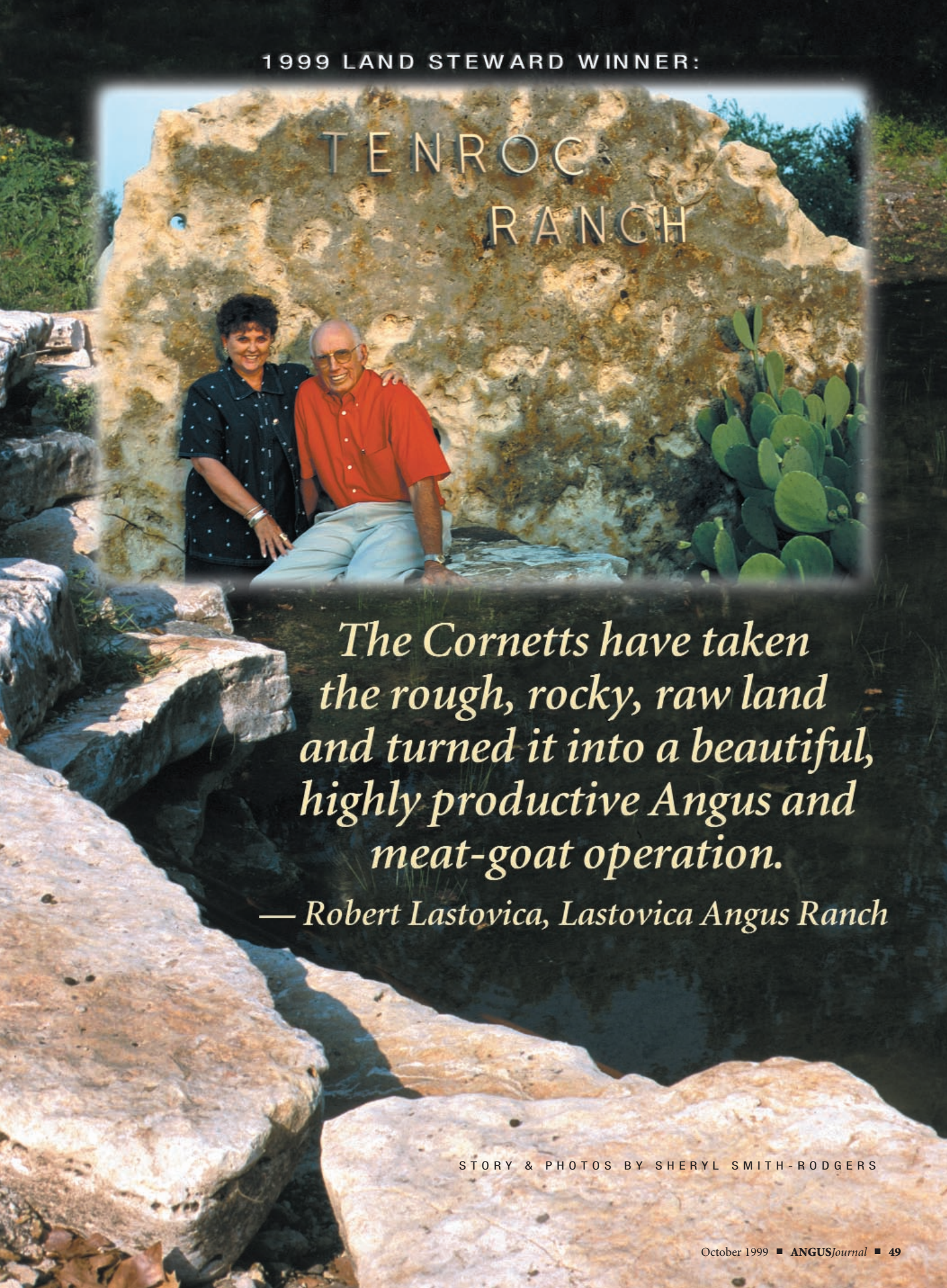
1999 LAND STEWARD WINNER:



The Cornetts have taken the rough, rocky, raw land and turned it into a beautiful, highly productive Angus and meat-goat operation.

