

THE DRIVE

Together, we can regenerate the nation's grazing lands and rebuild our soil. Join The Drive, Noble's monthly giving program and link your generosity with others that are passionate about saving our land.

With a monthly gift, you can equip agricultural producers across the country as they *drive* transformation of the soil and, in turn:

- improve water quality
- increase food security
- enhance wildlife habitats
- combat climate variability

When you join us as a \$20+ monthly donor, you gain access to member-only benefits, including a special thank-you gift and quarterly impact reports on the exciting things happening at Noble.



JOIN TODAY

Change the world for less than the price of one gourmet cup of coffee a week. Learn more or sign up by visiting www.noble.org/ monthly-giving

FOR QUESTIONS OR MORE INFORMATION:

P. 580-224-6247E. giving@noble.org





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FROM OUR RANCHES

Biodiversity Bounces Back: Former monoculture pastures at Noble's Pasture Demonstration Facility respond to adaptive grazing and the use of cover crops. Also read about bats in the orchard and counting flowers and insects on Coffey Ranch.



REGENERATIVELY SPEAKING

Our guide to timely online resources about regenerative ranching — explore innovative articles, videos, podcasts and social media accounts to follow.



DO-IT-YOURSELF

Sauté-up a quick, savory dinner with Beef Fajita Soup, use our 7 Top Tips for UTV Maintenance and see how to customize your UTV for faster polywire-paddock setup.



BEFORE YOU GO

The Great American Grazing Lands: "No matter what road or byway we traveled ... grazing animals quietly conducted their business nearby."



< ON THE COVER

Beverly Bowen and the 1954 McCormick Farmall tractor she uses on her family's Blackwell's Farm in the Piedmont Region of North Carolina.



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Noble Research Institute, LLC (www.noble.org) is an independent nonprofit agricultural research organization headquartered in Ardmore, Oklahoma. Noble's mission is to guide farmers and ranchers in applying regenerative principles that vield healtheir soil, more productive grazing land, and business success. Achievement of this goal will be measured by farmers and ranchers profitably regenerating hundreds of millions of acres of U.S. grazing lands. Noble aims to remove, mitigate or help producers avoid the barriers that deter the lasting use of regenerative, profitable land management practices in grazing animal production.

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STEWARDS FOR JUST A MOMENT

atherine Andrews gets it, and — as a rancher — so do you.

Andrews, a teacher, speaker and author of the *The Sunday Soother* newsletter, once shared her experience of purchasing a 250-year-old home on historic lands in western Virginia. A seemingly pedestrian life event became a touchstone moment as she zoomed out to see her small place in the history of her new property:

"I am not the house's owner. I am not the land's owner. I am not this creek's owner. By whatever twist of fate and luck and privilege and timing, I am merely their current steward, one in a long line of dozens if not hundreds before me."

Ranchers get that.

You receive the stewardship mantle from your parents. You fight like hell for decades to keep the ranch profitable and the land healthy, hoping to improve what was given to you, before passing the baton to your children. Sure, there's official paperwork stamped and sealed in some county clerk's office, but we all know the land that was here long before us will be here long after us. We are stewards for just a moment.

Jobs are like that, too.

By "whatever twist of fate and luck and privilege and timing," I came to Noble Research Institute in the fall of 2006, a 20-something-year-old with more gusto than know-how. Noble offered fertile soil, so I settled in and grew. I had a chance to create. To grow something with my bare hands (not growing plants from the soil, but stories from a keyboard).

Out of those early attempts at telling Noble's narrative was the establishment of our first-ever magazine, *Legacy*. The idea behind launching a publication was simple: Provide an inside, in-depth look at Noble's people and programs.

The inaugural issue was mailed out in summer 2007, and for the 16 years since, I've served as editor. As Noble grew and evolved, so did the magazine. We matured together; the magazine reflecting the best wisdom and stories of each era.

When Noble shifted the lens outward, we began to hone in on the farmer and rancher story, talking about the rich heritage of the land steward. More recently, we further focused our lens on those who have chosen to walk the regenerative ranching journey, powerful tales of how working with nature has reshaped entire operations and the families who steward them.

Along the way, I've had the great honor of telling two interrelated stories: first, of the ranchers who persevered through

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TO CONTRIBUTE —

IN SOME SMALL WAY

— TO THE GREATER

NARRATIVES OF THE

AMERICAN RANCHER

AND THE NOBLE

LEGACY.

challenges to be faithful custodians of the land; and second, of the men and women at Noble who have come alongside ranchers as guides for more than 75 years. They are stories worth telling time and again.

Though I was never the subject, the words that I penned for Legacy allowed me to contribute — in some small way — to the greater narratives of the American rancher and the Noble legacy — both of which were here long before me and both will remain long after I go.

And it is time to go.

This will be my last issue as editor of *Legacy*. I've been called to steward another field. I know what I leave behind is better than what I was given, and I know what is ahead for Noble (and *Legacy*) will be even greater still.

It's important in these moments of transition to pause and appreciate what has been accomplished and thank those who helped you accomplish it. As our founder Lloyd Noble once said, "No individual builds anything worthwhile by his effort alone." That certainly has been the case with my time at Noble and this publication.

I thumbed through our first issue this week, and it's as thin and cringeworthy as I remembered. The evolution to national-award-winning magazine is a result of the combined creative powers of many communicators through the years, each adding their own special flavor.

editor's note

Past teammates like Scott McNeill, Broderick Stearns, Doug McAbee and Katie Westman all contributed to *Legacy*'s growth. If you turn to page 2 of this magazine, you will see four names in the

staff box: Rachael Davis
(graphic designer), Tara
Lynn Thompson and Katrina
Huffstutler (writers) and Rob
Mattson (photographer).
These are my co-stewards.
With more than 90 years of
combined publishing experience, their creativity and
talent oozes through every
page and every issue.

It's only fitting then that Davis, who has made *Legacy*'s visual design a stunning masterpiece, will assume the mantle of editor. She loves this publication and telling your story as much as I do. She strives for excellence in all that she does, and I expect *Legacy* to flourish under her guidance.

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As for me, it's bittersweet, really.

That's the inevitable outcome of being a steward. You dedicate your energy and passion to something — be it a ranch, a job or a magazine — that you don't own, then you hand it to the next person and step back and cheer as they continue it forward

I'm cheering for you all.

Adam (alway



Adaptive grazing was implemented in

2020

s ranch foreman Brooks Braunagel enters his eighth year at Noble Ranches' Pasture Demonstration Facility, he is learning to identify and care for a lot of plants he had rarely, if ever, seen in the monoculture pastures before.

Not surprising, because some of these plants hadn't grown at PDF in the last four decades.

The heifers Braunagel manages once grazed almost solely on the PDF's introduced grasses, such as bermudagrass and crabgrass, plus wheat, rye and ryegrass seeded for winter forage. Now he's watching native grasses and forb species come back to those pastures. He sees more earthworms and dung beetles in the soil. He is also seeing benefits to the cattle, as more forage options contribute to improved animal health.

What's making the difference? Applying the six principles of soil health.

"We started implementing adaptive grazing in the fall of 2020," Braunagel savs. "We've minimized fertilizer and herbicide applications across the ranch, and changed pasture management to more frequent moves with higher stock densities." The resulting longer rest periods for the pastures are vital for the emerging native grasses and forbs as well as the introduced grasses, he says.

"It's been exciting to know that we are making a difference not only to our land and animals, but also leading the way for others to learn and figure out what works and what doesn't."

Braunagel is responsible for developing and breeding the mostly Anguscross replacement heifers for other Noble ranches, and adaptive grazing isn't the only change for the herd at PDF. To get calving more in sync with nature, they backed their breeding season up and exposed the heifers to the bulls for 45 days in June and July.

"That way the calves are hitting the ground not only at a warmer time of year, which is better for the

heifer and the calf, but we also have better forage availability at that time." he says. The bulls were all grass-developed, as Noble is breeding and selecting for smaller-framed cows that can maintain good condition and raise a healthy calf on grass. "They should be more adapted to our regenerative system, and therefore more profitable to us."



A pioneer ahead of his time with regenerative management, R.L. DALRYMPLE spent nearly 37 years as an agricultural consultant and forage researcher at Noble.

NEWEST CHAPTER FOR FORMERLY ERODED LAND

The past use of the PDF ranch's uplands under former owners, before a Noble team started managing most of the ranch in 1964, included raising cotton on soils that weren't that productive to begin with. Severe erosion of land laid bare by conventional farming in the early 20th century took its toll on slopes of various loams, carving gulleys so deep "you could drop a bulldozer in and not see it," says Mike Porter, senior wildlife and fisheries consultant at Noble.

The team counted 8 miles of gulleys on just one part of the farm as it worked

> to heal them through the '70s, '80s and '90s, building or rebuilding the 33 ponds now on the ranch and planting bermudagrass to stabilize the sides of the deep gashes. The new seeding was fenced off until it was established enough to become grazeable pastureland, joining cleared woodlands also seeded to bermudagrass. Some of the existing cropland was terraced and then annually planted to wheat, rye

from our ranches

and ryegrass and a rye/crabgrass rotation for grazing.

As its name implies, PDF was used for research and demonstration geared toward pasture management. Interestingly, Porter says, retired Noble forage specialist R.L. Dalrymple "basically was practicing regenerative management before it was popular" with his use of reduced tillage and controlled grazing units on a portion of the ranch. "He was using livestock and rest to manage grass with as little equipment as possible."

Porter, who has been involved with the property from a wildlife and fisheries perspective for 42 years, says he could see a difference in the acres managed with adaptive grazing versus the areas grazed more heavily with less rest. Now the soil health of the property is beginning to improve as the six principles of soil health are applied throughout.

"It was quite exciting to see the improvement last year," he says. "It's the beginning of the transition from a bermudagrass monoculture to a more diverse plant community, and there's no question PDF has more native diversity than it had three years ago."

MANAGING PASTURES FOR SOIL HEALTH

Today, Braunagel says all of PDF is being managed for soil health with grazing adapted to the landscape and the forages available, rather than emphasizing production of bermudagrass and a few other introduced monocultures. Bermudagrass has lost some of its dominance, he says, but it hasn't died out, and that is not the aim. However, the new way of managing has given more life a chance to thrive above and below ground.

The ranch is divided into 28 permanent pastures ranging from 6 to 60 acres each, he says, "and I can cut those pastures up some 15 different ways. So these pastures are getting rested 90 to 105, 120 days between grazings."

