The **MISSION** of Mad Agriculture is to reimagine and restore our relationship with Earth through agriculture.

The **PURPOSE** of the Mad Agriculture Journal is to explore and create the new agrarian culture. It is dedicated to living the questions, trusting that in the living we will find the answers.

**TABLE OF CONTENTS**

| Contributors | 2 |
| Letter From the Editor, P. Taylor | 4 |
| The Hope for Springs Eternal, C.K. Harshbarger | 6 |
| A Cautionary Note on Ecosystem Service Markets for Soil Carbon, P. Taylor | 8 |
| Haiku Poems from the Farm Season, S. DeBoskey | 14 |
| Boulder Beans, T. Starbard | 16 |
| A Cry for Kelp, M. Bate | 20 |
| Perennial Fund Update, B. Welch | 24 |
| Celebrating Potato Diversity in the San Luis Valley, E. Payne | 26 |
| Turning Tragedy into Opportunity, D. Bailey | 30 |
| Gifts Between Us, T. Starbard | 34 |
| Transformation, O. de Kok-Mercado | 36 |
| Cornbean, P. Taylor | 40 |
| From the Fellows: Defining Regeneration, K. Bartel & C. Johns | 42 |
| Recipe Series from the Grain Revival, L. Miller | 46 |
| Letter from the Little Editor, A. Taylor | 51 |
| Team | 52 |
| Donors | 53 |

Mad Agriculture Press

Issue 4

Fall | Winter 2020

**Founders** — Philip Taylor & Nicole Brinks

**Graphic Designer** — Jane Cavagnero

**Cover Photograph** — Omar de Kok-Mercado

**Contributors** — Philip Taylor, Jordan Perkins, Tanner Starbard, CK Harshbarger, Jane Cavagnero, Brandon Welch, Omar de Kok-Mercado, Ada Taylor, Dustin Bailey, Lea Miller, Josh Addison, Sam DeBoskey, Mathew Bate, Emily Payne, Katie Bartel, Colleen Johns.
Mathew Bate
Mathew Bate is a writer and poet with an interest in changing the narrative of climate change and how people relate to natural landscapes. Passionate about regenerative agriculture, he has developed a deep affinity for seaweed and its remedial power. Mat is the former co-editor of Matters Journal and his work has been published in Dumbo Feather, Cordite Poetry Review and Gippslandia. He is currently studying regenerative agriculture at Southern Cross University, the first degree of its kind in the world.

Dustin Bailey
Dustin grew up in the mountains of Colorado. He's been obsessed with nature since he was a kid and he completed his Bachelor's degree in Ecology and Evolutionary Biology in Boulder. A jack-of-all-trades, he was worked extensively in the kitchen industry, worked on biodynamic farms, plant genetics labs, and landscaping crews, along with pursuing dozens of hobbies. He needs out about soil science, apple trees, and plant biology.

Josh Addison
Josh is a photographer based in Boulder, Colorado. He chose to obtain a Bachelors Degree from the University of Colorado in Environmental Studies with a focus on Ecology. During his time in college, he realized what tremendous threats the natural world faces today. Biodiversity loss, habitat destruction, resource consumption and climate change are a few of the most pressing environmental issues of our time. During college, he also had the incredible opportunity to work at the Institute of Arctic and Alpine Research, which further solidified his passions. Shaped by his love of the outdoors, and his college degree, Josh realized that he wanted to devote his life to giving a voice to the land and all of its inhabitants.

Jordan Perkins
Jordan is a photographer based in Ashfield, Massachusetts. Jordan’s photography focuses on flowers & clouds, people & animals, street-shots & landscapes. @ jordanarthurperkins.

Lena Miller
Lena grew up in Berkeley, California in a family with a deep appreciation for cooking, community, and ceremony around mealtimes. She studied Global Environmental Change and Sustainability at Johns Hopkins University, and there began her investigation of the food systems of Baltimore and beyond. She moved to Boulder, Colorado in 2018 to direct Meadowlark Farm Dinners and has been entrenched in the culinary scene ever since.

Mathew Bate
Mathew Bate is a writer and poet with an interest in changing the narrative of climate change and how people relate to natural landscapes. Passionate about regenerative agriculture, he has developed a deep affinity for seaweed and its remedial power. Mat is the former co-editor of Matters Journal and his work has been published in Dumbo Feather, Cordite Poetry Review and Gippslandia. He is currently studying regenerative agriculture at Southern Cross University, the first degree of its kind in the world.

Omar de Kok-Mercado
Omar de Kok-Mercado is a soil microbiologist and multimedia artist working as a creative director at Iowa State University. He combines his expertise with visual imagery, environmental data sets, sculpture and modular synthesis developing a unique medium that peers into the space between art, science and music. His work visualizes a future where perennial landscapes provide food, energy, feed, and fiber.

Sam B. DeBoskey
Sam is a farmer, carpenter, and community organizer/organizer based in Aurora, Colorado. He currently manages Village Farms at Stanley, a one-acre mixed veggie operation born out of the Village Exchange Center - an immigrant and refugee center located a few blocks away from the farm. His focus is on food justice, engaging youth in our food systems, and co-creating a space for the community to connect with our natural world. He believes agriculture and art go hand-in-hand and are part of the roots of resilient and resourceful culture.

Emily Payne
Emily is a writer focusing on the intersection of food, agriculture, environment, and health. Currently based in Denver, Colorado, she also works as a product strategist and consultant for projects helping to build more equitable and regenerative food systems. She has served as editor for sustainable food nonprofit Food Tank since 2015.

Lena Miller
Lena grew up in Berkeley, California in a family with a deep appreciation for cooking, community, and ceremony around mealtimes. She studied Global Environmental Change and Sustainability at Johns Hopkins University, and there began her investigation of the food systems of Baltimore and beyond. She moved to Boulder, Colorado in 2018 to direct Meadowlark Farm Dinners and has been entrenched in the culinary scene ever since.

Jordan Perkins
Jordan is a photographer based in Ashfield, Massachusetts. Jordan’s photography focuses on flowers & clouds, people & animals, street-shots & landscapes. @ jordanarthurperkins.
Dear Reader,

We live in challenging and wondrous times. 2020 has been a tumultuous year. It has been a year of decomposition, in many ways, and I can see things rising from the ashes already.

Through it all, I’ve noticed myself becoming wildly impatient with reality. Consternation is reflected in my two essays for this journal; one cuts sharply against the grain and the other is unabashed satire - two modes of illumination that I rarely lean into. In times like these, it is so difficult not to succumb to the rancor of division. Most people fight tenaciously for what they believe, including me. It’s much easier to fight for something, than to deeply consider the other.

Much of this stems from our inability to question the self. Stepping outside our moral matrix is unfamiliar and uncomfortable, and something we’re not taught to do. (Jon Heit’s book, The Righteous Mind: Why Good people are divided on religion and politics, has been helpful.) Questioning deeply held beliefs, often unconsciously held or imbued, is very hard to do. How often do I liberally apply skepticism to everyone and everything, but myself? When was the last time I’ve changed in a profound way?

I’ve been working to change myself by trying to uproot racism in my life and in the work of Mad Agriculture. It’s been challenging. Following our work with Soul Fire Farm, as I read everything I can from Chris Newman of Sylvanaqua Farms, I’ve been somewhat dumbfounded by how people very much unlike me have the ability to know me better than I know myself - an admission that is difficult to grapple with and reflect on. I’ve come to realize that the paradigm that I live and breathe is hard to see, and harder to change.

The word ‘paradigm’ always reminds me of Thomas Kuhn, who popularized the word in his book, Structure of Scientific Revolutions. During college, he couldn’t understand how Aristotle, a brilliant thinker, got physics entirely wrong. While staring out his dorm window at Harvard, gazing at how sunshine illuminated a vine climbing up the adjacent building, he realized that every view has a shadow, and the light that reveals the things we see does not reveal everything to the viewer.

Point being, our perspective is limited, and the way we gaze upon each other and ourselves reveals only what is partially true. We must remember, more than ever (please watch Social Dilemma), that each of us positions ourselves to see what we want to see. And in turn, our sources, our knowledge and who we surround ourselves with reinforce our paradigm. If we hope to change the world, we must begin with the courage of changing ourselves. And to do this, we need others in our lives, people that are different than ourselves, different sorts of lights, to expose and help us transform into what the world needs.

Madly,

Phil

- 5 -
We know from experience that there are a few basic truths that cannot be shaken by the chaos of our society. It takes faith in these basic truths, that some call the laws of nature, to raise food and fiber. It also takes a paradigm shift in our thinking for one to understand the complexities that govern the laws of nature. Farming in the image of nature is the first key insight needed to begin the journey toward regenerative agriculture. We must design our farm systems to rely on the simple truths observed during our experiences when working on the land. As other key insights along this journey are revealed to us, they inspire endless possibilities of how one could design a farm system in the image of nature. We can then use planning that is inspired by our observations, to set the farm ecosystem up for success, all the while accepting that things are going to happen that we cannot control. Therefore we must plan accordingly to design as much resilience as possible into our farm’s ecosystem. Stacking enterprises, using vertical integration in our supply chains, finding value aligned partners, and most importantly, growing and raising plants and animals that thrive in our ecological setting. And still, one has to be cautiously optimistic that the simple truths we have observed from years past, will hold true again, at least in some form, this year. One of the beauty’s of farming, and in life I suppose, is that we are given reassurance each year through experience that we can rely upon these truths in trying times. And as we get older and wiser from our experiences, our faith gets stronger in the resilience we have built into our farm ecosystem, all the while deepening our relationship with the land we steward.

