

**Testimony of Kara Brewer Boyd
President, Association of American Indian Farmers (AAIF)**

Submitted to the House Oversight and Reform Subcommittee on Environment

**“Regenerative Agriculture: How Farmers and Ranchers are Essential to Solving
Climate Change and Increasing Food Production”**

Dear Honorable Chairman Ro Khanna and Ranking Member Ralph Norman. Thank you for the invitation. It is truly an honor to address your committee.

I am Kara Brewer Boyd, Founder and President of the Association of American Indian Farmers (AAIF).¹ The AAIF has over 3,500 members across the United States. Our membership consists of full-time/part-time farmers and ranchers, land and timber owners and many concerned citizens. I, too, am a regenerative farmer and rancher, maintaining about 1,500 acres in Southside, Virginia, where we grow corn, wheat, soybeans, and hemp along with summer vegetables. Our livestock operation consists of beef cattle, dairy and meat goats, and hogs. Aquaculture and poultry are also integrated into our farm operation.

Due to the COVID-19 pandemic, the war in Ukraine, and increasing extreme weather conditions, we are currently in a farm crisis which may lead to a food crisis in the very near future. Farmers have already had to bear the brunt of land degradation and extreme weather events brought on by climate change. The devastating economic impacts of the pandemic and war have put additional burdens on America’s farmers, ranchers and food supply, causing disruptions and record high costs in the supply chain from seed to market.

Being an Indigenous person here in North America, I highly value food security and resilience, as we've always grown and produced food to feed our families, tribal communities and others. Indigenous people were utilizing regenerative farming practices, from no-till and companion planting to crop rotations and polinating bufferstrips, well before industrial agriculture became the dominant system in the U.S. Being a good steward of the land includes making decisions with forethought of the next seven generations - remember to take some, leave some, and there will always be some for future generations.

Our current farm crisis

Today, the foundation of the resource abundance that we have relied on and nurtured for millennia - our soil - is eroding beneath our feet. It is imperative that we address the fact that the current state of our soils is dire. We are losing [5.6 tons of topsoil per acre](#) on our agricultural lands every year,² while the average debt held by farmers has

¹ Association of American Indian Farmers (AAIF) <https://www.nativeamericanfarmers.org/our-mission>

² Lawton, Kurt, “Economics of soil loss”, Farm Progress, March 13, 2017

increased by 4.1% per year since 1990.³ Over [50% of U.S. agricultural soils are heavily degraded](#) and the dominant U.S. farming system - industrialized conventional agriculture - is a primary factor contributing to continued soil loss⁴. Simply, most of our soils are not functioning as they are meant to, resulting in countless crises including: diminished farmer livelihood, reduced resilience, water scarcity, food scarcity, and biodiversity loss.

Degraded soils also require increased fertilizer and pesticide inputs to maintain yield and protect weak plants, creating a huge financial burden for farmers and rural communities across the nation. This is further exacerbated by the current skyrocketing costs of these inputs. Because degraded soils do not properly absorb and retain water, the land becomes more susceptible to extreme flooding and drought conditions. Soils that lack the ability to retain water can also cause higher water bills, increased heat island effects, and critically reduced rates of groundwater recharge that lead to dried up springs and aquifers.

Increased fuel prices to \$5-6 gallon (up from \$2-3 gallon last year), fertilizer costs of \$1,200 (up from \$400 last year) per ton or over 300% since early 2021⁵ and over 400% since 2020.⁶ On top of these skyrocketing input costs, extreme heat and drought will have a devastating effect on this year's profitability and yields. I have seen so many farmers who simply don't have the funds to purchase the conventional fertilizers they have in the past, and they will see lower yields and decreased income this year. Farmers are being forced to decide between planting less acres or selling out to keep from going into foreclosure, and lower supplies of commodities will mean increased prices for consumers.

Regenerative agriculture is a critical solution

Regenerative agriculture is the solution to the farm crisis. On our farm, by building soil health, we are also building on-farm fertility and reducing reliance on inputs making us less susceptible to shifting fertilizer markets. This year, we integrated chicken litter from on the farm to save costs. As it turns out, it is outperforming artificial fertilizer - we're seeing a 20-30% increase in yields.