He's able to give the forage that much rest by putting the heifers in one spot for a shorter period of time and having more spots to rotate through. And by taking down so much of the permanent sections of polywire and using adaptive grazing, options have opened up, such as building multiple temporary paddocks connected



to a group of trees to give the cattle natural shade on hot summer days.

were in 2022, Braunagel says there were some benefits to the long dry

"This year we had an increase in native forbs as far as our western ragweed and woolly croton in some areas." he says, and he would graze those spots as smaller paddocks with increased stocking density. As a result, the heifers learned to be less selective about what they grazed, which should make them better fit for future challenges.

Other times, he would need to ease up on the intensity in order to keep cover on the ground, an important factor in following the soil health principles. When rain did come

in September, he was surprised by how quickly the pasture grasses responded. As challenging as drought conditions "I was nervous about running that

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THROUGH THE

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-BROOKS BRAUNAGEL

many head through the summer, but it was cool getting to see everything work out as far as having a lot of grass left over," he recalls. "We got it done."

COVER CROPS HELP DIVERSITY AND GRAZING **SEASONS**

One section of PDF had normally been seeded to wheat, rye and ryegrass for winter grazing. It sat unused once the small grains died off, growing up in weeds that they would spray with a late-summer burndown before seeding back to small grains.

"With the regenerative approach now in

place, we don't use herbicides, even for burndowns," Braunagel says. "We now use cover crops to extend grazing periods as far as we can through the seasons, depending on the weather."

Braunagel started by expanding a former PDF research regimen to the whole 130-acre annual-crop area, no-till drilling a summer cover crop mix into the depleted winter small-grain crop. The summer cover crops alone added the diversity of at least 10-15 different plant species during the last two years. Each has its own advantages to give to the soil while providing forage for cattle and adding economic value to the ranch.

As he observed which plants came up well and responded to rains, Braunagel found that pearl millet, cowpea, okra, sunn hemp, hybrid sorghum, plantain and radishes outperformed the other warm-season species in the mix.

"Summer cover crop seed can be costly, so now we'll narrow our mix to tailor it to our soils and conditions," he says. "It may take a few years, but you'll be able to identify what works best for your situation."

Due to ongoing drought, they decided this fall to plant the former wheat/rye/ryegrass pastures with cool-season crops that have done well in past years: a diverse mix of wheat, crimson clover, common vetch, chicory and purple-top turnip. Timely rains produced a good stand.

Braunagel says he has seen the cattle do exceptionally well on the cover crops, with no need for extra supplementation. And as grazing seasons have lengthened, "it's helped us cut back to supplementing hay only during winter weather events and attracting cattle into brush thickets to trample and consume woody plants."

Cover crops also play a role in

diversity across PDF," Braunagel says. "This is a goal that will help the ranch become more drought-resilient and help

he says.

the ecology and biology of the ranch and all its residents, whether that's livestock, wildlife, insects and, last, but not least, the microbes." W

from our ranches

diversifying the introduced-grass pas-

tures. Braunagel normally overseeds a mix

of ryegrass, common vetch and crimson

clover in the fall. Much-needed rains after

seeding resulted in a good stand for all of

the cool-season cover crops there as well,

"Not only are we extending our grazing

season exponentially with the cover crops,

we're increasing diversity in those areas,"

Braunagel says. "And the diversity is just

the soil back to health, as well as improv-

"My plan is to continue to encourage

unreal." It's playing a key role in nursing

ing water infiltration and retention.

regenerative system graze a lush cover cromix on Noble's PDF ranch. **CHOOSING A** REGENERATIVE COW When it comes to **SELECTING COWS FOR REGENERATIVE** RANCHING, it all comes down to what fits your operation. To read more about factors to consider. turn to page 26.

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from our ranches



from our ranches

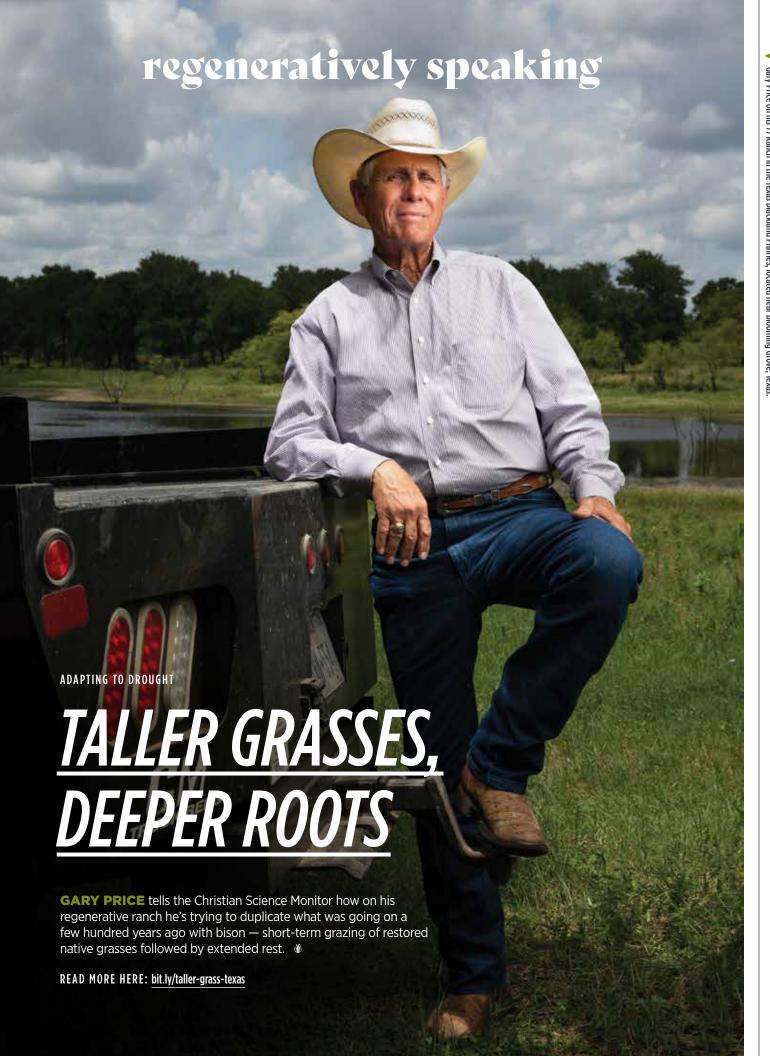
BATS ADD BIODIVERSITY, PEST CONTROL TO PECAN ORCHARD

NOBLE RANCHES ARE TURNING TO BATS for increased biodiversity and pest management. We installed nine bat houses on two of our ranches with the goals of:

- Ecological Benefit: Providing a well-designed bat habitat will add another layer of diversity to our ranch.
- Pest Management/Control: Adding a pest predator to the ranch helps us create a well-rounded ecosystem.
- Cut Pecan Input Costs: Bat houses have been strategically placed in the pecan orchard with the hope they will control pecan pests such as weevil and case bearers.

BE A FRIEND TO BATS Just as bats help protect healthy ecosystem on our ranches, they can do the same for you. For more bat information and cool bat photos, check out @merlintuttlesbats on Instagram.





Soil Health Indicators

Use the following indicators of soil health on any farm or ranch with iust a shovel, your eves and your nose. Look down, dig a hole and see what your soil is telling you.



SOIL COVER

Look straight down at the soil surface and see if it is covered or bare.

SOIL COLOR

In general, the darker the soil, the higher the organic matter content.

SOIL STRUCTURE

Structure often determines the amount of pore space. More pore space allows for greater water infiltration.



BIOLOGICAL ACTIVITY

Healthy soils are biologically active soils.



ROOTING RESISTANCE

These restrictive layers limit root penetration and water infiltration.



SOIL SMELL

If your soils are cycling organic matter, they will have a fragrant earthy smell.



It is impossible to build healthy soil while it is eroding away.

VIEW THE FULL ARTICLE HERE: bit.lv/soil-indicators



REGENERATIVE JOURNEY

BOOSTING SOIL HEALTH AT HIGH HOPE FARM

IN 2008, JOHNNY AND DEB WRAY committed full-time to farming and moved permanently to their Mississippi farm after being inspired by Wendell Berry's sustainable agriculture and local food systems philosophy. They raise regenerative grass-fed beef and lamb with two goals -1) provide safe, healthy beef and lamb to local consumers and 2) share their regenerative agriculture journey with younger generations, hoping someone will follow in their footsteps. **

THEIR STORY HERE: bit.ly/high-hope-farm



THE POWER OF GRASSLANDS

Second-generation Texas ranch owner Meredith Ellis shares the real-world impact of climate variability on her land and how she has taken action to be part of the solution in this feature for the Theodore Roosevelt Conservation Partnership: bit.ly/power-of-grasslands **W**

regeneratively speaking

SUSTAINABLE STRATEGIES

FOR THE LONG TERM

FOR SABRINA COPE, regenerative agriculture is all the 30-year-old Missouri farmer has ever known. She and her father, Harry Cope, have converted half of Cope Grass Farm to warm-season native grasses and incorporated intensive grazing and cover crops. They sell their beef, pork, lamb, duck and turkeys directly to customers. *

READ THEIR STORY HERE: bit.ly/regen-generations





DUNG BEETLES: WELCOME RECYCLERS

Producers, especially regenerative ranchers, become animated when they start finding dung beetles in their cow pies. Those little dung beetles are part of a whole community of critters working in a single cow dung pat to recycle nutrients - and water - back into the soil to grow healthy grasses. Want to know more about them?

READ ABOUT A RECENTLY COMPLETED RESEARCH STUDY FOCUSING ON THESE IMPORTANT INSECTS: bit.ly/dung-beetle-study

500 GOATS CLEAR BRUSH, **ADD FERTILIZER**

To tackle our brush encroachment problem on Noble's Oswalt Ranch, we decided to try goats to help clear more grazing areas for cattle. See our successes and failures as we went from 20 to 150 to 500 goats in this episode of Regenerating the Ranch - and be sure to catch up on all the episodes while you're there: bit.ly/500-goats-vid W





Podcast Episodes To Listen To



VOICES FROM THE FIELD PODCAST

She's Raising Sheep: Minnesota Shepherd Janet McNally, Part 2

Minnesota shepherd Janet McNally has learned by facing challenges. In fact, dealing with a wolf pack targeting her flock as a food source was one of the factors that led her to regenerative grazing. In this episode of Voices from the Field. National Center for Appropriate **Technology Regenerative Grazing** Specialist Linda Poole talks with Janet about her successes and challenges.

