The **MISSION** of Mad Agriculture is to reimage and restore our relationship to Earth with good 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. The front end will contain pieces from staff and friends of Mad Agriculture, while the back end will provide updates on action, impact and vignettes from our Story, Community and Practice domains.
Dear reader,

Humanity has lived too long at that expense of others and ourselves. Our economy is built on and operated on the extraction of natural capital and human health. There is a radical reformation emerging in humanity, inverting this paradigm of working against nature to working within nature to understand who we are and how we ought to live on Earth. Joanna Macy calls it 'The Great Turning'. Charles Eisenstein calls it 'The New & Ancient Story'. It’s unclear how the revolution is going to manifest, but that is the beauty of emergence – it is unpredictable and unknowable.

Emergence is question in motion, and as Rilke reminds us, we must ‘try to love the questions themselves like locked rooms and like books that are written in a very foreign tongue. Do not now seek the answers, which cannot be given you because you would not be able to live them. And the point is, to live everything. Live the questions now. Perhaps you will then gradually, without noticing it, live along some distant day into the answer.’

It is difficult to embrace questions because questions represent uncertainty, especially when society seems to demand clarity, eliminate mystery and reduces life to simple equations. At Mad Agriculture, we are firmly anchored to our mission, yet our strategy, the work, the people, the ideas, the action is actively evolving as we discover ourselves and how we unfold within something much larger than ourselves. This issue of our Mad Agriculture journal illustrates elements of our emergence.

I’ve learned that emergence includes: ordering at the edge of chaos, radical novelty, interaction of unlike kinds, leverage points for catalytic conformation of systems, non-linear learnings, prediction and control are unrealizable, untangling negative feedbacks loops, reinforcing positive feedback loops, self-organization, dynamic tension, rapid adaptation, harmonization of language, discovery of shared experience across disparate sectors and disciplines, the laws of conservation apply, embracing uncertainty is a stabilizing force, paradoxes and contrasting tensions are ever-present, equally true and necessary: fast and slow, dark and light, pain and glory, soft and hard, good and bad, and everything in between.

To emerge, one must follow their heart song. Looking around for answers will confuse oneself. As Carl Jung advises, ‘Your vision will become clear only when you look into your heart. Who looks outside, dreams. Who looks inside, awakens.’ I believe many others share this experience – hearing a call beyond themselves and yet struggling to answer that call with the fullness of the gifts and skills each has to offer in service of humanity and the Earth.

I’ve recently been asking, what are we emerging toward? Emergence begins with story. As we expand toward and away from the horizon (thanks Gadamer), we are confronted by the need for a new language. On the following two pages I present some of the language shift I am witnessing and participating in. These words and their meaning are guiding our choices in creation and organizing the way we create relationships with people and place.

We are not home, and cannot be, in the world we’ve interpreted. I invite you to leave the worn out ways of seeing and being, let the veils of familiarity fall away, and enjoy the innocence and ignorance of birth and creation. And so, dear reader, what is your dream? What is your vision? The universe is asking you to participate. Can you hear it? I can tell you that it is calling, from within you and without. I can tell you that the universe is expanding the right direction. Heed the call. Emerge.

Love and light, Phil
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It is said that water takes the path of least resistance. It moves from one molecule to the next in perpetual motion using principles defined in physics such as gravity, adhesion, cohesion and osmosis. The path of least resistance is expressed in water’s movements on both the macroscopic and microscopic patterns we observe throughout the Earth.

For example, in osmosis, water moves from higher to lower concentrations to move liquid compounds from plant roots to plant leaves. In yet another example, when we look closely at the geomorphic features of any given landscape, the path of least resistance can be observed in the drainage patterns created by flowing waters’ relationship with sediments, as change in elevation creates various topography across the surface of the Earth. As water loses elevation, it releases stored energy so powerful that it can carve through bedrocks such as limestone, basalt and granite. There is nothing ‘least’ about that! But the process often begins with water creating a small fissure in the rock by chemical (carbonic acid) or physical (ice expansion) weathering. The weathering causes the streams to cut deeper and deeper into the lithosphere. The Colorado River, moving swiftly, at an average speed of 4 mph, has cut an average depth of 1 mile to form the Grand Canyon.

Once a body of water begins to slow its change in elevation, the river, creek or stream will begin to meander across the landscape. We start to notice the cut and fill patterns as the water body begins to lose energy and lazily deposits sediments creating oxbows, splay levees, sandbars and forming deep swimming and fishing holes! In this scenario, there is no longer resistant bedrock to degrade and the stream begins to aggrade. The water then begins to spread below the soils under the floodplains providing sub-irrigated hydrology to our grasslands and meadows. It is in the understanding of this principle that we can extend the growing season of our grasslands in areas that tend to have seasonal rainfall distribution or semi-arid environments.

A grazing plan that uses enough time to allow for plants to fully recover between grazing events, that encourages deeper root growth, will allow for plants to take advantage of this hydrologic phenomena. We often say in my family “be the river and not the rock”. Water flows without choice, it moves effortlessly, it goes not where it wants but only where it can. Water is a source of energy. In the groundbreaking book by Gerald Pollack, The Fourth Phase of Water, it is shown that water can actually communicate, that it is social. And we all have learned that water can conduct electricity (hence waiting those long thirty minutes at the summer swim clubs after a lightning strike).

The fact the water goes not where it wants but only where it can, gets to the heart of this essay. It does not choose. I have recently moved by wife and two sons across the country to a small farm nestled against the Appalachian foothills, where in most seasons and years there is no shortage of water. But I am beginning to see now that my children have been asked to be like water. They go not where they want but only where they can. It is in this thought that I begin to wonder if I, too, am being asked to be like water? Who truly knows why the elevation changes in one’s heart. And what messages the electrical current that travels throughout my blood send? The polarity of the forces that draw us back to places we once have been. One rarely knows another’s whole story. In the words of Bob Marley, “half the story has never been told.”

So, in closing, I believe by observing water, through its patterns and its behavior, that it can teach us things both in agricultural relationships with the land and in our relationships with each other. And in this, I do know for certain, that water is sacred and should be treated as such. Not to be held too long, owned or possessed but to flow freely between us, the oceans, the sky, the plants, the animals, the rocks, and the soils.
On the Sabbath I go
a hootin’ and a howlin’
into the woods
shouting ‘Hallelujah’
for I am in the midst of God
who speaks to me
as He did with Moses
for the forest burns with mystery,
which is at the heart of everything,

My altar the moss bed,
Where I sit to wait,
Not for something to come,
But for myself to arrive.

My chalice, the tightly furled leaf of the bloodroot,
its juice is my communion.
I sit among the mayapples and bracken.
Watching the woods awake.
For in stillness the world unfolds.
The congregation of salamanders,
hickories, swallowtails moves.
What seemed empty is full.
Like me, the wood pewee returns again and again to its place
And always finds nourishment there.

I believe in the subnatural. The place of miracles.
I am content to die amongst the weeds,
In the feral nightshades at the edge of the field,
the boundary of domesticity and wildness.

I confess I am in love with soil. What it gives.
What it takes.

In town, their religion reduces uncertainty,
with answers for everything,
and I wonder, what has happened to faith?

I worship
in the woods, in the graveyard
in the prairie, in the fields,
wherever roots drive deep
lifting the elements of the earth to the sky
bringing sunlight to the darkness
and replenishing it.

They say my mornings are wasted.
That time is money.
But, time is a circle!
Not to measure my good work against.
I revel in inefficiency, as most efficiencies
efficiently destroy what they do not consider.
The fear of death does not guide me.
(It does not demand crazy futures).
For in this forest I will be born again
and again
and again.

My benediction, the voice of God
lodged within the breast of a wood thrush,
which sings the sun up to break the horizon.

I did not always come to the forest,
It took time to find the answers to the big questions:
Why am I here?
Where am I going?
When the answer has been beneath my nose,
In the dirt beneath my feet.
It is the only thing I am sure of.
I will die into the place I was born.
Be fruitful and multiply, replenish the Earth.
It gives comfort that someday I will nourish this ground.

— Philip Taylor
A JOURNEY INTO THE PRAIRIE

The front range of Colorado, home to Mad Agriculture, is where the high plains and prairies meet the alpine country. The history of this place tells us stories of the native people living in harmony with nature, wild roaming bison and tall grass prairies. Since the European settling of these lands, the landscape has become an agricultural hub. The Mad Ag team set out on a journey across the high plains of Eastern Colorado and Nebraska to learn from the farmers that steward the plains in our current ag system. We came away with a deep appreciation for the wisdom farmers hold and the challenges they face. We gained valuable insights into the culture and ecosystems of the plains.

