The Natural Farmer

Spring, 2022 Vol. 2, No. 132 The Journal of the Northeast Organic Farming Association ISSN 1077-2294

The Farmer's Voice in the Climate Crisis:

How Climate Challenges Expose the Need for Regenerative Agriculture

By Kathleen Ernsting

It goes without saying that agriculture in the Northeast is being affected by climate change, and Massachusetts farmers are no exception. From more frequent and extreme storms to changing weather patterns and warmer winters, these events and their compounding effects combine to make it increasingly difficult to make a living as a farmer.

Seemingly, the farms most affected by changes in climate are those that are starting out with poor soil quality or those that are growing in a location that is susceptible to storm damage. Take Sawyer Farm, for example–a diverse horse-powered farm where Lincoln Fishman and a small team have found a niche growing specialized storage vegetables, like carrots and beets, while maintaining pasture and cutting hay for their horses.

Located in the hills in Hampshire County, Sawyer Farm's land has been subject to some dramatic changes due to recent weather. In two of the past four seasons, late-season rains (the tail end of hurricanes) have turned the soil to mud starting in early September, leading to poor size-up and rot, which led to an estimated loss of 90% of root crops in 2021, and a 70% loss in 2019, valued at about $15,000 in potential sales. Because of the hilly location, heavy rain events caused visible topsoil and nutrient loss due to runoff and erosion, especially in areas of exposed soil. Knowing that over time this can lead to dramatically decreased soil fertility, Lincoln has almost entirely transitioned to no-till techniques to try to maintain the health of the soil. In a no-till system, soil is never bare and has a greater capacity to withstand storms and absorb rainwater.

Noah Courser-Kellerman and his wife Sophie had a parallel experience–they grow vegetables and grains and raise pastured beef at Alprilla Farm in coastal Essex, Massachusetts. Noah says, "In working a marginal soil type–heavy silt loam with glacial marine clay subsoil–we have to think about soil aggregation and avoiding compaction very, very carefully."

Alprilla Farm is also uniquely positioned to see the benefit of maintaining soil structure and high organic matter because their soil type is so easily depleted. After the 2016 drought exposed just how fragile their operation could be, they also reduced tillage and started mulching to keep the soil covered. They reworked crop rotations in order to make planting into untilled ground work for their crops, began tarping for winter weed management (another new issue due to climate change–winter weeds), and have learned to minimally disturb land to keep the soil structure intact. These changes in practices have not only created a safety buffer for their soil in times of drought, but they've found that leaving clay-based soil undisturbed when it's wet has made things physically easier on them and their working oxen team during heavy rain events as well.

Lincoln Fishman, Sawyer Farm. Photo courtesy CISA.

Despite good land stewardship and a community willing to pay a premium to support good practices, it's a possibility that growing food will soon no longer be viable for growers in the most susceptible locations. Lincoln acknowledges that long-term, vegetable-growing areas are shrinking, and the land he is on might be best used for haying in the future. He considers that environmental costs may outweigh the benefits if he continues efforts to modify the operation for better vegetable growing. Noah and Sophie actually have plans to relocate their farm next season due in part to the threat of rising sea levels and increasing environmental and financial challenges to growing food in Essex. As viable farmland becomes more precious, it makes sense that farmers on traditionally sought-after farmland, like Dan Pratt of Astarte Farm in the Pioneer Valley of Massachusetts, have identified their own need to foster a strong farm ecosystem to remain resilient to threats from the ever-changing climate.

Over the past twenty years, Dan has seen how even nice loamy soil has become depleted by generations of damaging cultivation techniques. He noticed a flatline in organic matter and decreased structural integrity. Since then, he and his team have gone out of their way to protect the ecosystem on their small farm; avoiding biocidal sprays, reducing tillage, and increasing organic matter in the soil, which has been enough to see dramatic differences in soil health and higher quality crops. They have experimented with beetle banks and predator/pollinator habitat programs. Even so, Astarte isn't immune to damage from storms and heavy rainfall. This season 50-70% of their squash crop was lost due to Phytophthora, a fungal disease that thrives in wet soil. (This disease can remain in the soil for up to 20 years!) To avoid spraying damaging fungicide, they tried a mustard cover-crop remediation method. Neighboring conventional farms seemed to have far worse crop loss and standing water than Astarte did this season, proof that the work Dan and the team does to maintain the local ecosystem and soil health is paying off.

In addition to an increased frequency of moisture-related diseases, Massachusetts farmers have seen a wide variety of climate-related issues on their operations. There are new pest species to consider, increased weed pressure due to warmer winters, wild temperature fluctuation that can ruin a whole season for a crop (you may recall the peach losses in 2017), or rain that doesn't stop for long enough to make hay. Most growers build some room for failure in their business plans; potential losses come with the territory. But with greater environmental threats and more climate uncertainty, tight margins in an agricultural business become even slimmer. Noah notes that he and Sophie have structured their business to have a very small number of employees in order not to extend risk beyond themselves, knowing that they cannot revoke wages if a season doesn't go as planned.

While many of these issues seem impossible to plan for, some aspects built into a farm can inherently provide protection. Julie Rawson, farmer at Many Hands Organic Farm in Barre, Massachusetts, talks about how planting perennial trees and windbreaks provide protection against storms, fosters biodiversity and keeps farmland flourishing. Growing up farming in Illinois, where large farms have depleted the soil with chemicals and there aren't naturally sheltering trees and hills, she considers the Northeast to have some fortunate conditions– if not the best soil. As others have concluded, Julie also emphasizes the necessity for vegetable farmers to keep soil covered to keep it porous and healthy, saying that growing more perennials actually makes that job easier. On her well-established farm, there are 100 fruit trees with a complex intercropping system