> LISTEN HERE: bit.ly/3VvLpwm

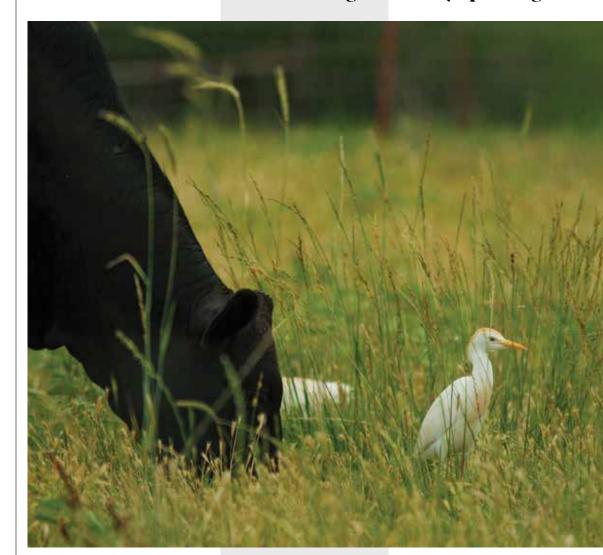


WORKING COWS Hugh Aljoe -Regenerating the Ranch

Hugh Aljoe joins the Working Cows podcast to talk about Noble Research Institute's transition and Regenerating the Ranch docuseries available on YouTube.

> LISTEN HERE: bit.ly/3UfDbHN

regeneratively speaking



BIRDS AND BEEF

SAVING GRASSLANDS TO SAVE BIRDS

THE AUDUBON

SOCIETY is partnering with cattle ranchers across the country, including in Oklahoma, Nebraska, Missouri and Kansas, in an effort to conserve grasslands and save birds. The nonprofit's program. called the Conservation Ranching Initiative, encourages ranchers to maintain a habitat fit for birds by offering its

"THIS PROGRAM IS FOR [THE RANCHER] BECAUSE IT PROVIDES A WAY FOR THEM TO GET **REWARDED IN THE** MARKETPLACE, TO **RECOGNIZE THEIR** GOOD WORK."

-CHRISTOPHER WILSON, **DIRECTOR OF THE INITIATIVE** "bird-friendly beef" seal of approval.

Oklahoma rancher Eric Perner says the birdfriendly seal helps tell his buyers the story behind his business's beef products. He also is grateful for the network of scientists he can tap into to help grow forage for his cattle and maintain a bird-friendly habitat on his ranch. 🕷

READ MORE HERE: bit.ly/birds-and-beef

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CLIMATE-SMART BEEF

GRAZING WELL ON 6.5 MILLION ACRES

THE NATION'S LARGEST FAMILY RANCHING

COOPERATIVE, Country Natural Beef, based in Redmond, Oregon, has launched an initiative called Grazewell to test and adopt ambitious regenerative ranching practices on all its 6.5 million acres across 11 Western states by 2025. *****

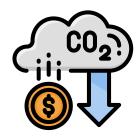
READ MORE HERE: bit.ly/climate-smart-beef





BALE GRAZING

"Last winter, I fed 450 head of cattle and did not start a tractor for 90 days," says South Dakota Soil Health Coalition board member and Colome producer Van Mansheim, who pre-sets hay bales on a grid and moves temporary fence every 4-5 days. Read more as he sings the many praises of bale grazing here: bit.ly/bale-grazing



CARBON CREDITS 101

Feeling confused by the whole topic of carbon credits? No-Till Farmer answers some frequently asked questions, like What are carbon credits? How are they measured? and Who is buying them?

READ MORE HERE: bit.ly/carbon-credits-101

ROTATING PASTURES = HAPPY COWS

Watch and listen as Cliff Honnas, regenerative rancher and equine surgeon, moves his cattle into the lush grass of a rested paddock. He uses adaptive multi-paddock grazing on his cow-calf operation near Bryan, Texas.

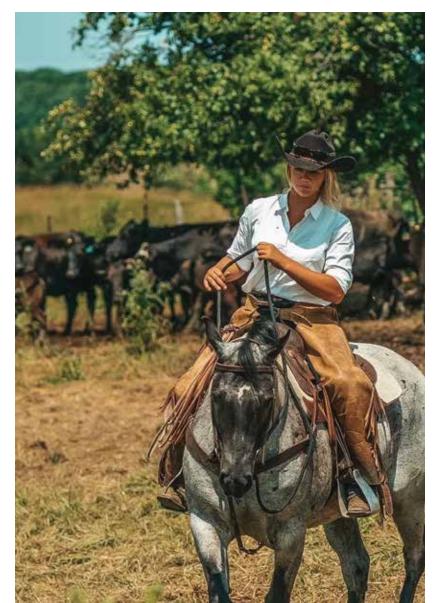
VIEW HERE: bit.ly/pasture-rotation-vid



O CANADA

GRASS-FED BEEF MAKING GAINS

"WE'RE GRASS FARMERS FIRST." By ranching regeneratively, a growing network of Canadian ranchers is helping to fight climate variability while supplying grass-fed beef for A&W Canada. Read their story in The Globe and Mail here: bit.ly/grassfarmers



Lieschen Beretta is ranch manager of Beretta Farms in King City, Ontario, one of A&W's largest Canadian suppliers of grass-fed beef.

regeneratively speaking

SOCIAL MEDIA ACCOUNTS TO FOLLOW

FROM OUR FEEDS

In our social media feeds we have found a treasure trove of regenerative ranching inspiration from peers within our network.



ALDERSPRING RANCH, INSTAGRAM

Want to see how fast one man can set up a 4-acre paddock for grazing on his Idaho ranch? Glenn Elzinga's wife, Caryl, gave him 30 minutes. Will he make it? Check it and see:

bit.ly/4-acre-paddock



THE PRAIRIE PROJECT, INSTAGRAM

See the benefits of multi-species grazing in this post from an educational partnership that fosters sustainable rangelands.

bit.ly/prairierestored-multi-species



REGENERATIVE FARMERS OF AMERICA, TIKTOK

To see a variety of short videos reposted from regenerative farmers across the country, follow the TikTok account @regenerativefarmers.

bit.ly/regenerativefarmers



CYLON ROLLING ACRES, INSTAGRAM

Leslie Svacina raises meat goats on grass using rotational grazing in western Wisconsin, and shares what she's learned through videos, workshops and training guides.

bit.ly/cylon-rolling-acres

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The first piece of advice **Beverly Bowen offered** was, "Keep it simple."

She stood barefoot in her foyer while the streaming sunlight lit the amusement in her hazel eyes. She watched my crew and me studying her pristine rugs and the bottoms of our shoes. When we asked about taking them off, she responded with a casual toss of her slender hands. Not a wave. Not even a shrug. Less interest than that. More of an exhale if exhales weren't necessary.

"Keep them on. Take them off. Do whatever you like. Keep it simple." Then she gave a hand dismissal with more enthusiasm. "Just keep them on."

We checked our shoes again anyway.

We'd arrived minutes earlier in a rental SUV with Florida plates that had faithfully carried us and our camera equipment from the Raleigh, North Carolina, airport to Beverly's home in Greensboro. She lived in a neighborhood just outside an industrial park where Amazon, FedEx and Del Monte ship their wares, and where American Express has a super-secret data center that keeps tabs on America's buying habits, like when consumers buy Del Monte products on Amazon that are shipped via FedEx.

She moved to Greensboro in 2006 during her successful 30year corporate career. When we pulled into her driveway, Beverly was picking fresh mint from her front yard. Outside of adding zest to her tea, that mint also brings her around \$2,000 annually in sales through Tall Grass Food Box, a community-supported agriculture (CSA) group focused on Black farmers.

Beverly had invited us for a farm-to-table brunch. She promised to fix spinach-bacon-prosciutto quiche, grilled pork loin, fresh melons, yogurt with berries and granola, and berry Bundt cake with fresh blackberries. When the rest of our traveling companions learned about the brunch, they jumped on the hood of our SUV rental determined to come along. We lost them along Interstate 40 somewhere in Orange County.

Beverly didn't greet the three-person Noble crew (here to document her story) like strangers, even though we were. When we stepped out of our rental, she greeted us like friends stopping by for a visit, the first she'd entertained at home since COVID.

Before taking us inside, Beverly walked us along her home garden pointing out cabbage, Brussels sprouts, basil, asparagus,

fingerling potatoes, rhubarb, garlic, chives and Carolina Reaper peppers, a pepper so dangerously hot I never turned my back on it in case the plant tried to make a move.

Inside, she set about preparing for brunch, and we settled in for a day of life advice, flavorful food and a story that took us from the steamy fields of North Carolina to the stuffy boardrooms of corporate America. And back again. It would be a journey into what it feels like to chase freedom. And it would

leave blackberry stains on our fingers. But that's freedom for you. Always leaving behind something sweet.

Keep It Simple

At first, what seemed like Beverly's nonstarter answer to my nonstarter question in her vestibule turned out to be insight into her entire worldview. If a thing as complex as a life can have a motto, "keep it simple" might be Beverly's. It's how she's moved from growing up on a family farm, to living a corporate career spanning three decades, to returning to the farm in her late 60s.

It's how she decides what crops to plant each year, what hours to work the farm, what land management decisions to make, what activities will fill her day, what money to spend on what, what attitude to have about choices, and whether or not you can wear shoes on her rugs

Beverly takes the complications of life and cuts out the complicating part. Returning to farming at retirement age sounds like one of those complications, but the reason was simple.

"It's a sustainable lifestyle. It's about being self-sufficient. I could live off the grid. I don't care to," she says, while slicing the rind off a pale-green melon with such poetic ease she could be strumming a harp, "but I could. It's about survival. It's about a healthy lifestyle. It's about having your own food supply."

At 67 years old, she's lived all the extremes: from farm kid to higher education to high-stakes capitalism. In 1976, after graduating from the University of North Carolina at Greensboro with a degree in business administration, she joined McDonald's Corp., working as a regional manager, a training development manager and as a liaison between the owner-operators and the corporation. Her career took her from one white-collar corporate environment to another, moving from McDonald's to IBM to GCA Services Group, Inc. (now part of ABM Industries.)

It was a world away from her life on a 60-acre family farm in the Piedmont Region of North Carolina.

Fresh-picked blackberries will adorn a berry Bundt cake, while Beverly slices lush Cherokee Purple tomatoes from her garden for a farm-totable brunch. She grows and sells mint and other produce through the Tall Grass Food Box community-supportedagriculture group.

Previous page: Sustainable farmer Beverly Bowen relaxes for a moment on her 1954 McCormick Farmall, the same model she grew up using as a girl on the farm she and her brother run today.



Beverly talks with her brother and farming partner, Seth Blackwell. After careers in corporate and government jobs, they came home to revitalize the family farm that had been leased out for years.

Raised On The Farm

Beverly grew up raising tobacco, row crops, cattle, hogs and vegetables on Blackwell's Farm, located half an hour from her current home in Greensboro and purchased by her parents in 1945. She grew up in the heat of the day, by the sweat of her brow. She grew up in the dirt and grime and toil of tending to the earth in hopes the earth would give back.