Our experience tells us each spring, the days will get longer until the summer solstice and then shorten until the fall equinox up until the first day of winter. We know that the spring will bring rain and eventually the absence of frost. We observe that each plant has a purpose and a relationship with the birds, insects, mammals, and soil of its place. We see that the diversity corresponds with the health of our landscapes and correlates to the abundance of life that we see in our fields. Yet the gradual occurrence of these truths are subtle and often taken for granted in our society. This is because it takes intention to observe the simple truths in our daily lives. We must dance in rhythm with the seasons, to produce the healthy foods and fiber that sustain our society. So in agriculture, we are forced to address the dichotomy of truth and control. We have been indoctrinated to believe that we can control the environment to ensure the success of production systems. Yet this separates us from all of our counterparts in nature. So as we begin to let go of our desire to control and the hope for springs eternal, we begin to find more peace in our lives.

We must think holistically to plan for the things out of our control such as drought, fire, and pandemics that lead to a wavering in our social discourse. Things will change, life will cycle and the living things we raise, will grow and eventually senesce. Markets evolve as do the relationships with staff and our customers. Supply and demand will ebb and flow. The simple truth is that developing and maintaining heartfelt, honest relationships with our customers, employees, families and friends takes hard work. And this work will lead us to success in our lives regardless of the ever changing aforementioned uncontrollable variables. In fact, the success of our business may very well depend on how well we have planned for the unexpected. Success also depends upon how willing one is to adapt their plans.

Our children will grow older and we will too. Politicians will emerge and then fade away into history. No perfect day or perfect job or season will last forever, and that is okay. The oldest tree in the forest will one day fall and give light to another. We can use this wisdom to appreciate our days, moments and years while we live the lives that we were intended to live. And ultimately, the fact that the sun will rise and set each passing day, is our greatest truth. And everyday, we are reminded of this truth by the beauty of this diurnal occurrence.
Markets for Soil Carbon

Philip Taylor

On June 4th, 2020, Lindsey Graham and Debbie Stabenow introduced some climate solution legislation: the Growing Climate Solutions Act. This Act would reduce barriers and enable voluntary participation in soil carbon markets, rewarding farmers for climate-smart practices that sequester carbon dioxide into soil. The bill has the support of the American Farm Bureau Federation, National Corn Growers Association, Environmental Defense Fund, McDonald’s, Microsoft, and over 40 farm groups, environmental organizations, and Fortune 500 companies. This is an unusual cadre of supporters in a time of hyper-polarization.

While I genuinely praise the bi-partisan agreement and mostly trust the intention of the politicians that want to help incentivize farmers to heal the land and put more carbon in the ground, I am, however, extremely skeptical of the economic paradigm underpinning this sort of bill. I have come to realize what appears to be an unconsciously pernicious worldview underpinning the carbon market ‘solution’, and shared by both the left and right wing - two wings of the same bird, as the saying goes.

For many folks trying to ‘save the world’ (which I question whether that should be my motivation; I am continuing to discover my whiteness in uncomfortable ways), it is tempting to latch on to the power of markets, Of late, these markets tend to rule how the earth is used. At Mad Ag, we often use the power of markets and consumption to create change. ‘Voting with your fork’ is a powerful force for change. And, I think of Wendell Berry’s words, ‘To a large extent, how we eat determines your fork’ is a powerful force for change. And, I think of Werner of markets and consumption to create change. ‘Voting with your fork’ is a powerful force for change. And, I think of Werner of markets and consumption to create change. ‘Voting with your fork’ is a powerful force for change. And, I think of Werner of markets and consumption to create change. ‘Voting with your fork’ is a powerful force for change. And, I think of Werner of markets and consumption to create change.

1. Monetizing carbon is another way of commoditizing nature.

We should not be creating another way to commoditize nature by creating a mechanism that legitimizes ‘bad’ (fossil emissions and deforestation) by doing good somewhere else (soil restoration). These are features of carbon markets that will distance people from the land and farmers. Carbon markets inherently fail to address the root cause of the problem, not the root cause. Here’s a gross analogy, when you have an open wound, you don’t try to gather all the blood you’ve lost and put it back in your body. Rather, you stop the hemorrhaging and nurture the body to heal the wound. Creating the conditions for a body to heal itself is regeneration. We treat the climate problem like we treat ourselves medically in the West. Rather than use preventive medicine that considers the whole, we treat our sicknesses with a litany of bandaids and pills to cover up the insidious disease within. That disease is our collective desire to make money, the hunger for power and control work in the restoration. Maybe this is possible. But when the goal is to make money, the hunger for power and control work in the shadow...at least in our current financial paradigm.

2. Carbon markets don’t deal with root cause.

It is often hard to see what the root cause is, and it is even harder to work at it. I’m reminded of Henry David Thoreau, Walden, or Life in the Woods, “There are a thousand hacking at the branches of evil to one who is striking at the root.” I fear that the focus on solving climate change by sequestering more carbon into soil is treating the symptom of the program, not the root cause. Here’s a gross analogy, when you have an open wound, you don’t try to gather all the blood you’ve lost and put it back in your body. Rather, you stop the hemorrhaging and nurture the body to heal the wound. Creating the conditions for a body to heal itself is regeneration. We treat the climate problem like we treat ourselves medically in the West. Rather than use preventive medicine that considers the whole, we treat our sicknesses with a litany of bandaids and pills to cover up the insidious disease within. That disease is our collective desire for a body to heal itself is regeneration. We treat the climate problem like we treat ourselves medically in the West. Rather than use preventive medicine that considers the whole, we treat our sicknesses with a litany of bandaids and pills to cover up the insidious disease within. That disease is our collective desire...at least in our current financial paradigm.

3. Carbon markets stand to overpromise and underdeliver.

We need to calibrate our expectations of soil, especially with annual-based agriculture. Carbon markets feed into a moment of cultural carbon exuberance and we must be prepared to be underwhelmed. The Terraton Initiative of Indigo is a case in point, which is the goal of sequestering 1000 Petagrams (Pg) of carbon dioxide into soil organic matter through agriculture. First, Jon Sanderman’s wonderful and rigorous research pins the agricultural carbon debt - the amount of carbon dioxide into soil organic matter through agriculture. First, Jon Sanderman’s wonderful and rigorous research pins the agricultural carbon debt - the amount of carbon dioxide into soil organic matter through agriculture.

The 1000 Pg ambition however becomes even more ridiculous if one considers the type of agriculture hoped to achieve this: broad-acre monocultures of commodity crops that rely heavily on chemistry to enable no-till approaches and where cover crops are integrated as possible, and create a marginal carbon sink. If the conversation was focused on how to re-perennialize the prairie through a combination of rewilding, growing crops for people and not cows, and quadrupling down on perennial staple crops, my opinions here would shift 180 degrees. Sadly, these topics are still harbored in the realm of the truly radical. And so, the whole effort just snaps of raising money. Sadly, other organizations that we consider close allies are guilty of the same over-exuberance, though I believe for more altruistic reasons. As much as I love, admire and respect these folks, prognosticating soil carbon potentialities should be refined through some friendly peer-review before announcing salvation from the soup-box. Such forecasting is likely to put a black-eye on soil carbon, and go down as a foolhardy way of trying to...
appreciate the true regenerative power of soil.

It’s unclear if humanity will ever repay its carbon debt, and perhaps we shouldn’t expect to. We’d have to outsmart billions of years of evolution and improve on the equilibrium of carbon - water - nutrients cycles that give rise to the diversity, structure and function of ecosystems across this beautiful globe. Unlikely. We’d have to facilitate a massive ‘rewilding’ to even get close. If we shift from using land to growing crops to feed livestock to feeding humans, that’d be a start. If we find mechanisms that re-perennialize the world, that’d be even better. Political will is critical. And I’m not talking Democrats vs. Republicans. We need a new kind of civic discourse to shape what we value and why.

4. The carbon market concept is a utilitarian approach to valuing nature.

I’m not going to unpack the long-standing debate of extrinsic versus intrinsic value of nature here. A butterfly is worth valuing because it’s a butterfly, and the same goes for a flower, and for carbon. I like the public lands approach. Society should collectively determine what is valuable and worth protecting, and then protect it from any sort of resource extraction. Creating a carbon market using the same financial values and systems that have destroyed the world, will repeat the problem and do just that: fail to serve humanity and the Earth. Are we once again trusting the ‘invisible hand’ to ensure equitable distribution of wealth (financial and otherwise) to all living things? For environmentalists and scientists, the ecosystem service concept is alluring because it offers a way for markets, businesses and balance sheets to care about the earth. However, the values that underpin market solutions aren’t sufficiently examined or discussed. I’ve found that most scientists, who are best equipped to discuss the ins and outs of soil carbon, are ill-equipped to understand or evaluate the power, potential and problems of markets. I think this stems from the conundrum that most scientists conduct their research from a deeply valued position, yet spend their lives trying to divorce their values from their work in an effort to be objective. Most scientists I know hold dear to the belief that nature is worth caring for because it’s beautiful and worthy of care, yet care to utilitarian schemes, mainly in order to be practical about how to create change.

We are in danger of losing what we really care about as we slide into a more fully utilitarian view of nature and our reliance on it. The term ‘ecosystem service’ says it all. Putting the circulatory system of an ecosystem (i.e. carbon) on a balance sheet can legitimize preservation as much as destruction, whichever pays.