— Robert Lastovica, Lastovica Angus Ranch

STORY & PHOTOS BY SHERYL SMITH-RODGERS

On a gentle slope blanketed with foot-high grass, a lone Angus cow stood in the evening sunlight. Warily, she watched as a white pickup slowly bumped across the pasture toward her. The truck stopped, and two people stepped out. The cow barely moved as one approached for a closer look.

"Hey, she's got a calf out there!" rancher Mike Cornett yelled from the pickup.

Sure enough, hidden in the thick grass not far from the cow, lay a tiny heifer, resting after her first day of life. It wasn't long before the calf, alarmed by the intrusion, wobbled up and stumbled toward her mother. The pair gently touched noses and then, without a backward glance, waded up the grassy slope.

Not even a rabbit could have hidden in the grass six years ago when Mike and Shirley Cornett bought the sprawling ranch near Salado, Texas.

That's because little grass grew in the land's shallow, rocky soils. Instead, dense stands of prickly pear cacti and ashe juniper (commonly called cedar), both unleashed by decades of overgrazing, dominated the rolling hills and choked out the native grasses.

At the sight of the neglected land, most folks would have thrown up their hands or ignored the problems. Not Mike Cornett.

"Where I grew up in Kansas, if the land was this rough, you'd have left and not given it a second chance," he says. "You'd have gone and gotten good farmland." Mike, though, saw beyond the hard work that lay ahead in restoring the 2,000 acres and eagerly tackled the challenge.

"I wanted to see if I could make it good, producing land. It was pretty, but the prickly pear had reduced the land's value for cattle," he expounds.

Today close to 100 head of registered Angus graze the grassy pastures and lie beneath the gnarled live oaks at Tenroc Ranch (*Cornett* spelled backward, minus a "t"). For their efforts in healing the land, the *Angus Journal* has named Mike and Shirley Cornett as the 1999 winners of its Land Stewardship Award.

In its 10th year, the program honors conservation-minded Angus producers across the nation.

"The Cornetts have taken rough, rocky, raw land and turned it into a beautiful, highly productive Angus and meat-goat operation," wrote veterinarian and Angus breeder Robert Lastovica, Temple, Texas, in his nomination letter.

A dream come true

For a long time the Cornetts, who've been married 40 years, dreamed of owning a ranch. Mike's interest in the business stemmed from his parents' background in farming and ranching. As a youngster he helped his father run Shorthorn cattle, and in high school he was a Star Farmer in the Future Farmers of America (FFA). In 1957 he graduated from Kansas State University with an engineering degree.

He worked half a year for U.S. Steel, then joined the Army. While serving in Virginia, Mike met his future wife, Shirley Forbes, and the two married in 1959. After his discharge from the military, he worked nine years as an engineer for Continental Oil Co.

Later he joined a car-wash business and helped make the company profitable. In 1978 he and Shirley bought out the company.

In 1993 their dream came true when they bought the Salado ranch, located midway between their business in Austin and their home in Waco.

Almost sight unseen, the Cornetts signed

Six years ago not even a rabbit could have hidden in the grass that grew on the ranch Mike and Shirley Cornett purchased. Now Angus calves find themselves immersed in grassland reclaimed from Texas brush and prickly pear unleashed by decades of overgrazing.

During the clearing process Mike also chopped down the tangle of vines, brush and briars growing underneath the ranch's native trees and among their branches. Trees were trimmed up to 8 feet to allow mowing around the base.

the contract. "We hardly drove over any of it, partly because it was too wet that day and also because it was impossible unless you went by horseback," Mike recalls. "But we saw enough that we fell in love with the place. And we saw its potential."

Getting started

Almost immediately Mike set to work clearing and burning the invasive junipers. Historically, junipers grew in the region's canyons and brakes but spread to other areas when land was overgrazed and natural fires were contained.

At land-management seminars Mike learned that junipers use incredible amounts of water. Also, their green needles retain rainwater, which evaporates back into the atmosphere, and fallen needles block rain from being absorbed into the ground. Thus his first objective was to rid the land of junipers and restore nature's balance.