For 22 years, she lived and worked on the farm, leaving for college only to return weekends and summers to earn money for tuition and wisdom for life.

Outside of the hogs and tobacco, a topic that makes her lips compress in disgust, she's now continuing her parents' tradition on Blackwell's Farm.

"That's your least favorite crop," I point out.

She gives that don't-doubt-me look mothers have perfected over a millennium. "Everybody will tell you that, okay?"

Okay.



Not all farm work was as bad as growing tobacco, but it all started early. Chores on the family farm became part of life when she was "knee-high to a duck," she says. "Whatever age it was that you were old enough to do something, you were out there doing something."

It was a life of early to bed, early to rise, with back-breaking labor in the between hours. The most loathsome chores, she recalls, involved watering the pigs in the heat of the day. And, of course, anything to do with the tobacco. Oiling it. Tying it. Harvesting it. Every step required days of agony.

"It was a tough life," she says, stating facts without pity. "My parents worked for what they got."

And, yet, it also wasn't a bad life, only a labor-intensive one.

"We were brought up by meager means, but we had everything we needed." Now finished with the melon, she slices Cherokee Purple tomatoes like a bow working a Stradivarius. "We were not out there wondering where the next meal was going to come from. My parents were very good money managers. And, so, no, we didn't have a bad life."

Beverly simply wanted a different one. In college, that made her stand out among her classmates.

"I had more ethics. I had values," Beverly says, before naming the major difference between the other students and her. "And I knew I had a mission, because," she says with stressed conviction, "I was not going back to that farm to work."

When she was done with college, she was done with the farm. So she thought.

The Corporate "Farm"

Beverly was ready to make her way in the world, like her aunt Anna Mason, who worked as a dietician for Nelson Rockefeller in New York City. She left the farm for greener pastures, all covered in concrete, and landed her first big corporate position with McDonald's in Raleigh.

For 17 years, she worked at a different kind of farm. It had air-conditioning and padded seating, fewer hand tools and no water buckets, but the labor remained. Eventually, with twin boys at home and an ailing mother, she knew she needed a change. So, she paused her full-time corporate career for a part-time corporate career, first with IBM, then with Pricewaterhouse-Coopers & Lybrand.

In 2006, the changes fell like dominos. She left Raleigh for Greensboro, sent her boys off to college, buried her mother and finalized her divorce.

"That was a year," I say.

She agrees, her hazel eyes losing their amusement. "That was a year."

Now, with the meal prepped and ready, Beverly set the table with ornate china, the kind usually kept behind glass cases. For her, though, nothing collects dust. Everything has a use, like her



fancy plates for a table of strangers. Give her potting soil and chicken manure and she'll grow oregano, thyme, eggplant, cucumbers, pole beans and Egyptian fly onions on her back porch.

Give her whole milk, and she'll make butter. Give her 10 more years in the corporate world, and she'd restart the farm.

In her great upheaval year of 2006, Beverly took a full-time position as a human resources director for GCA and executed her plan. She'd need money to restore and operate the farm again. The farm girl turned corporate woman was going home.

"Corporate America doesn't pay you to think. They pay you to do a job," she says now, while sitting in the back seat of our rental.

Before leaving her house, she had changed from an elegant blouse to a pink button-up, from barefoot to shoes, from no hat to hat, and from no gun on hip to gun on hip. The transformation from white-collar to blue-collar was complete.

Now, in between giving directions to her farm and pointing out a stop sign everyone misses, she offers her well-earned insight into the business world. "Corporate America teaches you obedience and loyalty. If you don't conform, you are out the door"

To succeed, she learned to keep her opinions unspoken, her thoughts quiet, her tongue still, and her eyes on payday. Why did her mindset about the farm change?

"Once you get beat up in corporate America a few times, it's a reality check," she says, while North Carolina green pastures passed by the window. "(Farming) wasn't a bad life after all. After

you've been run over, backed over, stood on a few times, oh, no, no, no, no, wasn't a bad life at all. Because I can go (to the farm) and then do what I want to do."

Four years before retirement in 2016, her plans to return finally went into action.

"IF MY DAD COULD
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"If my dad
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—BEVERLY BOWEN

HE WOULD HAVE

MURDERED US ALL."

Home Again, Home Again

Through the years, Blackwell's Farm had been leased out for cattle grazing and given over to nature's wild side. It was, as she put it, "a hot mess."

"If my dad could have come back and seen what we had done to the farm and destroyed it, he would have murdered us all," she says matter-of-factly.

The farm needed an agricultural well for the cattle, perimeter fencing for the waterways, old fencing removed, overgrown trees cleared out, the pond cleaned, the dam cleaned and a new spillway built, just to get started. With four years left of her 10-year plan, she reached out to Farm Services programs to check on any available assistance.

"I knew I could not go out there and do it myself, because I needed someone as an advisor," says Beverly, who never mentioned her age as an obstacle, because it wasn't.

Within two years, the Farm Service Agency approved her revitalization plans and helped fund the well, the waterways and the perimeter fencing. Meanwhile, she and her brother, Seth Blackwell, the farm's co-owner and operator after his retirement from the

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U.S. Department of Defense in California, worked on restoring the old feed barn, which meant the two of them cutting down and hauling poplar trees during the hottest part of 2016.

"I came out (of the woods) with 50 zillion chiggers. And poison ivy. I had everything. I took Benadryl for two weeks. It was awful. It was absolutely awful," Beverly says, before adding in her southern accent, "And it was so funny."

Future-Forward Farming

Now, the land is returning to productivity. There's no tobacco, of course. Or pigs. No sheep or goats. There's beef. There's seasonal crops. And there's an eye on the future of the soil.

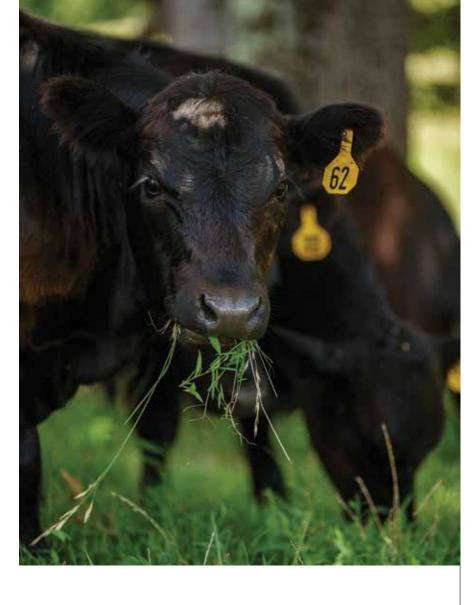
"How my parents farmed, I can't farm that way. Otherwise, these cows are not going to have anything to eat," says Beverly, who uses regenerative practices to support her farm's sustainability. "You've got to prepare for the next generation, and you've got to leave it better than what your parents left you."

Beverly sticks with only what produces profit for her farm, a hard lesson learned from the corporate world. That means no squash or melons or zucchini for Blackwell's Farm. She leaves that to the big boys, the commercial growers who have the manpower. She knows her land, knows her capability and knows the sweet spot for her small farm. So, she focuses on rotational grazing for her small herd of Angus cows and planting seasonal crops like mustard greens, kale, radishes and purple-top turnips.

"I'm a strictly seasonal grower, based on the water supply here. There's too much needed in the summer. It's cost-prohibitive," she says. "I learned that through the school of hard knocks. I've determined over the six years here that what works for me is the fall crops."

Beverly doubles her cover crops per season with cereal rye mixed with turnips or daikon radishes in the fall and a mixture of brown and pearl millet in the summer. She's building micronutrients in the soil, while also providing a feed crop for the cattle and a cash crop for her bottom line. She's also enrolled in the USDA Conservation Stewardship and Pastureland Conservation Reserve programs, which financially support farmers who steward their land with a focus on providing a sustainable, thriving environment for wildlife and pollinators.

Her regenerative practices are working on the farm and for the community, one of the reasons she was honored last September



at Farm Aid 2022 in Raleigh. Hosted by Willie Nelson and friends, Farm Aid raises awareness and funds to support family farms.

"I did a press conference and everything. I was there with Sheryl Crow, Dave Matthews, John Mellencamp, Willie Nelson and five farmers (chosen) in the southeast," she says. "They showed a video clip of us on the farm, brought us up to the front row and asked us questions on climate change and legacy."

Living Simply

Farming for Beverly and Seth is a family heritage, a fact she points out as Blackwell's Farm approaches on the left.

"This is a first cousin here," she says, pointing out the window, before turning to the other side of the road. "First cousin across there on the other side of that house." And another one. "That's a first cousin right there, too."

The Piedmont Region rolls with a thick green, even after unseasonably strong windstorms that blew burly trees to their death. Modest, well-kept homes are surrounded with acres of native grasses at their feet, like children waiting for story time. Rows of soybeans, tobacco and wheat wave a welcome. Beverly may live in Greensboro, but this is still home.

"My parents always said, 'Always have something of your own,'" she says, grateful for the freedom the farm brings and the local food source it provides to her family, neighbors and community.

Gravel crunches under the tires as we turn off the road. Black-

✓ Using rotational grazing and two seasons of cover crops a year benefits both the cattle and the soil health of Blackwell's Farm.

well's Farm slants downward ever so slightly. The pull to move in closer, to snuggle into the shade, to lean against the barn as the cows pass by in a breeze, could just be gravity. But that's unlikely. Meanwhile, the beguiling quiet, interrupted only by the moan of cattle, drains all the city noise from your bones.

In the shade of seven-foot-tall blackberry bushes, Seth squints into the sunlight under a broken but beloved straw hat. He holds a basket full of blackberries with the coordinating stains on his fingers, pushes up his browline glasses, and welcomes the excuse to stop and chat a spell. Before long, the blackberry stains coat my fingers, too. Seth shows me the best bunches with the sweetest flavor yet to be picked. If you eat them off the vine, you don't need a basket.

Out here, the other small farmers may not yet fully support Beverly and Seth's ideas for regenerative ranching principles. They do, however, always support each other. When Beverly needs seed, she can purchase it from larger farms that buy in greater bulk. When the season is plush, neighbor farmers bring by extra peaches and turnips. When elderly members of the community need additional food supplies, Beverly returns the favor.

"If you need something, I'm there to help you. It doesn't come with a dollar amount. That's what people used to do. That's what farmers in the community did," says Beverly, before offering her last piece of life advice. "You've never seen a Wells Fargo truck following a hearse. So, give back and be happy."

Seems simple enough.



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HOW TO CHOOSE YOUR REGENERATIVE COW

FIND YOUR GIRLS

BY ROBERT WELLS. NOBLE LIVESTOCK CONSULTANT

hat is a "regenerative cow"?