Regenerative agriculture offers a comprehensive solution to the aforementioned challenges caused by soil degradation. A system of agriculture that involves restorative farming and grazing practices that rebuild soil and soil function, the demonstrated benefits of regenerative agriculture are many: better farmer livelihoods through increased

<https://www.farmprogress.com/soil-health/economics-soil-loss>

³ Harris, Tyler, "Report: Average farm debt rises over \$1.3 million", Farm Progress, May 25, 2018.

<https://www.farmprogress.com/management/report-average-farm-debt-rises-over-13-million>

⁴ Hopkinson, Jenny, "Can American soil be brought back to life?", Politico, September 13, 2017

<https://www.politico.com/agenda/story/2017/09/13/soil-health-agriculture-trend-usda-000513/>

⁵ Campbell, Lindsay, "Farmers Struggle to Keep Up With the Rising Costs of Fertilizer", March 2, 2022.

<https://modernfarmer.com/2022/03/fertilizer-prices>

⁶ Smith, Elliot, "Fertilizer prices are at record highs. Here's what that means for the global economy", CNBC, March 22, 2022.

<https://www.cnbc.com/2022/03/22/fertilizer-prices-are-at-record-highs-heres-what-that-means.html>

fertility and input costs reductions^{7,8}; increased resilience to extreme weather events due to better water absorption and retention rates that reduce floods and drought effects⁹; more water security due to increased infiltration¹⁰; restored small water cycles; carbon sequestration through increased soil organic matter; and restored biodiversity, from soil microbes to macrofauna and up.

To ensure local and national security in the face of domestic and global disruptions, we must make the effort to rebuild our soils. The promise of regenerative agriculture is that it works for all sizes and shapes of agriculture. From 7,000 acres of row crops, to a 10 acre market garden, to 50,000 acres of rangeland, regenerative agriculture is a critical solution to restoring American resilience and prosperity.

Regenerative agriculture is based on 6 Principles: Context, Minimal Disturbance, Living Root, Soil Armor, Animal Impact, and Increased Biodiversity. As a series of practices, regenerative agriculture ranges from integration of crops and livestock, to crop rotations and cover cropping, to no/reduced tillage and reductions/elimination of synthetic inputs - this range and flexibility of practices ensures that regenerative agriculture works in all contexts, and in all regions. Supporting regenerative agriculture means supporting farming to secure our food supply and become a solution to some of the worst effects of the climate crisis. Farmers and ranchers are at the frontlines of the climate crisis, and should be compensated for the agricultural services they provide that are improving soil health and the environment while also making farms and our nation more resilient.

Agriculture policy must support regenerative agriculture

The USDA's Environmental Quality Incentives Program (EQIP) provides \$1.2 billion annually to help farmers deliver environmental benefits like improved air and water quality, and reduced erosion. The Conservation Stewardship Program (CSP) is the largest conservation program in the United States, with 70 million acres of productive agricultural and forest land enrolled. Despite the popularity of these programs, too many farmers and ranchers are turned away when they seek EQIP and CSP assistance due to limited funding or burdensome restrictions. At the same time, significant amounts of CSP and EQIP funding is being spent on practices that do not rebuild soil health or ecological function, reduce emissions or sequester carbon. Consistently, EQIP funds are used to [support concentrated animal feeding operations \(CAFOs\)](#),¹¹ leading to detrimental

⁷ No-Till Farmer, "Regenerative Practices Yield Benefits Early, Increase with Time," March 10, 2021, <https://www.no-tillfarmer.com/articles/10448-regenerative-practices-yield-benefits-early-increase-with-time>

⁸ American Farmland Trust, "Quantifying Economic and Environmental Benefits of Soil Health," <https://farmland.org/project/quantifying-economic-and-environmental-benefits-of-soil-health/>

⁹ Elizabeth Creech, "Soil Health Practices for Mitigating Natural Disasters", USDA-Natural Resources Conservation Service - Newsroom - Features, 2018, <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/features/?cid=nrcseprd1384891>

¹⁰ Union of Concerned Scientists, "Turning Soils into Sponges: How Farmers Can Fight Floods and Droughts", August 2017, <https://www.ucsusa.org/resources/turning-soils-sponges>

¹¹ Cover Crops and CAFOs: EQIP in FY 2019 and FY 2020, NSAC, October 6 2021.

environmental impacts while also effectively preventing small-scale and pasture-based livestock producers from accessing funds.

