### CENTER for RURAL AFFAIRS



FIVE RANCHERS SHARE THEIR STRATEGIES
TO SUCCESSFUL LAND MANAGEMENT

Supported by the National Fish and Wildlife Foundation through funding from U.S. Fish and Wildlife Service and the Margaret A. Cargill Foundation.



Henry, Frank and Adam Beel installed five water control structures on their ranch after signing an agreement with the Nebraska Game & Parks Commission, the Sandhills Task Force and U.S. Fish & Wildlife Services.

### STARTED IN 1937 BY HENRY O. BEEL, RANCH RECORDS REVEAL THAT CONSERVATION PRACTICES WERE AN EARLY CONCERN.

Soil and water planning, water placement, rotational grazing and the planting of tree groves began in the 1940s. Today, conservation and range management continue to play a central role at the Beel Ranch.

Owned and operated by brothers Frank, Henry and Adam, the Beels continue to apply the conservation principles passed down from generation to generation. However, the practices themselves have evolved with time.

"We've been planting trees ever since my grandfather started the ranch. 20 years ago, we planted just one species of tree, but now we plant many species," Henry says of the 35 tree groves the family has planted. "So if there's a disease, it doesn't wipe out the entire planting."

The trees are essential to the sustainability of the ranch, benefiting both people and animals by reducing soil erosion, protecting crops and livestock and providing food and habitat for wildlife.

The Beels have plans to plant three more tree groves next spring with the assistance of the Middle Niobrara Natural Resource District.

In addition to trees, the brothers have spent hours planning, designing and coordinating the installation of 32 miles of pipeline, including 89 hydrants, six wells and 45 new tanks across the 22,000-acre cattle operation. Adding to the 67 existing windmills and tanks, the brothers prioritized an adequate water supply in order to better utilize every pasture in an integrated rotational grazing plan.

The pipeline was possible with a cost share program with the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentives Program (EQUIP) and took three years to complete.

"I've noticed in the 16 years I've been here that there are more turkeys, more antelope, more mule deer," said Henry's wife, Mary Beel. Grouse, pheasants, bald eagles, prairie chickens, falcons and hawks are also common sights on the ranch.

The brothers have plans for three or four more miles of cross fencing in the next few years, as well as more trees for windbreaks and wildlife protection.

The Beels were the 2013 recipients of the Leopold Conservation Award. They are active with the regional, state and national cattlemen's associations and host a number of student groups and other visitors.

"We want to do our part and share our story," said Henry. "We're taking care of the land, we're taking care of the water because we depend on it."

To learn more, visit www.cfra.org.

#### A SOIL AND WATER CONSERVATION SOLUTION



Water control structures slow down the creek and back up the water in strategic places.

A little over a decade ago, the Beel brothers noticed that after heavy rains, water rushed down the creek, downcutting or deepening the channel and creating an erosion problem.

The Sandhills Task Force helped to install five water control structures to slow down the creek and back up the water in strategic places. The structures created irrigated meadow environments – improving the growing conditions for their primary winter feed source. The water has also helped to attract new wildlife to those areas: swans, muskrats, ducks and geese. The Beels have seen migrating Sandhills cranes use the habitat as well.

# **IN 10 YEARS, LAND IS** 'GETTING BACK TO GRASS'

Sitting in the office of his auto body shop, Max Wilson brings up satellite photographs of his land on Google Earth.

"We're getting back to grass. In 10 years, I can see a lot of change," he said, referring to the removal of eastern red cedar trees from his pastures. "Now it's like a grassland instead of a forest."

The land Max inherited from his parents is 80 percent pasture and 20 percent farm ground, the two land types divided by deep canyons filled with cedars and other coniferous trees.

The encroaching cedars have been a constant battle. But thanks to several cost-share programs, including the

**Environmental Quality Incentives** Program (EQIP) and the Conservation Stewardship Program (CSP), Max has been able to prioritize conservation efforts to keep his pasture in grass.

EQIP is a program that helps farmers and ranchers share the costs of addressing natural resource concerns. EQIP provides financial and technical assistance to agricultural producers to plan and implement conservation practices that improve water, soil, plant, animal, air and related natural resources.

Once enrolled in EOIP, Max worked with the local NRCS office to draw up a burn plan for a prescribed burn on his land. They surveyed the pasture and made a detailed map and plan.

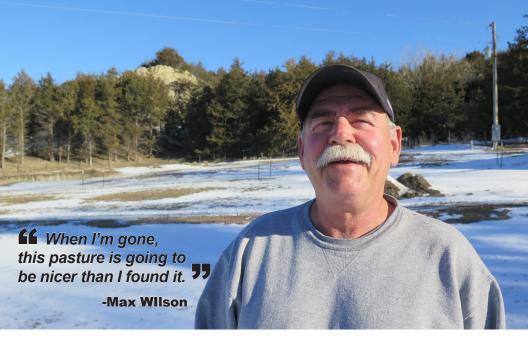
#### GOATS TAKE CARE OF WEEDS AND CEDAR TREE ROUGHAGE



Max Wilson uses goats on his land for the purpose of weed control, a CSP practice.