Our first stop was Lewis Family Farm, a regenerative and organic diversified crop land operation. The Mad Ag team hand-planted hemp seedlings that morning before continuing east. With soil under our fingers nail, we communed in the shade of juniper hedgerows for lunch. Leaving Lewis Family Farms, we drove through countless corn and hay fields in search of outliers. We found very few. It was abundantly clear that farmers are under the thumb of a system. As we stood in their fields, we watched neighboring farmers drive by with incredulity, thinking, ‘What the hell are they doing planting hairy vetch and field peas together, and planting pollinator habitat within their row crops?’ However, it’s been worth the hardship. The benefits were visible: healthy soil, healthy crops and clear reductions in input costs afforded by new practices like cover cropping, crop diversification, conservation tillage, animal cropland integration and fewer synthetic inputs. The difference in the soil and health of the land was evident looking across fence lines to neighboring properties. We shared dinner and grace together at a local BBQ to celebrate community and place.

After spending the night camping beside the Platte River, we headed east to visit with farmers who are in their early phases of transitioning portions of their land to organic production and investigating the use of regenerative practices. In their family-run operations, decision making is a family affair. Decisions don’t happen quickly. It takes hours of research, days of discussion and planning, large investments into new equipment and infrastructure and years to perfect new land management transitions. They saw the potential for huge gains in transition to organic, however going from previously practicing no till and cover cropping, they will face a new set of challenges in weed management in an organic system. Some of their current soil health practices may be reversed in the transition to organic, as tillage is needed for weed control. This is often the unfortunate fate of land transitioning to organic production. While there are obvious benefits of chemical input reduction, there are other soil health implications that come in the transition.

Grace before meals:

“As we begin this meal with grace, Let us become aware of the memory Carried inside the food before us: The quer of the seed Awakening in the earth, Unfolding in a trust of roots And slender stems of growth, On its voyage toward harvest, The kiss of rain and surge of sun; The innocence of animal soul That never spoke a word, Nourished by the earth To become today our food; The work of all the strangers Whose hands prepared it, The privilege of wealth and health That enables us to feast and celebrate.”

John O’Donohue
MOFFAT — On an early spring day in the hills west of Moffat, two ranchers walk through open pasture with two women less than half their age. An ecologist guides the group through miles of rangeland, too dry for sagebrush or trees, that stretches between them and the snow capped Sangre de Cristo mountains to the east.

The ranchers have worked the San Luis Valley’s arid ground for decades. Students of local ecology, they pay attention to the lands their cattle graze, noting changes in the patchwork grassland.

“How can you tell if your management is trending you toward what you want or trending you away?” one of the ranchers, Julie Sullivan, 62, asked her younger companions. “If you’re getting open ground, or water is sheeting, you’re heading in the wrong direction.”

Morgan Atkinson, 26, crouched down, scribbling on a notepad. Hana Fancher, 29, was more vocal. “I would look at rock and think it’s bare ground, but I know that rock mulch doesn’t count,” she said, examining the shale spread between bunch grasses on the red-brown dirt. “Can you go into that?”

“Think about rain coming down,” Cindy Villa, a range ecologist for the U.S. Department of Agriculture, replied.

“If it’s hitting dirt it’ll spray it up into the air. If it hits rock, it breaks up the raindrop and also holds moisture in the ground.”

Atkinson works for Sullivan and George Whitten, 66, as part of the Santa Fe, New Mexico-based Quivira Coalition’s apprenticeship program. Later in the day, she and Fancher, now the foreman, wrestled cattle into a trailer, grabbing them by their back legs, just above the hoof, and moved them between pastures.

Through apprenticeships, the Quivira Coalition, a group of ranchers and environmentalists working to shape the future of agriculture in the West, is hoping to solve a problem facing the nation’s aging farmers and ranchers: there aren’t enough young people to pass the work on to. Atkinson is one of 17 apprentices learning how to feed America.

The average American farmer is 58 years old. Many inherited their generations-old operations from parents and grandparents, but now find they don’t have anyone who wants to take over.

Joe Purtell
gent, but now find they don’t have anyone who wants to take over the farm, as kids from agricultural families seek more financially stable lives in cities. At the same time, a new wave of young people are becoming interested in food production. The Quivira Coalition is connecting them with farmers and ranchers in an attempt to pass down the skills a young person needs to manage land and a philosophy that could make the next generation of agriculture more sustainable. Whitten and Sullivan have worked with Quivira since 2003 and hired their first apprentice in 2008.

“Basically all of the people who feed everybody are going to be dead soon, and we have not been training that next generation,” Sullivan said. “As a society, we have not invested in whose going to feed us all. The Quivira Coalition decided to add that to their mission statement.”

While there are many farming apprenticeships in the United States, ranching programs are less common. And programs focusing on regenerative ranching, where participants are trained in land stewardship and techniques for restoring range that has been degraded by poor management practices, are almost unheard of.

Sullivan and Whitten manage their ranch with the goal of improving the health of the land, an exception rather than a rule in U.S. beef production. Whitten was born into a ranching family in the San Luis Valley, while Sullivan came to agriculture later in life. As they got older, they found teaching young people increasingly rewarding and needed the help on the ranch more and more. Traditionally, a ranch would be passed on to children, but Whitten’s (from his first marriage) are not champing at the bit.

“George’s three kids love the ranch, and feel deeply committed to the fact that the ranch is the family legacy, and want the ranch to stay in the family. But so far today, and they’re all basically in their 40s, none of them have chosen this as a profession,” Sullivan said. “So we were in a position where we really wanted to start to pass it on, but within the family, there wasn’t necessarily someone who was ready to come here and have it passed on to them.”

Sullivan sees others in similar situations across the agricultural community. The exodus of farm and ranch kids started in the 1960s, when the economic realities of American agriculture led parents to encourage their children to find work with benefits and retirement plans.

This puts farmers and ranchers of Sullivan’s generation in a tough position, but she said she hopes programs like the Quivira apprenticeship will improve the situation for operators approaching retirement.

“When people 50 years younger than us are at the point we are now, where they really need that junior partner, there may be a lot more people ready for it,” Sullivan says. “For the past 15 years or so, there’s been this influx of young people who didn’t grow up in agriculture coming back.”

Invested in the idea of ranching, but completely unskilled, Morgan Atkinson grew surrounded by, but not involved in, agriculture. Raised near Sun Valley, Idaho, she spent her summers outdoors, playing in the hills and mountains near her home. Her love for outdoor spaces eventually took her to Whitman College in Walla Walla, Washington, where she majored in environmental studies and creative writing.

“Through my studies I learned about grazing on public lands, and its role in the West,” Atkinson said. “This topic just kind of kept presenting itself, and I kept getting interested in the other side of it, that I felt like I wasn’t really learning.”

Atkinson worked for environmental nonprofits and did summer internships, but became increasingly drawn to working more directly in how humans live off the land.

“When I graduated from college, I just realized I was kind of sick of reading about ranching, and thought if there’s a way to find out what I want to find out, I better see if I can work on a ranch,” she said.

Sullivan said she knows how it feels to come to agriculture without being raised in the lifestyle. She was a professor at Lesley University in Cambridge, Massachusetts, when she brought students in an environmental science program to meet a rancher who wanted to make his land more healthy. She and Whitten fell in love.

She arrived in the San Luis Valley passionate but unskilled, deeply invested in saving the planet one acre at a time, but unable to use her body in the ways the people raised on ranches take for granted. City people, she notes, rarely even know the proper way to use a shovel. Grabbing calves by the ankles and pulling them into trailers, or herding by horseback, were complete unknowns.

“The journey that I’ve gone through over the last 18 years has helped me understand, when a livelihood reaches out and grabs you, which is how they experience it, but you don’t know anything about it,” Sullivan said. “I think the fact that I didn’t have any background was one of the strengths we ended up bringing to starting a training program, because I know exactly what they go through.”

Atkinson says that more than anything physical, the work-life balance of ranching was an adjustment. She says she works six days in a typical week, her day off rotating depending on the cows, who don’t keep to a standard 40-hour work schedule.

“A couple months in I thought ‘whelp, this is it,’” Atkinson

The small pool of regenerative practitioners gets stronger as well as larger because of the relationship between apprentices and mentors.
We realized we were at a point where we wanted to work with people who weren’t just trying on agriculture,” Sullivan said. “They were people who had enough of a taste of it that they thought this was really what they wanted to do with their life, and were looking for a professional training opportunity in quirky, regenerative, let’s-make-it-as-hard-as-we-can agriculture, which is what we do.”