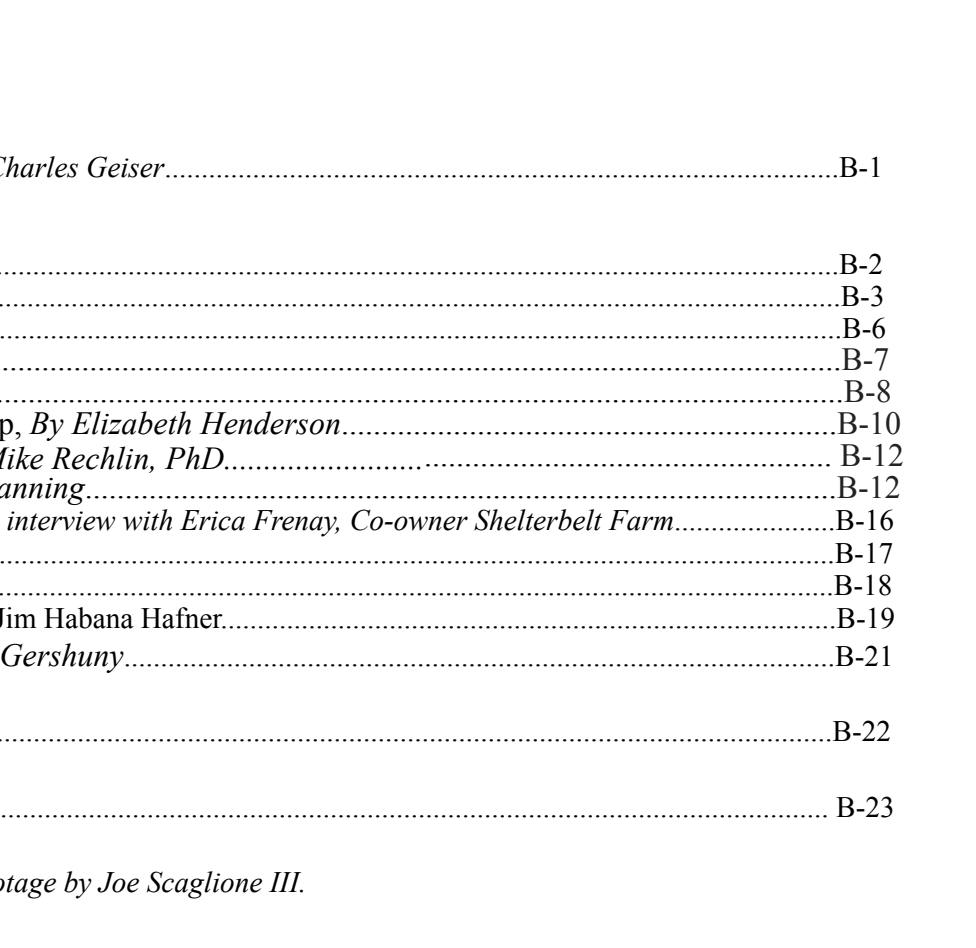
(continued on A-6)

Noah Courser-Kellerman. Photo credit Paul Cary Goldberg

Julie Rawson. Photo credit Julie Rawson.

In This Issue

Cover Photo Credit: *Shelterbelt Farm, Brooktondale, NY. Photo credit: Drone footage by Joe Scaglione III.*



A Note from The Editor

Well before I dedicated my career to beginning farmer training and advocacy and knew the challenges beginning farmers face with land access, private property perplexed me. When I was a kid we used to play hide and seek and make shelters in an unexpected patch of woods in my suburban neighborhood. It was only an acre or two large but felt wild and distant from the homes that surrounded it. Then, one day, we weren't allowed there. "No trespassing" signs and caution tape appeared and soon enough, the trees were gone and foundations were being built. That feeling of loss hung over my brother, my friends and me. Eventually, I would study and visit ecovillages and communities that were trying to live, own and manage land collectively. Sadly, most of the residents in these places expressed an underlying dysfunction for how well everything was working out.

When I moved back to the Finger Lakes after having left for college and years after, it was to be with my partner Steve and to hopefully start a farm. Steve and I assumed it would be hard to buy affordable land in an area we wanted to live in - and this was before we were as acutely aware of the privileges we experience as middle-class, English-speaking white people. Over the course of a decade, Steve had put his heart and sweat into at least four pieces of land - with the promise from the landowner that they would hand it off to him in some form or another, for a good price - each of these too-good-to-be-true scenarios shattering one after another.

So, we decided to try to rely on word of mouth and neighborly relations. We knew the general area we wanted to live in, we found a house to rent there and started a neighborhood monthly potluck group. It started by inviting the four people we knew to our house for dinner and encouraged them to invite anybody they considered a neighbor - in this rural context, that meant anybody within a 10-miles radius or so. Thirty people of all ages joined us at that first potluck in 2010 where we shared good food and discussed desires people had for the group. It was decided we would maintain an ongoing list of tools people had to share, start an email listserv and rotate whose house we would eat at every second Sunday of the month. Through that group, we met a couple in their 60s who had recently bought 40-acres of land nearby but only wanted 5 or 10 and they were interested in selling us some. We spent two years getting to know them (we were cautious after Steve's experiences), and in 2012 agreed to lease-to-own 10 acres from them (at first we agreed on 6, but a minimum of 7 acres is required to qualify for ag tax exemption - something we hoped to receive - so we adjusted). They gave us a low-interest loan rate and this arrangement not only meant we could avoid a bank mortgage, but also start observing and working with the land immediately - well before we could pay off the entire cost.

At first, we took soil tests, mapped grass types, laid contour lines, and took notes about the scat and bird species we'd see. But over the years, as we've settled more and expanded our relationship with this place and being land "owners" - a word I no longer feel comfortable using - we've tried to learn about this land's history, the impact of colonization here in central New York and its implication on agriculture as we know it today, about the excessive privilege we experience/d to have what we do today, and about the "great land robbery" that Black families experienced for generations and still face today. We are in process of this work and are constantly trying to learn, reexamine and broaden our ethics to be more than ecologically oriented.

Reexamining a Land Ethic

Organic farmers are grounded by ethics. We value clean water, air and soil. We believe in providing the healthiest food for others. We care for the environment. We make choices on our farms all the time that are driven by these values and shaped by our ethics. For many, our ethics have been guided over the years by mentors, formative authors and teachers. Aldo Leopold was one of these people for me. A Sand County Almanac is one of those books on the shelf with a tattered cover because it's been referenced so many times. You may recall, Aldo ends the book by describing a land ethic. "All ethics," he writes, "… rest upon a single premise: that the individual is a member of a community of interdependent parts." He continues, "The land ethic simply enlarges the boundaries of the community to include soils, waters, plants and animals, or collectively: the land. [A land ethic] implies respect for his fellow-members, and also respect for the community as such."