It is my strong recommendation that CSP should be converted into a “Climate” Stewardship Program that primarily rewards good climate stewards and prioritizes support for small-scale farmers. Up to 80% of EQIP funds should be dedicated to practices that rebuild soil health and ecological function, reduce emissions or sequester carbon, rather than [the current ~20%](#), with a 15% set-aside for historically underserved and limited resource farms to implement regenerative agriculture practices so that they may fully integrate a holistic climate stewardship program. Education and cost-share for necessary equipment are absolutely essential to the successful transition to regenerative management, but current U.S. agriculture policy prevents regenerative farmers and those transitioning to soil building practices from improving their farms.

To share a personal example, over a year ago, I met with my local USDA-NRCS District Conservationist regarding integrating our livestock due to poor fertility on our low grounds which border 2 miles of the Roanoke River. The quickest, cheapest, and easiest way for me to improve the fertility of my soil would be to apply animal manure and implement regenerative grazing methods, but I was informed that I would not be approved if I applied for perimeter fencing because I didn't have my cattle on the land. The tattered and nearly non-existent perimeter fencing on our farm needed to be replaced because it was installed more than 50 years earlier when it was a dairy farm; it would be irresponsible and detrimental to place my cattle in the low grounds without secure fencing to protect them from coyotes and prevent them from wading into the river or running away. **Our cost for 25 acres is roughly \$25,000**, which equates to \$1,000 per acre, which is more than we are able to pay out-of-pocket. Perimeter fencing, along with polywire for adaptive paddock sizing, is a critical way farmers and ranchers could use EQIP funding to implement practices that rebuild soil and fertility, but this is currently not allowed due to arbitrary restrictions in agriculture policy that create barriers to the adoption and implementation of regenerative practices.

In addition to raising livestock, I am a “cash and sell” farmer, meaning I do not store my crops. I harvest and sell my soybean crops to the Smithfield Foods company, which operates the nearest grain elevator, located in Petersburg, Virginia. This requires trucking my harvest 140 miles roundtrip in 500 bushel capacity grain trucks, at an immense cost.

Many farmers are forced to operate this way due to a critical lack of local and regional processing infrastructure, particularly for specialty crops and livestock. At the same time, small-scale and regenerative farmers often face limited options for diversifying their operations and participating in local markets. A farmer with the best intentions to transition to more regenerative practices that will help solve the climate crises by integrating managed livestock grazing would struggle to make that transition economically feasible if there is no local processing or infrastructure.

<https://sustainableagriculture.net/blog/cover-crops-and-cafos-eqip-in-fy-2019-and-fy-2020/>

There is currently not enough local infrastructure to help farmers with the transition to climate-smart, regenerative agriculture. Without access to local processing, regenerative farmers and rural America don't stand a fighting chance. Consolidation and stagnation of production have ripple effects that are leading to less dollars circulating in local economies, and the hollowing out of rural America.

As you can tell, these crises are bigger than any one farm - they impact us all.

Agriculture policy must support equity in farming

The promised debt relief that was passed by Congress and signed into law by President Biden in the American Rescue Plan Act of 2021 has been delayed by white farmers filing lawsuits in 12 federal courts claiming reverse discrimination and that they would be harmed if the Indigenous, Black and other farmers of color received debt relief. Nothing in Section 1005 prevents a farmer from applying to USDA for loan servicing - this pause on relief by the courts is another example of broken promises by the U.S. government to people of color. Our payments have arrived late, or not at all, leading to foreclosures that could have been prevented had the USDA taken different actions. We have been given no recourse or backup support in handling the difficulties caused by this failure to provide relief. As Indigenous and Black farmers, we have a long history of being shut out of help from the USDA; the agency has a well-documented pattern over many decades of treating Indigenous, Black and other farmers of color poorly, resulting in slow, denied, or delayed help compared to other farmers. As farmers and ranchers who are working tirelessly to implement regenerative agriculture and deliver a range of related public benefits, ensuring that we receive this long-promised support is vital.