Even under the current breakdown of financial terms, the equity is out of whack. Trying to capture ‘externalities’ on the balance sheet is trusting that markets find equity, when we are already way off: it takes about $55 to get 1 ton of soil carbon sequestered (the Act says $10 to open with, which is ridiculous), the market currently will pay $15/ton (if someone is lucky) and the social cost of carbon is likely $200+.

5. Time is a Circle. History repeats itself.

All of this soil carbon market excitement reminds me of the decade I spent working as a tropical rainforest ecologist around the world. It’s like trying to save the rainforest for its carbon. Such efforts have largely failed. Of course, the debate over this last statement rages, with a focus on the efficacy of REDD+ (Reduced Emissions from Deforestation and Forest Degradation), but I side with the analysis and conclusions of Propublica, Mongabay, Stockholm Environment Institute and Institute from Agriculture and Trade Policy. (I’ll spare you from a summary here; Google it if you’re curious). Time has a funny way of behaving more like a circle, than a straight line of progress; history repeats itself, and sometimes quickly. It’s amazing how the current energy and interest in launching soil carbon market mirrors tropical rainforest carbon markets. The problems of using carbon markets to save rainforests have not been overcome.

The dangers of monetizing ecosystems for carbon are perhaps worse than doing nothing at all. When ecosystems are valued for their carbon, it conveniently homogenizes or consolidates the non-cropping value to a single term. What about the sacred or cultural value of an ecosystem? Putting carbon on the balance sheet can legitimize an ecosystem destruction, as much as it can save it.

Why do we tend to measure things in order to value them?

I think of Alexander von Humboldt, the great scientist and measurer of much, and his proclamation, “What keeps me coming back to the rainforest is not something I can measure.” For me, it’s time for humanity to relearn how to fell in love with the places and people we find inspiring or depend on, and figure out other ways to fight for that. I love the soil, and its carbon, but I’m not ready to sell that to someone and something that does not share that affection.

Mad Agriculture has advocated and worked hard on ecosystem service marketplaces on the basis that accounting for externalities and helping farmers getting paid for creating ‘whole’ or ‘true’ wealth is a good thing. However, I’ve come to believe that ecosystem service marketplaces are too highly derived and distant from the virtues that I can confidently say build and
create a good economy. Let us not forget the true currency of ecosystems, carbon and sunlight, the true currency of a good human economy: love, reciprocity, care, stewardship and being a good neighbor. The necessary philosophical discourse to accompany the emergence of carbon markets is lacking.

6. Philosophy aside, MRV has a long way to go.

MRV: Monitoring, reporting, verification. Carbon markets depend on knowing how much carbon can be sequestered in soils, and quite frankly, we just don’t know. Nor, can we measure soil carbon sequestration in an accurate way that is cost-effective. There are certainly some wonderful efforts out there, particularly CSU COMET-Farm and Quick Carbon. Figuring out the relationship between cost and certainty is critical - we’re not there yet.

Uncertainty and cost declines with scale, but who owns that sort of land: fund managers, corporations and industrial farmers... look what that system has yielded. These sorts of farmers are already overly scaffolded by the Farm Bill, and should not receive additional support. Maybe there are ways to 'bundle' farmers in certain watersheds...seems unlikely and overly wrought.

The issues of permanence and additionality are gorillas in the room. I just spent a month on the road visiting 30+ of the best regenerative and organic farmers across the country in WI, MN, IA, MO, IN, IL, NE, CO, MD and PA. Every farm and farmers is different and faces a unique set of challenges. Carbon markets require contracts with farmers that bind them to at least 10 year agreements on soil stewardship. A 10 year land management contract in order to preserve soil carbon is just short of crazy. Farmers are going to do what’s necessary to grow food, not soil carbon. If they have a quack grass problem that ruins their ability to grow grain, then they should till wisely and likely till deeper, releasing 25%+ of the carbon they’ve stored, to ensure the financial viability of the farm. Then a long perennial rotation is needed for healing. A multi-decadal perspective that acknowledges the dynamic equilibrium of carbon storage and fertility is not appreciated in current carbon markets. They are not tuned to reality.

In the end, there are plenty of reasons to measure soil carbon sequestration, such as to better understand the role of regenerative agriculture in solving climate change. However, let’s not measure soil carbon to monetize it on a market.

7. There are other solutions.

Here’s a non-market idea. Remove (or wind down, or untether) the safety net of farm bill welfare that has supported the wide-spread planting of corn and beans to feed animals in concentrated operations. Farm payments have kept commodity farmers from hitting rock bottom - they hover around break-even every year. Most of the country is planted in a rotation of two crops, corn and beans. The carbon markets are tuned to serve these folks - farmers operating at scale using cover crops and no-till practices, but, in my opinion, growing the wrong thing. The present iteration of carbon markets could only serve to cushion this system from its demise. We have to ask the big questions. I’m not saying that we leave farmers stranded - the system is unjust, not the farmer, as their participation is largely out of duty, and unconscious. We need an off-ramp out of the industrial system, and carbon markets are a bandaid for a much deeper wound.

Another solution is to work on markets that pay farmers for creating healthy, nutrient-dense food, which comes from regenerative agriculture. Maybe there is a way to ‘inset’ carbon sequestration value by elevating the value of the product, rather than offsetting with carbon. Another solution is to create a public payment program that incentivizes and rewards farmers for regenerating the land. The USDA Conservation Reserve and Stewardship Programs are incredible examples of this. The CRP pays farmers to take land out of production for decades, enabling the restoration of prairie. This program is largely a price control mechanism on commodity supply and pricing, cloaked as conservation, but regardless, it creates some of the most beautiful land throughout the country. I was astounded this summer, when I was living out of an Airstream visiting Perennial Fund farmers, that most of the verdant, biodiverse and healthy landscapes were created through conservation payments and CRP. Way to go government! We need more of this, with a bigger appetite for permanent retirement from production and heavier investments in prairie restoration. Then, we’ll see birds rebounding in the skies and insects splattered on our windshields again.

8. The whiteness of carbon markets.

It’s very hard to see oneself when you’re in the historically and currently dominant, non-target group for racism, sexism, classism, or elitism. I’ve been learning this as our team has recently been working to uproot racism in our lives and working with Soul Fire Farm (check them out!). For me, carbon markets are an overly reductionist solution that fail to address the root cause of why we released soil carbon in the first place. The rebalancing of the carbon cycle needs to come as the outcome of a much deeper, rather than forced, relationship to the soil. I generally believe that ‘carrots’ over ‘sticks’ are a better way to create change, and carbon markets are trying to do that. But, we must be vigilant in our design of systems and inversive mechanisms. For me, carbon markets, as they are designed and who they work for, miss the point. In fact, they might pluck one nail out of the coffin of a system that needs to fully die, so the soil can truly thrive again.
HAIKU POEMS FROM THE FARM SEASON

‘Reflections on Change’
Sam B. DeBoskey

Arriving at the farm is the breeze at sunrise
A welcoming of soft light

Wooden handles worn and true
Tools of our trade
Bringing what’s below to light

Seeds drop as I walk slowly,
Hands loosely holding
A ritual of rebirth

Summer holds on while it can,
Change comes regardless,
We are left speechless and tired

Verdant green and focused growth
The spring becomes us
Seedlings emerge right on time

Restless as the day is long
With frost descending
Tomatoes finally ripen

My fingernails dark with dirt,
Pockets full of straw
Planting garlic beckons fall

Remembering to go slow,
I learn to trust that
I am so unimportant

How can anything but this
Be the backbone for
Flourishing communities
Beans are food. Beans are food for the people. Beans are food for the people of Boulder County. Beans are food for the people of Boulder County and the Front Range. Beans are food for the people of Colorado. Beans are food for the people. Beans are food.
sort. Beans are a piece of the simplest wisdom, as Michael Pollan says, “Eat food, not too much, mostly plants.”

Plant-based proteins are often touted for their resource efficiency (less water usage, smaller carbon footprint, less water pollution) compared to animal proteins, but those comparisons do not always capture the full story; comparing local and pasture-raised beef with soybeans grown in a deforested Brazilian field makes for a drastically different comparison. Boulder Beans are a direct alternative to industrial protein production. The acres of land upon which Boulder Beans are grown typically produce feed for dairy and beef production in Weld County. The calculus is clear: eating Boulder Beans in Colorado requires fewer resources than the alternative animal protein feedstock that would have otherwise been raised on the same land.

The industrial food system has become the norm in many places, and with the decline of soil health we also find a decline in human health. As we do to one, we do ourselves. We need to re-discover and reimagine how to nourish our bodies, which begins with nourishing the land.

More often than not, we do not know where and how our food was grown. Not only does this compound our separation from the places and people we depend on, but it also reduces our ability to support the methods of agriculture that align with our values and health. With Boulder Beans, we are trying to stitch together new supply sheds that create and maintain ecological and human health at the same time. For example, most dry beans are sprayed with glyphosate (i.e. desiccated) close to harvest to help ensure uniform maturity and improve the efficacy of harvest. Boulder Beans are always non-desiccated. We are working hard to communicate this benefit to buyers and consumers, creating safe and nutritious food from soil to mouth. Boulder Beans grow healthy communities, healthy people, and healthy places.

The heritage of agriculture in the Front Range is more than a memory, it remains an important pillar of the local community and economy today and into the future. Boulder County’s agriculture lands have been managed for decades, often in intergenerationally, to grow a mix of food for people and feed for animals. As regional food processing, storage, and distribution infrastructure has been pushed away and the high demand for feedstock from nearby animal production facilities has continued to grow, the proportion of human food to animal feed has skewed in favor of feed. Even many of the food crops that are grown at midscale farms enter into the domestic and international food web, sparsely to be eaten within the area. Farmers and citizens alike want to restore a balanced crop rotation that favors the growing of food for the region. Boulder Beans encourage sound stewardship and healthy food to be grown for the local and regional community.