They tweaked the program, and partnered with Quivira, taking apprentices for a full year with the possibility to extend. By working with people who already had ranching experience, Sullivan and Whitten were able to skip some of the most basic principles and involve apprentices in management and decision-making. Sullivan said the idea is to prepare apprentices to take on lower-level management positions at other operations.

“I get to be involved in grazing planning, pasture planning, and I kind of deal with our direct market. I do meat orders and inventory, so parts of the business as well,” Atkinson said. “I go through decision-making processes together, so I really get to see the step-by-step. Just being able to see the financials and business, just everything that happens behind the scenes, is super valuable.”

Apprentices get a stipend and have housing provided, but Sullivan says the apprenticeship — and others like it — are still out of reach for lower-income people, or anyone with a family in tow. Apprentices get a stipend and have housing provided, but Sullivan says the apprenticeship — and others like it — are still out of reach for lower-income people, or anyone with a family in tow. She’s part of a group of apprenticeship coordinators working to provide more resources and attract a larger range of students.

While the chance to learn the practicalities of regenerative agriculture attracts young people to the program, mentors come for the skilled labor. And Sullivan said interest has been growing.

Mentors are anywhere from 30- to 70-years old, and are drawn in by the program’s reputation for creating capable farmers and ranchers. Sullivan says apprentice graduates work well in mid-management or skilled ranch hand positions, which draws interest from farmers and ranchers who’ve had bad experiences hiring neighbors. Still, just because someone is a good land manager doesn’t mean they know how to explain themselves, and Sullivan now works in a mentor-support role for the apprenticeship program. When mentors need their own mentoring, she steps in.

The mentor-apprenticeship relationship invigorates everyone involved, and pushes mentors to try new things, Sullivan said. A young person asking an older rancher to explain everything they do can lead to reassessment of land-management practices.

Sullivan hopes apprentices like Atkinson will take the lead in the regenerative movement in the decades to come. She says she’s getting tired. “There’s something inherent in that relationship, where not only is the young person becoming a better regenerative land manager, but the mentor is also often reinvigorated and able to implement something new,” she said. “I think the small pool of regenerative practitioners gets stronger as well as larger because of the relationship between apprentices and mentors.”

For Atkinson, the apprenticeship program has introduced her to a community she didn’t know existed. She’s met other young people coming to agriculture for the first time and seen that a career is still possible in the field. The woman who introduced her to Whitten and Sullivan is now managing a ranch, which Atkinson hopes she will be doing in a few years. She’s approaching the tail end of her two-year apprenticeship, and is looking at next steps.

She’d like to move home to Idaho and learn about ranching there. But that’s not a requirement. The relationship between people, cattle and the land brought Atkinson to ranching, and she says she’s not leaving any time soon. “It’s the whole thing, the whole cycle and relationship of it, that hooked me,” Atkinson says.

Reprinted from the Colorado Sun
Secure market off-take for transitional and organic crops, as well as soil carbon credits. Access to affordable capital to finance the transition to organic agriculture. We activate Carbon Farm Plans with three catalytic levers:

**Lever 1: Access to affordable capital** to finance the transition to organic agriculture.

**Lever 2: Technical assistance and training** to de-risk transition with know-how and community support.

**Lever 3: Secure market off-take** for transitional and organic crops, as well as soil carbon credits.

**Lever 1: Financing a Regenerative Revolution with the Perennial Fund**

Money is often the most important factor for decision-making on a farm or ranch. Most farmers work on razor thin margins and do not have the financial security to try something new. Society is asking farmers to take enormous risk in rapidly changing their farm enterprise, crops and practices. This is not easy. Mad Agriculture already uses Carbon Farm Planning to flow USDA National Resource Conservation Service (NRCS) dollars that cost-share with farmers on conservation practices, but cost-sharing often isn’t enough for a farmer to finance the transition to regenerative and organic production. Additional capital is needed to finance operations during the “transition trough.” The Perennial Fund is born out of this need.

**Investment Model.** The Perennial Fund loans $50 to $500 per acre per year to the farmer for 3 years to transition to organic production in exchange for a 10-30% net profit share after they’re certified organic, until 150% of the initial investment is returned. The net profit share is determined by region, crops, management, and forecasted debt service coverage ratios. It’s debt that is structured to align with the realities of farm economics, enhancing the chances of a successful transition. The loan amount is determined during the Carbon Farm Planning process to facilitate a successful organic transition, and the funds can be used to cover operational costs, equipment and infrastructure.

**Fund Structure & First Loss Capital.** It is anticipated that the Perennial Fund will be structured as a Limited Partnership. The funds used in the capital stack as the first-loss capital will be sourced from philanthropic contributions and potentially a C.I.G. grant. All philanthropic contributions will be recycled into the next fund. As the Global Impact Investing Network noted in a 2015 report, “In the nascent but growing impact investment market, some investment opportunities that have strong potential for social or environmental impact are perceived as having high financial risk. Catalytic credit enhancement tools, such as first-loss capital, can encourage the flow of capital to these opportunities by improving their risk-return profiles and, thus, incenting others to invest.”

**Returns.** Based on modeling and transition case studies, we are targeting a 9% IRR over 10 years. This includes the 3-year transition period. For each farm, we base the economics on an 8-year payback and build in a 4 years of buffer, for a term of 10 years. This accounts for the primary risk factors that could impact performance - weather and markets.

**Lever 2: Create Successful Transition Plans using Carbon Farm Planning**

Carbon Farm Planning was invented by the Marin Carbon Project, Carbon Cycle Institute and Fibershed. See this NYT Magazine feature on their success. The CFP model builds on Conservation Planning, a process developed by the USDA National Resource Conservation Service (NRCS) to help farmers and ranchers solve their resource concerns by educating, designing and cost-sharing (~50%) the implementation of conservation practices. The NRCS supports a wide variety of regenerative practices proven to enhance soil health and sequester carbon, like cover crops, no-till farming, prescribed grazing, riparian restoration, forage planting, irrigation improvement, contour buffer strips, composting and more. CFPs leverage existing and trusted networks of financial and technical resources to de-risk the transition to regenerative agriculture. CFPs are very flexible and allow deep contextualization and custom-tailored plans to meet the producer on their journey toward creating climate-beneficial agriculture.

**STEP 1: Farm Vision**

Every farmer has a different vision, enterprise model and resource base to pursue the transition to organic production. We start by walking the land with the producer, learning about their journey, history of operation, enterprise model and vision for farming, exchanging stories and ideas, building trust and camaraderie. We balance the urgency of dreaming big with the need to design safe steps in a risk-averse sector. In Step 1, we conduct due diligence and resource assessment across 9 domains: climate, geography, water, access, ecosystem health, infrastructure/equipment, capital, marketing & energy.
**Step 2: Carbon Farm Planning**

We develop a 5+ year working plan that lays out crops and practices, timelines, implementation strategy, expected investment and returns in both financial and ecological terms. We use a combination of NRCS Conservation Planning, Regrarians, and Holistic Management frameworks to outline and understand the resource needs and action plan. Our plans are designed to help farmers access premium markets, reduce farm operation costs and increase net profits. Diverse crop rotations, practice toolkits, and market off-take are built into the plan to allow farmers the flexibility to respond to unpredictable weather and market conditions.

**Step 3: Action, Monitoring & Adaptation**

With the CPF in place, we activate the plan with capital, complementing the Perennial Fund with existing networks that deliver technical and market assistance as a mode to accelerate organic and regenerative farming by building the fund on ecological principles embodied in old-growth perennial ecosystems (nature’s most mature and resilient economic expression), which are characterized by circularity, diversity, symbioses, a low-interest rate and where give and take are in equilibrium.

**Rewarding Regeneration with Carbon Payments**

We also help farmers monetize the soil carbon they are building through regenerative practices. We are a data manager for the NORI carbon draw-down marketplace and can generate Carbon Removal Certificates (CRCs) for farmers, helping them to be paid for building carbon-rich and healthy soils that help sequester greenhouse gases and mitigate climate change. We will quantify, verify, and help sell CRCs with every PF farmer. Mad Agriculture is already working to generate 12,500 acres of CRCs with existing clients. Selling CRCs through NORI encourages the creation of financial and ecological wealth by financially aligning the production of crops and soil carbon. While CRCs have the potential to boost returns to the Perennial Fund, the NORI marketplace is just launching in 2020, so our return profile is conservatively built on revenues from organic crops and input cost savings, not expected carbon revenues.