As a highly vocal social justice advocate for fair treatment of all farmers and socially disadvantaged, underserved, minority and small-scale farmers in particular, USDA aka the People's Agency or the Last Plantation as a system can be a nightmare to navigate. It took over a year after I filed a Noninsured Crop Disaster Assistance Program (NAP) insurance loss claim for assistance and was told to destroy my crop, to be informed I had been denied based on the 20 year county rain average by the local Mecklenburg County, VA FSA County Committee. The county rain average is just that - an average - and should not be the sole basis for denying a farmers' loss claim due to extreme heat and drought when there is documented evidence of record temps during that period.

For me personally, I am still deeply in the RED. Please understand my level of distress as the NAP program provides financial assistance to producers of non-insurable crops when low yields, loss of inventory, or prevented planting occur due to natural disasters. On our farm, where we have utilized cover crops for example, we have witnessed that resilience in real time. It works, protecting the soil with living plants that are keeping the soil alive and aggregated does help reduce erosion very quickly, and it also improves fertility. We are wanting to go even further with these practices because we see what is possible on farms across this country who are well ahead of us in these efforts.

The rapid widespread adoption of regenerative farming requires all farmers and that means we must continue to push for more equity, support, and inclusion in all USDA programs (especially those regarding soil health and regenerative agriculture) for all BIPOC and historically underserved producers. For specific policy recommendations on how this may be achieved, please review [Priority 2 of the Regenerate America policy platform](#), which I helped develop.¹²

I continue to be outspoken in calling for justice and corrective action on our plight. My husband, John W. Boyd Jr., Founder and President of the National Black Farmers Association, has continued to plead our case on cable television networks and in media outlets such as the *NewsNation* article that was published on May 15, 2022 under the headline: “[We’re in a crisis: Farmers sound alarm over coming food shortage](#)”.¹³

Most of our AAIF and NBFA members are in no financial condition to sit out a whole farming season with NO INCOME from not having a farm operating loan because they are being reported delinquent on a federal debt after receiving and executing an official debt relief agreement from USDA for 120% of eligible FSA direct and guaranteed loans. We have experienced poor leadership from the USDA in this crisis, but we need this support in a timely way to keep farmers farming.

As an enrolled member of the Lumbee Tribe of NC, I am all too familiar historically with the little regard our government has shown Indigenous, Black and other farmers of color. In 1936, my great grandfather Britton Maynor was denied Indian Status as a result of the Carl Seltzer report. The anthropological methods used to make that determination were biased and discriminatory just as several methods used currently by USDA are towards minority and small-scale farmers and ranchers.

Agriculture policy must support small-scale farmers

Corporate agribusinesses have unfair market power,¹⁴ preventing the widespread transition to and adoption of regenerative practices and hurting small and medium-scale family farmers. I believe the Cargill and Continental Grain Company’s proposed joint acquisition of Sanderson Farms will substantially lessen competition in an already consolidated market and harm our members, as well as all small- and medium-scale farmers and consumers.¹⁵

¹² Priority 2: Ensure Equitable Opportunity & Access to All USDA, Regenerate America, <https://regenerateamerica.com/about/>

¹³ Bullock, J.J., “We’re in a crisis?: Farmers sound alarm over coming food shortage”, ABC4 New, <https://www.abc4.com/news/top-stories/were-in-a-crisis-farmers-sound-alarm-over-coming-food-shortage/>

¹⁴ Perkowski, Mateusz “Food distributor accuses ‘Big Four’ beef packers of price-fixing”, Capital Press, June 28, 2022 https://www.capitalpress.com/ag_sectors/livestock/food-distributor-accuses-big-four-beef-packers-of-price-fixing/

¹⁵ Kelloway, Claire, Cargill, “Continental Grain Take Over Chicken Leader Sanderson Farms for \$4.5 Billion”, Food & Power, August 19, 2021. <https://www.foodandpower.net/latest/cargill-conti-sanderson-merger-2021>

NBFA and AAIF members have watched with concern as the agricultural industry has become increasingly concentrated in recent years, often resulting in higher prices for consumers and lower pay for farmers. In light of the problems arising from this growing market concentration, we have requested that the Department of Justice block¹⁶ this acquisition to prevent further harm to consumers and farmers.¹⁷ If the transaction closes, Cargill and Continental Grain will combine Sanderson Farms, the third largest poultry processor in the United States, with Wayne Farms, the sixth largest poultry processor, which is currently a subsidiary of Continental Grain, to form a new and more powerful poultry business. This would negatively impact small producers. Regenerative farmers and ranchers, and those transitioning to these methods, need greater access to scale-appropriate processing infrastructure.

