Seeking Diversity & Maintaining Flexibility



Young Nebraska couple seeks footing in the ranching business among the Sandhills.

Photos & story by **TROY SMITH,** field editor

Snaking through eastern portions of Grant and Arthur Counties, Whitman Road connects Nebraska State Highways 2 and 92. Blacktopped, but only one lane, it supports mainly local traffic. Out here in the middle of Sandhills ranch country, people are scarce. Usually, strangers traveling Whitman Road are looking for someone in particular, or they are lost.

Scattered along the 36-mile course are exits to dirt roads leading to ranches set well away from Whitman Road. Quite a few of the turnoffs are marked with signs — some plain, others a little fancier. About midway, near the base of what locals call Snyder Hill, is a turnoff marked by a shirt tied to a tall fence post. It's a source of minor embarrassment to Rosemary Anderson.

"We've been meaning to put up a sign," she says.

According to Rosemary's husband, Kevin, that really means *she* thinks a proper marker should be placed at the ranch's entrance. He admits to being somewhat less concerned. Kevin explains how, when they relocated to this place, truckers hired to deliver cattle asked him to somehow mark the turnoff. An old shirt relegated to the shop's rag box was retrieved and hung near the gate. That was four years ago.

"It's getting kind of ragged, I guess, but it still serves the purpose," grins Kevin.

Diversity brings demand

For practical purposes, there may be less need for a sign now. People who need to find the Andersons know how. Repeatedly, cattlemen come to buy feeder cattle and quality replacement females. Ranchers come seeking the custom replacementheifer development service that the Andersons offer. Quite a few cow-calf producers come to enlist Rosemary's skills as an artificial insemination (AI) technician.

Enterprise diversity affords more sources of income for a young couple trying to gain a firm footing in the ranching business. Watchful of the ledger's other side, as well, the Andersons strive to keep input costs low. They're trying to make wise use of available resources. They respect certain ranching traditions, but feel consideration of alternative production methods is necessary especially in uncertain times. "You might say we operate under a flexible paradigm," says Rosemary, "We're willing to try different things."

Rosemary and Kevin met while both were students at the University of Nebraska–Lincoln (UNL). After graduating in 2002, they married and joined the operation of her father, Bill Vinton. For seven years, the

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couple lived and worked on the ranch south of Whitman, started a family and began accumulating cows of their own. Then came an opportunity to buy a ranch located just south of the Vinton summer range. Kevin and Rosemary bought part of it and leased the portion purchased by her dad.

There also came a serendipitous and lucrative opportunity to lease a herd of spring-calving straightbred Angus cows. Still, striking out on their own was an ambitious undertaking. The couple saw diversity of enterprises as a way to make it work. The Andersons sold their own spring-calving cows and purchased fallcalving cows instead. Running two herds provided two calf crops and the ability to spread out their marketing.

For the spring herd, calving occurs primarily in April. Calves are weaned in October and steers are grown to about 750 pounds (lb.) for a March market. Most spring-born heifers are kept and developed as replacement females, with many sold the next fall as bred heifers.

Most of the fall cows deliver in August. Their calves are weaned in February and backgrounded until late May or early June.

Grazed aftergrowth of hay meadows is the primary source of forage for growing calves, with supplemental protein provided. Early on, the Andersons also took in steer calves to background on a custom basis. From September through mid-November, the just-weaned steers also grazed hay meadows, receiving supplemental distillers' dried grains and, during the last 30 days or so, a little corn. By the time outside steers left the ranch, they were bunk-broke and had gained an average of about 3 lb. per day.

Different heifer development

Selling bred heifers, both homeraised and purchased, has grown into an important revenue center, as has developing and AI-breeding females for others. Strong advocates of AI, the Andersons apply the technology extensively to advance genetic improvement in both cow herds. Rosemary acquired the technical skills while in college and helped inseminate cows in UNL's research herds. She credits former professor Jim Gosey for influencing the way she and Kevin approach heifer development.