As farmers, land is at the backbone of our work. Ideally, we develop a deep relationship with the land and the more intimately we know, observe and respect the land, the more successful we are as farmers. At the same time, while the issues of how land is acquired, held in ownership, operated, or rented have always been a matter of national interest because farmland access and tenure have economic, cultural, aesthetic, and quality-of-life impacts on entire communities, as a privileged white person who obtained land tenure somewhat easily, I hadn't given these issues deep thought.

Multiple challenges exist for farmland access and farmland preservation. Farmland throughout the country is threatened by development pressures. The aging demographic of the majority of US farmers compared to the small percentage of young people entering farming is a further threat. This means there are fewer farmers to steward the land that remains. Meanwhile, the cost of land continues to increase. In just eight years (2000–2008), U.S. farmland values more than doubled. Not surprisingly, in 2017, the National Young Farmer Survey found that land access is the number one challenge that young farmers face.

Land also can be at the root of racial equity, food sovereignty, economic prosperity, health and wellbeing, and the climate crisis. The well-known words of Malcolm X come to mind: "Revolution is based on land. Land is the basis of all independence. Land is the basis of freedom, justice, and equality." It's imperative that farmers consider the intersection of all these issues as we uphold our ethics.

Land ownership has a deep connection to policy and power demonstrated by our country's horrific history of genocide, land theft from Native Americans and slavery of Black Africans. Land tenure determines who has resources and the opportunity to succeed in agriculture, yet land ownership and access in this country are vastly unequal. 98 percent of Black agricultural landowners in America were dispossessed of their deeds. This group of landowners lost 12 million acres over the past century, most since the 1950s. Native Americans own even less than that. Today, 98% of all farmland and 95% of all farms are owned by white people. This shift in ownership is the deliberate result of both past legacy and ongoing practice of policies, laws, and violence that have dispossessed Black, Indigenous, and other People of Color of land.

(continued on A-6)

Welcome to TNF's New Advisory Committee

When I took on the role as Editor of TNF last April, I knew I needed to form a Committee to, among other things, help guide the paper's decision-making processes, develop editorial guidelines, expand our ways of promoting equity and racial justice and broaden our reach. NOFA's Interstate Council approved TNF's 2022 budget, which included a compensated Advisory Committee for the first time. Committee positions were promoted through State Chapter newsletterss, social media, word of mouth and every listserv I could find. To my surprise, more than 35 people applied. I had short meetings with most people and every single person was inspiring and would bring something to this Committee and to TNF. While my initial intention was to launch this first Committee cohort with just 5 people, it became clear that most of the key elements I want for this Committee to have were clearly present in the applicant pool (varying farming experience; diversity in lived experience, identity and age; NOFA state representation; experience with equity, editing and communications; a range of backgrounds in topics related to agriculture). So, we are launching with a 10-person Committee and will expand as we decide to do so as a team. I'm excited to introduce the Committee members to you here and look forward to getting to know them and integrating their experience and ideas into TNF.

Interested in joining the Commtitee? We accept rolling applications and will fill members seats as they open. Visit **thenaturalfarmer.org***/ for more info.*

Angela Highsmith (she/her), MA, has practiced herbalism for over 20 years and is in the process of getting her Permaculture Design Certificate. She loves to cultivate weeds, forage and use what's naturally growing around her for food, medicine and crafts.

Elissa Johnson (she/her), is a rooftop farmer, elder-caregiver, wildcrafter, and educator currently living in upstate New York. She has lived and worked in three NOFA states and is passionate about community building, queer ecology, and climate resilience in our food system.

Richard Robinson, (he/him) is a full-time vegetable and Christmas tree farmer at Hopestill Farm and part-time science writer, from Sherborn, MA. He has helped edit TNF for more than a year.

Bobcat Bonagura (he/him), is a farmer, musician, educator, new father, and more. He is a co-owner of Main Street Farms, a diversified organic vegetable and hemp farm in Cortland, NY. Bobcat recently served 3 years on the NOFA-NY board of directors and serves on the education committee.

Holli Cederholm (she/her), first apprenticed on an organic farm in 2005 and has since immersed herself in organic agriculture as a farmer, advocate and writer. She is the editor of The Maine Organic Farmer & Gardener, the quarterly publication of the Maine Organic Farmers and Gardeners Association (MOFGA), and resides in rural Maine.

Xóchitl Ahtziri is from the Nutmeg state where she grows organic fruits, vegetables, and flowers for a non-profit in New Haven. She loves agriculture because she can both spiritually connect to her indigenous ancestors and provide sustenance to neighborhoods that have limited access to healthy produce.

Christa Núñez (she/her), NY, is the founder and Director of CAN Cooperative Media, the Learning Farm, and Khuba International. She has over 20 years of filmmaking and storytelling experience, as well as 12-years of experience in nature, farm and garden-based, equity-focused education. Through her organizations, as well as with community organizations such as Black Farmers United, Christa prioritizes increasing equitable access to food, land, and nature for displaced youth and families and to sharing stories that center BIPOC people in dignity-affirming ways.

Leila Rezvani, they/them, is a farmworker and aspiring seed grower currently based in western Mass, Pocumtuc and Nipmuc land. They are excited about agrobiodiversity, farmworker organizing, queer- and POC-centered agricultural projects, building a regional open-pollinated seed system, and seed rematriation. They are thrilled to serve on TNF's advisory committee and learn from other folks who love working with land, plants, soil and community.

Chris Travis, is a Soil and Water Conservation District Technician in Onondaga County, NY. He is a graduate of SUNY ESF with a BS in Plant Biology and a Masters in Evironmental Management. This season he and his wife are running a cut-flower production for the first time! Chris is an African-American Male, pronouns are he/him.

Elizabeth Henderson farmed at Peacework Farm in Wayne County, New York, producing organically grown vegetables for one of the first CSAs in the country. She co-chairs the NOFA-IC Policy Committee, and represents NOFA on the Board of the Agricultural Justice Project and as the delegate to IFOAM-OI. She serves as Honorary President of Urgenci, the International CSA Network.

Sarah Norton (not pictured) is a Vermont farmer and was the NOFA-VT Director from 1979 -1984. She was a founding member of NOFA and continues to be involved today.

