THE CARBON REVOLUTION: CREATING NEW MARKETS FOR RANCHERS

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"Those talking heads in Washington don't know a thing!" "Can you believe it? They want to ban cows – COWS – because they fart too much!" "I tell you what, if they pass that green deal, we're all going to starve!" I've heard them. You've heard them. Statements and beliefs like this run abound in our industry. And in the process of attempting, in good faith, to defend our way of life, I fear we fall into the trap of what my grandad called the "Pride Paradox." He would say, "Remington, knowledge is thinking that you know the answer. But wisdom is the humility to know that sometimes you don't."

So, if you will oblige me for a few minutes by leaning into my grandad's life advice, I'd like to share with you what I believe is the greatest opportunity in generations for American agriculture. We can take back our rightful title as the original and most responsible stewards of the land; become the leading industry in reducing greenhouse gas emissions; and open up entirely new markets to create new revenue streams for ranchers. But to get there, we have to get past the political divide and focus on reality.

To understand the challenges in front of us, let me set the scene. This past July, ranchers were in a panic selling off their entire herds (Allen, 2022). It didn't take long scrolling through one's social media to see countless images of "endless miles of trailers waiting to drop off cattle for auction" (Snyder & Agorist, para. 1). The culprit of this abnormal dryness and drought that swept the United States affecting millions (National Integrated Drought Information System, 2022)? Many scientists would say Global Warming.

Global Warming is caused by greenhouse gases trapped in the atmosphere (Center for Climate and Energy Solutions, 2022). As temperatures rise, high-pressure systems suppress rainfall creating a vicious cycle; dry areas become even drier (Associated Press, 2018). However,

despite the growing science, climate change remains a taboo topic in our industry, even though it hits us the hardest.

It is partly because we get way more than our share of the blame. According to the United States Environmental Protection Agency (EPA), agriculture accounts for 11% of total U.S. greenhouse gas emissions (2022). Within that 11%, nothing, I mean nothing, gets more blame than the cow (Carroll, 2019). Professor Mitloehner, an air quality extension specialist states, "Cattle are the number one agricultural source of greenhouse gas emissions" (Quinton, 2019, para. 3). Cattle belch methane, which is initially 28 times more potent than carbon dioxide released from fossil fuels (Quinton).

But what often gets lost as both sides jockey for the political football is the cow carbon cycle. Methane released by cows stays in the atmosphere for 10 to 12 years and then breaks down into carbon dioxide, which is stored in plants and fixed in the soil (Werth, 2020). Cows eat the grass, upcycle it into beef, and the cycle repeats itself. So just maybe it's not all bad news for the cow. As it turns out, if we navigate through the finger-pointing and headlines, deep in the roots, we will find a hidden opportunity for a real climate solution.

In the United States alone, well-managed pastures have the potential to remove "an additional 198 million tonnes of carbon dioxide (CO_2) from the atmosphere each year" (Flynn et. al., 2009, para. 3). In 2018, a study published by *Global Change Biology* compared grazed grasslands to ungrazed grasslands. Grazed grassland more than doubled the amount of carbon stored in the soil (Wilson et. al., 2018, p. 3006). These findings are undeniable: cattle are part of the carbon solution.

With 770 million acres of grazed rangeland in the United States (USDA ERS, 2022); we can create a vast carbon sink. GPS electronic collars will keep cattle on the move and carbon in

the soil (Oklahoma Water Resources Center, 2021). Cattle upcycle inedible rangeland, consume by-products that would otherwise end up in landfills, and turn it into high-quality, nutrient rich protein. Our industry will rise to the challenge and combine high-density grazing programs with methane reducing feed supplements, soil amendments, cover crops, and diversified crop rotation to proudly earn the USDA stamp of "Low Carbon Beef" (Henderson, 202, para. 9). Our industry wants consumers to feel good about the food on their dinner plate.

"As global demand for protein increases, ranchers, agribusinesses, restaurants and conservation partners are coming together to feed a growing population, address climate change and protect the planet" (Cargill, 2020, para. 1). Cargill, Burger King, and the National Fish and Wildlife Foundation are teaming up with ranchers to reduce greenhouse gas emissions and to reinforce the importance of grazing cattle on the Great Plains (Cargill).

Congressional leaders joined together in a bi-partisan effort to create the Growing Climate Solutions Act. This act enables farmers and ranchers to get paid for sustainable practices through standardized, voluntary carbon markets. More than 175 food, agriculture, forestry, and conservation organizations supported the bill (Growing Climate Solutions, 2021). Republican U.S. Senator Mike Braun said, "…Americans want real-world solutions…a common-sense, pro-jobs win, that farmers, industry leaders, and conservationists can all support" (Growing Climate Solutions, para. 3). U.S. Senate Committee on Agriculture Chairwoman Debbie Stabnow echoed, "Our bill is a perfect example of how we can work across the aisle and find common ground to address a critical issue affecting all of us and our future" (Growing Climate Solutions, para. 4).

In addition to ranchers being able to do good for the planet, we can participate in new revenue streams. Companies, like Grassroots Carbon, act as brokers between large companies and

ranchers. Grassroots tracks a rancher's progress over a five-year period by analyzing increased soil organic matter (George, 2022). The stored carbon is then purchased by companies as carbon credits, and profits are paid back to ranchers. By 2030, some financial analysts believe the carbon credit market will exceed $56 Billion (Howard et. al., 2021).

We are the two percent. We produce the highest quality, most affordable and safest food supply in the world (The Voice of Agriculture, 2022). Now, our industry is uniquely suited to solve a global issue, become the leader in reducing greenhouse gas emissions, and take back our title as the original and most responsible stewards of the land.

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