"What I'd seen, mostly, was heifers grown on a fairly high-concentrate ration. I thought that was normal," says Rosemary. "Dr. Gosey challenged that thinking, but so did Rick Funston. I've AIed for him, too. Kevin and I have watched his research and really learned a lot."

Much of reproductive physiologist Rick Funston's research utilizes cattle maintained at UNL's Gudmundsen Sandhills Laboratory. The research ranch is located near Whitman, so studies are conducted in a production environment very similar to that of the Andersons? Of particular interest has been Funston's work with "extensive" replacementheifer development systems. Instead of pampering heifers until the time of their first breeding to achieve maximum pregnancy rates, an extensive system requires heifers to cycle and conceive under more challenging conditions. Their diet is more restricted, consisting largely of low-quality forages of relatively low cost.

The Anderson heifer-development system emphasizes grazed forages. As with the backgrounding system described previously, the bulk of the heifers' diet consists of meadow aftergrowth or winter range. Sufficient supplemental feed is provided to keep heifers growing, but there is no push to maximize growth or weight gain. Heifers remain on a restricted diet until late in the development period. Beginning about 45 days prior to breeding, the plane of nutrition is elevated. A boost in dietary energy is strategic to have heifers gaining weight just prior to and during the breeding period — a

condition conducive to conception. Producers have long been told that replacement heifers should weigh, by breeding time, about two-thirds of their



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To stretch their homegrown forage and reduce the need for more expensive purchases in supplements, the Andersons purchased "corn hay" from eastern Colorado. Though drought-damaged enough to thwart a grain crop, as baled fodder it tested at $12\frac{1}{2}$ % crude protein and more than 60% total digestible nutrients (TDN, energy value). A leased mixer-feeder wagon is used for blending distillers' grains with corn hay. They add mineral to the mix, and water to make it all stick together, then deliver it windrow fashion to cattle grazing meadows and nearby pastures.

expected mature weight. That target weight rule-of-thumb resulted from research conducted some 40 years ago. To make sure they don't fall short of the target, heifers are often developed on pretty rich rations, and sometimes heifer weights exceed the recommendation.

Because cattle genetics have changed, and feed costs are much higher now, Rick Funston and other researchers are re-evaluating the target weight concept. More recent research suggests growth from birth to weaning may be more critical than postweaning gain, and age at the beginning of breeding season is more critical than body weight.

Pregnancy success

Funston's own research indicates acceptable pregnancy rates can be achieved when heifers reach little more than half of mature weight by breeding time. The Andersons shoot for weights equaling about 56% of mature weight for their own heifers, and try to keep customers' heifers from exceeding 60%. They use an estrous-synchronization protocol involving MGA (melengestrol acetate) and prostaglandin, with AI performed following heat detection. Typically, their results are very acceptable.

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Customers' heifers typically go home immediately after breeding. Following AI, the Andersons' own replacements are exposed to cleanup bulls for 30 days. Overall pregnancy rate, including the bullbred heifers, is usually near 90%.

Rosemary and Kevin say those heifers that do not become pregnant probably weren't good cow candidates. It's likely they would not be capable of sustaining reproduction in this environment. By challenging heifers to perform reproductively on a diet not drastically different from a cow's, the non-performers are identified early. "We want to make heifers into professional cows. We challenge them from the beginning and weed out any that aren't going to make it," says Rosemary.

The Andersons figure a heifer that requires extra-special treatment to become pregnant may fail to rebreed later on, after she's subjected to life in the real world. If she falls out of the herd before producing five or six calves, a cow's salvage value probably won't cover the total investment cost she represents. However, open heifers developed under their system can be marketed profitably. Sold as feeder animals, they return a profit of at least \$50 per head. Usually, it's more.

Having a reputation as heiferdevelopment specialists, the Andersons accept as many outside heifers as their feed resources will allow. Customers pay fees covering yardage, synchronization protocols, and the labor involved in heat detection and "arm work." An added benefit to customers is the time they spend acclimating heifers to routine handling.