Letters to the Editor

Dear TNF,

In the "Letters to the Editor" section of recent editions of "The Natural Farmer" there has been discussion regarding methane emissions from ruminant livestock. Unfortunately, when the general public hears about methane emissions from ruminants there usually is no distinction between livestock which are grown and finished on pasture supplemented with hay and silage made from perennial forages as compared to ruminants finished in feedlots. Regarding methane emissions and overall environmental impact there's a big difference between those two systems.

In "Just Have A Think," Regenerative Agriculture Part 2, David Borlace summarizes the work of Australian soil microbiologist and climate scientist Walter Jehne regarding the science of methane release from grazing livestock and its subsequent capture and transformation into water and carbon dioxide by hydroxyl ions which are released above healthy pastures. Jehne's work regarding agriculture, climate change and how to mitigate it provide a basket of strategies to cool our planet.

Just Have a Think Video: https://bit.ly/35bh956

Carl Albers
Bath, NY

Dear Carl,

Thank you for sharing this resource. You're right, there's a significant difference in the systems you're referring to. The upcoming TNF Summer Issue theme is "livestock and wildlife" and I strongly encourage farmers, scientists and readers to share their experience and research on this topic.

Elizabeth, TNF Editor

Dear Elizabeth,

Your reprint of Dr. Kimmerer's essay was a superb decision for the lead. Kudos for that decision.

As a long-time NOFA-NH member (and past board member and winter conference chair and presenter), orchardist, and gardener, stewarding both permacultured land and acres of forest, I am deeply invested in learning more about the wisdom of plants. This edition is spot on.

I earn my living as a writer, so imagine my delight when this edition of TNF showed up with such a beautifully written, often poetic, lead article. Thank you!

Happy 2022. May you be well,

Mario Capozzoli

Dear Mario,

The encouragement and gratitude is very much appreciated. I know NOFA members and TNF readers have a deep love for the land. Dr. Kimmerer's widsom reminds me, and I hoped us, to extend this love to the land past and our ancestors as well. I think this is important for us as land stewards and community members.

Elizabeth, TNF Editor

Dear TNF,

I am writing out of curiosity about an article in the Winter Edition of the Natural Farmer: "A Forest(er) Farmer's Long Journey with Silvopasturing." I worry that if silvopasturing becomes widely adopted it might have long-term negative consequences on our forests. I currently manage our family woodlot that is an even-age stand of mixed species - mostly maple. We have photos of it from 1925 that show a park-like woods with just some big sugar maples standing because it was pastured until 1958 when the dairy cows were sold. It has taken sixty years for it to recover from that park-like ecology and back to a young, but functioning woods. I'm concerned that pasturing our forests will create an unhealthy forest eco-system that doesn't keep regeneration in mind or the mycorrhizal underpinning that we hear so much about today. Ruminants were never an historical part of northeastern forests as far as I know and so could be viewed as invasives. Could you solicit an alternative view to this article?

Doug Reaves
Fairfax, VT

Hi Doug,

Elizabeth at TNF shared your email in hopes that I could provide an initial reply since I wrote the artcile you reference. I've also copied in silvopasture colleague Steve Gabriel who may have some additional insights.

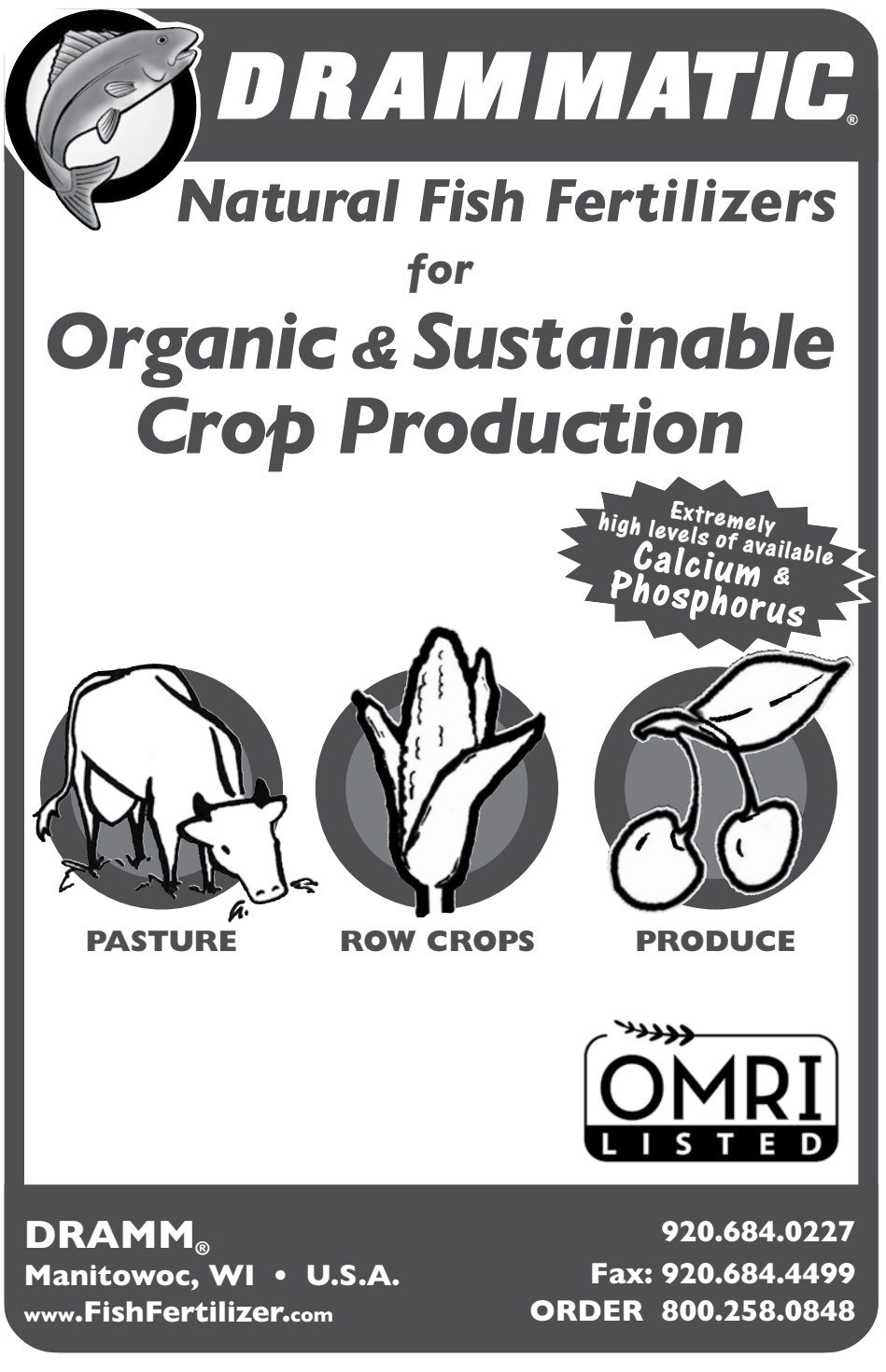
You bring up some valid points which would be good topics for future articles. When opportunity allows, Steve & I strive to point out how silvopasture differs from "woodland grazing" of the past – and how when done correctly can minimize or eliminate the potential negative impacts commonly associated with "livestock in the woods".