**Building a Portfolio of Farm Investments**

Our due diligence process combines financial and resource assessments of each candidate farm to efficiently evaluate bankable projects. We are seeking already successful organic farmers looking to expand acreage through a variety of networks, including our Core Partners, business references, and direct outreach through field visits, conferences (e.g., MONSE, OGrain, MOA, No-Till on the Plains) and periodicals (Acres, Organic Farmer). We already have two commitments (including Vilicus Farms) totaling 3,265 acres, with many others under evaluation.

**Addressable Market & Route to Scale**

We believe that there are a minimum of 20+ million acres of U.S. agricultural land that would transition to organic agriculture in the next 10 years, with an addressable market for investment of roughly $2 billion to finance that transition. We are very open with our model and learnings, and we will work to replicate the finance model with existing networks that deliver technical and market assistance as a mode to accelerate organic and regenerative farming by scaling adoption, investment and impact. We believe that there is a strong complementarity between the Perennial Fund and other investment vehicles, particularly real estate backed funds (e.g. Iroquois, Dirt, LFF, SLI).

Join us in catalyzing a regenerative revolution in agriculture. Humanity and the Earth need strategic investments to catalyze change. The Green Revolution was kicked off with $50M from the Rockefeller, Ford and Kellogg Foundations, as society was primed for rapid adoption of industrialization during the post-war economy. A perfect storm of social, environmental and economic trends have created the climate for another major revolution in agriculture. The rural economy is suffering, climate change threatens our existence, and neoliberal capitalism and corporate control over agriculture are failing the land and people. Out of great pain, great innovation occurs. Are you in?

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**The Perennial Fund is Radical Capital, Why?**

1. **Farmers First, Skin-In-The-Game & Debt Forgiveness.**
   The Perennial Fund is structured so that the loans it disburses are repaid only after the certified organic farm is operating profitably. If your team cannot help each farmer to return 150% the initial investment over 10 years, the debt will be forgiven. Yes, this is radical. Robust farmer-by-farmer due diligence is paramount, which is integral to Carbon Farm Planning. In the event the borrower violates loan covenants (e.g., abandoning organic production before the end of the term), the loans issued to projects will be secured against a variety of assets, such as farm equipment, the crop, and future earnings.

2. **High Impact Financing Vehicle.**
   Most investment in regenerative agriculture has been through farmland purchasing as an asset play, which costs, on average, $3,475 per acre. The PF enables a farmer to transition an acre for $200 to $600, depending on financing needs. The capital efficiency of this investment is 7x to 20x that of purchasing land, and keeps farmland ownership in the hands of farmers, not investment funds.

3. **Financing That Comes with Know-How & Guaranteed Markets.**
   Unlike traditional lending institutions, a Perennial Fund loan comes with a road-map for organic transition, including on-the-ground technical assistance, to maximize social, environmental, and financial success of the farmer and the Perennial Fund. The farmer’s success is our success.

4. **Readily Scalable.**
   The most effective route to scale a regenerative revolution is to empower other organizations to replicate our solution where they have place-based knowledge and a network of trust. We do not hold any intellectual property over this model and encourage others to replicate it. We need dozens of Perennial Funds to finance the regenerative revolution in agriculture.

5. **Built on Ecological Principles.**
   Money needs to be reinvested into the farms that are restoring the natural capital which all of life depends on. We are building the fund on ecological principles embodied in old-growth perennial ecosystems (nature’s most mature and resilient economic expression), which are characterized by circularity, diversity, symbioses, a low-interest rate and where give and take are in equilibrium.

**STEP 2: Carbon Farm Planning**

We develop a 5+ year working plan that lays out crops and practices, timelines, implementation strategy, expected investment and returns in both financial and ecological terms. We use a combination of NRCS Conservation Planning, Regrarians, and Holistic Management frameworks to outline and understand the resource needs and action plan. Our plans are designed to help farmers access premium markets, reduce farm operation costs and increase net profits. Diverse crop rotations, practice toolkits, and market off-take are built into the plan to allow farmers the flexibility to respond to unpredictable weather and market conditions.

**STEP 3: Action, Monitoring & Adaptation**

With the CPF in place, we activate the plan with capital, combining the Perennial Fund with other sources of funding, especially the NRCS EQIP funds. Using our Adaptive Management Framework, the farm plan will be adjusted and iterated based on crop performance, environmental, market, and human factors.

**Building a Portfolio of Farm Investments**

Our due diligence process combines financial and resource assessments of each candidate farm to efficiently evaluate bankable projects. We are seeking already successful organic farmers looking to expand acreage through a variety of networks, including our Core Partners, business references, and direct outreach through field visits, conferences (e.g., MONSE, OGrain, MOA, No-Till on the Plains) and periodicals (Acres, Organic Farmer). We already have two commitments (including Vilicus Farms) totaling 3,265 acres, with many others under evaluation.

**Addressable Market & Route to Scale**

We believe that there are a minimum of 20+ million acres of U.S. agricultural land that would transition to organic agriculture in the next 10 years, with an addressable market for investment of roughly $2 billion to finance that transition. We are very open with our model and learnings, and we will work to replicate the finance model with existing networks that deliver technical and market assistance as a mode to accelerate organic and regenerative farming by scaling adoption, investment and impact. We believe that there is a strong complementarity between the Perennial Fund and other investment vehicles, particularly real estate backed funds (e.g. Iroquois, Dirt, LFF, SLI).

Join us in catalyzing a regenerative revolution in agriculture. Humanity and the Earth need strategic investments to catalyze change. The Green Revolution was kicked off with $50M from the Rockefeller, Ford and Kellogg Foundations, as society was primed for rapid adoption of industrialization during the post-war economy. A perfect storm of social, environmental and economic trends have created the climate for another major revolution in agriculture. The rural economy is suffering, climate change threatens our existence, and neoliberal capitalism and corporate control over agriculture are failing the land and people. Out of great pain, great innovation occurs. Are you in?

**SUMMARY OF TERMS**

- **Fund Structure:** Limited Partners (Investors) invest in a closed-end structure managed by its General Partner (GP), Mad Ventures LLC.
- **Term:** 10 Years
- **Return:** Targeted 6% IRR
- **Fees:** 0% (Management, Transaction, and Expense) [Management supported by grant funding]
- **Carried Interest:** 20%+ of distributed net profits (carried interest or carry) generated by the Fund after return of the initial investment and a preferred return of 5% IRR to the Limited Partners.
- **Capital Structure:** Limited Partners are the first to receive a dividend on a yearly basis until Targeted IRR is met. The General Partner (Mad Ventures LLC) is issued a dividend in proportion to equity stake after Limited Partners in a given year.
- **Closing:** Target closing date of September 30, 2020; Capital Commitments equal to at least $2,500,000 or when a total of $4,000,000 is reached.
- **Minimum Investment:** $25,000 minimum, $2,000,000 maximum; Capped at $6,000,000 total investment in Fund.

**Fees:**
- 0% (Management, Transaction, and Expense) [Management supported by grant funding]
ADVICE TO MYSELF: 
TAKE IT OR LEAVE IT

Food and fiber.
Farmer and rancher.
Music player and dancer.
An innocent woman and her romancer.

Does life really need to provide you with all the answers?
Yet questions arise like the sun each day.
And each day is increasingly more significant in ones life.
And we are asked to oblige.
And to take steps.
So take the time to ask the universe of its intention.
And be able to stay quiet enough, in order to listen.
Dare to stare into open landscapes.
And into the heavens at night.
Don’t hesitate to “go it alone”
Spend moments, hours and days without checking your phone.
Seek the unknown.
Live without greed.
Bury your ego so it can blossom into peace in your life.
Discover yourself doing the work you are called to do along your journey.
Show others only what you know to be true.
Please ask if you need a hand.
Honor the land.
Love the mountains and the Plains.
And watermelons and their multitude of veins.
Their taste is like the feeling of one day taking over the reins.
I wonder what it feels like to touch an Ocelot’s mane?
Try and embrace the rain.
And to remember, we humans are only one small part of a larger domain.

— C.K. Harshbarger
Wheat production in Colorado typically follows a wheat-chemical-fallow cycle, a system that takes from the producer and the land, perpetuating the downturn of rural economy and degradation of our natural lands. Wheat production needs a legume rotation instead of chemical fallow. Beans, lentils, chickpeas and other pulses are the answer. At its essence, Mad Agriculture is dedicated to revolutionizing such systems from those that take, to those that abundantly give, creating systems that reflect, even to a small degree, what the land wants to be.