Cattle trainers

Some heifers have had little previous exposure to humans when they arrive. By the time they leave, they will be accustomed to handling and have respect for handlers working on foot, on horseback and from a four-wheeler. Rosemary says being able to work cattle without causing a lot of stress, for the cattle or the handlers, is important for multiple reasons. It fosters a better outcome economically, it's safer and it promotes positive consumer perceptions. The Andersons wouldn't hesitate to let anyone video their cattle-handling methods.

"A macho approach doesn't do anyone any good. If cattle aren't handling well, if things aren't flowing, you have to stop and figure out the reason. It's generally the handler's fault," states Rosemary. "We want our kids to be able to help us, so we want cattle to learn some manners. Positive feedback from customers tells us they like it, too."

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In a typical year, Rosemary will inseminate about 800 females at the ranch, including their own cattle and customers' heifers. Ädd on the numbers involved in contract work at other area ranches and she assists with AI of about 2,200 head per year. An ABS Global representative equipped with a portable breeding barn, Rosemary can help customers secure semen, as well as provide the technical service.

Something neither Rosemary nor Kevin possesses is the technical skill to make it rain. The last good rain received at the ranch was in April 2012. The rougher hills comprising their summer range were showing the effects of drought by early June. Cattle had to be pulled back to the meadows early. The Andersons also started early to plan ways to protect their forage base and expand it. Determined to hang on to their cows, they stopped backgrounding outside steers. They decided against buying additional heifer calves to develop and breed for resale, and they also accepted fewer heiferdevelopment contracts.

Increasing their forage

Those decisions would reduce the demand for forage, but they also implemented a plan to enhance the supply. It was time to reconsider their ranch's irrigation potential. According to Kevin, the previous owners had developed three center-pivot irrigation systems during the 1970s. Perhaps due to a lack of

profitability, irrigation had ceased after several years. Two pivots were removed and the land returned to grass.

"We researched use of annual forages for grazing and decided growing our own forage under irrigation would be better than trying to lease more pasture. You never know when you might lose a lease," Kevin explains.

The pivot still standing was readied for use and drilled to millet, while the Andersons searched for used irrigation systems for the two unused wells. By fall, one replacement pivot was in place and another had been purchased.

"After the first hard frost, we interseeded rye into the sod under two pivots. We anticipate enough growth to start grazing in April. It should provide both early and late grazing. Those are times when we need it most," adds Kevin. "It will rain again, but we may never see cheap feed again. With irrigation available, raising alfalfa is something we may want to do.

To stretch their homegrown forage and reduce the need for more expensive purchases in supplements, the Andersons purchased "corn hay" from eastern Colorado. It's not baled residue. Harvested as standing dryland corn in August, it includes the whole plant. Though drought-damaged enough to thwart a grain crop, as baled fodder it tested at 12¹/₂% crude protein and more than 60% total digestible nutrients (TDN, energy value).



'We researched use of annual forages for grazing and decided growing our own forage under irrigation would be better than trying to lease more pasture. You never know when you might lose a lease," Kevin explains. The irrigation pivots are dual purpose to the Anderson youngsters.

"It might be a one-time opportunity, but it was a good buy. The feed value is high enough that we can feed less distillers' grains. That was cheap when we started using it, but no more," adds Kevin.

He admits to scratching his head for a time, trying to figure out the best way to feed it with a minimum amount of waste. Ultimately, he leased a mixer-feeder wagon for blending distillers' grains with corn hay. They add mineral to the mix, and water to make it all stick together, then deliver it windrow fashion to cattle grazing meadows and nearby pastures. "It's been an economical feed source,

and it fits our emphasis on a roughagebased diet. This isn't a 'graze only' operation. We feed our own hay and the most economical supplements we can find when necessary, but we don't feed a total ration. The cattle have to be able to rough it a little," explains Kevin.

"It will rain again," he says again. "Meanwhile we're trying to stay flexible, consider all the options and keep our inputs low."

Editor's Note: Troy Smith is a freelancer and cattleman from Sargent, Neb.