That is a question only you can answer, because the right answer is about you and your context. What are your ranch's needs? What are your financial and personal goals? What management practices do you use? How will you market your cattle: live, quarters/ sides or packaged? The right cow is the one that will perform well on your ranch and under your management. She is one that will help you increase profit on a per-acre basis. She does this by helping reduce or eliminate some expenses.

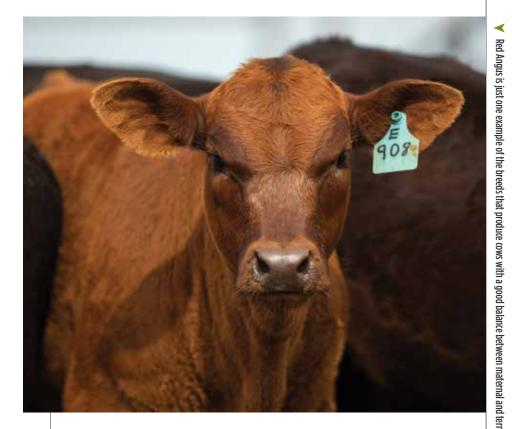
However, there are overall factors that go into making the right choice. Below are seven areas to consider when finding the right breed and cow for you

SHE FITS HER ENVIRONMENT.

Cows are always working. She's either gestating or lactating or has recently weaned a calf and is still gestating. If she does not fit the environment, either the natural factors or your management choices, she will either cost the rancher more to maintain body condition or will not rebreed. If the terrain is extremely rugged, harsh or heavy brush, some breeds will excel in utilizing those resources.

BREED EXAMPLE:

Brahman-influenced breeds typically thrive in warmer, tropical environments, while black-hided cattle breeds may have a more difficult time being successful in the same environment due to heat stress. The converse would be true in northern climates. Corriente, Corriente-, Criollo-, longhorn- and Brahman-influenced breeds tend to browse brush canopy more so than the typical English or Continental breeds.



SHE REPRESENTS A GOOD BALANCE BETWEEN MATERNAL AND TERMINAL (CARCASS) CHARACTERISTICS.

Every cow has several job responsibilities: get bred annually and produce a calf that will efficiently develop into a quality meat product. The goal for every rancher is to identify the cow within a preferred breed that fits the ranch. There are numerous traits that need to be considered and balanced. For maternal traits, consideration should be given to cow size, docility, calving ease, moderate milking ability (not heavy milking), maternal instincts, stayability and forage efficiency. Likewise for the terminal characteristics, the rancher should consider optimizing growth (not maximum or low growth), adequate marbling, and optimal yield grade.



BREED EXAMPLE:

Most breeds will have excellent examples of a well-balanced cow. However, Red Angus, Hereford, Beefmaster, Baldy or Super Baldy cows may work best for this consideration.

SHE IS MODERATE IN SIZE.

Generally, moderate-framed cows are the best choice for a regenerative rancher and can be found in many breeds. The common dogma is that larger cows will typically consume more forage and cost more on a per acre basis. A cow that has a frame score of 4-6 (1.000-1,250 lbs.) is considered most desirable. Calves from smaller framed cows are best for pasture- or grassfinished cattle that will be sold direct to the public because they take less time to reach a desirable finish weight. Keep in mind that extremes (large or small frame) will each pose their own sets of challenges.

BREED EXAMPLE:

Generally speaking, Continental breeds may be too large for most regenerative ranchers, especially those selling directly to the public. Calves from those breeds take longer to grass finish. Hereford, South Poll and Galloway cows are typically moderate-framed.



SHE DOES NOT HAVE EXCESSIVE MILKING ABILITY.

Several breeds have cows with milking abilities that surpass the pasture's ability to supply the nutrients to support such high lactation potential. Moderation or optimization should be the goal.

BREED EXAMPLE:

Hereford, Wagyu, Corriente and South Poll breeds are some that are considered not to be excessive milkers.





SHE MAY BE CROSSBRED TO UTILIZE HETEROSIS.

Crossbreeding can create some efficiencies with heterosis, if the program is intentional and done with prior planning and clearly outlined objectives. Crossing breeds that have complementary characteristics should be considered.



BREED EXAMPLE:

American breeds have been developed to maintain heterosis in the cow. Baldy and Super Baldy cows are good examples of effective crossbreeding.



SHE IS EFFICIENT.

Her efficiency should cover the areas of forage intake, production, and reproduction longevity. The most important job a cow has is to get rebred annually and for a long time. She must be able to do that while not overconsuming the forage resources available.

BREED EXAMPLE:

Beefmaster, Black Baldy or Super Baldy cows typically excel in production, forage and economic efficiency.



SHE IS HEALTHY AND RAISES A HEALTHY CALF.

Health starts in the form of fetal programming while the calf is gestating. Proper nutrition of the cow can set the calf up for success. Likewise, producers should select new females from replacement programs that have demonstrated their cattle are healthier, environmentally adapted and hardier.

BREED EXAMPLE:

Crossbred cows typically can excel in this area.



The Abbey of St. Walburga is a silent, solemn place.

The absolute quiet of it reaches around and squeezes until you relent and rest. It's cold there in October. Colder during the mornings when snow falls so carefully it barely exists.

Maybe it's the altitude. Maybe it's sitting in the palm of beefy boulders stacked one upon another, each bulky mass appearing as if, with a little fairy dust, it could animate. Or maybe it's the seriousness of the work, of a life dedicated to consistent prayer. Whatever the one or many reasons, the abbey is a place of deep reflection, bottomless contemplation, and unfaltering respect.

It is all of that.

It just isn't *only* all of that.

When you drive into a monastic abbey at the base of the Rocky Mountains, in an area of deep solitude, just south of the Wyoming border, located on the edge of Colorado's Front Range in Virginia Dale, where civilization is mostly a suggestion and not a confirmation, you don't expect the first impression to be one of whimsy. You don't expect to laugh or to break that silence.

But you will.

On the front gate, as cows graze idly on a distant hill in the background, a sign greets all who come to visit, to pray and to live, "NOTICE: This is God's country please don't drive through it like hell."

You also don't expect to find a ranch dedicated to soil health principles.

But vou will.

If you don't think a monastic abbey of the Order of St. Benedict, with a strict prayer schedule, a lifestyle of moderation and hours of observed silence, will be a place of successful beef production but also unending enchantment, you're going to be surprised.



LIFE OF PRAYER

As contemplative nuns, the sisters' primary duty for the Church is to pray the full Divine Office. Here they gather at 5 p.m. in the sanctuary for vespers, one of seven prayer services they hold every day.

FIRST IMPRESSIONS

Sister Maria-Gertrude Read walked through the abbey lobby in cargo pants, a hoodie and a bucket hat over her long, white, flowing veil, which she tosses over her shoulder like Rapunzel's golden locks when milking their water buffalo, Louisa May.

She wasn't in her customary black habit, which the sisters refer to as "the blacks," nor the blue "work habit" made of lighter material. That's because she was headed to the abbey's farm, 160 acres of rocky earth with grass that comes but often goes, all dependent on the management decisions made and the rainfall given.

The habit wouldn't be appropriate clothing for the work ahead. Skirts get caught on fences and in tractor wheels, munched on by animals and snared on branches. These sisters are reverent but also practical. Here, you must be both.

"We don't do dangerous things in flappy clothes. That's why we wear jeans and stuff on the farm, so we don't

end up in a dangerous situation," explains Sister Gertrude in her distinctly Colorado accent that's easy to recognize and impossible to emulate.

Their daily clothing is chosen based on the work ahead, while also always being a sign of their complete devotion to God.

"Our black is our formal wear. We always wear it, definitely in prayers, but also anytime we're doing anything in public, like working the gift shop or going into town. For some of our work, we wear other things that are more practical and protective, but we always wear the veil and the hauben," she says, using the German word for "wimple," the headdress covering her head, neck and side of face. "We do get guite the farmer nun tan."

What you see of Sister Gertrude's face is undeniably sweet and, yes, a little tan. However she dresses, she has that approachable, realness quality that makes you want to be around her and smile for no reason when you are. She's tall. Thin. Delicately boned. Nothing about her shoulders look sturdy enough to carry the weight of being the farm manager for the abbey, but she is. And has been for four years, all of them dedicated to working with the natural habitat to create healthier soil and healthier cattle.

The farm is directly behind the abbey on the next higher hill, which is overlooked by the next higher hill, which is overlooked by the next until you reach the clouds. All of it is used for the roaming Galloway cows, who dot the landscape with their Oreo-colored wooly coat and Mickey Mouse ears. Mixed among them are a few sturdy Angus here and there.

You could walk from the abbey to the farm, but it's best to drive. If the cold doesn't get you, the altitude might.

Now loaded in two vehicles with three nuns dressed in pants and knit caps over their veils and hauben, we're on our way. We pass a posted sign that says, "Speed Limit 14 1/2." Yes, it's a joke. One of many nailed to fences, on doors or hanging from a wall on

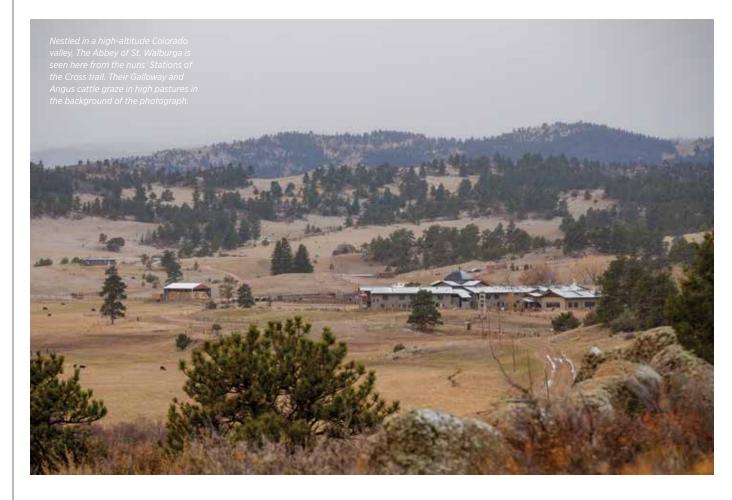
the farm to designate the "party cow" area or issue a warning to "beware of attack cattle."

The abbey farm is a place of labor, like all farms are, and also a place of joy. It's a tough combination to pull off, but the sisters do. With 40 head of cattle, all grazing contentedly around God's great landscape, this ranch feels a little closer to heaven than other parts of the world. And, with the ranch ranging from 6,775 feet to 7,133 feet in elevation, it is.