Together, with the wisdom of Rich Andrews, Rich Pecoraro and Eric Skokan, and seed from MASA Seed Foundation and the Mendocino Grain Project, we set out to prepare the soil for a new story of High Plains grain production.

We grew out five lentil varieties, two chickpeas, and 40 ancient and heritage wheat, barley, oats and rye varieties, some with prior history in Colorado and most others new to the region. We experimented with a variety of production systems including irrigated vs. non-irrigated, and intercropping vs monocropping. Over the course of the season, we observed how the crops matured, handled weed pressure, and adapted to a wet spring and dry summer. Just before harvest, we recorded performance and host of morphological characteristics for each variety.

The trials culminated with community harvest days, where our team performed the age-old ritual of the year’s grain harvest in community, with old friends and new. Together, we scythed, bundled, threshed, and winnowed before sharing in delicious food from our friends at Moxie Bread Company. With gratitude toward our community partners, we meld the work of the past with new knowledge and experience with crops and systems that have the potential to give back to farmers and the land in a big way. We are inspired and guided by the work of Bob Quinn and the regenerative grain renegades, young and old, leading the way. We thank Monica Spiller, farmers Mai Nguyen, Nate Siemens and Doug Mosel, Nan Kohler, baker Dave Miller, Leyna Lightman, and Diana Rodgers for their work on California Grains (www.californiagrains.com), we are in many ways trying to replicate their courage and work in Colorado.

Over the winter we are evaluating the nutritional and functional qualities of all crops for pilafs, hummus, bread, pasta, granola, pancake mixes, and other things of delicious nature. Stay tuned.
Top: Trial design on Andrews Family Farm. Bottom: Rich Pecoraro and Brian De Corte sowing seeds.

These wheats generally have stronger gluten properties making them ideal for bread, pizza dough, bagels, and laminated doughs. The bran has a reddish-brown coloring and strong-flavored phenolic compounds that give whole wheat flour its rich, ‘wheat-like’ flavor.

**Hard Red Wheat**

Like hard red, hard white wheats generally have stronger gluten properties making them ideal for bread, pizza dough, bagels, and laminated doughs. The bran, however, is lighter in color with milder flavor.

**Hard White Wheat**

Typically lower in gluten protein, but not in all cases, these varieties of wheat are wonderful for more delicate baking applications, such as cakes, muffins, and cookies. Lightly hued, mild flavor, with a soft crumb.

**Soft White Wheat**

Normally amber colored grain, with less color distinction between endosperm and bran. This wheat is traditionally used to make semolina (refined flour) for pasta, but makes a wonderful amber-hued addition to cakes and breads.

**Durum Wheat**

This distinction includes Old World landrace varieties in existence before 1900, and also the crosses between landrace varieties made after 1900. Tailored to specific microclimates.

**Heritage Wheat**

Wheat varieties that were domesticated at the dawn of agriculture, approximately 8,000 to 10,000 years ago. Ancient wheats have many nutritional benefits, versatility, and great flavor.

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Adapted from:

**California Grain Campaign**
### Akmolinka

**Origin:** North Kazakhstan  
**Awn:** Awned  
**Classification:** Soft White Spring Wheat

Within the emmer wheat family, this landrace is closely related to durum wheat. Its somewhat softer texture along with the challenges associated with separating the germ from endoplasm has led to a decline in popularity. Akmolinka wheat is prolific with long, strong straw, growing up to five feet tall in the appropriate climate. Used as a whole wheat, this cultivar is ideal for pastas.

### Blue Beard Durum

**Origin:** Iran  
**Awn:** Awned  
**Classification:** Spring Durum Wheat

Thought to have originated in Iran, this landrace is best known for its remarkable, dark blue head. It has primarily been planted in the Central Valley and southern desert regions of California. It is known to be drought tolerant, tall, and resistant to powdery mildew, Septoria tritici leaf blotch, and somewhat resistant to stripe rust. Blue Beard Durum is well suited for pastas. Its unique appearance has also commanded the attention of straw artists and wheat weavers.

### Blue Tinged Emmer

**Origin:** Ethiopia  
**Awn:** Awned  
**Classification:** Hard Red Spring Wheat

This ancient wheat was once widely grown across the Fertile Crescent. Admired for its free threshing, this emmer is of shorter stature and requires superb, slow-draining soils to achieve optimal yields. The dark, rich flavor makes for a good dinner grain, bread, and whole wheat pasta. This variety has exceptionally high healthy antioxidant potential.

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### Chiddam Blanc de Mars

**Origin:** Chidham, England  
**Awn:** Awned  
**Classification:** Soft White Spring Wheat

Chiddam Blanc de Mars is credited as the foundational heritage wheat used in Parisian baguettes and breads. This cultivar is short stunted and easy to thresh with less of a tendency to lodge than its close relative, Sonora. The gluten is soft, producing a whole wheat that is versatile for bakers.

### Clark’s Cream

**Origin:** Sedgwick, Kansas  
**Awn:** Awnless  
**Classification:** Hard White Winter Wheat

Earl Clark is credited with breeding this variety over eight generations, eventually released to the market in 1972. This hard white winter wheat is known for its mild flavor and baking quality.

### Defiance

**Origin:** Charlotte, Vermont  
**Awn:** Awnless  
**Classification:** Soft White Spring Wheat

This is a hybrid variety with an auspicious name. A cross between White Hamburger and Golden Drop wheat varieties, originally cultivated in 1871. This tall, white-stemmed wheat is typically grown from spring sowing and was once grown across parts of the western United States. Defiance is Colorado’s most famous wheat. However, it disappeared after the Green Revolution. Mad Ag discovered one lb. in northern Vermont and planted it again in Colorado for the first time in 75 years.
<table>
<thead>
<tr>
<th>Strain</th>
<th>Origin</th>
<th>Awn</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>India Jammu</strong></td>
<td>Jammu and Kashmir, India</td>
<td>Awnless</td>
<td>Hard White Spring Wheat</td>
</tr>
<tr>
<td><strong>Durum Iraq</strong></td>
<td>Iraq</td>
<td>Awned</td>
<td>Spring Durum</td>
</tr>
<tr>
<td><strong>Einkorn</strong></td>
<td>Fertile Crescent</td>
<td>Awned</td>
<td>Winter &amp; Spring Ancient Wheat</td>
</tr>
<tr>
<td><strong>Emmer</strong></td>
<td>Fertile Crescent</td>
<td>Usually Awned</td>
<td>Winter &amp; Spring Ancient Wheat</td>
</tr>
<tr>
<td><strong>Khorasan</strong></td>
<td>Mesopotamia</td>
<td>Awned</td>
<td>Hard Amber Spring Wheat</td>
</tr>
<tr>
<td><strong>Foisy</strong></td>
<td>Marion County, Oregon</td>
<td>Awnless</td>
<td>Soft White Spring Wheat</td>
</tr>
</tbody>
</table>

India Jammu is thought to be a natural hybrid between Sonora wheat and another unknown variety that has been grown in the southwestern U.S. since the 19th century. India Jammu grows similarly to Sonora, differing only with its white rather than brown glumes.

The long black awns mark this cultivar. Durum Iraq is a tetraploid, free threshing pasta wheat. The attractive head draws the attention of weavers, straw artists, florists, and cooks alike.

German in name, this variety originated in prehistoric times from Southern Europe and was introduced to the U.S. before the 1900’s. Einkorn is a short, hulled wheat that requires dehulling after threshing to remove the glumes or hulls from the seed heads. This cultivar is known for its low-gluten content and high levels of protein, magnesium, phosphorous, vitamin B6, beta-carotene, and essential fatty acids compared to modern wheat varieties.

Originating in the Fertile Crescent, Emmer stands out as one of the first domesticated wheats. Historically, Emmer was grown in the United States for livestock feed. As a hulled wheat, additional processing is required after threshing.

Commercially known as Kamut, Khorasan likely made its way to the United States from Egypt in 1949. Kamut can be enjoyed as a cereal grain or in baked goods as a versatile flour. Kamut is also prized for its digestibility. Those that trademarked the Kamut brand state that some people with wheat sensitivities have reported no issues with this variety.

In 1865, this red chaff was discovered by M.G. Foisy in his field of white chaff in Oregon. Foisy is a historically west coast wheat cultivar and considered a soft white wheat. It is recommended to be planted in slower draining soils. The whole wheat flour can be used for bread, cookies, cakes, pastries, and breakfast cereals.
MAPARCHA

**ORIGIN:** Laghman, Afghanistan  
**Awn:** Awned  
**CLASSIFICATION:** Soft White Spring Wheat

A variety of poulard wheat, Maparcha is a heritage landrace originating from Afghanistan. This relative of durum can be high in amylopectin, a compound that imparts a sticky consistency. Stands can grow up to five feet in height.