Indiscriminate eaters, the goats he leases from a neighbor graze on his unwanted weeds and the roughage off the cedar trees.

"Basically we just turn them loose. They want weeds," said Max.



To prepare his pasture for the burn, Max deferred grazing in that area for one growing season, essentially taking it out of production and letting the grass grow for fuel. To be able to afford this, Max applied for a grazing deferment cost share through EQUIP, a program that further incentivizes best practices for cedar reduction.

"The cedar trees never quit coming, so to be paid for deferment is important," he said. "A lot of people just won't do it without the program."

Fire is just one practice in Max's conservation tool belt. Max's land is also enrolled in CSP, which is administered by NRCS and offers farmers the opportunity to earn payments for actively managing, maintaining, and expanding conservation activities like cover crops, buffer strips, and rotational

grazing, among many other practices.

One CSP practice that Max recently enrolled in involves monitoring key grazing areas to improve grazing management. This has involved taking pictures of pasture lands to determine plant productivity over time and keeping track of key forage plant heights before and after grazing.

In addition, Max installed wildlife escapes or "turtle ramps," a CSP practice that prevents animals from drowning in stock tanks.

Max has prioritized conservation programs for several reasons. One, he wants to leave the land in better shape than he found it; and two, the programs he participates in help him pay the property taxes.



Homer Buell is part of the fourth generation of Shovel Dot Ranch with his brother, Larry. The fifth generation has taken over the day-to-day managment of the operation.

OVER GENERATIONS. "BUELL" HAS BECOME SYNONYMOUS WITH HIGH-QUALITY CATTLE. INNOVATION AND CONSERVATION STEWARDSHIP

"I think each generation of our family has learned new ideas and new methods to help improve the productivity and health of the land," said Homer Buell, who owns and manages Shovel Dot Ranch along with his family.

The willingness to change and adapt with the times has kept the ranch thriving since Homer and Larry's great-grandparents first settled in the area in 1882.

Larry and Homer divided the pastures into smaller parcels for better grass utilization with cross

fencing. Then they worked on water development, adding more windmills and partnering with the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) beginning in the 1980s to build pipelines and add electric pumps. Today, there is over 50 miles of pipeline watering close to 100 pastures, with an average pasture size of approximately 300 acres.

Also in the 1980s, the Buells began regularly recording and monitoring data from the ranch, specifically usage in animal unit months (AUM). The brothers each attended Alan

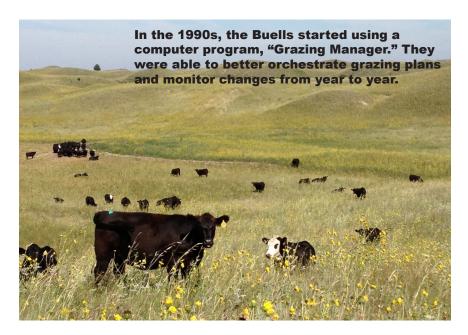
Savory's Holistic Ranch Management School, started working with a grazing consultant and formed a ranch management club – all of which increased the family's understanding of forage management and monitoring.

"All those things we've done have helped us use water more effectively and efficiently, but have also helped the health of the grass," said Homer. Grass health is something the Buells take seriously and have gathered data on for decades.

As participants in the Conservation Stewardship Program, the Buells engage prescribed grazing, utilize animal escapes and fence off 50 acres around two lakes to provide habitat for deer, turkey, ducks, swan and geese. In addition, the Buells fenced off a mile of river habitat on their land and planted numerous windbreaks for cattle and turkey and deer habitat.

"Profitability was part of the reason. But it makes you feel good too. If you look out there and you know you have a healthy landscape," said Homer.

Conservation practices in the future will focus on removing cedar trees from the ranch's pastures – one of the leading challenges for Sandhills landowners today. They have plans to stay on top of the trees with the help of the Sandhills Task Force and their cost-share program for prescribed burning.



## STEUTER WORKS TO COUNTERACT THE LOSS OF NATIVE GRASSLANDS

The Sandhill & Sun Ranch is a family cattle business located on just over 2,600 acres where simplicity is a defining characteristic and where land management is an investment in the future, informed by the past.

"I like to think of my management of native Sandhills prairie as being similar to managing an endowment," Al Steuter said. "It has the perfect investment horizon - forever. You're bound to do okay with an adaptive and diverse portfolio. It's the mix of hundreds of native species that make it work."