New Funding in Farm Bill must support regenerative, not degenerative soil practices

Finally, many of the proposals being offered by Congress (from both sides of the political aisle) are little more than taxpayer subsidies of the conventional agriculture companies, through 90% cost share, or 90% loan guarantees for “precision agriculture” and “nutrient management”. NRCS refers to a wide variety of “precision agriculture technologies” and there is an existing “nutrient management” practice code that lists a range of best practices in conventional ag, but these have widely varying potential for impacting input use/cost, resilience and ecosystem function restoration. Without new funding in the 2023 Farm Bill, the proposed expanded 90% cost share for these practices, would pull directly from funding supporting other proven soil health conservation practices. This would make it that much harder for farmers like me to access cost share dollars. It's also worth noting that there is no equivalent 90% cost share for regenerative agriculture practices which would actually have a real impact.

Congress must support regenerative agriculture policy

We must amend federal policies that unjustly protect corporate agribusiness, often at the expense of family farmers and ranchers. Policy decisions regarding farmers must not continue to disproportionately reward foreign-owned corporations and exclude already disadvantaged farmers in our category. It is unacceptable that foreign owned corporations are benefiting at an alarming rate while tax-paying American farmers such as myself are receiving miniscule amounts of the assistance designated with stated purpose to help American Farmers. Economic fairness is at stake in this matter as well as food security, our natural resources and the environment.

¹⁶ McCarthy, Ryan, “Lawmakers ask DOJ to examine Cargill, Continental Grain joint venture”, Meat + Poultry,” February 22, 2022.

<https://www.meatpoultry.com/articles/26231-lawmakers-asks-doj-to-examine-cargill-continental-grain-joint-venture>

¹⁷ Fineman, Joshua, “Sanderson Farms falls on report that DOJ negotiating remedies in Cargill takeover” Seeking Alpha, July 13, 2022.

<https://seekingalpha.com/news/3856537-sanderson-farms-falls-on-report-that-doj-negotiating-remedies-in-cargill-takeover>

Mr. Chairman, you and your committee members have an opportunity to foster this change. You can push for the development, adjustments, or expansions policy that will allow agriculture to be part of the solution - you can fully fund a farm Climate Stewardship Program so that we may continue to provide agricultural products for many generations to come. But, even while more resources are needed, just increasing funding is not going to be enough. To create a regenerative agriculture system, it must start with education and a “change in how we see things.” We must educate farmers and ranchers in regenerative principles. But it’s not just the farmers, this is systemic. The crop advisors, the field agents, and all of society, need more education on the ecological approach and how and why regeneration of the land can and must happen. That is why I feel that the House Oversight Committee should be aware of these profound problems and their root cause as well as the solution and opportunity that lies in regenerating the soil beneath our feet. From farmers, to soil scientists, to leading environmentalists, to government officials, you hear a resounding phrase, “I didn’t know”. This is an opportunity for all of us to learn.

While many of these concepts are rooted in Indigenous knowledge, they are being relearned and shaped by our current context and as new data emerges that further explains how and why these systems work to regenerate land. We are living in a time like no other, and we need science, technology, Indigenous wisdom, and holistic thinking working together to move us toward regeneration.

Building back healthy soil is the most cost-effective regional, state, and national investment. From risk mitigation to farmer prosperity, to human health, to carbon sequestration, it is a win for all, and this committee, Mr. Chairman, can help push soil regeneration forward as a critical, comprehensive solution to the farm crisis.

Thank you again for this opportunity, and I look forward to your questions.

Kara Brewer Boyd
President, Association of American Indian Farmers (AAIF)

ADDENDUM:

Please submit the below comments for the record on behalf of Understanding Ag, a consulting firm made up of U.S. farmers and ranchers who are currently helping transition of over 32 million acres across the U.S to regenerative management:

To move to regenerative on a massive scale with any type of farming and ranching we have to prioritize the following six principles of regenerative agriculture in all USDA-NRCS work.

1. Context

Nature always acts in context. It does not try to grow plants or raise animals out of context of where they should not be growing or living. Programs like crop insurance are currently not based on positive outcomes and don't work in context, often leading to continued nationwide degradation of our soils.