For a farmer to grow food for the community, there must be a way to get the crop to market. Whereas there used to be at least five local aggregators-distributor enterprises in the northern Front Range just decades ago, the options for a farmer, like Jules, have dwindled and the competition that elicited an attractive suite of prices and practices has dried up. A farmer growing midscale (4000-6000 acres in operation) beans is currently stuck selling into the commodity system at prices too low to justify growing them in their rotation. In this system, farmers can expect to receive $0.20–$0.25 per pound of beans (usually sold as $20-$25 per hundredweights), while bean eaters pay closer to $2.00 per pound at retail outlets like King Soopers. As farmers gain access to the local market, they can earn a higher share of the food dollar without raising prices for the community. Improved revenues for a bean crop encourages and allows farmers to diversify their rotation and feed the community and region in which they live!

A clear and committed demand for beans provides the basis for the investment into and redevelopment of regional food systems by demonstrating a reliable market that will pay back the investments over time. Working backward to the field from a bite of beans looks like this:

Before you ate the beans, they had to be prepared (soaked and cooked, with some seasoning)

Before the beans were cooked, they were bought from a wholesaler or retailer

Before the beans were bought, they were stored (typically in bags ranging from 5-50 pounds)

Before the beans were processed, they were harvested (ideally in a nearby facility)

Before the beans were harvested, they were cleaned and bagged (ideally with specialty equipment)

Before the beans were harvested, they were grown (in a diverse rotation, with fewer chemicals)

Before the beans were grown, the farmer made a plan

(a farmer can only grow what will sell).

Each of those steps in the journey from fork back to farm relies upon all of the other steps to be viable. Beans (like wheat and other staple crops) are grown here and are eaten here, but because many of the other steps occur elsewhere and in a commodity system, there’s no way to know if the food we eat actually came from the place we live. Currently, a different person or business is responsible for every step in this journey, which spreads the food dollar into more hands, with barely any making it back to the farmer. Several crops like wheat and beans can share the infrastructure that enables the harvest to kitchen phases of the journey. Luckily, every step has and can happen in the Front Range, we just have to reawaken the pieces!

Local and regional procurement enables local and regional processing and both of those encourage local agriculture to grow the crop. All of these actions create the right kind of local economy! This is why products with the Colorado Proud label can be such an important indicator for using your dollars at the store to create the world and community you want to live in.

Staple crops like beans and wheat create resilience through easy storage, minimal processing, easy preparation, and cultural stability of methods of agriculture that align with our values and health. With Boulder Beans, we are trying to stitch together new supply sheds that create and maintain ecological and human health at the same time.

Beans provide stable, affordable and reliable protein for nearly any diet and require less energy-intensive infrastructure throughout the farm to fork journey. From food pantries to institutions like schools and hospitals to restaurants and retail, Boulder Beans bring value and nutrition to the entire Front Range community.

On the farm, diversity in crops and markets brings resilience and flexibility to the enterprise. In recent years, higher and higher shares of farm revenues will come in the form of direct government subsidies like Revenue Protection. While some of this year’s support is due to the economy-wide effects of COVID-19, a high baseline of subsidy already exists in agriculture and the need for greater payments demonstrates the lack of resilience in a system composed of complex domestic and international supply webs and markets. Regional food systems for staple crops like beans provide farmers like Jules Van Thuyne the stability to survive through down years and the opportunity to thrive by growing the food that the region wants and needs. Clear demand and market connection for beans will allow farmers like Jules to purchase specialty harvest equipment that leaves fewer beans in the field, reducing food waste and improving farm-level economics. Let’s eat!
A CRY FOR KELP
Mathew Bate

As the waves of climate collapse
crash into our shores, what might we learn from taking a breath and diving underwater?

I remember being in the shallows. Little floats hugging my little arms. Goggles on, face down, blowing bubbles. Coming up for air with lots of snot and flapping arms. Then heading back down again to accidentally drink pool water.

We learn at a young age that underwater, the breath of life pirouettes towards the surface in bubbles. We also learn pretty quickly, when we emerge gasping, that the bubbles eventually run out. It’s in water that we can finally see the invisible air that pumps our heart, the invisible air that we suppose is always kind of just hanging there, the invisible domain that we now take for granted.

If we go back a really, really long time – like 3.5 billion years – all life was underwater. Then, slowly, the very first tiny breaths of life started bubbling to the surface. Microscopic lifeforms were somehow taking sunlight, water and carbon dioxide and turning it into food and oxygen. Incredible. Over time these organisms created enough oxygen to enable the conditions for life to surface above the water. We call this process photosynthesis, an early and potent form of magic that eventually gave rise to the unfathomably beautiful world from which we were born, a world that is now suffering.

David Abram, a cultural ecologist and philosopher, said recently in an interview with Emergence Magazine that “climate change is the simple consequence of forgetting the holiness of this mystery in which we’re bodily immersed.” The modern mechanical mind sees creation as bits and pieces. It turns mystery into machine. It forgets the magical weirdness that binds it all together. It forgets that the world is not an engine running out of fuel, but a living, breathing miracle. It forgets that everything is alive, awake, communicating, bubbling.

Abram reminds us that fundamental triggers of climate breakdown are stories, songs and patterns that are being forgotten. A path forward opens up, therefore, when we start reconnecting, remembering, reconciling and reciprocating. This is a path embodied by traditional custodians, exemplified by indigenous knowledge systems that sustained worldly existence before the will of colonialism. But we haven’t forgotten, it’s just that our modern world seems to be in the business of forgetting. This is where regenerative agriculture fits in. Regenerative agriculture represents a complete moral, spiritual and practical reform in the way we relate to landscape, a re-emergence of our collective responsibility as a custodial species.

The regenerative movement permeating through our social and ecological landscapes is a timely reminder of our interconnection with the human and more-than-human community. It’s marked by a conscious and intentional movement into a view that the world, presenting itself to us in each moment through quirky relational phenomena, is awake. This holistic worldview is regenerative agriculture in a nutshell. Whereas the reductionism of industrial agriculture treats symptoms, the worldview is regenerative agriculture in a nutshell. Whereas the reductionism of industrial agriculture treats symptoms, the regenerative movement permeating through our social and ecological landscapes is a timely reminder of our interconnection with the human and more-than-human community. It’s marked by a conscious and intentional movement into a view that the world, presenting itself to us in each moment through quirky relational phenomena, is awake.

The regenerative movement permeating through our social and ecological landscapes is a timely reminder of our interconnection with the human and more-than-human community. It’s marked by a conscious and intentional movement into a view that the world, presenting itself to us in each moment through quirky relational phenomena, is awake. This holistic worldview is regenerative agriculture in a nutshell. Whereas the reductionism of industrial agriculture treats symptoms, the worldview is regenerative agriculture in a nutshell. Whereas the reductionism of industrial agriculture treats symptoms, the regenerative movement permeating through our social and ecological landscapes is a timely reminder of our interconnection with the human and more-than-human community. It’s marked by a conscious and intentional movement into a view that the world, presenting itself to us in each moment through quirky relational phenomena, is awake.

Seaweeds have got to be one of the most poorly named wonders of the natural world. Not only are seaweeds themselves incredibly fast-growing carbon sequesters – giant kelp can grow two cause of this, as well as our lack of gills, that we so willingly exploit and extract from undersea worlds. Imagine taking a bulldozer that’s 40 feet tall and 200 feet wide and plunging into a rainforest. This is what industrial fishing methods like deep-sea or bottom trawling do to the seafloor. 90 percent of our large fish have been wiped out in the past 50 years and because the ocean absorbs 25 percent of the carbon we pump into the atmosphere, ocean acidity – which increases as the amount of carbon in the water increases – has risen by 30 percent since the industrial revolution. The ocean hasn’t felt this rapid a change in acidity since the last mass extinction event around 56 million years ago. The data is horrific, yes, but I am absolutely certain that there are forgotten stories submerged in our ocean that if re-told, are essential to our regenerative journey.

We’ve forgotten that life started in the shallow water all that time ago and that the ocean, with the myriad creatures swimming, floating and dancing in it, is as important to planetary health as the air we breathe. In fact, it’s where most of it comes from. Did you know that half the oxygen in the air comes from a very special group of creatures in the ocean? They’re called marine algae, ancestors of the earliest of photosynthetic life forms that blew bubbles of life all those years ago. There are thousands of species of algae, the largest group of which we call seaweeds.

Seaweeds provide the environment for shellfish to thrive, filter nutrient runoff from waterways, buffer acidity levels, and then...
can be harvested and turned into food, biofuel or bioplastics. Since there are no fences, fish and other marine animals are free to come and make the farm their home. Smith is so passionate about sustainable ocean farming that he’s launched a not-for-profit called GreenWave that is nurturing the next generation of regenerative ocean farmers.

Seaweed’s role in reforesting our underwater worlds and gardens is pretty extraordinary. But, my love for seaweed is not due to the immeasurable ways we can use it for our benefit in the face of a climate catastrophe. I love seaweed because it is a valuable teacher.

Robin Wall Kimmerer, a Potawatomi writer and botanist, says in her enchanting book *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*, that there is a significant difference between learning about natural wonders and learning from them. For Kimmerer, all the more-than-human intelligences sharing life with us on this planet have songs that we can hear if we care to listen. So, what song is seaweed singing?

