

Grass Foundation

Good stewardship is good for business.

Story & photos by **Troy Smith**



► Seeking improved sustainability, Gates Angus Ranch manager Chan Gates has implemented plans to lower production costs, increase sources of revenue and conserve natural resources.

Chan Gates called for trucks earlier this year, preparing to gather and ship yearlings by the first of July. That's a month earlier than he had hoped, but it was dry throughout the spring and early summer — drier than many southwestern Kansas residents can remember. Gates had been monitoring forage production on the mixed-grass prairie and decided it was time to move forward with the drought plan.

"I try to look ahead and do what's necessary to take care of the grass. That's our primary resource," says Gates, who manages the Gates Family Trust's ranching operation. Gates, his wife, Susan, and their three children reside at ranch headquarters near Coldwater. The operation includes owned and leased property scattered as much as 40 miles distant in the Red Hills of Comanche County.

"I used to focus on breeding the best cattle possible," he says. "Now, my first priority is the sustainability of the ranch. To my way of thinking, if we don't have grass, it won't matter how good our cattle are."

Gates isn't discounting the importance of quality cattle; he strives for genetic improvement. So did his father, Gene, who established the ranch's commercial Angus cow herd in 1949. Herd performance improved during the years. Weaning weights were respectable, and retained ownership experience showed the calves would perform in the feedlot and deliver a quality product at harvest. But bragging rights won't pay the bills.

After his father's death in 1995, Gates and his mother, Valerie, assumed management of the ranch and its 300-plus cows. During the next few years, however, Gates grew dissatisfied with their business's bottom line. He recognized that some of their herd management methods were too labor-intensive. He questioned whether producing crops — mostly summer annuals harvested for hay — and feeding cows throughout the winter were cost-effective. He also worried about declining range condition due to overgrazing and the encroachment of undesirable trees.

In 1998, Gates initiated a process to turn things around and increase ranch profitability. He is quick to credit others with helping devise a plan for better management of land, livestock and labor, while giving due consideration to the health of the environment. Gates attended the "Ranching for Profit" school for training in a holistic approach to sustainable ranching. He also sought the

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aid of Natural Resource Conservation Service (NRCS) personnel to assess rangeland health and to discuss options for improvement.

Contingency considerations

While the range remained in fair condition, it was declining due to a combination of factors. Due to poor grazing distribution, some areas showed signs of overgrazing while other areas were

underutilized. Forage production was reduced by infestations of eastern red cedar trees. Cedars had claimed from 10% to 50% of the acreage in some pastures. Although stocking rates had been maintained at historically acceptable levels throughout the years, average cow size had increased. To make things worse, the region had suffered from several years of below-normal precipitation.

"You can't change things overnight," Gates

states. "We've been working at it for several years, and we're still working at it. But we think we're improving things as we go. We've adopted management-intensive rotational grazing. We're working on the cedar trees. We've put the cropland back to grass, and we're changing the cattle so they fit our environment better. And we've accepted the fact that drought is going to happen, so we plan for it."

The changes began on the 4,100-acre main ranch that has been in the Gates family for three generations. Installation of electric wire crossfences increased the number of individual pastures from seven to 18.

The goal, Gates says, has been to fence with the lay of the land as much as possible, separating upland areas from low-lying areas. Cattle are then less likely to overgraze favored areas and leave others underutilized.

Tapping into Comanche County's rural water system, Gates installed more than 3,500 feet of pipeline to create additional livestock watering sites in new pastures. In some areas, solar-powered submersible pumps have replaced windmills. Certain pastures still rely on creeks as water sources, but pasture rotation limits the length of time cattle have access to these riparian areas and controls degradation.

Crossfences have been added to increase the number of pastures and implement rotational grazing on a 2,600-acre leased place as well as another 8,000-acre leased property where yearlings are grazed.

Cedar trees are being controlled through both mechanical means and controlled burning of pastures. Prescribed burning kills small cedars, removes decadent plant growth and removes annual weeds that compete with native perennial grasses. Gates has entered into a cost-sharing agreement with the U.S. Fish and Wildlife Service to conduct controlled burns in all of the main ranch's pastures during the next 10 years.

"It's a win-win situation," Gates explains. "They want to remove the trees to improve habitat for the Lesser Prairie Chicken, and it also improves the range for livestock grazing," Gates explains. "We've also benefited from cost-share available through EQIP (Environmental Quality Incentive Program administered by the



►**Above:** Gates has made a concerted effort to reduce mature cow size. He believes frame score 5 is big enough for the southwestern Kansas environment.

►**Below:** Through application of intensively managed rotational grazing, range condition has improved. Gates notes the visible increase in perennial tall grass species.



NRCS) to help pay for waterlines and crossfences.”

Gates emphasizes that making cattle fit the ranch’s resource base is a vital element in improving its sustainability. He believes many producers are like his family, and have increased their ranch’s burden through larger cow size. If 30 years ago they managed 300 cows weighing 1,000 pounds (lb.) apiece, their ranch supported a herd with a total weight of 300,000 lb. If they now manage the same number of 1,250-lb. cows on the same ranch, the herd’s total weight is 375,000 lb. That, Gates says, is like adding 75 more cows on the same land.