AN ALL-WOMAN REGEN RANCH

Sister Maria-Walburga Schortemeyer didn't let her wrist brace slow her down. When the bulls needed to be separated, she separated them.

It was day two on the abbey farm, and Robert Kleinhans, a local farmer, was helping move the abbey's bulls to a winter pasture in Cheyenne, Wyoming. Once loaded inside the trailer, however, the boys started to tussle. Roughly 4,000 pounds of



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fighting bull were having a loud conversation head-to-head. While they argued over who would dominate, the trailer bounced side to side, threatening the truck hitch. Time to separate them.

Sister Walburga, who studied literature in college and had zero farm experience when she joined the abbey at age 22, walked into that sardine can stuffed with literal butting heads, separated the bulls and closed the metal partitions. No more bouncing trailer.

She's dealt with a few frustrated animals in her time. Now 54, she spent 19 years as the farm manager and trained Sister Gertrude, not only in basic farming, but also in regenerative principles. When she walked out of the trailer, the two shared a brief, knowing glance. And that was that between teacher and protege.

"In Germany, in one of our sister houses there, all the sisters have to go to school. To be a cook, you have to get your master's in cooking. To become a farmer, you have to get your master's in agriculture. I'm sure that could be useful, but I love how we've passed things down, like regenerative (principles), from sister

"ONE OF THE GIFTS OF FARMING, BUT **CHALLENGES OF** FARMING, IS THAT THINGS ARE GOING TO GO WRONG, **AND YOU HAVE TO ROLL WITH THOSE,** RECOVER FROM THOSE AND ACCEPT MIXED RESULTS. IT'S NOT A FAILURE, IT'S A LEARNING **EXPERIENCE.**"

-SISTER GERTRUDE

to sister," says Sister Walburga, who started using regenerative practices at the farm during her management years. "We learn from volunteers in town who come and are so kind to share information and help us out. People are so awesome."

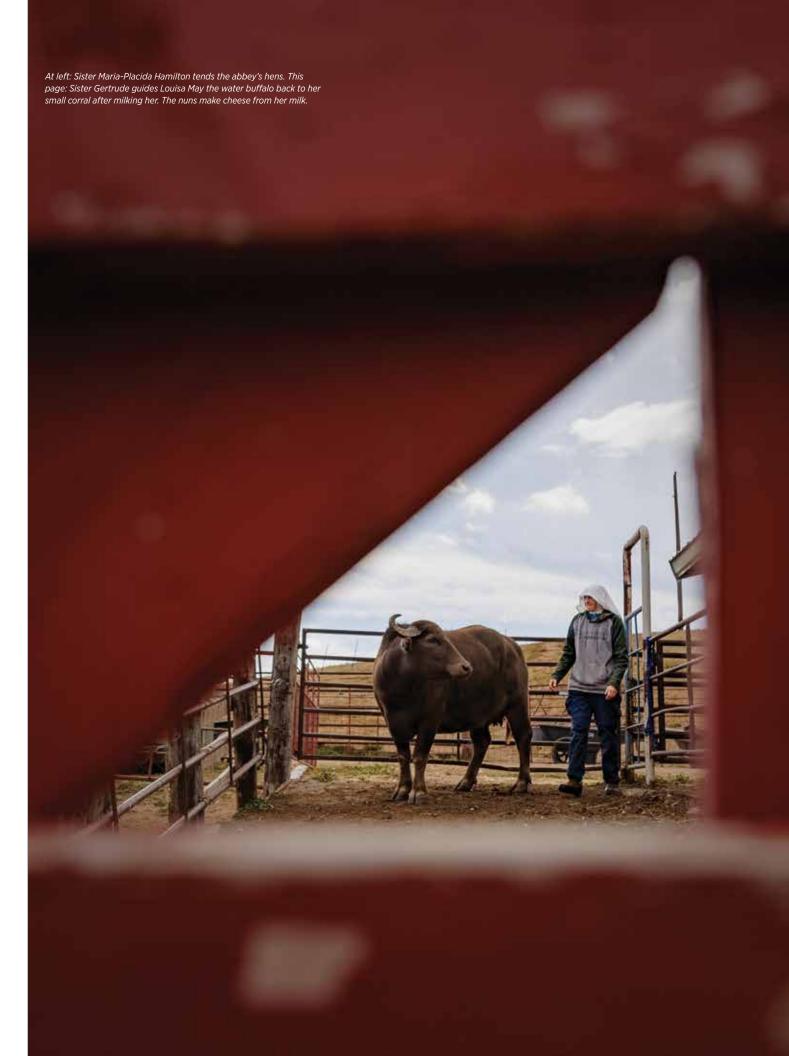
Seeking ways to work with their unique location in the mountains, their unique manpower of all women and their un-unique need to cut costs, Sister Walburga began studying and implementing regenerative principles. Now, the farm has found harmony with its environment and work force.

The sisters interseed hay pastures with alfalfa, use bio controls to manage weeds, take a measured approach to any usage of antibiotics, rely less on chemical inputs, work with flood irrigation to maximize water usage, implement rotational grazing and breed mostly Galloway cattle for their smaller frame and thicker coat, which makes them perfect for mountain grazing.

"The challenging thing about regenerative is knowing when to do things," says Sister Gertrude, such as determining the timing for treatments, seeding and even butchering.

Annually, the abbey harvests about 35 steers and heifers and has 75 to 100 customers who purchase





Top: From a herd of 40 mostly Galloway cows, the nuns harvest about 35 steers and heifers for grass-fed beef customers each year. Bottom: Sister Gertrude emerges from the milk barn to bottle-feed a calf.

their grass-fed beef directly from the abbey. This is the size and scope that works best with the time they have to work and what the land can naturally support. In farming, that's a sweet spot.

"One of the goals is to match your farming methods with the land so you don't have more than you can sustain," says Mother Maria-Michael Newe, who managed the ranch from 1985 to 2003. "The world is always 'have more, have more, have more.' That's not true. There's a sense where you have to have what it can sustain and sustain it well. I think we're just figuring that part out right now. What is a good amount of cattle, and the mowing of the hay, and everything that our land can sustain in good times and bad?"

Overall, healthy soil principles work in simpatico with the abbey's purpose to honor God, even in how He designed their ranch's ecosystem to operate.

"We see creation as something that is not to be exploited. It's a gift to steward," Sister Gertrude says, although that doesn't mean everything always works perfectly. "You have to be willing to face a certain amount of failure. One of the gifts of farming, but challenges of farming, is that things are going to go wrong, and you have to roll with those, recover from those and accept the mixed results. It's not a failure, it's a learning experience."

NUNS' WORK IS NEVER DONE

The farm isn't the only area requiring labor at the abbey. There's cooking and cleaning, running the gift shop and handling the visiting guest needs, and all other monastic daily duties.

Then there are the hours of prayer, beginning with the 4:50 a.m. vigils and scheduled throughout the day until the 7:30 p.m. compline, all referred to as the Divine Office. Ranch work must take place during the morning work period, which runs from 9-11:45 a.m., and the afternoon work period, which runs from 2:30-5 p.m.

You don't see nuns dilly-dally for a reason.

"Our (ranch) work tends to be pretty fast-paced, because we have a limited two hours in the morning and two hours in the afternoon," Sister Gertrude says.

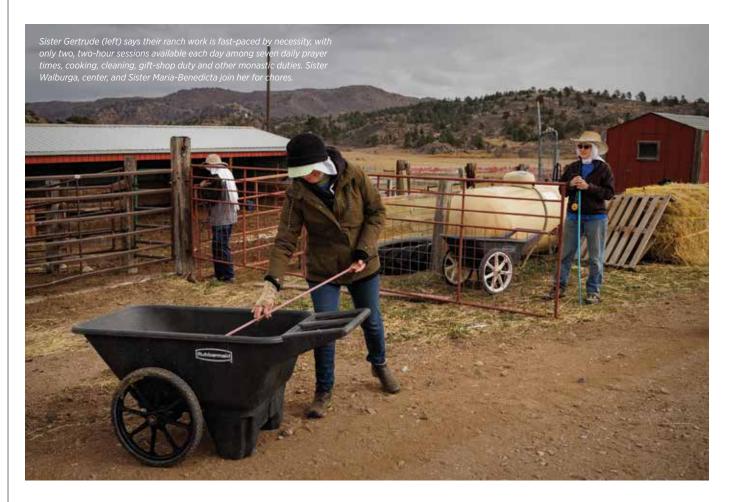
During a morning work period, Sister Maria-Placida Hamilton and Sister Assunta Kunz, two energetic and youthful helpers, chat with Sister Gertrude in the milk barn, a small structure used for storage, for washing and for milking the water buffalo. It isn't spacious, but it's clean, orderly, well-used, well-loved and the only spot out of the biting wind.

They've got roughly two hours to complete their chores, but you wouldn't know it by their comportment. Work isn't done in a frenzy, but it is done efficiently. It's measured and calmly tackled with lots of mooing from the cows and giggles from the nuns.

Even though chatter is kept to a minimum during their work, the nuns say the typical nun stereotype of dourness and constant solemnity isn't their life. Their home is a joyful, happy place, evident by their easy smiles and a nearly universal lack of stress lines around the eyes.







"We tend to be stereotyped, I think, especially as being old, crotchety ladies," says Sister Gertude, looking unstereotypical in a green Under Armour hoodie. "One of the things I love about our community is its quirkiness. Its uniqueness. You never know what we'll think of next ... the image of an ATV with the veil flying behind in the wind? That's the Abbey of St. Walburga right there. Three sisters piled into an ATV with the fencing equipment falling off and the dog running behind."

It isn't far from the truth, in fact. Before a local rancher donated a Toyota Tacoma work truck for the nuns, they drove a Honda Civic Hatchback. Sister Gertrude said the vehicle could hold two nuns and three dogs, while feed bags or needed equipment were strapped to the roof or tossed onto the hood. And away they'd go into the high country.

The truck was an answer to prayer.

What you'll find at the abbey is a devoted group of young and young-at-heart women who are great conversationalists, quick-witted and always eager to share a funny story or laugh at themselves. Periodically, it's possible for visitors to catch a glimpse of the sisters snow-sledding, ice skating, jogging or, when Sister Placida is in the mood, riding the water buffalo.

THE HILLS ARE MOST DEFINITELY ALIVE

In the final work hour for the day, Sister Gertude loaded up in the abbey truck and headed to higher ground. The cows were in the hills, climbing among those giant boulders and roaming the thin-

ner air. That means, sometimes, a nun has to go off-roading.

At a particular clearing, she stopped, and we piled out for a glimpse of the world from on top of it. The temperature had dropped significantly already and, before long, the thirst would kick in. In the meantime, we bundle up tighter and gape at the view.