Additionally, I'll add:

- *Whenever I have the opportunity to speak with live audience, I normally start the presentation with the caveat that silvopasture isn't for everyone and every woods. The emphasis is on targeting degraded farm woodlands that could be gradually improved over time through skillful and well-managed silvopasture.*
- *Every good grazing operation is going to be a bit different, but on our farm we're only grazing the silvopasture acreage for a total of < 10 days/year (a few rotations/year x a day or two per rotation). And of course, always being mindful of ground conditions and other variables like sap flow & bark tightness to minimize unintended impacts to the soil and plants.*
- *Whether we like it or not, ruminants (white tail deer) are already having a major impact on our forests across the Northeast. On the forestry side of things, we're coming up with some solutions to counter this:* **slashwall.info.** *But in the case of our farm, silvopasture has been the most practical tool to rehabilitate our woods from the combined effects of decades of selective deer browsing and encroachment by problematic, non-palatable plants.*

Brett Chedzoy
Sr. Resource Educator
Ag and Natural Resources,
CCE-Schuyler County
bjc226@cornell.edu

☼



(Climate Crises - continued from A-1)

that incorporates meat birds as well as vegetables. She uses methods like sap analysis to treat crops typically susceptible to pests via fertility, with much success. She feels caring for diversity and wildlife supports a farm ecosystem, and trees go even further, contributing to the health of the earth and influencing weather for the entire planet.

The opinion of most NOFA farmers experiencing the effects of climate change is that taking care to protect soil health and the ecosystem for the future is priority number one for a sustainable farm business. But it's also clear that most farmers making the switch to regenerative practices like no-till and beyond are doing so of their own volition. Lincoln pointed out, he chose to change practices on his farm for the long-term benefit of preventing erosion and improving soil health, but he knows that in the short-term, those fields would have grown crops for more years even while eroding. In shifting to more environmentally-conscious systems like no-till drilling, heavy mulching, and undersowing, a lot has to change on a farm. There is increased labor, risk, and financial burden; all costs which fall on the farmer.

As Julie says, the economics of farming are the hardest part. "We aren't set up in this country to do things the right way. We have subsidies going to big glyphosate-based corn and soy farmers. There are some rebates for organic farmers, but we need to make greater efforts to incentivize farmers to be using better methods." If climate-resilient practices are to be adopted on a larger scale, it needs to be financially viable for farmers who have employees (and bank loans) to pay every year-- farmers who are currently incentivized to meet their bottom line by using the quickest fix and squeezing crops out of land at any environmental cost, rather than taking steps to steward the land long-term.

It's not simple to address all of these issues, but it's clear that farmers have considered how it could be done. Dan and Julie emphasize the need for farmers to understand the urgency of the climate threat and want to act, and the potential impact of seeing their peers succeeding in doing so with regenerative agriculture. In addition to being glad for the programming of organizations like NOFA/Mass, Lincoln voiced a desire for stronger policies supporting these efforts, like payments for ecological services measured by increases in organic matter. Noah mentioned his frustration at the way land in Massachusetts is currently protected for agricultural use, saying policy could specifically protect small farmers if incentives were to stipulate more food productivity or include an owner-operator clause. He also identified the need to actively assist those historically harmed and excluded by government policy, namely BIPOC farmers. Making structural changes to a farm takes resources as well as an interest. The more easily individual experiences are shared, tools and methods can be accessed, and farmers are supported financially, the more likely it is that adapting agriculture that is climate-resilient becomes the norm.

The discussion around amplifying the farmer's voice in the climate crisis continued at the 2022 NOFA/Mass Winter Conference in January with a panel-led session titled "Boosting Farmers' Voices in Climate Policy and Action". It was a generative discussion and the beginning of close collaboration between advocacy organizations in an effort to provide a vehicle for farmer participation in the development of climate policy.

Add your voice to the conversation - reach out to Kathleen, NOFA/Mass Journalism Intern and farmer/writer, at **kathleenernsting@gmail.com**.

☼

(Letter from the Editor - continued from A-3)

Meanwhile, the contributions to agriculture that these oppressed communities have provided continue to go uncompensated and unacknowledged today. Many of the farming practices we know and practice today were developed by Black and Indigenous people. Just to name a few, Native Americans taught colonists no-till production methods and the intercropping methods such as the well-known Three Sisters, among others. George Washington Carver, who was a scientist, developed and promoted crop rotation principles utilizing nitrogen-fixing plants. As was traditionally practiced among native Americans, Carver demonstrated that cycling nutrients through composting contributes to improved soil. The CSA model was in fact practiced first by Booker T. Whatley in the 1960s.

As a privileged, young farmer who holds the deed today to 20 acres of land, I ask myself: what is my role in eliminating inequities in land ownership and access? "Enlarging the boundaries of the community" to include "the land" has been relatively easy. We build soil on our farm, we practice rotational grazing, we plant hundreds of trees each year, we ensure we put in more than we extract. But, as I reread the words of Leopold, even though he says, "…respect for his fellow-members, and also respect for the community," the descriptive details of his book are exclusively focused on natural relationships and not those between people. So how do we expand and ensure our land ethic truly respects other people? How does it not only recognize history but also repair the injustices Native Americans and Black people still battle today?

Agricultural land and those who steward it are essential to the strength of our economy, the well-being of our communities, and the health of the planet. Secure land tenure is fundamental to farm viability, racial equity, and the success of our climate.

Leopold also said "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." We must remind ourselves that people are biotic factors in ecosystems and ask ourselves why is it easier to do "right" for the planet than it is to do "right" for the people?