METHOW

**ORIGIN:** Northern Canada  
**Awn:** Awned  
**CLASSIFICATION:** Hard Red Spring Wheat

Methow wheat originated in Canada over 100 years ago. Methow seed heads are broad, awned, and deep gold in color. This variety contains between 12.5-14% protein and has a slightly bitter flavor that makes it a good candidate for whole wheat baked goods.

PASAYTEN

**ORIGIN:** Unknown  
**Awn:** Awned  
**CLASSIFICATION:** Hard White Spring Wheat

Pasayten produces full seed heads, good for wheat berries or flour. Relatively high gluten and protein content makes this variety a good all-purpose whole wheat for baking. Pasayten is grown commercially only by Bluebird Grain Farms in Winthrop, Washington.

RED FIFE

**ORIGIN:** Historical Galicia, Eastern Europe  
**Awn:** Awnless  
**CLASSIFICATION:** Hard Red Spring Wheat

With hard, red, awnless seed heads, this wheat is easily milled for bread flour. Though there are conflicting stories about the origin of Red Fife, it is most likely that the variety was introduced to the U.S. from Ontario, Canada in the mid-1800’s. Red Fife is enjoying renewed popularity as a specialty grain and flour.

SONORA

**ORIGIN:** Northern Sonora, Mexico  
**Awn:** Awnless  
**CLASSIFICATION:** Soft White Spring Wheat

This bronze-tinged, awnless wheat is well-adapted to southern California and Arizona. Introduced in 1919 to the U.S., this variety has been grown in Sonora, Mexico for at least 150 years. It was an instrumental variety in the development of Borderlands cuisine, exemplified by the large white flour tortillas in the Southwest U.S. and Northern Mexico. It produces a light wheat that is especially good for tortillas, pastries and pastas.

STALDEN

**ORIGIN:** Switzerland  
**Awn:** Awned  
**CLASSIFICATION:** Soft White Spring Wheat

Little is recorded about this wheat variety, other than its origin in the Swiss municipality of the same name. A sample of this variety was first provided to the Sortengarten Erschmatt Institute in 1988. The seed bodies are narrow, pale golden, and awned.
**WIT WOLKERING**

**ORIGIN:** South Africa  
**AWN:** Awnless  
**CLASSIFICATION:** Soft White Spring Wheat

This landrace wheat from South Africa was first collected by the USDA in 1983. Wit Wolkering is sometimes called “white wooly” for the fine velvety hairs that cover the glumes. Dough made from this variety has a light bran color which is desirable for a range of whole wheat products.

**REFERENCES**


Every year team members of Mad Agriculture and our broader community make a pilgrimage to the Land Institute to join the frivolity and psychospiritual adventures of the new agrarian paradigm. We come to touch the hem of our guides. Without fail, our personal and collective consciousness was expanded like taffy, never to regain its original shape. We were blessed with the wisdom of Francesca Costella, Bill McKibben, Amory Lovins. The Land Band played songs and we danced in the barn. Life can’t get richer.

I participated in a Perennial Agriculture and Soil Carbon Workshop following the Prairie Festival. The company and conversation was fantastic. My faith in humanity is always restored in the company of the kind and loving. Yes, we talked about the power of perennial agriculture to solve climate change. We need more science to peg down the actual numbers... but that is just detail in service to the obvious: building agricultural systems like perennial ecosystems is a wholesale way of restoring and reimagining a rightful relationship to Earth and its kin.

Last, I met and visited Josh Svaty with James Farag, production manager for Patagonia Provisions. Josh grows Kernza, the first commercially available perennial grain, for Patagonia Provision Long Root Ale. The farm is situated in the Smoky Hills of Kansas. Beauty terrain. We are planning a throwdown at the Svaty International Headquarters ahead of Prairie Festival in 2020. Make the journey. (Sorry Josh, the party just got real).
Yet the cows stayed home
Greener pastures
Are already here
A man walked by
Right across my lawn
Good evening I said
And it was
Somewhere in the woods
The plains
The desert
A worm eats lunch
Good is happening
Sometimes we see it
Sometimes we don’t
If good happens in nature and no one is around...

Soaked in fake life and real death
Earth molting
Clear cuts and dead zones
Same same sameness
Riverbeds cemented over
Humans control Nature!
Almost there!
Cut that down!
The future is sterile!
Maximum dominance.
A sprout pokes out
From a concrete crack
Widened by snow
Started by moving earth
It grows taller
Towards the sun
Roots deeper and wider
Making fissures in the pavement
By now, the new is gone
Maintenance was too much
No longer could plants die
To keep the cement clean

Shade of tree
Smell of grass
Ants carry sticks
Such a simple joy

Good is happening
It never went away
We yelled and stomped
We turned our backs
We thought we scared it off
When it went around the corner
But good has other plans
And deep roots

Good is happening
It’s a sprout
A tree
A shaded stream

Lay quietly
Or sing with all your might
And you have found it
And let it free

Good is happening
The Wild is coming home

Tanner Starbard
For over a decade, Boulder County’s publicly owned agricultural lands have been fertile ground for an ideological battle. A group of concerned citizens rallied public interest and policy makers to ban the production of genetically modified corn and sugar beets and the use of neonicotinoid pesticides on county-owned land used for farming. The farmers affected by the ban disagree with the merit of the ban and the method of restriction. The story follows a common plot, with farmers saying: ‘don’t tell me what to do, particularly if you don’t really know what I do’, or ‘these technologies reduce my chemical usage and improve by resource efficiency and sustainability’ and ‘does anyone have some appreciation for how my family has stewarded this land for generations and helped create the open space program that we all value?’ Meanwhile, citizens supporting the ban want farmers to stop poisoning the land with chemical agriculture, which kills insects, toxins foods, soil and water, and has negatively affected members of our community.

Disagreements like these are not solved through the legislatation of moral positions. They are solved by love and empathy. This is not to say that those behind the ban lack those virtues. In fact, 1 (Phil Taylor) remember supporting the ban years ago because I was opposed to chemical agriculture. However, I’ve changed. I’ve changed the way I pursue change. And I’ve changed my perspective on the clarity of what is ‘good’ and what is ‘bad’ in agriculture. At Mad Ag, we’ve been exploring new ways to work together toward a higher vision despite significant differences, while not working against each other.

Our work on this issue started through our community work at Mad Agriculture, when we came to realize that this ban has been fracturing our agricultural community. Our work is re-organization, and regeneration in its fullest sense is healing the land, as well as our relationships to each other. So, we decided to spend time with the farmers affected by the ban to better understand their position, listening to their stories, and we learned a few things.

We learned that many of the farmers affected by the ban are 4th or 5th generation farmers. They survived, and at times thrived, on the land because of their ability to adapt and weather hard times, to know the land and work with it, to encourage plant growth and harvest. After generations of farming, many of these are farmers are the end of that line. The existential weight of ending an intergenerational commitment to stewardship is heavy. In the midst of these larger problems, taking GMOs and neonic off the table, feels like the final straw that would break the proverbial camel’s back, and cripple any hope of a profitable farm operation.

We learned that nobody has taken the time to sit, listen, and get to know their stories, successes, challenges, and more. We took the time. We’ve laughed and cried at times. We’re still getting to know their families, their stewardship and their vision for the land. Farmers have largely been forgotten as urban empires rise, forgetting their dependence on the land and farmers.

We learned that the land is a shared resource and the responsibility to adapt. Yet, most people don’t know the modern plight of the farmer or the strength and power of the industrial system. So, instead of compulsion, the farmer receives the blunt end of judgment.

So, we approached county officials after meeting with most of the affected tenant farmers to ask for a 2-year extension on the ban to create some breathing room for co-creating a solution. We got this approved. Those county hearings were tough. We felt stuck between two warring worlds, feeling very alone except a few friends that also believe in the power of operating in the gray. Being bold is often a lonely move.

Our primary impetus for action was the deeply held belief that living in community does not exclude our neighbors. We have to realize as a community that we all have a lot to learn together. We’re all on the same journey together to create a food system where the land and people thrive together. Wendell Berry, Wes Jackson and Terry Tempest Williams - our guides - often write about the power and importance of going home and being there in the mess of complicated differences. What does it look like to workout and live with differences? The danger of Boulder can be in its bubble and the righteousness therein. The challenge of going home is the deep work of being together without fighting tooth and nail toward a better future, which we will fail to achieve if we leave our neighbors behind and hurt.

