxahachie, Texas; and Kyle Gillooly, CES Polled Herefords, Wadley, Ga., say many factors weigh into successful breeding. Here are a few of their top tips.

- 1) Know your vaccines.** “I often ask our company representatives about new products coming out,” Lueck says. “I tell them my problems, and see if they have something that can help.”
 - 2) Use technology.** “Google can be a great tool for technologically savvy breeders to begin research for problems they may be having,” Lueck says. “Sometimes, a search can lead to a person who can share information and wisdom. As well, how-to videos can be greatly beneficial for breeders who are just starting out.”
 - 3) Be patient.** “Sometimes, it’s difficult for new breeders to be patient,” Lueck says. “But patience is a great attribute in the cattle business. To be able to understand the business, it takes time. There are no shortcuts to building a program.”
 - 4) Hone in on heat.** “Proper heat detection is a big issue,” Stotz says. “People are so busy these days, they don’t have time to sit and watch groups for 20-30 minutes several times a day. But the more time spent in the heat detection process, the better your success rate will be.”
 - 5) Time it right.** Stotz says once heat is detected, breeding timing is essential. “You don’t want to breed too early, and
- you don’t want to breed too late,” he says. “The rule of thumb is 12 hours. Ideally, you can pinpoint the time of the first mount and breed 12 hours later.”
- Gillooly agrees, saying that, sometimes, up to 18 hours after standing heat can provide great success. It’s a matter of determining what works best in your herd.
- “Sometimes, at 18 hours, the body temperature is a bit lower and the reproductive tract is easier to get a gun through,” he says. “The main thing is to watch heats closely and breed accordingly.”
- 6) When in doubt, double up.** “If you have a problem cow or you’re just not sure of the exact timing, go ahead and breed her at night and again in the morning,” Stotz says. “Semen is pretty cheap when it’s all said and done — especially considering missing a heat cycle costs you money, too.”
 - 7) Know before you go.** When bringing cattle into a different environment than that in which they’re raised, it’s important to understand the adaptation needed, Gillooly says. “You must understand the environment in which they’re raised, and where they’re going,” he says. “When cattle go into a new environment with different grasses, you must be aware of what issues those cattle might go through during the change — some of which could affect conception rates.” **HW**



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there will be times I check at 7 in the evening and in the morning — but a female may only be in heat for three hours in the morning, and I miss it. A tool or aid doesn’t replace, but it does assist.”

Proper protocols and techniques are essential. However, these men say a producer simply can’t overlook the basics of getting females bred — the bull and semen.

Back to the bull

Lueck says bulls are critical to the success of any breeding program.

“It’s important to have a good bull, and to check him prior to turnout,” he says.

Stotz agrees: Monitoring your bull is often underestimated.

“Sometimes, guys turn out a bull and kind of forget him,” he says. “But he needs to be monitored for health and lameness. If he starts limping, that must be taken care of right away.”

Maintaining proper condition and not overworking bulls are also important, Gillooly says.

“We don’t overwork bulls,” he says. “Bulls are on commercial females

for three months of the year. We then put them on a grain diet to give them a break for four to five months, to get back to condition.”

Gillooly says CES AIs approximately 75% of its cow herd and flushes 10-15 donor cows several times a year for embryo transfer (ET). Although he is a believer in both ET and AI, Gillooly says the bull herd should never take a backseat in quality.

“Even if you use AI and ET, your program should still produce bulls equivalent to those used in AI,” he says. “We not only produce bulls for commercial breeders, but also for ourselves.”

And, Gillooly says, if a bull isn’t performing as well as hoped for a producer, an investment in a better-performing bull can be beneficial.

“Sometimes, you get what you pay for,” he says. “If you’re in business to make money, it can be wise to put money where calves will be most affected. If you’re going to use top bulls in your AI program, you might as well have a backup with a bull that has a strong pedigree and proven numbers that can give you the calves you desire.”

More producers are purchasing bulls as yearlings, rather than at 18 months or 2 years of age. And this change has also added new challenges to the mix, Stotz says.

“You need to make sure those young bulls know what they’re doing when you turn them out,” he says. “You need to monitor any bull — especially a yearling — for the first three or four days to a week. Make sure if a cow is in heat, he’s getting the job done. You can’t afford to wait 60-90 days to find out all of the cows are open.”

Semen handling can also play a critical role in success during breeding.

When purchased from bull studs, semen is supposed to meet minimum standards, Stotz says.

“The least amount of time the semen is handled or exposed to air, the better,” Stotz says. “From the stud to the neighbor’s tank to your tank to breeding a cow — all of those times, the semen is exposed to normal temperature. And if that’s done four or five times, the semen will begin to be damaged.”

These men will tell you, they have often learned their greatest lessons through finding out what does not work. They say mistakes are simply part of the growing experience.

Areas for improvement

Stotz says the biggest mistakes he sees producers make are not following a proper vaccination program or not having their cows in proper condition for breeding. The latter can go either way, with them being either too fat or too thin.

“Typically, when someone comes to me saying they can’t get their cow bred, I start asking questions,” he says. “Most of the time, the female is too fat, or the nutrition isn’t adequate to get the blood levels where they need to be. If a female gets bred but passes, it can be due to vaccination. Many times, they bring the females to us, and we can get them bred in 60 days. And it’s often by an adjustment to one of those three things.”

Lueck recommends new producers find a mentor in the industry — one who has found success with his breeding program.

“We all make mistakes,” he says. “The thing about mistakes — if you learn from them, they can be the best-learned experiences. A mentor in the industry can help prevent you from stumbling too much. Find someone who will visit with you about nutrition, breeding and genetics.”

No, there’s no magic wand to ensure breeding success. But by applying these tips and theories to your operation, perhaps breeding will be a bit less stressful and a bit more successful, too. **HW**



Don’t forget the bull. Be sure to check your bull battery before turn-out time.