Seaweed’s strength does not come from its ability to predate, exploit, extract or to trick, it comes from its ability to create the conditions for a connected community. Seaweed’s song is an orchestration, a concert filled with many voices from the depths of the ocean. Seaweed teaches us that as environmental stewards, our strength comes from our ability to cultivate and sustain harmony in our world and to be grateful for that gift. If we want to challenge the modern machine’s motto that says "out of sight, out of mind", we need to be mindful of the unseen. It’s time to look and listen in the places that we’ve forgotten.

It’s about time we popped those goggles on and headed back down to blow bubbles of life back into the ocean. And when we rise snotty and spluttering with a mouthful of water, we might remember the holiness of the mysterium from which we gasp for air and in which we are bodily immersed.

Mat’s first picture book *With a Little Kelp from Our Friends: The Secret Life of Seaweed* is out on 26 January 2021 with Thames and Hudson.
The Perennial Fund is at the helm of the regenerative revolution in agriculture, addressing the root causes of climate change, soil degradation, ecological and human injustice. We are rehumanizing farm finance and bringing the culture back to agri-culture. It is an organic transition operating loan program that helps US midwestern organic farmers accelerate the regeneration of their land; a form of patient capital during the transitional years when costs outsize revenues. We take a whole systems view and skin-in-the-game approach, integrating whole farm planning, crop marketing, and a strong social network into every loan we distribute. We put radical ideals into action, using a boots-on-the-ground and grassroots approach to empower and support farmers transitioning to regenerative organic agriculture.

This summer, the Mad Ag team embarked on a three-week road trip, touring 37 farmers, 10 states, and 5,500 miles. We loaded up an Airstream and made our way through Colorado, South Dakota, Nebraska, Iowa, Minnesota, Wisconsin, Missouri, Illinois, and Indiana. Farmers do not trust someone who can’t walk their land, understand their place, culture, and interpersonal connection with the land. We now know with confidence that the Perennial Fund is not only a practical concept but is poised to take off with dozens of real farmers lined up and ready to move.

We have a number of updates to share as 2020 comes to a close. First, we currently have over 80 farmers and 32,000 acres of farmland ready to transition to regenerative organic. All generated via word of mouth. The revolution is real, and it’s irresistible. All the farmers in the Perennial Fund will be transitioning to regenerative organic agriculture, with 50% seeking a Regenerative Organic Certification (ROC). This will be the largest amount of ROC acreage in the US. Additionally, we are running the first of its kind peer-reviewed study to quantify the ecological and economic outcomes of transitioning to regenerative organic agriculture in partnership with John Lundgren’s Eclosys Foundation and Steve Apfelbaum at Applied Ecological Services, Inc. We will be using these data to showcase how regenerative organic agriculture creates financial and ecological wealth, sharing our findings with policymakers, crop insurance agencies, and institutional investors. Thank you Silverstrand Capital for funding the launch of this world changing project! By the time you read this, we will have closed a majority of the $7M fund with some incredible partners. Be sure to look out for information on our investors once the fund is fully buttoned up.
Like many of their neighbors, the Jones family has been farming for nearly a century. Since Dr. Thomas Jefferson Jones established his medical practice and town pharmacy, five generations of Joneses have called the San Luis Valley of Colorado home. Michael and Sarah—with their children Opal, Juliette, and Georgia—are the latest generation to help run Jones Farms Organics, continuing the farming tradition Grandpa Cuvier started in 1925.

San Luis Valley is the second-largest fresh potato-producing region in the United States, spanning 8,000 square miles to comprise the largest high-altitude desert in North America. The growing season lasts only 90 days, and the region is home to some of the coldest temperatures and lowest rainfalls in Colorado; it is not uncommon for farmers to be hit with a killing frost in July. But sandy soil and an abundance of sunshine are a boon for potato crops.

This thriving agricultural landscape has strained the region’s aquifer. Water use outpaced supply for most of the 20th century, and unprecedented droughts in recent decades have exacerbated the issue. The Rio Grande river’s flow was one of the lowest ever recorded in 2018, and as of August 2020, 100 percent of Colorado was designated as abnormally dry or in drought. Meanwhile, booming Front Range real estate has intensified the water battle between farmers, regulators, and developers.

"Regenerative agriculture can play a huge role in the soil being a sponge and helping to save water," says Sarah. But in the Valley, regenerative methodologies remain a rarity.

The family jokes that Michael’s father Rob Jones’s midlife crisis was going organic in 2005. He had studied organic farming since returning to the farm after college and began experimenting with what were at the time rarely used methods. Rob applied his background in biology to pay more attention to the living matter in the soil, and he soon got involved with soil health groups, conventions, and other meetups to learn more. When he saw that the amount of pesticides, fertilizer, and herbicides he had to apply every year was increasing, but yield was not, the need to shift away from conventional farming was clear.

But in the Valley, a few big farming families gave up their organic certifications this year. Lower yields, higher weeds, no chemical use, and more paperwork and hassle for organic audits—as well as the high price of conventional—meant it no longer made sense to them as a business to grow organics. “We’re talking fifth and sixth-generation farmers throwing in the towel,” Sarah says. Meanwhile, the Jones family often can’t produce enough to supply the demand for organic at their market.

Growing organically and regeneratively is a constant learning experience. “It’s exhilarating and exhausting and rewarding—and also, it’s just really hard,” Sarah admits. She and Michael have been farming full-time on Jones Farms Organics for just over three years. But in that time, they have pioneered an unexpected niche: rare potato varieties.

It began in 2014, when Rob Jones saw a major disconnect in the market: Sarah and her foodie friends were going crazy over unique potato varieties served at Denver’s restaurants, but the potato warehouse—Jones Farms Organics’ only buyer at the time—didn’t want them. Rob wanted to grow increasingly popular varieties like the Purple Majesty potato, but there was no local market for it.

Sarah got on the phone with potential buyers. She soon got a produce delivery service in the area to include Rob’s new potatoes in their boxes. Next, she approached local chefs, who at the time only partnered with very small, very local farms. A San Luis Valley farmer sending a pallet of potatoes up to Denver—while neighbors sent them up by the semi-load—was laughable. The delivery fees alone would be enormous, the family was told, and they would never make a profit.

But the right pieces fell into place when Jones Farms Organics started selling their red, white, and blue potatoes to Whole Foods Market; the “colorful Colorado medley” was born. Through a partnership with the Colorado State University potato research center, about 30 minutes from the farm, Sarah goes potato shopping every year to try out "funky po-
Potatoes have a biologically complex history. Cultivation dates back about 7,000 years across the central Andes Mountains and modern-day Peru, Bolivia, and Ecuador. There are 5,000 or more potato varieties, "but as Americans, we’re so good at getting rid of all the cool varieties and narrowing it down to one boring variety that we think is the best," Sarah notes. For the Joneses, potatoes should have color, variety, and diversity—and incredible flavor.

"I’m trying to do for potatoes like what’s been done for apples," Sarah says. "At the end of the day, they’re all potatoes, but they all have different uses and different flavor profiles. Instead of calling every single yellow potato a Yukon potato, let’s actually call them by their name." Her personal favorite is nicknamed The Black Velvet: a beautiful, deep purple delicacy. Chefs love the Yellow Jelly potato, and the Jones’s large farm is nicknamed The Black Velvet: a beautiful, deep purple delicacy. Instead of calling every single yellow potato a Yukon potato, Michael follows Rob Jones’s dedication to promoting soil organic matter, seeing it as key to not just a sustainable business but a healthier world. "We feel strongly about soil health, the health of the planet, the health of our family, and the health of our customers," Sarah says. While most farmers in the Valley, both organic and conventional, grow potatoes and barley on an every-other-year rotation, Michael and Sarah have added heirloom grain and wheat to work towards a four-year rotation for better soil health.

The diversification is paying off—they’re seeing demand and a market for the new crops. "Especially through the pandemic, I’ve seen more of a connection. People want to know they’re not just buying from a giant corporation; they want to know it’s a small family farm. And they’re literally supporting our daughters’ ballet classes."

The Joneses now work with a handful of distributors and partner with some of the state’s top chefs: potatoes for James Beard award-winner Alex Seidel of Mercantile, Fruition, and Chook Chicken; wheat for Kelly Whitaker’s award-winning sourdough at The Wolf’s Tailor; and rye for The Family Jones Spirit House liquor (coincidentally sharing a name, but no relation). They have also increased their volume for Whole Foods Market, doubling the medley’s acreage since beginning the partnership.

Jones Farms Organics is now the largest grower in the state for heirloom organic whole wheat and rye, and they aim to keep expanding. They’re growing sunflowers for Colorado Mill sunflower oil and are looking into safflower oil partners. Jones Farms Organics chicken has such a following at the farmers’ market now, Sarah says, that she could likely sell double or triple what they’re producing.

Deliberately diversifying both their crops and their customers is imperative for Michael and Sarah; the pandemic was a stark reminder to not put all their eggs (or potatoes) in one basket. While restaurant orders disappeared early in the year, Jones Farms Organics’ Whole Foods orders surged.

Sarah talks with all customers before deciding what to plant each season, but she doesn’t do contracts: "Everything is built on trust and word-of-mouth. And that blows people away." The amount of time and energy that would go into creating a contract doesn’t matter if either party cannot deliver at the end of the day, she says. Instead, the Joneses prefer to get to know their customer, build a relationship, develop trust, and get a handshake.

Their farmers’ market following is where many of those relationships are formed, and where Sarah is energized most: "Hearing direct feedback and positivity from our customers sustains me and gives me energy back that maybe I lost over the week."