Sister Gertrude takes in the horizon as if she doesn't see it every day. Then, it's time to dive deeper into the mountains. Those cows have found a prime spot, but it won't be easy to reach them. Crammed into the Tacoma, she maneuvers along impossibly tight paths cut between rock and trees. She handles the steering wheel like a pro, pointing out areas of interest and sharing stories of sighting mountain lions.

Finally, we come to rest in a clearing where the hills roll until coming to rest under the hooves of the abbey's herd.

With a bag of protein cakes, Sister Gertude calls out, "come on!" and interested heads perk up.

The herd only responds to female voices. It's what they've come to know and trust. When local male farmers come to help, they've been known to communicate with the herd in falsetto. Otherwise, the cows won't listen.

Now, a happy collective of rushing wooly bodies and pounding hooves is headed down a slope and back up again to reach the sister for their snack. The sun is softening on the horizon and the farm work for the day is done. It's time, once again, for her spiritual duties to resume. Sister Gertrude loads up, and we head back. The world needs prayer and, when the rain doesn't come, so does the farm.

It's time to talk to God about both. W

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RUNNING A RANCH ON AN ABBEY COMES WITH UNIQUE CHALLENGES

THE DAY THE COW WENT BERSERK

BY TARA LYNN THOMPSON

omeone once said that our cows are the happiest cows in the state because they have the greatest life," says Sister Maria-Placida Hamilton. They may be onto something. Calves

stay on the Abbey of St. Walburga farm for two years, while spending a lot of that time overhearing prayer four and five times a day. It's during those prayer times, of course, when the cattle choose to misbe-

"Oh, don't ask for that story," says Sister Maria-Gertrude Read, laughing.

I asked.

"Okay, this was last year. During the most solemn, serious time of the year. We're preparing for Good Friday and Easter. And, we are in prayer in vespers, our evening prayer. That's when we heard this terrible bellow. It was right outside the (sanctuary) window. A couple of heifers had broken out."

Then one of the abbey's dogs got in on

"We had this kind of psycho dog that failed cow-herding school," says Sister Gertrude. "And it's a cow-chasing dog."

"But we believe in mercy," adds Sister Assunta Kuntz, laughing, "so we kept trying and trying and trying."

Dressed in their black habits, four sisters took off out of the sanctuary to handle the situation and found the heifer, with the dog latched onto her nose, being tossed back and forth like a rag doll.

"The dog broke a tooth. His penance," says Sister Assunta.

The service didn't stop initially. The prayers kept going as the sisters fought to calm the heifer and detach the dog just outside the window. Soon, other sisters joined, along with Mother Superior Maria-Michael Newe. Vespers ended.

"That never happens. You can almost have a bomb go off in the church and we'll keep singing," says Sister Gertrude. "We always just keep going. It's like show

The prayers must go on. W





GREENACRES FOUNDATION believes cattle and conservation go hand in hand. And it's doing all it can to help ranchers do their best and help consumers learn about sustainable agriculture.

GREEN GIVING

Garden team members
Julie Helmers and
Jules Brookbank walk
to gather vegetables
and leafy greens on
Greenacres Michaela Farm
in Oldenburg, IN. Staff
uphold the five G's of the
Greenacres Foundation
values: Giving, Grace,
Green, Good Neighbor
Policy and Generative.



- A field trip site where tens of thousands of schoolchildren per year learn about the environment, agriculture and art in a natural setting.
- A place where English equestrians spend hours each week learning and perfecting their craft.
- A sought-after venue for some of the most high-end weddings in the Midwest
- A supporter of musical arts.
- A farm where soil health comes first.
- A research station where data is collected on grazing lands.

But more than anything, it's a place where agriculture is the solution, not the problem. And where they strive every day to tell that story to people from all walks of life.

GOING BACK TO BASICS

When the late Louis Nippert bought the first 47 acres of Greenacres property in 1949, it was a former corn and soybean farm near Cincinnati, Ohio ... and the soil was spent.

But not for long.

Carter Randolph, Greenacres Foundation president, says the avid environmentalist had a real passion for what Nippert called "pre-1945 agriculture."

"1945 was approximately the year when the salesman showed up with a 50-pound bag of pellets and would tell the farmer, 'This replaces 3 tons of that manure you've been spreading on your field, and it's a lot easier," Randolph explains.

Nippert wanted to restore the soils by working with nature, the way he'd witnessed the bison do out West. Of course, bison are notoriously harder to handle, so he swapped in Angus cattle while applying soil-health-building principles. Through regenerative grazing practices, he began bringing life back to the soil.

While the now-600-acre farm was operated more for pleasure than profit. Nippert and his wife, Louise, were passionate about doing things right and sharing the land and their passions with others.

As he bought more land, he continued

managing it with that same mindset.

In 1988, wanting to give back to the community, they started Greenacres Foundation with the intent to preserve the land for the education and enjoyment of future generations.

VALUES ARE EVERYTHING

Their mission lives on today, and it's carried out while upholding the "five G's," a series of values based closely on what was important to the Nipperts. Peter Wheeler, Greenacres Foundation's director of marketing, says the values are how the foundation staff members ensure they are protecting and celebrating the couple's legacy.

"They're our driving ethos here for how we approach anything and everything," he says. "It all starts with the five G's."

First, there's Giving. Louis and Louise Nippert were giving people. Greenacres is a gift from the Nipperts to the

"Greenacres employees should always be giving of ourselves, to each other

and the communities we serve," Wheeler says. "The first G is really saying that we're using our resources to give back and provide something more than just being here."

Next, there's Grace. It's the humble approach to life and the way the staff implements the mission.

"Each guest is made to feel special, and the staff strives to make their visit memorable — just like we know through stories passed down that Louis and Louise always did," Wheeler says.

The third G, Green, means always looking at the big picture, thinking holistically and considering all direct and indirect consequences of a decision on Greenacres, its guests and the environment.

The Good Neighbor Policy is the fourth G. but Wheeler savs there's more to it than the usual definition.

"Some people assume that just means we won't upset our neighbors," he says. "That literal definition is important, but there's a lot more to it. We share our assets: we share our data: we're being mindful of organizations we work with."

And, finally, there's Generative, the foundation's take on regenerative

"If a lizard drops its tail, it tries to regenerate that tail to what it once was," says Chad Bitler, director of research at Greenacres Foundation and one of the founding collaborators of Metrics, Management, and Monitoring: An Investigation of Pasture and Rangeland Soil Health and its Drivers. "We use the term generative here because no matter what, we're just trying to improve every year, in

Bitler says no matter what you call it regenerative or generative - Greenacres Foundation and Noble Research Institute are on the same page. Everything boils down to the far-reaching impact that soil health has on producer profitability and everyone's well-being.

BIG ISN'T BAD

Outside of participating in and helping fund Metrics, Management, and Monitoring: An Investigation of Pasture and Rangeland



Soil Health and its Drivers, Greenacres Foundation is leading or partnering on several additional research projects.

"When we look at regenerative agriculture, we look at it holistically," Bitler says. "But I would say our niche is looking at 'how do regenerative practices benefit human health?"

He says they're particularly interested in how management practices on the ranch could impact the nutritional quality of grass-fed and grass-finished beef.

Bitler uses a Greenacres Foundation project with Utah State University as another example. This project will bring all this into context for the consumer, and eventually help ranchers who focus on soil health get paid for their stewardship.

"We think it could really help move the needle for regeneratively raised products, because ultimately the consumer is going to decide what the practices are going to be by voting with their dollar," he says.

He explains if consumers demand it, then the larger meat conglomerates will begin to ask that their producers start following some of these practices.

Bitler knows multi-national corporations can be frowned upon, both by environmentally minded consumers and producers alike. But he says it's important to recognize how their size can be used for good.

"You have to think beyond the corporation. It's the people working for them," he explains. "And every corporation has good people who are trying to move the needle in this direction."

He cites McDonald's as a prime example.

"The guy who hired me later went to work as the director of sustainability at McDonald's," Bitler says. "I said to him one day, 'It's kind of striking that you would go from here to McDonald's, from one end of the spectrum to another."

His comeback really stuck with Bitler.

"He told me, 'While you guys are doing great things at Greenacres, you're raising 1,500 chickens a year. McDonald's is buying a million chickens a

day," Bitler says. "The thing is, if someone is actually going to move the needle and reward producers for their management practices, it's going to take a McDonald's or a JBS or a Tyson."

After all, farmers and ranchers have to sell their product somewhere, and not everyone wants to, or is set up to, sell direct-to-consumer.

> And just like Noble Research Institute, with whom Bitler says they're proud to partner, Greenacres Foundation exists to help producers.

"Just like Noble is a resource, we're a resource too," he says. "Our context may be different, but ultimately, we're trying to not just tell a story, but tell a story with supportive data. You can talk until you're blue in the face to a lot of people, and they want evidence that it works, not just be told it works. That's why we're here." #



and 9 other organizations and universities are in year two of Metrics, Management, and Monitoring: An Investigation of Pasture and Rangeland Soil Health and its Drivers. For more about 3M, go to noble. org/3M.





INGREDIENTS:

- O 1 lb. boneless top sirloin steak
- O 2 tablespoon extra-virgin olive oil, divided use
- O 1 cup bell pepper, mix of red and orange, chopped
- O 1 cup yellow onion, chopped
- O 2 cloves garlic, minced
- O 1 cup whole-kernel corn

- O 1 can (15½ oz.) black beans, drained and rinsed
- O ½ teaspoon paprika
- O 1 teaspoon chili powder
- O ½ teaspoon ground cumin
- O ½ teaspoon salt
- O ½ teaspoon course ground black pepper
- O 3 cups beef broth
- O 1 cup milk

MINUTES

SERVINGS

SUGGESTED TOPPINGS:

Sour cream, jalapeno slices, tortilla strips, shredded cheese, avocado and cilantro

INSTRUCTIONS:



- 1. Heat a large saucepan over medium heat. Add 1 tablespoon olive oil and sauté bell peppers, onion and garlic until the onions begin to turn translucent.
- 2. Stir in corn, black beans and spices. Cook for an additional 6 minutes, stirring occasionally.
- 3. Add broth and simmer for 15 minutes.
- 4. While soup is simmering, heat a sauté pan over medium heat, add the other tablespoon olive oil.