Al's conservation portfolio is focused on maintaining species diversity through year-round grazing with prescribed fire to control cedars. He

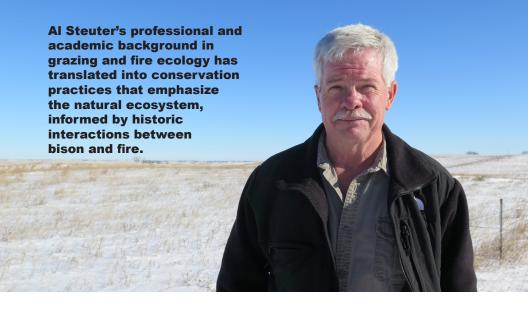
manages native species by paying close attention to the stocking rate of the cattle managed within seasonally deferred grazing rotations in 16 pastures ranging in size from 20 to 560 acres. Cattle are managed in three herds, older cows, younger cows and weaned calves/yearlings because of their differing nutritional needs.

"Just like any permanent endowment, you use a portion of the annual surplus - about half of the annual above-ground production," said Al, who describes his management style as "minimalist" and "conservative."

Al's professional and academic background in grazing and fire



The Sandhill & Sun Ranch is focused on maintaining species diversity through year-round grazing with prescribed fire to control cedars.



ecology has translated into conservation practices that emphasize the natural ecosystem, informed by historic interactions between bison and fire.

"Bison are year-round grazers and I wanted to mimic that as much as I could with cattle," said Al.

Al has overseen more than 200 prescribed burns - totaling more than 50,000 acres - on his ranch, on other private rangeland and on grassland preserves across the country. Some burning at Sandhill & Sun is done with a conservation program called the Natural Legacy Project, implemented by Nebraska Game and Parks.

Al has worked nationally and internationally as a consultant on private grasslands and preserves. In the big picture, he sees the loss of native grasslands - the ongoing

transition to farmland and other land uses - as the biggest conservation challenge.

The Steuters work to counteract the trend on their own land by actively working to maintain healthy populations of native plant and animal species. Mule deer, sharp-tailed grouse, pronghorn antelope, badger and prairie dogs are common sights at Sandhill & Sun. A whole host of prairie birds, insects and small mammals interact with grazing animals just as they have for thousands of years.

"Grasslands have value that will pay off. You can manage them well and have a good living," said Al. "You don't have to change them to something else. I think we've proved that."



Sarah Sortum is the fourth generation on the Switzer Ranch, a 12,000-acre diversified cattle ranch that is designated an Important Bird Area (IBA) by the Audubon Society.

## EACH SPRING, PEOPLE TRAVEL TO THE SWITZER RANCH TO SEE THE MATING RITUALS OF THE PRAIRIE CHICKEN

The Switzer Ranch utilizes prescribed burns, prescribed grazing, invasive cedar control, prairie grouse monitoring, and outreach and education to promote conservation and biodiversity in the Sandhills. The family primarily focuses on management practices specific to two priority species: the greater prairie-chicken and the blowout penstemon.

"We hope that through these focal species we can do a lot of good in a broader sense," said Sarah Sortum, daughter of Bruce and Sue Ann Switzer.

In the last century, the prairie chicken

almost went extinct due to hunting pressure and habitat loss. Today, each spring, people from around the globe travel to the Switzer Ranch to see the mating rituals of the prairie chicken and the sharp-tailed grouse.

Several years ago, the Switzers started an annual Prairie Chicken Festival, and since then have solidified their reputation as a premium location for birding and tourism in the Great Plains. The family's conservation ethic combined with a willingness to diversify, to introduce nature-based tourism to their family's activities.

"For our birders, we help them

realize that they're part of our strategy. They're enabling us to stay here and manage for grassland birds. It's a win-win deal right there," said Sarah.

For the federally-endangered blowout penstemon, the ranch teamed up with the University of Nebraska to plant young seedlings in their pastures.

The Switzers have partnered with numerous entities to achieve their conservation goals. They work extensively with the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Audubon Nebraska, Sandhills Task Force, Nebraska Game & Parks, Nature Conservancy, and World Wildlife Fund's Northern Great Plains Program.

Sarah and the Gracie Creek Landowners Association just recently wrapped up a four-year project with the Nebraska Environmental Trust that helped to cost-share specific practices to improve ecological processes designed to conserve and protect native species and habitat.

Prescribed grazing, specifically deferred rotation grazing systems, and prescribed burns were key to increasing food and cover available to wildlife in the area. They worked to improve overall plant structural diversity, variability in grass height and density across the landscape, as well as to intersperse various habitat types.

"The birds need different grass habitat at different times in their life cycle," said Sarah. "We need to provide all different niches, and we try to move those around."

The Switzers use grazing to manage for the blowout penstemon as well, using yearlings in certain areas to open up sands habitat - the necessary environment for the endangered plant to grow.







Inside: Five ranchers share their conservation success