Michael and Sarah are now converting a house they recently purchased into a future agritourism site—Farmbnb, as Sarah calls it. "We’re organic, we’re regenerative, we’re multigen- erational, we’re local... I always joke that we’ve got all of the keywords there, but we also have the passion and the story behind it," she says. By hosting, she hopes to connect with even more customers to share how the Jones family farms differently, and why it’s important—not just for more delicious food, but healthier communities and ecosystems.
This spring, the air was filled with apprehension and uncertainty. The pandemic forced the closure of restaurants and farmers markets across the country, which are generally the largest markets for local producers. The empty shelves in large chain grocery stores were concerning for everyone, while local farmers across the nation were growing heaps of food with no way of selling it. Headlines screamed of dairy farmers dumping milk, farmers plowing vegetables back into the soil, eggs being smashed, etc. The faults in our food system were being revealed, and have since cracked open.

However, something remarkable happened this year. Communities across the country looked to their local producers to fill their pantries, freezers, and bellies. CSA shares reached record numbers for many small scale farmers this year, meat shares grew tremendously as people began cooking at home more. A combination of necessity, more time at home, and an increase in home cooking led to people caring and learning about their food like never before.

In order to help out local producers during this uncertain time, I started a mobile farmers market with my partner, Cora Cook. We only source from local producers and drive around neighborhoods, like an ice cream truck, selling organic produce, artisan breads, local honey, and many other goods. To be clear, this isn’t a sales pitch but rather an ethnographic observation of how we saw food culture evolve during the pandemic. The change we have seen from April to now is unbelievable. We have seen a drastic shift in how people value their food, treat their neighbors, cook food, waste less food, and appreciate the seasonality of produce.

In the beginning, many people would approach us with a grocery list of very specific items, only to be disappointed by the lack of variety. Variety isn’t in our control. We pick up and sell whatever the farmer harvests on a daily basis. We have a new menu everyday. Now, as we near the end of the growing season, people are open and excited about the unexpected variety; instead of asking for spinach or kale, they are asking about which greens we have that day. We have introduced consumers to the wide world of escarole, radicchio, chard, and many other varieties of less-familiar ruffage.

People were also initially frustrated by the lack of tomatoes in April. Acculturation to seasonality, endemic to many locavores, took some patience and time. When tomato season finally came in August, people were blown away by the variety and deliciousness of local tomatoes. Peach from Palisade will rock your world, but only comes for a few weeks. Things that are sumptuous are often ephemeral. That is part of the reason why the produce is so good.

A vine ripened tomato has a short shelf life, but has an incredibly unique flavor that is impossible to experience in eating a tomato picked green in Mexico and shipped across the country. Biting into a chilled Palisade peach on 100 degree day in July is a spiritual experience. There is no need to ship peaches to Colorado from anywhere else in the world in December; they will pale in comparison. I can wait until July to return again. That is the promise of the seasons and the plants.
Another observation we had while working the bus is how neighborhoods have connected during the pandemic. In the spring, a couple or a family would come out to shop at the bus and then scurry back into their house without saying a word to their neighbors in line. Many of them hadn’t interacted in the years living next to one another. Now, with all the time at home due to remote work, walking around the neighborhood to remain sane, and shopping at the bus, these neighbors are connecting. Now when we finish selling to a line of people, as we drive away, everyone is still chatting and hanging out, swapping items, talking about cooking for one another with the items they just bought, giving gardening tips, etc. Local produce is bringing neighbors together. What’s better than preparing a meal with local products and then sharing with friends, family, and neighbors?

The last big observation we’ve had is that people have become so much more open to cooking new and strange varieties of food. Early on, we had a hard time selling certain varieties of squash, eggplant, peppers, breads, etc., but as people began trying the produce, asking for cooking tips from us and recipes from their neighbors, the most stubborn folks have become our most loyal customers. They report how much fun cooking has been when they get to experiment with unusual local produce, get out of their comfort zone, and cook with the seasons. The curiosity, fun and excitement for local food will result in more delicious meals, and allow people to have fun in the kitchen, eat healthier, and waste less. More time in the kitchen and around the table is a good thing.

The pandemic has been a bizarre time for the food industry. Half-stocked shelves and empty meat lockers illustrate the vulnerability of grocer supply chains. Shipping fruits and vegetables thousands of miles seems misguided when our local farmers are having to bury crops they worked so hard to grow. Our supply shed reaches orchards on the western slope of CO, Paonia, Hotchkiss, and Palisade. If our experience is any indicator, people can deal with, and perhaps enjoy, unexpected variety. Local food doesn’t have to be a chore, but a joy. And there are benefits yet to be mentioned: lower-carbon footprint and virtually zero-waste as we use compostable products to decrease the impact of single use items. It seems like a no-brainer to eat our way out of the buckling industrialized food system. This year has been tumultuous but thankfully we have seen an increase in attention for local producers nationwide. CSA shares are in high demand and people are taking pride in the food grown right down the street. Cracks in our food system have become a catalyst for the local food movement and hopefully we can use this time to establish permanent connections between our communities and the incredible producers around us. There is no better way to connect a community than through great food and luckily, I have been able to see first hand how the local food movement can be a force for good.
Gifts between us

A table full of laughter
Mouthful of smiles
with a roasted squash on the way
Purple sun peers through the rafters
Left or right for miles
Arc pastures where coyotes play

Food in the belly
Bugsound in the air
A sandwich from the deli
With plants grown over there

Good food grown well
It’s what I want to eat
It’s what I want to share
It’s what I want to help create

Nature created so many gifts
For humans and all her creatures
Let us enjoy them
And give her gifts of our own

We are clever and mighty
Creators in our way
How beautiful can this life be?
When we set out to make it so?

I want every bite to taste like a summer garden
I want every step to be a portal to photograph
I want every breath to be crisp and full
I want to drink through my skin in the River

I want to watch the birds dance
I want to hear the rabbits laugh
I want my nose to fill with rainsmell
I want my hands to disappear in flowers
I want my feet to melt into place

I have tasted too much
I have seen enough
I have felt so clearly
I have witnessed what I can
I have been too immersed in the magic of the moment
To turn back
To run away
To want less

Let me listen
Let me soften
Let me slow down

Give me signs
Give me strength
Give me seeds

The world is more beautiful than we know
And we’re always learning how to witness her

Love places
Love people
Love it all
And be loved
It all started with a blooming prairie during a hot July in Iowa. Trekking through chest-high grass, soaked in sweat, my colleague and I hauled the equipment needed for our experiment. With insects whirring, we erected a wind sculpture made out of four large paper parasols mounted to a bicycle rim and rod. The sculpture collected data from wind, light, movement, temperature and soil moisture over a lunar cycle. Every three days, we had to do maintenance on the sculpture and during those visits we would document what we could see, while the sculpture logged the unseen subtleties. We then created Steganos – a ten-minute video manipulated in four stages using the environmental data we collected. From there, I wanted to continue to explore the idea of visualizing the unseen. I set out to illuminate a process of transformation and began projecting, reflecting, and mixing the video with a series of customized analog and digital audiovisual equipment. I then built a couple of four-foot kaleidoscopes and played the videos back through them and started to take photos of my process.

I think it’s interesting that these photographs were taken less than a second apart. It speaks to rapid change being adaptive and retaining elements of its former infrastructure. Change is fluid and dynamic and when we leverage existing infrastructure we can facilitate transformation. We’ve compartmentalized food, energy, feed and fiber resources. We’ve built highways, airports, dams, and machines to move product, and in doing so we have fragmented the landscape. I think there is another way.

It is important to recognize that Iowa’s farming legacy started long before European colonization. The oak savanna and prairie ecosystems were once part of a vast, integrated crop-livestock system that was strategically managed by indigenous peoples to produce food, energy, feed and fiber. These ecosystems were the cornerstones of what we might now call a holistically-managed, regenerative agriculture mecca. How do we transform our existing infrastructure so that the landscape is reconnected and its inherent functionality to produce clean air, water, and abundant wildlife is reconstructed? We have to build corridors and reimagine the transmission of energy.

Perhaps we are intimidated by the changes we need to make, or just too overwhelmed to embrace the complexity of reintroducing diversity on the land. A place to start could be in our transportation system. We could start with rivers and move out from the river valleys. Take power line poles and cut them so they’re lower to the ground, use the poles as the bones for a solar grid and run the existing lines underneath the panels. Tap into that grid to generate electricity to power mobile fencing energizers, start solar grazing. Incorporate honey bees and diverse feedstocks for digesting into biogas. Feather the edge with tree crop shrubs and make a transition to silvopasture. Run a rail line through it. Use the rail to transport animals and resources to new paddocks including accessing cover crops planted on row crop acres. Think big and we can make the radical transformation towards a world that is wild, tame and diverse.
This past summer, Brandon and I toured the Midwest visiting farmers to launch the Perennial Fund. We saw the countryside, met tremendous people and the adventure sparked a lot of great ideas. We had lots of time in the truck to discuss learnings and generate new business models. It’s all about creating impact. Of all of the ideas we stumbled upon, there is ONE idea that will change the world.

Our ONE idea was born out of a growing frustration that almost the entire Midwest is planted to corn and beans. It’s outrageous that we grow two kinds of plants on the plains. It’s taken lots of time to till and turn the plains to grains. Then, we thought, “Why grow two things when you could grow one thing?” I mean come on. Diversity is so complicated. “Simplify the system” has come our mantra. Living with nature is too complex and asking, “What does the land want to be?” too ridiculous. Just like the beauty and domestic pleasure of the American lawn, the largest crop in the U.S., corn and bean fields should be clean and weed free, uniform and dominated by a single species.