- 5. Season steak with salt and pepper; add to the pan and cook 3-6 minutes per side depending on personal preference for doneness. Time will also vary according to the thickness of the meat.
- 6. Let steak rest for 5 minutes before slicing into bite-size pieces. Pour the soup into bowls, top with steak and serve with desired toppings. 🕷

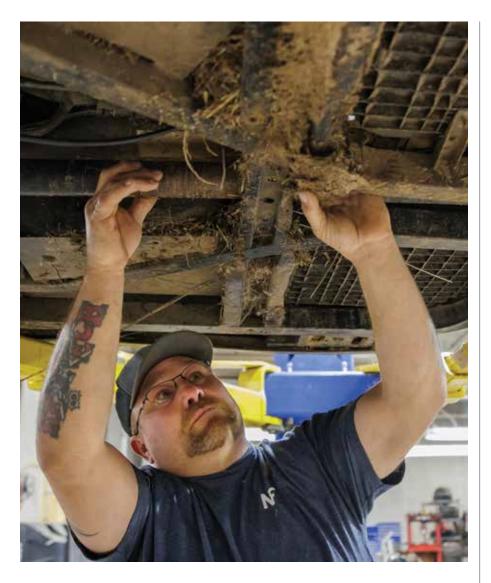
BEEF LOVING TEXANS/TEXAS BEEF COUNCIL

For this meaty recipe, Megan Wied of AZestyBite.com teamed up with BeefLovingTexans.com, the consumer-facing brand of the Texas Beef Council. She likes to serve it with jalapeno cornbread or rolled up tortillas.

IN THE FIELD

7 Top Tips for UTV Maintenance

DANNY BARLOW, Noble's ag equipment mechanic, says performing routine maintenance can help keep your UTV out of the shop and in the pasture. Here are his helpful DIY tips.



1. GENERAL WALK-AROUND

Make a general walk-around your first priority when considering DIY UTV maintenance. A regular, short inspection can be a great prevention tool in the life of your machine. Check high-wear items like fittings, joints and bearings. Lastly, look for any stuck debris.



VERSATILE RANCH HAND: UTVS A GOOD FIT FOR REGENERATIVE OPERATIONS

A new or preowned utility terrain vehicle, commonly called a side-by-side or UTV, can be a great investment for your ranch. Many regenerative ranchers are seeing the benefits of lighter-weight vehicles that are easier on the land with less soil compaction and forage disturbance than heavier vehicle options. Vehicle customization and versatility are also key components for purchasing a side-by-side.



2. CLEANING DEBRIS AND WASHING YOUR VEHICLE

We all know things get dirty around the ranch. Same goes for your UTV. Be sure to wash dirt and mud off of your vehicle on a routine basis for preventative maintenance. Dirt and grime can wear down vehicle components like bearings, seals and drivetrains. Danny also suggests removing any brush in and around the skid plate, the protective cover under the UTV. This may require taking off the skid plate to check underneath it, depending on your make and model.

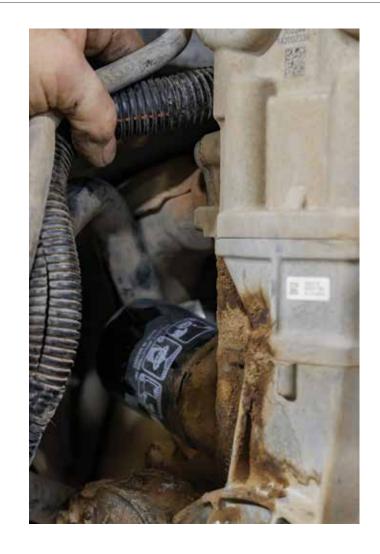


3. AIR FILTER AND RADIATOR CLEANING

Use your air compressor and air gun to clean out the radiator and air filter. Even if the hours on your vehicle haven't reached the recommended time to change the filter, it is still a good idea to check and clean it on a periodic basis. Your UTV won't run efficiently if it's working with a dirty or damaged air filter or clogged radiator.

4. OIL AND COOLANTS

It might be easy to overlook oil and coolant levels. Be sure to do a regular check of levels, and replace oil and oil filter based on your manufacturer's recommendations. If you need to add oil between changes, be careful not to overfill the engine. Too much oil can cause the engine to run hot, which will decrease performance and/or damage the vehicle.



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5. INSPECT AND REPLACE DRIVE BELT

On most UTVs, a continuously variable transmission (CVT) drive belt provides torque to the vehicle. If the belt starts to slip, your power to the wheels will drop. Check for signs of wear and proper belt tension. Belt-replacement frequency depends on the amount of wear and tear your vehicle experiences.

6. LUBRICATE FITTINGS

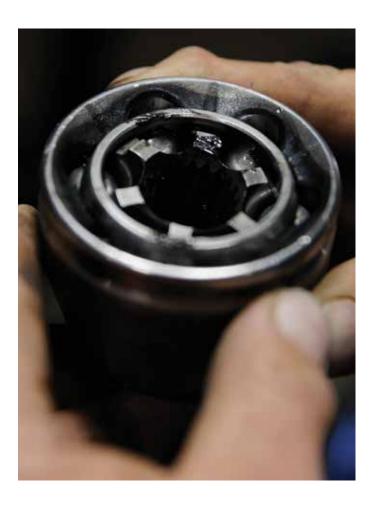
Using a little grease can go a long way. Any part that pivots or rotates will have a grease fitting. Using a grease gun with the UTV manufacturer's recommended lubricant will help keep your UTV running smoothly. Consult your owner's manual for fitting locations.



7. SCHEDULED MAINTENANCE

Be sure to check and follow the manufacturer's scheduled maintenance recommendations. Keep clear records of when each item was performed and what needs to be done next.

A UTV can be an invaluable tool for a regenerative ranching operation, and a little preventative maintenance can keep your ride running strong for many years to come. 🕷



3 WAYS TO CUSTOMIZE YOUR UTV FOR A REGENERATIVE OPERATION

A comment we often hear from ranchers is that they don't have the time to set polywire paddocks for a more regeneratively focused operation. The good news is, a few small additions to your UTV will greatly cut the amount of labor and time you need to build a grazing paddock.

Whether you decide to build a custom UTV bed or just add a few small changes, consider these additions that the Noble UTV maintenance team has made to our ranch vehicles. These small custom additions to your UTV are real time-savers as you build and maintain your multi-paddock operation.

GAIN SPEED WITH HOOKS TO UNREEL ON THE GO

Adding a hook for a polywire reel to the driver's side door of the UTV will help with setting up your paddocks. You'll be able to drive the sides of the paddock instead of walking while you set the posts and connect the fence. Noble ranch/facility assistant Paul Luna (pictured here) attaches the reel handle to the vehicle's front hook and hooks the insulated fence handle to a gate or existing structure before he starts out. Another hook on the back corner keeps the wire in line as you go.

ADD A TOP RACK FOR POSTS

Paul has an additional top rack added to his UTV bed to hold step-in posts in easy-to-reach PVC tubes. The rack saves time and labor, since he can pull up and store posts as he goes without fully exiting his UTV.

USE A CUSTOM BAR TO ORGANIZE REELS

Hanging your polywire reels will help declutter the back bed of your UTV and keep your wire from getting tangled around something else in the bed. Hanging the reels will help save time with organization and paddock setup. Connect the fence handle hooks to the tailgate so the reels won't bounce off the bar when driving.



THE GREAT AMERICAN GRAZING LANDS

BY J. ADAM CALAWAY

are down and we're cruising at a slightly illegal 78 miles per hour. The whoosh of inflow whips Summer's hair into a brunette whirlwind as my sweet wife harmonizes along with King George on a duet of You Look So Good in Love.

ight now, the windows

We're cruising east along Interstate 80, crossing the width of Nebraska. Our twoweek road trip to one of America's most iconic landmarks — Mount Rushmore is almost in our rearview mirror. Several hundred miles still separate us from home. but the sightseeing and selfies have given way to singing and a little self-reflection.

As my brown-eyed girl gleefully embraces Pandora's next offering of Van Morrison, I can't help but replay the freshly minted memories: journeying to the center of the earth (or roughly 500 feet down) on a slightly claustrophobic tour of Wind Cave, standing in awe at four giant faces carved with startling precision into the side of a mountain, and watching shooting stars while incased in the inky night of the Badlands. "Trip of a lifetime" doesn't do the experience justice.

But there's one more feature that stands out from

our epic adventure, a perspective you can't quite appreciate by flying: the expansiveness of the heartland. Until you drive it, you don't realize just how great the Great Plains are.

At Noble, we've been talking about helping ranchers achieve land stewardship for improved soil health in grazing animal production with lasting producer profitability. Did you catch that? Grazing animals.

NO MATTER WHAT

ROAD OR BYWAY

WE TRAVELED. NO

MATTER WHAT VISTA

WE MARVELED AT,

GRAZING ANIMALS

QUIETLY CONDUCTED

THEIR BUSINESS

NEARBY.

Which are on grazing lands. Why arazina lands? Simple. Potential impact.

Grazina lands spread across more than 654 million acres (roughly 41% of the continental US), making it the single largest use of land in the country. Grazing lands are

in all 50 states, and there are more than 264,000 ranchers stewarding these acres. These ranchers raise grazing animals to generate nutrient-dense protein from a land that — for

the most part — can't produce a crop because of terrain or water availability.

These are intriguing facts, for sure, great for talking points. Then you drive more than 3,000 miles across these grazing lands, and you encounter reality for yourself. Somewhere between Don Williams' Down the Road I Go and Stealers Wheel's Stuck in the Middle with You, your

> awareness grows from understanding to appreciation then reverence.

Spend six days watching the Great Plains whisk by your windshield and you begin to grasp the critical nature of these lands. Its intricate ecosystems. Its ever-evolving palette of life. Drive north

through Kansas and see its chocolate-colored soil, keep going until you touch the rock formations textured like alligator skin in the Dakotas. What do you see almost every mile along the road? Bison. Cattle Sheep. Goats. They are everywhere, interwoven into the fabric of the land and our country.

Mixed into the ocean of

corn in Nebraska are farms dotted with Angus. Skim through the vast oceans of prairie or the rolling Black Hills in South Dakota and roaming - almost unfettered by fences - are herds of cattle, sheep and bison. Stand in the semiarid expanse of Wyoming, where iron oxide stains the soil a rusty orange, and there in the shadow of Devil's Tower are more grazers.

No matter what road or byway we traveled, no matter what vista we marveled at, grazing animals quietly conducted their business nearby. This is why we at Noble chose to focus our energy on grazing animals and grazing lands.

Assisting the ranchers implement soil health principles here has the potential to regenerate ecosystems, make the land more drought resilient, improve wildlife habitat, and sequester carbon. Transforming tens of millions of these acres across the nation will buoy local communities and benefit the whole of society. Healthy soil, after all, is the foundation of a healthy world.

It's an enormous job that Noble has undertaken. It's nation-changing work. And it's going to happen — down the road, just around the bend. Until then, I'll listen to Summer and Ricky Van Shelton, and Just Keep It Between the Lines. W



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