"I had a dozer man get started before we even moved here," he says. "We cleared cedar right away on 875 acres. That was my No. 1 goal. We cleaned both sides of the fences, too. That was the starting point of getting a feel of what it'd take."

During the clearing process Mike also chopped down the tangle of vines, brush and briars growing underneath the ranch's native trees and among their branches.

"There was so much brush under the trees that you couldn't tell if there was one tree or three," he says. "We'd clear it out,

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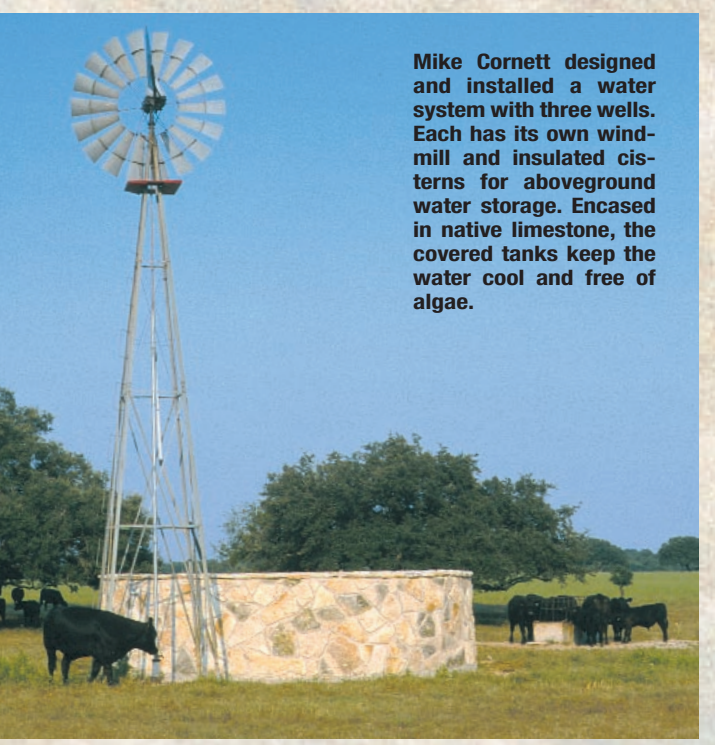
This photo stands testament to the pasture improvement the Cornetts have achieved. Where 900 acres used to produce 200-300 pounds of available forage, it now produces 2,000 pounds, says rangeland management specialist Dalton Merz.

The Cornetts solved the problem of rapid brush regrowth by introducing Boer goats to the ranch.



Mike Cornett designed and installed a water system with three wells. Each has its own windmill and insulated cisterns for aboveground water storage. Encased in native limestone, the covered tanks keep the water cool and free of algae.

Tenroc Ranch is blessed with an abundance of springs and creeks to provide live water sources.

and about as soon as we'd get back to the house, it'd all be back. That's when we realized how much regrowth was occurring."

The solution: Run goats on the place.

"I didn't intend to have them, but goats are so good around rock and brush," Mike says. "Once you clear, so much brush returns that you need something to control it. Goats don't eat the grass and compete with cattle. They just take care of the brush."

Before introducing goats, Mike divided the ranch into six 200-acre pastures, separated them with lanes, and built cross fences with gates so he could implement rotational grazing.

"I tried to lay out the ranch so everything would be pretty, as well as efficient," he explains. "And I designed it so one man can move the cattle by himself. As much as possible, I wanted to move the cattle without stressing them."

Mike also designed and installed a water system with three wells. Each has its own windmill and insulated cisterns for aboveground water storage. The covered tanks, encased in native limestone, keep the water cool and free of algae.

"I laid out the system so every pasture has live water. That's good for the cattle, as well as the wildlife." Many springs and creeks, including Salado Creek and Watkins Branch, crisscross the property, providing more water sources for animals.

Gradually Mike is replacing his open water troughs with enclosed containers constructed of heavy-duty molded plastic with ball valves.

"Water in the open troughs, made of metal and concrete, gets hot and full of algae and mosquito larvae," he explains. "Cattle won't drink as much water out of them, and in this kind of hot weather, they need to. These new troughs are easier to maintain, and they utilize the water better. Also, water doesn't evaporate or get contaminated or freeze. I anchored the one in my bull pen to a concrete slab so the bulls won't butt it."