About This Issue

Matters related to land and access are complex. They are personal. Some are deeply upsetting and others offer hope. I was so pleased to receive an outpouring of submissions for this issue that really dive into the complexities of land tenure - both in the past and today. (We actually received well more submissions than we could fit, so will feature them in upcoming issues). I hope the articles and stories inspire you to reevaluate your own land ethics, to analyze the history of your land and if and how those stories overlap with your ancestors, to think about your privileges or lack thereof and what this might mean for what you can give or what you need from your community. One obvious pattern that arises from the articles is how interconnected we all are - the land and the people.

It's vital to mention that this issue is in no way exhaustive - there are many, many more incredibly important stories, people, projects and efforts that are not included in this paper, some of whom did not want to be featured and others that we don't know about yet. Please see links at the end of individual articles and I also want to highlight a few here with the hope that you'll check them out to learn more and support their work:

Wildseed Community Farm & Healing Village is a space to actively experience the change we devote our lives to. We are a collective of Black Indigenous and other People of Color working in collaboration with our ancestors to steward 181 acres in the Mid-Hudson Valley. We are co-creating a healing sanctuary, ecological farm, and political and creative home rooted in dignity, interdependence, transformative justice, connection to nature and intergenerational love, **wildseedcommunity.org/**

Northeast Farmers of Color Land Trust, NEFOC, is a hybrid model land trust, bringing together a community land trust model and a conservation land trust model to reimagine land access as well as conservation and stewardship of communities and ecosystems with the goal of manifesting a community vision that uplifts global Indigenous, Black, and POC relationships with land, skills, and lifeways, **nefoclandtrust.org/**

Mumbets Freedom Farm in Massachusetts is a Black and Brown-led cooperative farm and community sanctuary for connection, creativity, education, and wellness, **mumbetsfreedomfarm.com/**

Khuba International and the Quarter Acre for the People project in NY is a black-led non-profit organization that seeks to integrate youth education, sustainable agriculture, and community development through hands-on programming and inclusive partnership-building. We seek to engage and empower community members impacted by racism, redlining, and colonization, and families from disadvantaged backgrounds, **khubainternational.org.**

The Vermont BIPOC-led Land Access and Opportunity Act (H.273) addresses BIPOC land access and the underlying systemic racism that continues to separate BIPOC people from the land, and erase their culture and history.

The Reparations Map is a unidirectional, anonymous tool to give to BIPOC farm projects, not to extract resources or labor, or for organizational outreach to BIPOC for anything that doesn't offer concrete financial or infrastructural resources, **soulfirefarm.org/get-involved/reparations/**

Rise & Root Farm is a five-acre farm, run cooperatively by four owners who are women, intergenerational, multi-racial, and LGBTQ. We're located in the Black Dirt region of Orange County, NY, in the lower Hudson Valley. The farm is rooted in social justice, and through the healing power of food and farming we work to build a more equitable food system, **riseandrootfarm.com**

Resources:

This Land Was Our Land
theatlantic.com/magazine/archive/2019/09/this-land-was-our-land/594742/

The Case for Reparations
theatlantic.com/magazine/archive/2014/06/the-case-for-reparations/361631/

Yes! Magazine series on reparations, **yesmagazine.org/tag/reparations**

A Look at What's Happened to the Debt Relief for Black Farmers **civileats.com/2021/12/01/black-farmers-still-await-debt-relief-as-lawmakers-resolve-racist-lawsuits/**

Biden farm debt relief plan to exclude thousands of minority farmers,
reuters.com/markets/us/biden-farm-debt-relief-plan-exclude-thousands-minority-farmers-data-shows-2021-12-17/

Elizabeth Gabriel, TNF Editor

Elizabeth is a farmer with her partner and son at Wellspring Forest Farm. They acknowledge and honor the land and those who have stewarded it for centuries before us and who were removed from it by force and theft. Here in Trumansburg, NY, the Gayogo̱hó:nǫ' Indigenous people were the original stewards of the land and still reside here today south of and surrounding Cayuga Lake.

Chapter News

NOFA-CONNECTICUT
No update

NOFA-MASSACHUSETTES
NOFA/Mass started off the year with a successful Winter Conference, with attendance surpassing that of both the 2021 NOFA Summer and NOFA/Mass Winter Conference. Our theme, "Thriving in the Era of Climate Disruption" was integrated into many aspects of our program. The keynote with Precious Phiri was inspiring and well received, as were the Sunday roundtable discussions. As we look ahead to the 48th Annual NOFA Summer Conference, we are hearing momentum around topics such as land access, decolonizing the organic movement, reclaiming organic for the people, indigenous origins in agriculture, and cooperative models from the solidarity economy. Visit nofasummerconference.org for the most up-to-date information on the upcoming conference. Registration opens May 1st.

The annual Tri-State Bulk Order, in collaboration with the CT and RI NOFA chapters, opened on January 1st, with two new offerings: An organic seedling order and some new soil testing options. Our soil health team has been busy lately as soil tests come in from Bulk Order customers. Customers can order soil tests with analysis and recommendations, and will be able to get a microbiological soil assessment and overall soil health assessment starting this spring.

POLICY
The Massachusetts Pesticide Board just approved the appointments for the newly created Conservationist Pesticide Advisory Council to advise on the development of pesticide policies and regulations. Our own Pollinator Network Coordinator, Dr. Rosemary Malfi, was appointed to the council. Congratulations, Rosemary! The Schoolchildren Bill, our top legislative priority, is now endorsed by the Mass. Teachers Association along with dozens of community and parent groups, school committees and boards of health. This bill would limit what can be applied to school grounds to only include products appropriate for organic landcare and pesticides considered "minimum risk" by the EPA. On February 2, 2021, the bill was reported favorably from the Ag and Environment Committee, along with several other NOFA/Mass priority bills, including: the Food Justice Frontline Bill - to create well compensated frontline food security jobs, the Raw Milk Delivery bill, and several other pesticide reform bills. With this first major hurdle cleared, the work continues to get the bills to the floor before the session ends in July. We've spent much of the past year advocating for funding for the Healthy Soils Program. State legislators recently approved an historic COVID-19 relief spending package (ARPA), which will invest $100 million dollars in environmental infrastructure. Because of our advocacy with American Farmland Trust and a statewide coalition of supporting organizations, legislators included healthy soils in their definition of environmental infrastructure, recognizing the crucial role that farmers and the lands they steward play in mitigating threats from climate change and setting a very important precedent!

