OPINION//OUTLOOK

Essay: These ranchers preserve a Texan way of life while fighting climate change

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I never thought I would find inspiration in the words of a Texas cattle rancher. As a vegetarian who was raised Hindu, the words “holy cow” are no joke for me. Ranchers, I long believed, desecrated life and much of the earth by raising cattle for slaughter.

I was wrong to lump all ranchers together.

While it’s true that animal-based foods are responsible for more emissions than plant-based foods, and ranchers are responsible for a great majority of the deforestation in the Amazon rainforest, many ranchers are managing their herds in a way that restores soil. One of them is Loy Sneary, 72, whose family owns and leases 4,000 acres of ranch land in Matagorda County southeast of Houston. He’s a lean man with an earnest manner of speaking and an accent that blends his Midwestern and Texan background.

I visited him at his ranch in October. When I stepped out of Loy’s truck, just the feeling of tranquility persuaded me that regenerative ranching heals the land, before we even discussed carbon sequestration credits and land management techniques.

I was convinced before his son, Adam, 40, a stoic man on horseback, showed me how he uses portable one-wire fencing to move the cattle every day or two so they don't eat plants down to bare earth, so perennials grow deep roots, so the sugars generated by photosynthesis above ground feed carbon-storing microbes in the soil.

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This story isn't primarily about carbon markets and the emerging science on scaling up soil carbon sequestration. It's mostly about ranchers believing they are stewards of the land, wanting to leave behind a legacy for their families. The hawk overhead is what captured me, and the caterpillars, the blades of bluestem, the way Adam could sink a shovel into the ground to turn up sod thick with life, the Sneary's family picnic with the ranchhand and his grandkids playing without fear of pesticides and, yes, the holy cows.

Changing ways

Loy's journey to regenerative ranching began when he was hosting an Audubon Society field day for a group of birdwatchers. He was interested in making more money by getting into grass-fed beef, and while chatting with the birders he learned about "adaptive high-stock density grazing" and about Dr. Allen Williams, an expert on the practice. That set off his journey into regenerative ranching about six years ago.

"You've probably seen ranches where they just turn the cattle out, and cattle go wherever they want to graze," Loy told me. Since 1918, when the family of Loy's wife settled the property, that's how they ranched. The shift in mindset of bringing the cattle into much smaller areas to prevent overgrazing was a hurdle.

"My son said, 'I don't know if I want to build fences every day,'" Loy said.

Over time, Adam found that the new routine, which involves a closer and more daily interaction with the cattle, is ultimately less time-consuming than their traditional mowing and spraying routine. When I visited the ranch, he showed me how they unspool the single wire fencing and attach it to posts already in the ground. The relationship between the cattle and rancher seemed intimate. What I saw was gentle.

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The cows munched on the juicy top inches of grass in the small paddocks. The wire was electrified but the cows seemed busy eating, and weren't trying to leave the area. The Snearys used GPS to map out where to set up the fencing, careful to give each area of grass time to grow between grazings.

"The cattle are in a much smaller area, so they are trampling the grass and the soil. Contact with the grass helps build up the organic matter in the soil, and in addition to that, all the pooping and peeing in a very small area," Loy said. "So they are fertilizing the soil as they go."

Instead of spending tens of thousands of dollars trying to kill everything that wasn't grass, Loy let the cattle eat what he once considered weeds. The dietary mix, he said, has kept the ruminants healthier. Loy rubbed a clump of grass between his palms, loaded the juices into a little device called a refractometer that he held up to the sun and measured the sugar content of the grass, noting that it has substantially improved in the last six years.

"We've been able to increase our stocking rate by about 30 percent," he said. In other words, they can raise more cattle on the same amount of land and that means more profits.

“When we first started doing this, a lot of our neighbors – most of our neighbors – thought we were crazy (some of them *told* us we were crazy), because of the moving of the cattle every day,” Loy said. Now his neighbors see how green his fields are, even during a drought, and they’re more open. He’s become a successful recruiter, bringing more ranchers into the carbon credit program.

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The way Loy said the word “drought,” it came out like “drouth,” which sounds like a piece of history to me. After I visited the Sneary Ranch, I began reading more about ranching in Timothy Egan’s “The Worst Hard Time,” about how the Dust Bowl was set off in the late 1920s and ‘30s after Native American buffalo hunts gave way to ranching, which in turn gave way to “nesters” who tore up huge expanses of prairie to plant wheat in Kansas, Oklahoma and the Texas panhandle. When a spell of wet years gave way to drought, the exposed soil baked into dirt and dust, forming enormous clouds that choked children and elders, and set off a migration and devastation that still scars the land and the people who lived there.