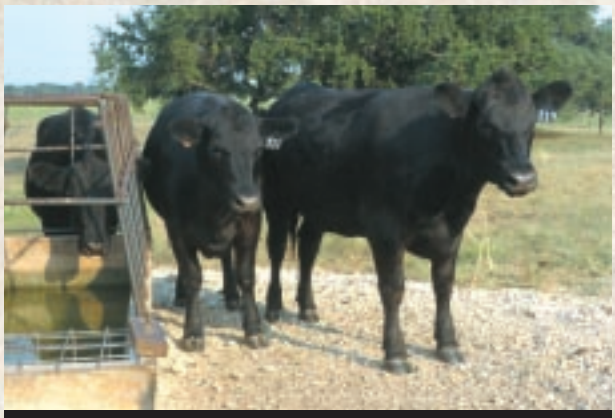
Meat goats

For his brush busters, Mike bought some Boer (a South African species) bucks and bred them with Spanish goats. His goal — besides controlling the brush — is to develop a composite meat goat that's ⅝ Boer and ⅜ Spanish. Specialists with the Texas A&M Extension Service in San Angelo are helping him with the program.

On the ranch Mike runs approximately 700 goats with four Great Pyrenees dogs to protect them from coyotes. In the summer Mike supplies students with goat kids for their livestock projects. Not surprisingly, the Tenroc goats have captured lots of awards at area shows. For instance, at the 1997 Bell County Youth Fair 11 of 18 finalists in six classes came from Mike's herd.

Battling the cacti

Mike's next strategy in restoring Tenroc Ranch was getting rid of the pesky prickly pear, which in some places covered the fields in solid stands as tall as 4 feet. For nearly a year, he sprayed the cacti with a herbicide. At the same time, he observed an interesting phenomenon — along fence lines, where he had previously cleaned and



Mike is replacing his open water troughs with enclosed containers constructed of heavy-duty molded plastic with ball valves. Easier to maintain, they better utilize water, reduce evaporation and maintain water quality.

Reclaiming the ranch from pri were scraped by a bull dozer, herbicide.

scraped with a bulldozer, the native grasses had returned.

"I had a 100% kill [of the cacti] there," he says. "Where I had sprayed, I had an 80% to 90% kill and residual left. Plus I couldn't drive my pickup through it, and the clusters of dead prickly pear hid rocks. So I began to scrape the ground. It cost $20 an acre to spray, and $30 to $50 an acre to scrape with a dozer. It was more expensive, but I got what I paid for. Where we had sprayed and burned the prickly pear, it came back. But I found out that if you shear it at ground level, it doesn't come back."

Scrapings of cacti, dirt and limestone rocks were piled into windrows. Some scrapings created detention berms that hold back water and allow it to seep into the ground. Other scrapings filled in ravines and terraced low areas.

"It's a way of getting rid of trash and making it useful in a conservation program," Mike says. "I didn't want to just pile it up in a big mound. I wanted to put it to use. The terraces control erosion, capture water and provide more areas for grazing."

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ly pear was a learning process. The Cornetts soon discovered areas that earing the cacti at ground level, had a higher kill rate than spraying with

Scrapings of cacti, dirt and limestone rocks were piled into windrows for removal later.

Some scrapings created detention berms by mounding cacti, dirt and limestone. The berms hold back water and allow it to seep into the ground.

Some native grasses survived because their seeds fell beneath the rocks, where cattle couldn't get to them.

After scraping, Mike planted a mixture of native-grass seeds — sideoats grama, switchgrass and Indiangrass — in the disturbed areas. Some of the grasses, such as big and little bluestem, returned on their own.

"They survived because of all the rocks. The seeds fell beneath the rocks, and the cattle couldn't get to them." In another pasture, he seeded "Selection 75" Kleingrass, a warm-season perennial bunchgrass from Africa. "It's more adaptable and does well in rocky soil," Mike says.