It is easy to celebrate diversity in theory but crush it in practice. Intellectual progressives love building and fight tenaciously for our belief systems, defending them and enforcing them through legislation. This mode of action is however dangerously fastened to the idea that if everyone in the world believed what I do, the world would be a better place, which is the kernel of fundamentalism, and something to watch out for and eradicate for efforts of co-creation.

Mad Agriculture takes a different approach. We sit, listen and operate in the messy middle. Some call it the radical center. We resist easy categories of polarization: GMO vs organic, chemicals vs. no chemicals, good and bad. Almost all things are shades of gray. Moral issues are not turrets blasting each other, but the landscape itself. Yes, there are times for revolution and for hard lines in the sand, but these are rare, and the solution across the hard line still requires deeper human work of healing. Our work is actually tackling something much larger. This ban on GMOs and neonics is a microcosm of a much larger rift in society, one exemplified in the current battle between Republican and Democratic parties. Polarized. Intractable. Intransigent. Frustrating as hell.

It is relatively easy to use legislation as a means of creating the world we hope for, especially when it seems rare to have any control over the fate of the world and public good. Yes, regulations has its place, and the government is here to serve the needs of the public. However, strong arming legislation is usually short-lived and short-circuits the deeper work that is, and always will be, needed: the need to wrestle with the human relationships that define and sustain a community living in a place.

We believe that regeneration is a step toward healing your relationship to the land. Regeneration is a process, not a destination. Regeneration is available to all. Any step in the right direction is a good thing. Part of recognizing the good in every step is understanding what it means to live within unjust systems that are often hard to see and even more difficult to emerge from. We are all wrapped up in systems that we knowingly or unknowingly disagree with, systems that are suboptimal and full of contradictions. We are all complicit in things we fundamentally disagree with, but cannot shake, break out of, no matter how hard we try or how deep we disagree.

For example: Do you believe that climate change is one of the largest problems we face, yet you drove a car that runs on fossil fuels. Or, are you adamantly opposed against open pit mining and slave labor, yet use a cell phone made of precious metals? Are you adamantly opposed to pesticides, yet drink beer? There is only one organic brewery in Colorado. All other breweries depend on barley grown with synthetic inputs and biocides. Are you adamantly opposed to pesticides, yet wear clothes? Have you asked where they have come from, and what they have demanded from people and the earth, from the dyes, the pesticides used for cotton, the 87 million children used to make them?

This are tough questions to live, and even harder to solve. It is hard to exit unjust systems, let alone see them. But we must try. Yes, we understand the desire for local citizens to fight for their ideals on Boulder County Open Space. Yet, it’s im-
important to realize our own place within systems we live and move in, as it generates compassion for the gravity of the situation and the greatness of the challenge. It gets us a little closer to understanding what it might be like to be in their shoes, which is almost to understand. But with empathy, it becomes clear that to turn our backs on 4th or 5th generation farmers, not matter who they are or what they do, is unacceptable.

In the systems above, stopping fossil fuel tomorrow would cause economic collapse. Chemicals, herbicides and GM, are part of an alternative agricultural economy that is made robust through loans, insurance, equipment, community, culture and more. To take away GM crops and herbicides is like taking away the plow from organic farmers. Changing systems takes time, strategy, resources, community and patience. In the European Union, when neonicotinoids were banned, the amount of public and private investment to help farmers develop new farming strategies was tremendous. We've done little in comparison. This ban came with no plan. For activist citizens, getting the ban approved should have been the beginning of the work, not the end.

We all have lots of work to do to become truly regenerative. Consider another lens of truth. All agriculture, even modern organic agriculture, which many hail as pinnacle of food production and land stewardship, would be vilified by the native people here before us. If the Arapahoe or Ute people were still on this county land with us, they would ask us to stop ripping the breast of Mother Earth. That is, to stop tilling the soil. The prairies are gone and the bison too. What would happen to our organic growers that rely on tillage to manage weeds? How long would it take organic growers to discover a chemical-free, perennial and no-till basis for growing food? More than 3 years for sure, and probably decades. But the Arapahoe are not on this land, and are not able to evaluate our modern forms of agriculture and hold us to another standard that is equally true.

This perspective is a reminder that some morals are malleable and prevent the repetition of folly that comes with self-righteousness and clarifies that we are all operating in shades of gray. At Mad Agriculture, our vision is to live in a world where we don’t use chemicals to kill things, and we don’t use the plow to break the soil and kill the health biomes ecosystems.

All agriculture needs improvement.

We need to live and tell a new story of agriculture in which farmers and eaters come together to take back control of the food system. Eaters must first hear Wendell Berry’s wisdom that the way we eat influences the world we live in and follow that inspiration to make informed food purchases for nutrition and ecological well-being. As eaters demand better production from farmers, let’s put some effort in on our end, too, with our gardens, our wallets, and our appreciation. As farmers, the proposition to relinquish some control in favor of opportunity involves imagination and courage.

Farmers must step up and consider the ends and means of how and what they grow by asking what does the land want to be and what do I want to feed myself, my family, and my world? The money must follow the mission: optimize for the right nutritional yield and allow nature to contribute her gifts.

Grow food for life. Eat for life.

As a society we are only beginning to imagine what the food system of our future looks like and how to raise those crops, without a clear blue print for the way forward. We don’t have all the answers but we have the tools and principles to find them. The methods are many, principles are few; grow for human nutrition, adapt your business to your context, optimize the creation of financial and ecological wealth, take on changes in market and production strategically, and plan for practice.

The wisdom of our elders and ancestors, the progress of science and technology, the support of community, and the songs of our places will guide the way. Mad Agriculture doesn’t have all the answers, nor do we try to have all the answers. Our work is in pursuit of a collective liberation into something greater.

We are reminded of the wisdom of Lila Watson, an Aboriginal rights activist from Queensland, Australia in the 1990s, “If you have come to help me you are wasting your time. But if you have come because your liberation is bound up with mine, then let us work together.” Let’s get to work together because our destinies are shared, and our fates depend upon each other.

FURTHER TOGETHER

Max Neumeyer

An Update on the Colorado Collaborative for Healthy Soils

"If you want to go fast, go alone. If you want to go far, go together." So goes a famous proverb that has informed Mad Agriculture’s policy work this year. In early June, Mad Ag teamed up with National Young Farmers Coalition and Helen Silver, a Denver-based consultant and attorney, to launch a bottom-up effort to promote healthy soils. At first, the idea was to form a coalition of a few like-minded partners with the goal of introducing a healthy soils bill in time for the 2020 legislative session. Stay small, go fast.

Remarkable turnout at our first meeting changed these plans... for the better! Instead of the fifteen or so participants that were expected, more than thirty people showed up. Representatives from producer groups such as Colorado Cattlemen’s Association, Colorado Farm Bureau, Rocky Mountain Farmers Union, and Colorado Corn were there. So were leading researchers from NRES, CSU, the Soil Health Institute and a host of people from environmental organizations and local government.

Commissioner Kate Greenberg was also there and encouraged the group to “keep showing up in rooms with people you’re not usually in the same room with”.

The range of people in the same room was an affirmation that there is strong interest to work together on soil health. However, another message was also clear: soil health is too important to rush. Better to take our time and get all the right people in the room before deciding what to do. With this in mind, we spent July reaching out to producers and producer groups across the state. The result was extraordinary. More than 70 people showed up or called in to our second meeting; more than 130 have joined our Google group. The Colorado Collaborative for Healthy Soils was born.

At our second meeting, we heard from Cindy Lair about new soil health programming at the Colorado Department of Agriculture, from the national Soil Health Partnership, and from CSU about their efforts across the state. Most importantly, we asked the group to brainstorm goals for the Collaborative and discussed the core values that will undergird our work together. There was widespread agreement that we should slow things down, listen more than we talk, and build a forum for discussing the best ideas for soil health.

As a Collaborative, we are committed to be producer-centered, science-based, participatory, action-oriented, and to pursue solutions that are voluntary and incentive-based. Over the next year, the Collaborative will hold listening sessions across the state in order to give input to CDA on their proposal for a Soil Health Program. We will also work together to ensure that this new program, and other soil health activities across the state, get the funding they need to be successful. Most importantly, we will continue to be a forum for Collaborative members to learn from each other. Beyond these short-term goals, we don’t know exactly what will come out of this new group; that will be for the Collaborative to decide. We do know that we are stronger together. And, now that we are together, we’re excited to see just how far we can go.