“We want cows that are easy-fleshing and very moderate in size,” Gates adds. “I would prefer they be about frame score 5. We want cows with low maintenance requirements, but we’re managing them differently, too. Instead of calving in January and February, we calve in April and May. It requires less labor during calving, the calves are healthier, and we don’t have to provide much supplemental cow feed. The quality of the grazed forage is best when the cows’ nutritional needs are highest.”

Instead of relying on harvested feed during the winter, the Gates herd grazes year-round, typically receiving only protein supplement from about the first of December through early- to mid-April. Cottonseed cake is used most often, but Gates has fed high-quality alfalfa hay as the supplement when the price was more favorable. Additional purchased hay is fed only if snow or ice cover prevents cows from grazing. Instead of feeding 1,100 big round bales or more annually, Gates now gets by with 100 bales or less.

Mature cow numbers were reduced to about 220 head. Gates devotes 60%-65% of the operation’s carrying capacity to the cow herd and heifers saved as replacements. The remainder is used for custom grazing of several hundred to more than 1,000 yearlings during the summer. Taking in cattle provides welcome cash flow and also serves as a drought contingency plan.

The amount of early spring moisture determines how many yearlings will be accepted in a given year. In a dry spring, cattle owners understand that the grazing season may be shortened. If dryness persists and hinders forage production, part or all of the yearlings can be pulled early. That way, sufficient forage is reserved

for the cow herd without subjecting any pastures to overgrazing.

Ranch management

Maintaining cows of more modest size and fewer numbers, Gates believes the ranch could sustain the cow-calf operation during a significant drought period. He then avoids running out of grass and being forced to purchase expensive feed or further reduce numbers. He considers the cow-calf enterprise to be the backbone of the operation, and he doesn’t want to be forced to sell the herd, especially during a period of low prices. On the other hand, Gates insists he isn’t married to the cows.

“I don’t want to get out of the cow business,” Gates grins, “but if the price was right and I thought I could buy back more of the same or better kind later, I’d sell every cow on the place. They keep making more of them.”

Gates and his family also looked for ways to diversify and boost ranch revenue. Toward that end, a group of Gates’ cows serve as embryo recipients to augment an area purebred breeder’s embryo transplant (ET) program. The breeder supplies embryos and buys the resulting calves at weaning time, paying a premium.

Opportunities to lease hunting rights are also being explored. Managing for improved range condition and biodiversity also enhances wildlife habitat and populations of several species of game birds. Proper management also promotes efficient soil nutrient cycles and the ability to sequester carbon. Gates hopes to eventually realize additional revenue for improving air quality through carbon sequestration.

According to Gates, the quest for ranch sustainability prompted consideration of nontraditional methods for creating income and reducing inputs. Getting up early and working hard all day won’t guarantee profitability, unless you work smart.

“You have to make time to sit at the desk and manage your operation,” he says. “You have to know your costs and treat a ranch like a business. If something isn’t working, you have to change. We’ve found that making our business and natural resources complement one another is the best way to make the ranch sustainable.”

Efforts recognized

Gates Angus Ranch, Coldwater, Kan., was named the 2005 National Cattlemen’s Beef Association (NCBA) Environmental Stewardship Award winner for Region VII, which includes the states of North Dakota, South Dakota, Nebraska and Kansas. The honor recognizes the Gates Family Trust’s efforts to conserve natural resources and to enhance the range ecosystem as well as the earning potential of their ranching business. The Gates family has previously received the Seventh District Natural Resources Award from the Kansas Farm Bureau (2004) and the Comanche County Conservation District Grassland Award (2003).

“None of the things we’ve done were my original idea,” manager Chan Gates states. “My dad said a wise man surrounds himself with intelligent people. That’s what I’ve tried to do — seek the advice of deep thinkers.”

Gates has worked closely with county, state and federal agency technicians to develop and apply management practices designed to improve forage production for cattle while enhancing wildlife habitat for prairie chicken, quail, turkey and deer. Managing grazing to protect riparian areas also enhances water quality of the Salt Fork of the Arkansas River and tributary streams that flow through the operation’s various properties.

Gates maintains contact with other graziers he has met through the “Ranching for Profit School” and other educational forums. Those producers and other local ranchers comprise a support group with which to brainstorm potential solutions to management challenges. Together, they fine-tune prescribed burning strategies and tweak planned grazing systems.

Gates is also involved with the Comanche Pool Prairie Resource Foundation, a nonprofit rancher organization that promotes research and educational projects to improve the health on native grazing lands and strengthen ranch businesses. Gates Angus Ranch has hosted a ranch management field day sponsored by Kansas State University and the Kansas Livestock Association, as well as rangeland ecology research projects. Gates has also shared his experience by serving as a speaker for area producer education meetings.

“I’ve really benefited from networking with other ranchers, especially people that think outside the box,” Gates states. “I encourage other producers to seek out people to share ideas with, and bounce ideas off one another.”