"I got the grasses established so I can do good rotational grazing with the cattle and supplement with protein licks," he added. "You can't bale hay on this land on account of the rocks."

Using the limestone

Thousands of limestone rocks and boulders jut out of the ground at Tenroc Ranch, located on the northeastern edge of the Edwards Plateau in central Texas. Mike used the common white stone in building his four barns and water tanks. The rock also covers the exterior of the couple's corporate office, a 14,000-square-foot building that also includes their home and a huge garage with a workshop and storage areas.

For the ranch's dramatic front entrance, Mike chose a huge, flat rock, balanced it on its side, and hung the name "TENROC RANCH" on both sides. Smaller rocks were used to build intermittent fence "posts" and short walls around planted areas. Large boulders were grouped with yuccas and other plants to accent the landscape visible from the highway.

Over creek crossings, he riprapped banks with rock to prevent erosion, and he seeded disturbed areas with grass.

"I built with a lot of stone, but I still have a lot to go," he says with a chuckle.

Cattle and the land

When Mike bought the property in 1993, he also inherited the ranch's 90 head of Brahman-cross cattle. "They were good commercial cattle," he says. "But the cattle market has changed so that a black hide is worth so much more."

So in March 1998 he bought 25 head of registered Angus in Kansas.

"When I brought them down, the cattle had a hard time adjusting to the heat," Mike says. "It took them a year to climatize, but they're doing great now. That first June I AI'ed (artificially inseminated) the cows and got only 50% to breed back because of the heat. It was better than 90% this past June. They climatized, and I had them on a good mineral program."

The growing availability of grass has helped the cattle, too.

"In this area, the cow-to-land ratio is one to 15 acres. Mine is less than that, one to 20. But I'm building up my grasses. I rotate with the goats according to the time of year. I follow the goats with the cattle; I never run them together. The goats eat the brush and weeds. The cattle eat the grass."

Dalton Merz, a rangeland management specialist with the U.S. Department of Agriculture's (USDA's) Natural Resources Conservation Service (NRCS) in Belton,

At all creek crossings the Cornetts tried to rock in the banks to prevent erosion. They seeded the disturbed areas with native grasses.

has counseled Mike in his land-conservation plans. "He's done a superb job very quickly," says Merz. "Within a year he established the pastures. He's more than doubled his carrying capacity. There used to be 200 to 300 pounds of available forage on 900 acres. Now it's producing 2,000 pounds."

Helping nature

Another abused area on the Tenroc consisted of old gravel pits along Salado Creek. Mined since the 1950s for gravel and top soil, the pits were gaping holes in the ground. During the severe drought of 1996, Mike cleared gravel out of the creek and built two low-water dams. Then he contoured the slopes above the creek and sprigged them with coastal Bermuda grass.

The rejuvenated creek system provides water for cattle and wildlife, including a flock of blue herons that roost every spring in a towering sycamore tree.

"I guess they've been coming here for a hundred years," he says, standing beneath the

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Mike and Shirley Cornett put the rock they cleared off the land to good use, building four barns, the water tanks, the couple's corporate office and the ranch entrance.

four-story-tall tree. "Preserving these birds and preserving the history that's already here is important. These are areas I want to protect rather than clean up. In this valley where two springs come together, I cleared the cedars and kept the cattle and goats out."

These days he's clearing cedars from a 1,000-acre tract he recently bought. He'll likely keep that area as a wildlife habitat for white-tailed deer, turkey and other animals.

"I love nature's beauty, seeing the trees and grass, the open country, making it prettier and productive," he says. "I've always prided myself on making things work better and reach their fullest potential." AJ

PROGRESS IN THE WORKS

Before: It's amazing to look back and see how thick the prickly pears were on the place a few years ago. During: Areas scraped free of prickly pears, rocks, stumps and brush were seeded to a mixture of native grasses. After: With the prickly pear gone, a tremendous amount of grass has come back in just a short amount of time.

After scraping the prickly pear and cleaning the trees of brush, a rotational grazing plan, which includes using goats to browse brush regrowth, allowed native grasses to flourish.

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PHOTOS COURTESY OF MIKE AND SHIRLEY CORNETT