



PHOTOS BY SHAUNA HERNEL

Set Them Up for Success

Covering the basics gives replacement females a firm foundation for becoming successful herd additions.

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by Lynsey McAnally, associate editor

Ask a group of cattlemen their opinions on the largest single factor related to herd success, and you will receive a myriad of answers. Herd health protocols, nutrition, calving intervals, continually improving genetics and more will be mentioned. But all these areas of interest inevitably tie back to one main idea: reproduction.

Whether you're retaining females or purchasing replacements, there are decisions to be made regarding breeding season well in advance of turning bulls out in order to improve your chances of a successful outcome. According to Joe Freeman, veterinarian and owner of southwest Oklahoma-based bovine reproductive clinic Bovi-Gene, few areas of the cattle industry have seen a larger expansion of knowledge in recent decades than bovine reproductive medicine.

"The area I feel veterinarians can have the largest impact for the beef producer is in the reproduction and genomic sector. Over the

last 20 years, there has arguably been more research on reproduction and fertility than any other sector of the beef business," says Freeman. "With the guidance of a veterinarian who is informed and up-to-date on bovine fertility, reproduction and genomic data, the producer stands to achieve their respective goals much faster and be more profitable."

But before jumping into the vast waters of bovine reproduction, covering the basics gives producers and replacements a firm foundation to build from.

Importance of proper nutrition

"One of the most common issues I see affecting heifers, either bred or purchased by clients, is nutrition. Are the animals in good enough shape, and are they physically mature enough to cycle and successfully breed?" questions Freeman. "How have these heifers grown? Are they old enough? Have they been given the nutrition to get to the proper size and be in shape to have

estrous cycles and then breed?"

Parasites and other diseases can be an issue, but they're not as common a concern as they once were, says Freeman. While bovine respiratory disease (BRD) complex, infectious bovine rhinotracheitis (IBR), bovine viral diarrhea (BVD) and other diseases can cause health issues that can lead to reproductive problems, nutrition is still one of the principal factors he sees preventing heifers from reaching an appropriate size and reproductive stage for breeding.

How can a producer ensure their heifers are given every opportunity to meet those reproductive milestones before breeding season? Looking at past and present-day mature cow weights for your own operation is a good place to start.

"Heifers should weigh 50%-60% of a producer's average mature cow size, at least, at breeding. So, if that's a 1,400-pound mature cow, heifers ought to be a minimum of 700 pounds, maybe even

800 pounds at breeding,” says Freeman. “And you don’t want to be on a tremendously high-protein supplement.”

Staying away from nutritional extremes is key. Freeman recommends producers work with their nutritionist or their feed provider to find a total mixed ration (TMR), ensure breeding females are on a good mineral and institute a good supplementation program.

“You don’t want to be on a tremendously hot, starchy ration. Everybody’s ration or feed supplementation is going to be different, but stay away from extremes,” says Freeman. “I don’t have any ration I absolutely advise against, but be in a moderate spot. The biggest priority is a balanced ration.”

A good first calving

Having your replacement females in shape physically and nutritionally is incredibly important for setting your breeding season up for success. But what can we as producers do to make life easier for ourselves at calving? Though it may seem

obvious, Freeman says you cannot overlook selecting bulls with known calving-ease traits that complement your replacements.

“I don’t look for extremes on EPDs (expected progeny differences). I weigh EPDs on the bulls that are being used, but half of a calf’s genetics come from the heifer herself,” says Freeman. “Considering whether the heifer side of the cross is likely to throw a bigger calf should affect the bull you’re going to use.”

As a producer himself, Freeman recommends cattlemen consider pelvic measurements on their replacements. Though it’s not the golden ticket for heading off any calving issues, pelvic measurements can identify outliers in a group of heifers when considering whether to cull or keep certain females.

While Freeman stresses the importance of having females in good shape for breeding and calving seasons, body condition can certainly swing to an extreme in the opposite direction.

“Producers don’t talk as much about

getting calves out at an appropriate size, but nutrition on replacement heifers in the last two months of gestation can have a huge effect on calf size,” says Freeman. “A lot of times we’ll see it where we have a really cold winter and the last two months of gestation, if they’re going to calve in say February or March or even January, those heifers have been getting a lot of feed. That can translate into larger calf sets.”