Here at Mad Ag, this is why we’ve shifted all resources to the development of the CornBean™. CornBean™ is both corn and bean. The CornBean™ grows corn, corn, and beans high on the plant and beans low on the plant. It’s intercropping on a single stalk. Researchers are saying, “It’s simply gorgeous to look at 5 million aces of land with 5 million plants; it looks so beautiful.” We often lay down and trace every kernel of the CornBean™. It’s like a kaleidoscope of economic and biological potentiality. Basically, the genome is fully flexible for human manipulation. We’ve sent pictures to Nature and Science, and lithographs to the Louvre.

The best part about CornBean™ is that it’s delicious. Our team recently cooked up a pot of CornBean™ in a cassoulet, which we paired with duck confit and a bottle of 2003 Château Mouton Rothschild, which we should have watered the cactus with: too many sulfites. We’re making great progress on commercialization. We’ve already trademarked the name. We bought both domains, cornbean.org and cornbean.com.

Our market strategy is to release an affordable can of succotash. The brand aesthetic harkens to white domination of American farmland. Boulder, CO, is the perfect place to launch a CPG brand. If COVID hadn’t struck, we’d be at EXPO West. Cows, chickens and pigs love the CornBean™ diet. The CornBean™ brand. If COVID hadn’t struck, we’d be at EXPO West. Cows, chickens and pigs love the CornBean™ diet. The CornBean™ is both corn and bean.

With CRISPR, we can edit the genome to produce #2 yellow dent corn, as well as a range of heritage and ancient corn varieties, such as Bloody Butcher. With technology, anything is possible. Aaron Hirsh, a visionary here in Boulder, CO., is curious what adding a few genes that code for porcine quills could do for pest production. We are curious too. Living with the land has never been easier and more profitable.

The environmental benefits of CornBean™ are tremendous. With the CornBean™, we’ll no longer need to harvest wild fish for fishmeal production. The CornBean™ also thrives with glyphosate, so no need for tillage. Yesterday, we bought Monsanto to back from Bayer. Easy transaction. The CornBean™ is both crop and cover crop; it knows to plant a cover crop of more CornBean™. The root system is very shallow because we’ve genetically engineered that 90% of the net primary production toward aboveground biomass. This isn’t a problem because we slather the seeds with Indigo Ag’s proprietary seed inoculum, which turbo charges the soil microbial community to lives symbiotically with the roots, enabling tremendous drawdown at > 10 tons of carbon per acre and significant nitrogen fixation (> 100 lbs/acre), effecting nullifying the need for fertilizer. The CornBean™ also thrives hydroponically and with artificial sunlight, better than Colorado cannabis. It’s amazing to have a plant that doesn’t require soil to grow. Imagine skyscrapers and keep a pulse on what really matters, like watching Schitt’s Creek. For the American farmer, the CornBean™ holds the promise of profits, power and freedom.

*Diasclaimer. This is satire.*
FROM THE FELLOWS: DEFINING REGENERATION

Katie Bartel & Colleen Johns

Hi! We are Colleen and Katie. Last year, we enrolled in the Master’s of the Environment program at the University of Colorado Boulder. The past year has been a whirlwind. We’ve taken a journey through food systems, waded through regenerative theory, helped co-author a peer-reviewed article on the definitions of regenerative agriculture, and consulted food brands on regenerative supply strategy. Looking back, it is hard to believe all of this has happened in just seventeen months.

We first heard of regenerative agriculture during our first semester, while taking Introduction to Food Systems. In fact, it was Phil Taylor who introduced the term to us. Phil described an agricultural means for healing the soil that years of industrial and extractive farming practices had degraded. He called this regenerative agriculture, which he further explained as working with the nature of the land, the people who tended to it, and the communities it benefited. Following this discussion, we both felt called to join the regenerative agriculture movement, but were unsure how.

Just a few weeks later, a call to action presented itself. We re-engaged with the nature of the land, the people who tended to it, and the communities it benefited. Following this discussion, we both felt called to join the regenerative agriculture movement, but were unsure how.

Research was the perfect start to our journey. Pete is well versed on the state of our global environment. Much of his work focuses on agriculture’s significant environmental footprint. His research explores the causes and consequences of agriculture on economy and land use. Agriculture is responsible for one third of global land use and contributes about 15% of global greenhouse gas emissions (more like 25%, if you include agriculturally-driven land use change). These consequences, which are expected to worsen in response to increases in both population and per capita demand, drive many actors in the food system to seek more sustainable methods of food production.

Regenerative agriculture is often proposed as a solution to these problems. Supporters of regenerative agriculture are numerous and momentum is building around this work. The movement is represented by food scientists, researchers, farmers, retailers, indigenous leaders, brands, agronomists, evangelists, government officials, musicians, poets and more. Institutions like Project Drawdown, the Rodale Institute, and numerous and momentum is building around this work. The movement is represented by food scientists, researchers, farmers, retailers, indigenous leaders, brands, agronomists, evangelists, government officials, musicians, poets and more. Institutions like Project Drawdown, the Rodale Institute, and the Intergovernmental Panel on Climate Change all consider regenerative agriculture in their strategies for change. But, for all the recent attention regenerative agriculture has received, no legal or regulatory definition exists. A shared understanding of the term remains somewhat elusive. The fundamental question of our research project was, “How have different scholars and practitioners defined regenerative agriculture?”

In answering this question, we hope to help bring practitioners closer to an understanding of the term that can inspire more effective action.

The team spent several months working on the paper. We collected and reviewed data from 239 journal articles and 25 organizations, specifically looking for their respective definition or description of regenerative agriculture. In October 2020, the paper was published in the peer-reviewed journal Frontiers in Sustainable Food Systems. This paper provided three broad findings.

First, our team found that the term was used by many different people to mean many different things. There was no agreement on a definition, and some definitions were mutually incompatible, meaning that two people could be having a conversation about regenerative agriculture and be talking about very different concepts! To avoid unnecessary confusion or talking past each other, the team proposes that every user of the term define it clearly and unambiguously for their own context and purpose.

Second, some people focused their definitions on the agricultural processes within regenerative agriculture. For example, crop rotation, livestock integration, and minimum tillage were frequently mentioned processes. Others focused their definitions on the outcomes they believed regenerative agriculture achieved, such as carbon sequestration, increased biodiversity, and reduced nitrogen run-off. And some defined the term by including both processes and outcomes. In the paper, our team discusses the implications of definitions based on processes, outcomes, or both— including implications for a regenerative agriculture certification program, and for paying farmers for sequestering carbon.

Lastly, the team found that the term regenerative agriculture was commonly conflated or used interchangeably with other terms, such as carbon farming, sustainable agriculture, alternative agriculture, and agroecological farming. This can present a challenge to broad scale adoption, and to the development of effective policy.

After our research, we wanted to move beyond thinking to join the movement, and put ideas to work. In the Winter of 2020, we joined Mad Agriculture as fellows with our colleagues, Lauren Dunteman and Randy Pistacchio. This fellowship, revolving around the concept of regeneration more broadly, also comprised part of our Capstone Project as graduate students in the Masters of the Environment program at CU Boulder. Our work was led by our Capstone Partners, Phil Taylor from Mad Agriculture and Luke Smith from Terra Genesis International (TGI).

The fellowship between Mad Agriculture and TGI was initiated as an opportunity for new supply practitioners to learn about regeneration and work with brands interested in pursuing regenerative supply systems. We partnered with two food brands, Quinn Snacks and ORIGIN Milk, to shift their supply systems to become more regenerative.

To prepare for this work and learn the concept of regeneration, we participated in resourcing sessions with our Capstone partners. These resourcing sessions presented a slightly different understanding of regenerative agriculture than we had seen in the research paper. The sessions also expanded on the...
definitions and descriptions provided by other papers. Though some articles and organizations studied in the paper defined regenerative agriculture by a list of processes, outcomes, or a combination of both, the resourcing sessions in our fellowship presented it as an approach to agriculture based on the broader concept of regeneration. Regeneration is as much a paradigm shift that begins with self-transformation, as a lifestyle that invites both a new and ancient way of being in the world.

The resourcing sessions introduced the concept of regeneration as both a paradigm and a capability. As a paradigm, regeneration is a way of thinking that is shaped by knowledge of the nature of living systems. As a capability, regeneration is the power to view and work with life based on this knowledge. It can be thought of as a lens through which we view our experiences. In this view, regeneration is not a checklist of processes or outcomes, but rather a lens through which we see the world, its workings, problems, and possible outcomes differently. We become aware that all work, all life, all beings have a “wholeness” and a unique essence, just as living systems do. This awareness allows approaches to business and agriculture to take a new shape—one that goes beyond just “doing good” and instead enhances the system’s ability to develop in the same complex, continuous, unique way of the ultimate living system—nature itself. A blanket, fixed checklist of practices or measurable outcomes could not possibly encompass the unique, ever-evolving potential of a business or agricultural system.

The varying definitions and descriptions discovered through our research suggested that a single definition of regenerative agriculture is necessary to create clarity on the term. An explicit, single, agreed upon definition could enable farmers, businesses, and researchers to more easily measure and monitor regeneration. Clear guidelines would help companies claiming regenerative practices and outcomes, and could be held accountable to a specific definition and required criteria.