WELCOME
NOFA/Mass is happy to welcome Doug Cook back to our team. Doug was our Education Events Coordinator for several years, and when he resigned last fall to become a sheep farmer, he accepted a seat on the NOFA/Mass Board of Directors.

As our Food Access program grows, NOFA/Mass is happy to welcome our Bioremediation Project Coordinator, Andrew Laurion, into a new role as Food Access Assistant, alongside Beth Ward, who officially joins our team after being involved with our Food Access programming at Home City Housing in Springfield, MA, for several years.

THANK YOU
After more than ten years as Webmaster for NOFA/Mass, David Pontius has resigned from work with the chapter. He continues to manage the NOFA Interstate Council's website, nofa.org, and remains a valued member of the NOFA community.

We also wish Graphic Designer and Publications Coordinator, Matt Jatkola, luck as he transitions out of doing work for NOFA/Mass. You may have seen his design work in the NOFA/Mass Winter Conference program books, NOFA Summer Conference program books, and even in some ads here in The Natural Farmer over the years.

OPENINGS
The Board of Directors is seeking two new members. The Board works to support the educational purposes and organizational stability of NOFA/Mass and to maintain clear direction for the organization. All NOFA/Mass members are eligible to serve on the Board of Directors. A term runs for two years. **nofamass.org/board-of-directors-application/**

EVENTS
- Monthly Minimum Till Farmers Call: The first Monday of every month at 7:00pm EST, online. Take some time to chat with fellow farmers and farm advisors about tillage reduction and soil health in an open, roundtable environment. **nofamass.org/nofa-events/**
- NOFA Summer Conference: August 5-7, 2022, Hampshire College, Amherst, MA. In 2022, we plan to host an in-person conference with some material available online, taking appropriate precautions and preparing to shift fully online if needed. **nofasummerconference.org**

CONTACT
(413) 561-0852 **www.nofamass.org info@nofamass.org**

NOFA-NEW HAMPSHIRE
NOFA-NH hosted our 20th Annual Winter Conference virtually from February 6-12th, focused on Collaboration and Self-Reliance: Building a Stronger NH Food System. Over 175 attendees heard from speakers at 20+ workshops, including a keynote address by Niaz Dorry of the National Family Farm Coalition and the North American Marine Alliance. In addition to our Winter Conference, we hosted a virtual documentary film screening of "The Seeds of Vandana Shiva," followed by a panel discussion in partnership with Seacoast NH Permaculture. Watch the panel discussion here: **nofanh.org/vandana-shiva-film**

POLICY
We worked with the New Hampshire Farm to School Network and state Representatives Alexis Simpson and Megan Murray as the forward-facing organization promoting the Local Food for Local Schools Reimbursement Bill, which would establish a New Hampshire farm to school reimbursement program. The program would incentivize New Hampshire school districts and food service directors to purchase locally grown and produced food for breakfast and lunch services in cafeterias across the state, boosting youth health and wellness through access to fresher, nutrient dense local foods, and improving agricultural viability by infusing 1.8M federal and state dollars into New Hampshire's farm and food economy annually. NOFA-NH hosted a virtual information session about the bill, co-hosted five in-person information sessions highlighting existing Farm to School programs over the winter, and engaged the press in reporting on the opportunities posed by this important bill. Unfortunately, the bill was voted Inexpedient to Legislate by the House Education Committee in February. Despite the vote, we believe we have laid a strong foundation to re-introduce the bill in a future session and we are grateful for the support of the bill's 10 co-sponsors. Visit **nofanh.org/farm-to-school** to watch the webinar and learn more.

THANK YOU
We thank Laura Angers for three excellent years with NOFA-NH. Laura began working with NOFA-NH as a volunteer. In 2019, she was hired as our chapter's Gleaning Coordinator. In 2020, she expanded her role in the position of Office Assistant, and in 2021 she served as our Program Coordinator. Laura truly helped NOFA-NH grow to new heights in everything she did. We are grateful for her time with us and wish her the very best in her next chapter.

We also thank Laura Hartz for her years of service to NOFA-NH and especially for her leadership as President of the Board of Directors in 2020.

Thank you, Deneé Woods, for your service as a NOFA-NH Board Member in 2021, and for your help stewarding NOFA-NH's DEI Committee in its earliest formation.

OPENINGS
NOFA-NH is always looking for passionate farmers, gardeners, eaters, educators, and activists to join our dynamic volunteer Board of Directors! Please contact us to learn more: **nikki@nofanh.org**.

EVENTS
- Organic Gardening Series: Gardening in Containers Both Indoors and Out with instructor and author Acadia Tucker, April 5, 6:00-7:30 PM, Held Virtually
- Organic Gardening Series: Growing Backyard Herbs for Vital Wellness with instructor, herbalist, and author Maria Noël Groves, April 20, 6:00-7:30 PM, Held Virtually
- Organic Gardening Series: Raising Backyard Chickens (and Eggs) with instructor and farmer Paolamantina Grullón Livingstone, May 3, 6:00-7:30 PM, Held Virtually

CONTACT
(603) 224-5022, **nofanh.org/, info@nofanh.org**

(continued on A-9)

Opinions

Ending Wildlife Killing Contests in New York

by Ashlee Kleinhammer

As a certified Animal Welfare Approved dairy farm, we oppose trophy hunting for native carnivores. When approached by a local seeking to hunt coyotes, we denied them access to our woods, whereas we have permitted deer hunters with appropriate licensing during the season. These are two very different activities. One is for sustenance in the form of venison, the other is following the misconceived notion that coyotes are harmful to livestock farmers.

Our land is half woodlot, half pasture, and the majority of our calves are born on pasture. Much of our pasture borders the woods, and we have never had a calf taken by a carnivore—including one that went missing in our forested land for four days! We love to hear the packs of coyotes who live around our property, and know they're dining on their preferred rodents and rabbits, protecting our lands. See what mess settlers made of the buffalo? The more we set off ecological balance, the more we tip the scales toward unknown outcomes.