If you are a producer (part or full-time farmer or rancher) or represent producers in your work, we’d love to have you join the Collaborative! Please reach out to Max at soilhealthcollab@gmail.com if you’re interested in learning more.
Loam is a constellation of creatives who strive to support one another as we find our footing in the midst of climate crisis. Our community is passionate about seeding regeneration and resilience through our print publications, in-person workshops, and podcasts.

Loam emerged from my hunger for activist spaces that value beauty and softness and slowness. Although I have been head-over-heels in love with nature for as long as I can remember—my most cherished childhood memories are nestled in palmfuls of sweet-smelling garden soil and the strong arms of oak trees—I struggled to find activist communities that spoke to my sense of relationality. In collaboration with a growing crew of artists, activists, and educators, I continue to work hard to transform Loam into a vivacious and vibrant home for cultivating environmental activist practices that are as deeply rooted in the senses as in the sciences. In this era of systems collapse and social injustice, my dream is for Loam to be the entrypoint of many into regenerative living. I want our community to feel held by Loam in the heart of deep grief and supported in their pursuit of a better world.

Our work is imperfect and we’re always navigating learning curves in how to create inspiring communications, cultivate sustainable community, and seed regeneration. To be in this work with such a committed crew of movers and makers from across the country, however, is a sublime gift. I feel so lucky to tend to this movement and to listen to and learn from our community.

A big dream that has blossomed from listening to our community is for Loam Home. Loam has been facilitating workshops on regenerative living, resilience, and permaculture in practice for nearly 4 years. After our workshops, many participants would share with me their hunger for an in-person space that they could turn to for resources on regenerative living. It wasn’t until a dreamy retreat in Salida during April of this year, however, that these conversations crystallized into Loam Home—an emerging community center and creative co-working space in Boulder, CO that connects artists, educators, activists, and entrepreneurs to immersive experiences and skills sharing in support of climate regeneration.

Loam Home is a wild vision and bringing it into the world feels very vital and very vulnerable. But when I lean into my sadness for what we are doing to our world—and to ourselves—Loam Home emerges as a powerful antidote to inaction and apathy. More and more, we need in-person spaces to help us adapt, heal, and co-create in the heart of climate chaos. Our intention is for Loam Home to model possibility in a shifting ecological, cultural, and social landscape that has left many of us mired in grief. How can we create a space that is nourishing for—and nourished by—our community? How can we braid in regenerative practices and perspectives into the fabric of our work? These are the questions that are guiding the creation of Loam Home. Reweaving connectivity in an era of polarization and digital isolation is truly vital to reconnecting us to our earth and to one another.

At Loam Home, we believe that cultivating regeneration in live the little things: a kitchen container garden brimming with herbs to fortify our immune systems, a community cooking class that connects us to strategies for slashing food waste, a forum on political activism, a jam session that nourishes new relationships. Although we recognize that creating space to tend to gardens, share resources, and learn skills can feel small, our daily decisions to show up for our social and ecological kin truly can create concentric circles of impact.

Our current climate crisis is asking us to radically reimagine our economies and ecologies, and with Loam Home, we hope to offer a warm and welcoming environment to dream into being a regenerative future.

To join us, you can follow our work @loamlove our reach out to us at loamlove.com. Loam Home is a true co-creation and we want you to trust that you are a cherished part of this vision.
Connection. A source of emotional, physical and spiritual sustenance. Without connection to our family, or to a good friend, or to the food we put into our bodies, or connection to our own feelings, we drift off into the unknown with unsettled nerves and possibly no clear view in sight of where we should be headed. “Connection” is part of Mad Agriculture’s DNA. The food system has been dehumanized through the commoditization of food. We must rediscover connection within ourselves, each other and the natural world.

In a recent strategic planning process, we took a step back and deeply reflected on the organization’s goals and vision. Through appreciative inquiry, the act of exploring one’s strengths and unique contributions, we clarified even further what it means to be “MAD” and what our unique contribution is to the broader “regenerative movement”, and how human connection is the strongest and most sure way to create change together.

We also asked, what are the roles that give us great joy to play, create and work with freedom? We are connectors, bridge builders, story tellers, systems thinkers, non-judgmental learners, and deep listeners. We give rise to connection instead of isolation, imagination and courage instead of doom and despair, common ground instead of division, inspiration and innovation instead of stagnation, and soulful rigor instead of stress filled work.

Mad Agriculture’s Community Forum has been one of the major ways we live in connection with this place and people living here. As Mad Agriculture continues to evolve and mature, we are also reimagining our community forums. The forum has been a wonderful venue for connection, co-learning, collective action.

We are restructuring how we will run the community forums. From now on, we will be hosting one or two equinox and solstice celebrations with a few content and collaboration driven forum events in between. Moving away from monthly forums into this new adapted structure allows us to remain tuned into the community and also meet the needs of our new commitments and growth in the farm planning realm. It also gives us the flexibility to offer more focused workshops on an as-need basis.

We appreciate those of you who have attended our past monthly events and look forward to seeing you at future forums. Stay tuned for announcements about forum dates and other events at which you can catch us! Thank you to all of our partners, sponsors, and staunch supporters who have been an integral part of the community farm forums for the past 2 years.

Sarah Meade
FELLOWSHIP PROGRAM

Mad Agriculture’s vision to reimagine and restore the relationship between people and the planet involves everyone: farmers, story tellers, financiers, planners, policy makers, food brands, and anyone that eats food or wears clothes. Our fellowship program exists to cultivate the skills, stories, and networks that propel fellows into the professional world and share in the work of regenerating our food and ecosystems. As Mad Ag fellows, this group brought their gifts to the movement and became a vibrant part of our community of change.

Jane Cavagnero ——— Farm Design & Planning Fellow

Jane Cavagnero strives to bring the stories of our agricultural community to the fore. Her background in food spans the nonprofit, start-up, service and agricultural industries. Jane is currently finishing a masters degree in Sustainable Food Systems from the Master of the Environment Program at CU Boulder; she also holds a bachelor’s degree in International Political Economy from Colorado College and a Certificate in Graphic Design.

Daisy Debelle ——— Community & Media Fellow

As a Ph.D. researcher I have studied on natural and cultural Heritage in France and China. As a consultant I have defined brand strategies to help some cities and tech companies tell their story. Today, especially since I have become a mom, I want to help them build a more sustainable world supported by carbon farming and regenerative agriculture.

Brian De Corte ——— Farm Design & Planning Fellow

Brian De Corte is a Sustainable Food Systems master’s student at CU Boulder. Through roles as a farmer, farm planner, and consultant, Brian is dedicated to improving the economic and ecological health of agriculture. Brian has enjoyed facilitating new conversations between farmers, community members, and government agencies throughout various projects as a fellow at Mad Agriculture.

Sarah Meade ——— Community Fellow

Sarah Meade is a burgeoning professional facilitator and recent CU Masters graduate from Santa Fe, New Mexico. She has a passion for process design and facilitation for such activities as strategic planning, team building and collaborative decision-making, which help organizations work smarter and from a place of genuine authenticity. In her fellowship with Mad Agriculture, she designed and facilitated a strategic planning process to determine organizational needs, address challenges and clarify organization narrative.

Meri Lillia Mullins ——— Farm Design & Planning Fellow

Meri Lillia Mullins is a first generation farmer in the foothills of Colorado where she manages a 43 acre diversified livestock farm. With various roles in the community she strives to build resilience in our food system through the promotion of soil health practices. In her fellowship she has found joy in building relationships with farmers through our farm planning process and bringing their stories into Mad’s federal and state soil health policy work.

Garrett Stoll ——— Carbon Economy Fellow

Garrett is a Carbon Economy fellow and graduate student at the University of Colorado, Boulder. His work with Mad Ag has centered around unlocking capital to enable regeneration at the farm level. Garrett’s current project is focused on the potential for market forces to recapture some of the externalized harms inherent to our contemporary ag system.
We have a new series of Perennial truckers out! The graph on the patch represents the 50-year Farm Bill put forward by Fred Kurtschmann, Wendell Berry and Wes Jackson. If you haven't read it, please do. You can find a copy of the radical bill that calls for a perennialization of agriculture on The Land Institute’s website. The denim for this hat is from Huston Textiles. Check out this and our line of medicine hats on our website to be part of the regenerative textile emergence.

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We thank everyone that has contributed to Mad Agriculture. Your support has given us wings to fly. Mad Ag is in startup phase and we’re actively raising funds to hire and support staff and programming. If you are interested in making a contribution, please reach out to Philip Taylor (philip@madagriculture.org)
This issue is dedicated to Rich Pecoraro of MASA Seed Foundation. We thank you for your wisdom, light and love of seeds.

Jane Cavagnero

RICH PECORARO