At the same time, the regenerative approach learned through the fellowship taught that a single definition could disrespect the unique essence of each individual. Through this regenerative lens, we understand any given definition is not inherently right or wrong, but rather speaks to the individuality of the user of the term. This alternative understanding of regenerative agriculture actually reinforces one of the proposals made by the research team in the paper: that each user of the term regenerative agriculture should define it clearly and unambiguously for his or her own unique purpose.

Therefore, so long as users define their unique interpretation of the term clearly and unambiguously, the meaning and impact of the term can be maintained. This ability to create a clear, unambiguous, individual definition of regenerative agriculture honors the unique capabilities of the ultimate stewards of the land—the farmers. It also creates a movement that everyone can participate in, which is sorely needed for humanity to mend the bond with each other and the Earth.

To read the research team’s paper in its entirety, please visit https://www.frontiersin.org/articles/10.3389/fsufs.2020.577723/abstract

To learn more about the Regenerative Supply Web Weaving Capstone project, please visit https://www.colorado.edu/menv/academics/capstone-projects/2020-capstone-partners/regenerative-supply-web-weaving

Jane Cavagnero
Galettes are one of my favorite desserts. You can fill them with whatever fruit is in season and eat them at any time of day. More recently, I have found that they are a great way to showcase different kinds of wheat. For the testing of this recipe, I got to mill my own White Sonora at Moxie’s Feed and Seed in North Boulder. Baking with freshly-milled whole wheat flour is an incredible, if not sometimes puzzling, experience for the home baker. Every batch of fresh-milled, nutrition-filled, whole wheat performs differently. This galette recipe has been a go-to for me for a long time. It is just a reliable classic. It’s from Alice Waters’ Chez Panisse “Fruit” cookbook, a recipe passed to them from Jacques Pepin. I’ve altered it slightly to account for the whole wheat. I’ve also included a method for optimal butter distribution that I’ve picked up in my travels. It seems funny, but I promise it works! I chose Moxie’s white sonora because it’s a lovely, soft white wheat that works well in pastries. I recommend giving it a go with White Sonora then trying other types of whole wheat and observing the differences between them.
APPLE GALETTE

Yield: 2 galettes
Time: 2.5 hours

Ingredients:

- 1 cup all-purpose flour
- 1 cup Sonora White flour (I bought mine from Moxie Bread Co.)
- 2 tsp sugar
- ¼ tsp kosher salt
- 14 tablespoons unsalted butter, cold
- 5-7 tablespoons ice water
- 6 medium apples
- 1 lemon
- Powdered sugar for dusting

Directions

In a large mixing bowl, whisk together both flours, sugar, and salt.

Using a box grater, grate your 14 tablespoons of butter into the bowl with the flour.

Using both hands, gently “fluff” the flour and the butter together. What do I mean by fluff? You are going to dig both hands into the bowl and lightly curl your fingers and hands as you pull up, tossing or fluffing the flour. Continue mixing this way. The mixture will start to resemble a coarse meal. Although it is tempting to knead the dough, I recommend restraining yourself. The larger flakes of butter are going to make your crust extra flaky.

Now, you’re going to incorporate 2 tablespoons of ice water at a time. After each tablespoon, incorporate the water with a few more fluffs.

When the dough starts to hold together (you can give it a little squeeze) but isn’t sticky or wet, gently turn the dough onto a clean work surface and form into two equal sized discs with the palm of your hand.

Wrap each disc in plastic wrap. Through the plastic wrap, you can smooth out any cracks in the dough.

If you are using this dough today, stick the fridge for at least 1 hour before rolling out. You can also freeze the dough if you think you won’t be using it in the next 24 hours.

Now, we’re going to prepare our apples. I used Honeycrisps because I just love their flavor. Rinse your apples and thinly slice. Keep like sized slices together for a neat assembly and presentation in the end. Squeeze half a lemon over the slices to keep them from turning brown.

Remove your dough from the fridge, lay out a piece of parchment paper and sprinkle it with flour. Unwrap your dough and transfer to the piece of parchment paper. To make this process super easy, I like to take another piece of parchment paper or plastic wrap and lay it on top of the dough disc. - sandwiching your dough between two pieces of parchment or plastic wrap. Now, roll your dough into an 1/8 inch thick round sheet. It’s okay if your dough has rough edges, galettes are meant to look rustic! It’s part of their charm.

Once your dough is rolled out, transfer it to the baking sheet, lifting it by the parchment paper. Keeping a one inch boundary around the edge of the dough, assemble your apple slices. You can get creative at this point by arranging the apples in a spiral, or columns, or just pile them up. I recommend making at least two layers of apple. The steam between them will bake the apples further and create a thicker, fruitier slice of galette.

After assembling the apples, pick up one edge of the crust. Fold the crust inward, with about one inch covering the fruit and the majority of the apples exposed. Continue folding the edge of the galette toward the center. For a neat presentation, try to make each fold equi-distance apart. There will be dough overlapping and that is okay!

Once you’ve finished your folds, use the second half of the lemon to squeeze over the ap-
ples, careful not to drop any seeds. Lastly, sprinkle a bit more granulated sugar over the exposed dough and apples.

Stick your galette (on its sheet tray) in the fridge while you preheat your oven to 400°F.

When your oven is ready, remove your galette from the refrigerator and bake for 35-40 minutes. I check mine after 25-ish minutes to see how it’s doing. Bake until the crust is golden brown and the apples have softened.

Remove galette from the oven and let cool for 10-15 minutes on a wire rack. Sprinkle it with powdered sugar before serving. I recommend serving with ice cream or whipped cream. Can be stored at room temperature, wrapped in tin foil.

Pulling down the driveway I look outside to see huge areas of soil covering the land. The arched trees catch sunlight through their pockets, spreading beams of sunlight on our car. As the car comes to halt I run out, waving to my dad. I can see his warm and bright smile. The sun hits my back. Warm. My feet run faster and faster, each step I get closer to my dad. As I run I almost step into the soil that they are planting seeds in. When I reach him, I hug him. Tight. I walk away talking to some of my dad’s friends, seeing what they are up to. I finally ask if I can walk in the dirt. Yes. My feet sink and sink, then I pull them out. Pull. Sink. Pull. Sink. I reach the end, then run. I can see some grasshoppers hopping. What would it be like to be a grasshopper? What would it feel like? I know I would love it! I walk over to a large wooden table and lay down with my brothers. The sun hits my face. I turn so the sun doesn’t blind me. I swing my feet off the table and walk inside the office. I see a chandelier made of cranes. I admire it. I take some time to work with the seeds they are sorting inside. Then I stand up and stretch my arms to the sky. I walk over to the large whiteboard. I grab a marker. I used the marker to draw a chicken. A funny one. Just as I put my marker down to admire my work I hear a distant loud voice “Let’s go!” My mom. I erase the chicken and walk to the car slumping. “Please 10 more minutes!” I whine. It’s hard to convince my mom. “No.” she says. I plop myself in the car waving. We pull out and drive away. I wave. They wave and smile. I smile too.

LETTER FROM THE LITTLE EDITOR
Ada Taylor
**Team**

**Philip Taylor**
Co-Founder & Executive Director

**Nicole Brinks**
Co-Founder & Community Leader

**Tanner Starbard**
Director of Operations

**Brandon Welch**
Director of Radical Capital

**Jane Cavagnero**
Creative Director

**Clark Harshbarger**
Director of Stewardship

**Rebecca Baldwin-Kordick**
Farm Planner

**Jarred Maxwell**
Farm Finance Lead

**Lauren Dunteman**
Fellow

**Colleen Johns**
Fellow

**Randy Pistacchio**
Fellow

**Katie Bartel**
Fellow

**Mark Lewis**
Board Member

**Ryan Martens**
Board Member

**Calla Rose Ostrander**
Board Member

**Mark Retzloff**
Board Member

**Maggie Fox**
Board Member

---

**Donors ($50+)**

- Argosy Foundation
- Boulder Food Group
- Brian Busch
- Chris Bentley
- Cielo DAF
- Colorado Wildlife Heritage Foundation
- Compton Foundation
- Concience Bay Company
- D & J Taylor Joe Russell
- Dan Yenchout & Helen Gemmill
- Elizabeth Candelario
- D & J Taylor Joe Russell
- Dr. Bronner’s Foundation
- Elizabeth Candelario
- Fund Woodcock Foundation
- Golson Family Foundation
- Golson Family Foundation
- Golson Family Foundation
- Janeli Foundation
- Jelfery Westphal
- Jeremiah Kaplan
- Jim & Diane Murphy
- Joseph Russell
- Julia Buonanno & Michael Brown
- Keith Jahake
- Laura & Pete Terpenning
- Lewis Family Foundation
- Lois Pepino
- LP Brown Foundation
- Maggie Fox & Mark Udall
- Martens Family Foundation
- Matthew Wallenstein
- Mervinther HARDIE
- Michael Drescher
- Michele Moffat
- Miki Brown
- New Belgium Family Foundation
- New Hope
- One Earth
- Orchard Foundation
- Patagonia
- ReBotanicals
- Records-Johnston Foundation
- Rossetti Family Foundation
- Stephanie Dobbie
- Tana Schultz
- Tatiana Maxwell
- The Compton Family Foundation
- The Shed
- Thread Fund
- Vanguard Charitable
- Walt Pounds

---

**Fellows**

**Board**

---
THIS ISSUE IS DEDICATED TO

WILLY REID

FOR BEING A GENEROUS, BOLD, AND DIEHARD ACTIVATOR OF REGENERATION. THANK YOU FOR ALWAYS HAVING AN OPEN DOOR.