We need to monitor for real outcomes as to benefit farmers building resilience or beginning to use practices that build resilience into their operations. Crop insurance needs to integrate environmental contexts so we aren't creating unnecessary harm.

Our financing and loan system for farmers is often out of context, keeping farmers on an arbitrary hamper wheel of trying to pay back principal balances. It could be changed to an investment model that helps farm and ranch operations move to regenerative.



Orchards planted in a desert region - an example of bad context.

2. Least Disturbance

We must make a serious effort to reduce and eliminate tillage, and we have to reduce chemicals.

Nature does not use copious amounts of chemicals. The chemicals, herbicides, fungicides, insecticides, even the fertilizer we are putting on our crops are damaging our soils.

3. Living Roots

Living roots should remain in the soil as long as possible throughout the year. Nature always wants a living plant to take carbon out of the atmosphere, through photosynthesis convert it to carbon compounds that it can pump into the soil to feed microbes. That is what makes rebuilding soil possible.

We need a massive mobilization of multispecies cover crops and mentorship from experienced individuals to ensure their success. We need 75% of our cropland covered in the offseasons as soon as possible.

We need viable options like roller crimpers for termination of diverse cover crops. CRP can be beneficial but it is highly underutilized for actual regeneration. It needs diverse mixes of species, not monocultures of shallow-rooted grasses that have poor nutrient quality. It needs to include regenerative grazing.

4. Soil Armor

We have to think holistically, prioritize every square foot of soil, and consider how well the soil is performing rather than leave thousands of acres bare and exposed while investing in small infrastructure projects and thinking we've accomplished our goal.

Walk through the forest, there is a carpet of leaves; walk through a healthy prairie and every inch is covered in plants, deep-rooted grasses, and forbs. Nature always wants to cover the soil to protect it from wind erosion, water erosion, and evaporation to keep building soil aggregates. Without armor, every bare inch of soil becomes vulnerable to water droplets that act like bombs to soils aggregates exploding them and leaving dispersed state soil easily compacted and able to wash away. In the words of Allan Savory, "It's not the drought that causes bare soil, it's bare soil that causes drought."

5. Increase biodiversity

Nature does not create monocultures. It is only in areas defined by human intervention that monocultures are found. Nature thrives on diversity, yet we plant monocultures: corn, soybeans, wheat, cotton, rice, and the list goes on. Every working farm, ranch, or land in CRP can significantly increase the biodiversity of plants, animals, insects, and soil biology.

6. Animal Integration

Ecosystems do not function properly without animals. Many of our richest, healthiest soils evolved and were formed in partnership with grazing ruminants. Proper use of grazing ruminants are one of the keys to taking massive amounts of carbon out of the atmosphere, especially in more brittle environments that were originally grassland systems maintained by large herds and the Indigenous people of this land.

We must work together to bring back animals into our farming systems. We have to understand the profound opportunities and the differences of adaptive “regenerative” grazed land versus “rotational” grazing or “continuous” grazing.

The image below is of a Chihuahuan desert in Texas- many think that with only 6-8 inches of annual rainfall, it was always a desert.



Look closely at the second picture. The dark colored soil near the surface is carbon-rich: this area was recently a vast grassland. This is the result of erosion and is happening more and more across the whole country - look more closely to see the barbed wire going across this gully. This erosion occurred in just the past 60 years.

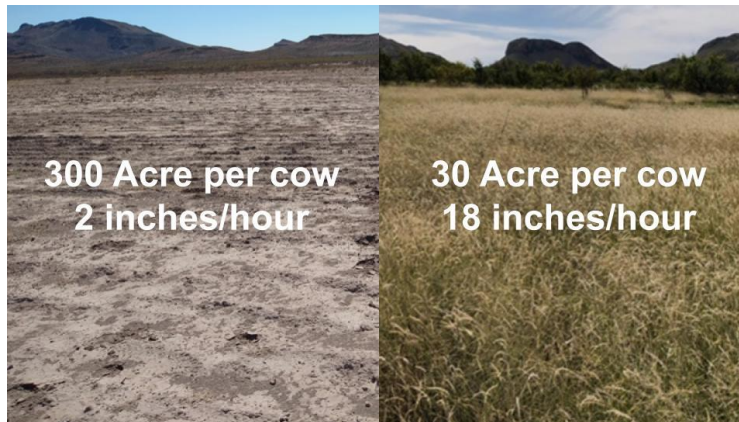
I want to ask you all to take this back to your own states and districts. Think about places you grew up in or how your grandparents described the landscape. I want you to become present to the rates of land degradation that are happening all around us now. Climate change is exacerbating it but the management of the land is of the utmost importance.