Time to be choosy

The current cattle market presents an opportunity for producers to cull hard for the very best replacements while profiting from selling the remainder of their replacement group.

Noting that it is difficult for cattlemen to retain females at the moment due to drought conditions or the state of the female market, Freeman says there are a number of factors producers can use to sort their replacement females using known performance: their own mothers.

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“Aside from the phenotype of the animal herself and whether or not it’s what I’m trying to breed for in the herd, look at udder quality on the mother and look at where she is in your breeding season,” says Freeman. “If a female breeds first cycle every year, she is worth her weight in gold. I don’t have a number to put on heritability of that, but I have to think it’s relatively high.”

Within his own herd, Freeman notes that females who tend to breed first or second cycle are highly valued. Of particular interest are the females who have never been bred natural service because they settle to artificial insemination (AI) every year for seven to eight years continually.

“I would love to have a study on those females. They are very valuable because that first calf, that being first cycle versus 21 days later versus 42 days later, those are a lot of pounds when it comes to weaning time,” says Freeman. “Those pounds translate to a lot of dollars in large scale.”

Calving rule book

While watching first-calf heifers closely to ensure smooth deliveries is something universally seen as beneficial, an easy delivery for a first-calf heifer can also translate to faster conception and a tighter calving window.

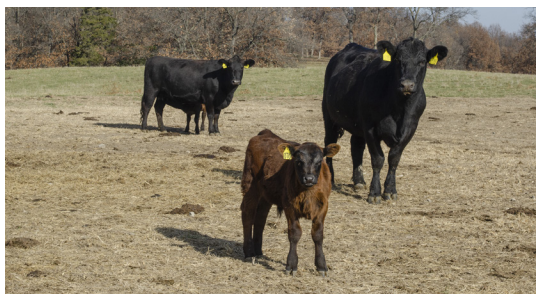
On his own operation, Freeman checks heifers seen in the early stages of labor every 30 minutes. If a precise start time of labor is known, he’ll allow up to an hour and a half with no signs of progress to pass before intervening. If no progress is seen — no advancement of feet, body position or other visible changes — that is when Freeman recommends intervening.

After the calf is born, Freeman monitors whether the placenta cleans out within 12-24 hours. If a retained placenta is suspected, visiting with your veterinarian to make a solid post-birth protocol for heifers is advisable.

Freeman states he doesn’t see a lot of retained placentas unless there is a vitamin A deficiency within a herd, noting that vitamin A deficiencies and a few other vitamin and/or mineral deficiencies will lead to higher instances of retained placentas.

Postcalving checklist

Once the calves are on the ground, the work isn’t over for producers managing their first-calf heifers. Prebreeding — based off a 45- to 60-day postcalving window — Freeman recommends producers plan to vaccinate their females and



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complete any other seasonal herd work. As an example, in the spring Freeman shoots to have his cows vaccinated, apply fly tags and get antiparasitics such as long-range dewormers dosed.

“Certainly, take everything into consideration, but definitely try to get your vaccines in 45 to 60 days before you’re planning to either AI or turn a bull in,” Freeman says. “Sometimes that’s feasible and sometimes it’s not, but — at least if I’m going to AI or put in embryos — I’m going to try to get my vaccines into those cows 30 days prior to breeding.”

With our focus on ensuring the success of our replacement females during breeding season, producers should also take care to have herd and cleanup bulls in top form, as well.

Whether a producer is leasing or purchasing a bull, asking for a breeding soundness exam (sometimes referred to as a BSE) from a reputable veterinarian is a necessity, says Freeman.

In addition to that breeding soundness exam, Freeman recommends cattlemen ensure new bulls or bulls who have serviced outside cattle be negative for trichomoniasis and that females are up to date on IBR, leptospirosis and other standard vaccinations.

Though opinions on herd success might differ, ask any cattleman and they will tell you the lead up to breeding season is a busy time filled with decision-making that can determine an operation’s success well into the future.

Whether you’re analyzing potential replacements, the ideal body condition and physical maturity of first-calf heifers, pre- or postbreeding herd health protocols, or what to check off the list when looking at breeding soundness and disease status of herd bulls, careful planning and management of replacement females sets them up for future success in the herd. **ABB**