All that history sets the stage for ranching playing a substantial role in preserving remaining grasslands and restoring lost ones.

Carbon markets

After my visit to the ranch, as moving as I found it, I remained skeptical about whether the type of land management that the Snearys do can be scaled up to produce a measurable, certifiable and substantial impact. Loy believes that if cattle around the globe were grazed like his, enough CO2 could be sequestered to mitigate climate change. He's not alone.

Henk Mooiweer worked at Shell for 25 years before co-founding Grassroots Carbon, a public benefit corporation. His last position with Shell was with their corporate angel investment group, where he looked for bold and transformative ideas. That's when he learned about carbon farmers. The mix of benefits– higher profits, more natural life, greater resilience after disaster, carbon sequestered in the ground– sounded like a fairytale but he invested in data and came away believing the potential was enormous. He founded a carbon credit company and then merged with PastureMap, a tool that helps ranchers manage their land.

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Regenerative ranching, Mooiweer admits, is not the first and most effective step in addressing climate change. That would be cutting down emissions in the first place through solar panels, wind turbines or piping carbon into the ground from industrial sites. Those key steps alone won't get the world to the goal of limiting

warming to 1.5 degrees Celsius according to the United Nations Intergovernmental Panel on Climate Change. In addition to cutting emissions, we must remove carbon from the air.

Based in San Antonio, Grassroots Carbon sells credits for the carbon stored on the Snearys' ranch to companies such as Shopify and Marathon Oil. Why are they paying for the credits? Companies now need to prove to their major ESG investors– environmental, social and governance funds that command enormous sums of capital– that they are addressing climate change.

How can we trust a private company that is chasing profits that carbon really is stored in the soil? They hire a third party to take three-foot-deep “before” and “after” samples of the soil and measure how much more carbon is stored on five-year intervals. Entities such as BCarbon, launched out of Rice University, have helped establish regenerative standards and testing to create the kind of trust and accountability for a carbon market to work.

According to Loy, the third party verifiers took 150 samples, surveyed vegetation and created soil maps at the outset of their agreement with Grassroots Carbon and they’ll return at the end of the contract. The Snearys received a payment based on a conservative estimate of how much carbon they would store, and they’ll receive the balance if the ranch stores more. From what I could gather from Sneary and Mooiweer, the payments for carbon sequestration are meaningful and have helped offset initial costs, but are not the primary motivation for ranchers to make the change from set grazing to adaptive high-stock intensity grazing.

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Rancher Loy Sneary and his son Adam Sneary converted their 4,000 acres of ranch land in Matagorda County southeast of Houston to a regenerative ranching operation six years ago. The practice known as “adaptive high-stock density grazing” involves rotating the cattle, often daily, into much smaller areas to prevent overgrazing.

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Currently, according to Mooiweer, Grassroots Carbon is working with 19 Texas ranches for a total of 86,000 acres delivering 117,000 credits. Each credit represents one metric ton of atmospheric CO2. By 2023, they expect to triple those numbers. Is that a meaningful dent in a problem measured in gigatons?

Room for debate

The scientific literature does include debates about whether regenerative ranching will truly reduce carbon emissions. The amount of rain and groundwater, and the skill and knowledge of the rancher, affect how much carbon is sequestered. What might be true for a relatively wet ranch in Matagorda County might not be true for an arid ranch in West Texas.

While Grassroots Carbon is a private company seeking a profit, it is also an effort to prove soil carbon sequestration can be scaled up. Each ranch goes through verification. Each rancher does their level best, learning along the way, based on the conditions of their land.