Look for dried up streams or riverbeds. Look for bare land that once was vast prairie. It's all connected. We are drying ourselves up and leaving our land vulnerable.

You drive through this desert and then you open a gate to enter Alejandro Corrallo’s ranch, seen in the picture below.



The difference between a desert and a grassland in this area is simply stewardship. Alejandro has used livestock as a tool to regenerate his soils and increase biomass. Where 12 years ago he needed 300 acres to feed one cow per year, he now only needs 30 acres per cow. *Note: Regenerative grazing in less brittle environments like Alabama see ranches going from 11 acres needed per cow/year to 2 in under three years.*



By practicing regenerative agriculture we can use nature's proven, time-tested principles to take massive amounts of carbon out of the atmosphere and build it back into the soil.

4 Short Case Studies

These 4 case studies show that these results are not an anomaly. This can happen with farmers in your district.

Rick Clark, 5th generation Farmer based in Indiana, using regenerative and organic practices

- 7k acres growing alfalfa, yellow field peas, cattle, soy, corn, and wheat
- By moving to no-till and cover crop and planting into crimped cover crop “planting green”, he eventually removed all chemical inputs (no synthetic fertilizer, pesticides or fungicides “farming naked”)
- Savings on inputs approximately \$860k annually (based regional averages).
- His water infiltration rate has improved to 5” rainfall per hour.
- 4 bushel a year increase (for the past four years) for corn. 1.5 increase for soy.

Adam Grady, 11th generation farmer/rancher based in North Carolina

- 1,600 acres cattle, pasture pigs, sheep, corn beans, pasture turkey, corn, and soy.
- Moved from tillage to no-till and cover w/livestock integration
 - *"In our second year, we saved over \$200k by reducing input costs such as seed, pesticides, herbicides, fungicides, and fertilizer as well as reducing labor, and fuel costs. We had also reduced Glyphosate consumption by*

80% and were glyphosate free by year three.” - Adam Grady Dark Branch Farms

- Was able to seed two week after hurricane Florence waters receded while neighbors were still flooded.
- Was able to pay off his farm debt after only three years of farming regeneratively.

Adam Chappel, a 4th generation farmer based in Cotton Plant, Arkansas

- the 8k acre cotton farm was spending \$100 an acre on herbicides, “there was no way for us to be profitable”.
- Switched to no-till and cover cropping now they are making 100-250 an acre profit.
- “I don’t care what you call it, I call it profitable farming” - Adam Chappel

Dr. John Boyd Jr., a 4th generation farmer, and Kara Brewer Boyd, and Indigenous farmer, regenerative farmers based together in Southside, Virginia

- 1,500 acres growing corn, soy, wheat, beef cattle, goats, pigs, vegetables, and hemp.
- Transitioning to regenerative practices has lead to
 - Much native biodiversity being restored.
 - Major water and input savings.
- Working with tribal communities reintroducing hedgerows of elderberries into lands and pastures.
- As founder of the National Black Farmers Association, John works to help black farmers access NRCS soil health programs and get education in regenerative management.

Concluding Statement

This hearing is titled “Regenerative Agriculture: How Farmers and Ranchers are Essential to Solving Climate Change and Increasing Food Production”. We know that by practicing regenerative agriculture we can use nature’s proven, time-tested principles to not just take massive amounts of carbon out of the atmosphere but we can use it to build back our soils, for farms, families and futures.

We can restore the water cycle and replenish underground clean water sources making droughts less frequent. We can infiltrate water more quickly and hold more water thus alleviating flooding. We can hold nutrients on the landscape, thus preventing nitrates and phosphates from entering our watersheds. We can make farming and ranching profitable again by reducing inputs and stacking enterprises. We can revitalize our rural communities by diversifying farm production. We can produce food that is higher in nutrient density thus significantly lowering healthcare costs. *We can regenerate America.*