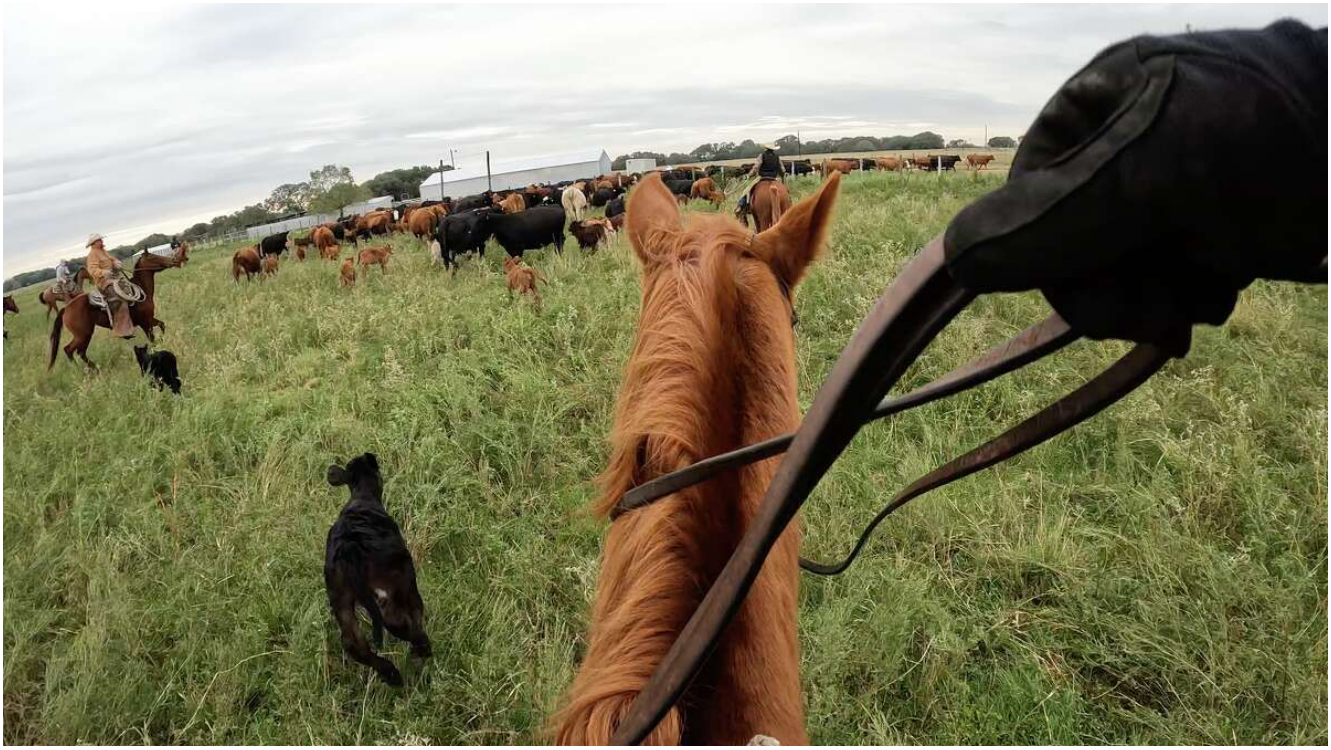
Ultimately, what's convincing to the ranchers is what is also convincing to me. One study of ranchers' motivations for adopting regenerative ranching practices found that money wasn't the deciding factor. It is primarily about building the resilience of their ranch so that moisture is captured and their cattle eat better grass year-round. Loy and Adam made the same point to me, again and again. They set out on this path before working with Grassroots Carbon.

"We actually get paid for doing what we think is the right thing anyway," Loy said.

A Texas way of life

After spending half my 44 years of life in Houston, I consider myself a Texan. The image of a cowboy, though, doesn't have much of a hold on me. I own some boots my father-in-law gave me but I almost never wear them.

Even so, the sight of Adam on his horse, and later his kids joining in for a Sunday picnic on the ranch that videographer Sharon Steinmann captured, did stir something in me.



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I wish all those beautiful cows on the Sneary ranch could just retire there as they restored the soil instead of getting eaten. Loy said that they sell some of the cattle to grass finishers and they may end up in an H-E-B near you under one of those special "grass-fed" labels. If you eat beef, I hope that you can afford to buy this special kind, for your own health and that of the land, and not the beef fueling the deforestation of the rainforests.

"We are going to be able to pass on a way of life, a Texas way of life we like to say, to our kids and our grandkids, and their kids for generations," Loy told me.

Most of the time while Loy and Adam gave the tour of the ranch, they talked in technical terms – about the cattle, grass and costs. It was like listening to physicians or geologists. Only at the end, when the sun was setting, as a feeling of gratitude surged through me, did I ask them about their faith.

"My son and I, our whole family are people of faith," Loy said. "We like to practice what we preach. That's a big deal to us. It's not all profit-driven."

The few hours I spent on the Sneary ranch were such a balm for me. To be honest, as a kid, I never really understood why Hindus revere cows. They pull plows, they provide milk and leather, but is that enough to justify adoration? What I saw on the ranch was how cows help sustain the soil itself, the microbes and even the atmosphere of our planet.

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Written By

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Raj Mankad is the op-ed editor at the Houston Chronicle. He believes in making room at the table for voices from across the political spectrum and all our diversity. It's a job he was born to do. At least that's what he tells himself when trying to make sense of growing up South Asian in Alabama and Kentucky and never feeling like he belonged anywhere until he moved to Houston 20 years ago.

He has a PhD from the University of Houston Creative Writing Program, and has edited and written for publications that specialize in economics, philosophy, literature, architecture, science and health.