Every year, New York's coyotes, foxes, bobcats and other species are needlessly killed in competitions for cash and prizes. Few have heard about wildlife killing contests but events like the "Western New York Mini Predator Slam," the "Final Fling for Fox," and the "Smoke-n-Yote's Early Season Yote Hunt" take place across the state. Participants compete in categories including most, largest, and smallest animals killed. After the prizes are awarded, the animals are dumped like garbage. Undercover investigations of contests in Sullivan County and Macedon documented competitors bragging about their kill numbers and joking about painful injuries the animals endured.

Event organizers use the interests of the farming community as a ploy to justify killing contests and perpetuate falsehoods that they serve farmers by eliminating carnivores—especially coyotes—who would otherwise prey on livestock.

The best available science debunks these claims. There is no reason to mass kill coyotes. USDA data shows that all carnivores combined—including coyotes, foxes, cougars, wolves, and hawks—are responsible for less than 0.5 percent of sheep and cattle deaths in the U.S. Most livestock die from birthing issues, weather events, and disease.

Indiscriminate lethal control of carnivores is also unwise. Leading carnivore experts have found that randomly killing coyotes actually causes their numbers to proliferate. Coyotes compensate for the sudden drop in competition for resources by reproducing more quickly. Disruption in the coyote pack structure also allows more coyotes to breed, resulting in more coyotes. More than 150 years of large-scale coyote extermination programs have made evident the futility of lethal control: despite relentless persecution, coyotes have tripled their range in the U.S.

By contrast, killing contests likely increase attacks on livestock. A recent analysis of research using USDA data discovered a "paradoxical relationship" between lethal control and the number of livestock lost. With the larger litters of pups that result from haphazard coyote killing, adult coyotes, who typically prefer rodents, are forced to find easier targets like sheep to feed their families. The New York State Department of Environmental Conservation has recognized that killing coyotes won't reduce predation and advises, "most problems can be avoided with proper husbandry techniques."

Many of us farmers—both livestock and crop—are pleased to have coyotes and other carnivores living among us. Unexploited coyote packs can keep out more problematic carnivores who have become habituated to human food sources like livestock. Some scientists have even used the term "guard coyote" to explain the phenomenon of using one coyote to ward off others. Carnivores also take rabbits and rodents that damage crops. When the Washington Fish and Wildlife Commission prohibited killing contests in 2020, one commissioner lauded coyotes as the "only free employees" on her cattle ranch.

As a livestock farmer, I do not condone wildlife killing contests or wish to be used as a pawn to rationalize these despicable events. For the benefit of our farms, and because it's the right thing to do, we must take a stand against this destructive killing of wildlife for cash and prizes.

Fortunately, there is legislation (A.5746/S.6643) to prohibit wildlife killing contests in New York State. If you'd like to add your name to a letter by fellow farmers in support of this bill, please fill out this brief form: https://forms.gle/jvVe9YAMkG752Cx-UA. We are among the most critical voices needed to rid our state of these senseless, cruel and wasteful competitions.

Resources & Links:

Wildlife Killing Contest, Sullivan County: **blog.humanesociety.org/2020/03/undercover-investigation-exposes-senseless-rush-to-kill-coyotes-at-new-york-wildlife-killing-contest.html**

Review of USDA data on lethal control of coyotes: **extension.oregonstate.edu/animals-livestock/sheep-goats/using-coyotes-protect-livestock-wait-what**

NYDEC quote on coyote control: **voicesofwildlife-innh.org/wp-content/uploads/The-Status-and-Impact-of-Eastern-Coyotes-in-Northern-New-York.pdf**

Ashlee Kleinhammer, she/her, North Country Creamery, Keeseville, NY. Ashlee is a grassfed, Animal Welfare Approved dairy farmer speaking out against the inhumane practice of hunting native carnivores for sport because it is an ineffective means of controlling predation and, furthermore, upsets ecosystem function.

Access to Farmland: Advice from Mark Shepard

By Bill Taylor in an interview with Mark Shepard

Advice from Mark Shepard. Towards the end of an interview in January with permaculturist and restoration agriculture figure Mark Shepard (who is currently working with a number of farmers in the Albany capitol region to create perennial crop restoration agricultural systems), I asked the land tenure question below. I have edited Mark's response which follows:

Bill Taylor: What secrets can you offer for farmers to fund their habit? I know that you talk about starting businesses and developing those kinds of skills. It's a big issue now of access to land for farmers and people saying 'I'd like to have a farm but I can't get land. How do you answer that because you did it?

Mark Shepard: Well, here's how you do it. You don't have to own the property; there are farming opportunities everywhere! There are hundreds of millions of acres of farmland right now. The average age of farmers is up into the 70's; there are also all kinds of people who've inherited farmland, and they need people to run those operations. Anyone who can't find such an opportunity can contact us through the website newforestfarm.us or restorationag.com and we will set them up on a farm within 3 months. You actually have to farm and you actually have to figure out how to pay your way. We're interested in farmers, people who are actually going to get this job done. Many people don't want to work like a farmer has to, because if it's freezing rain and you've got lambs that are dropping right now, you've got to be out there at 3 in the morning making sure your lambs don't die. The paycheck isn't all that fantastic so many people don't want to have to work that hard for that kind of pay. However, assuming that you want to take on the farmer's life, you can go for it. If you want to own the land, there are ways that you can buy real estate. The system is set up, it's in place, you save money for a certain amount of time, you build your credit rating, you borrow money, you buy a piece of property, you set up your business or a few businesses so it pays it back. It's called mathematics.

I grew up in north central Massachusetts in the industrial wasteland when they cleaned out the manufacturing economy in the 1970's. I got out by borrowing money however I could, actually started buying land using credit cards, of all things.

You can look up the November 2018 Soil and Nutrition conference and an hour and a half long presentation I did. I talked about all the different entity structuring and how I set up my own personal financial life. And that will be very instructive because if you're not using all these tools, if you just think, "I'm going to borrow this money and I'll just pay it back the rest of my life," it doesn't really work that way. You have to be a real estate investor, first and foremost; that's the game you are playing. The farmer's real play is that long term asset improvement. You can buy a piece of junk property, then use your farming activity and any other business activity that you're doing, say you're a carpenter or have a plant nursery, you use those activities to improve the asset value of the farmland Now these businesses, because they are spending money on tools, equipment, plants or whatever it is, those are tax deductions, so you pay less income tax. The improvements go toward the real estate side of things, which raises the value of the real estate which gains greater than the average value of the real estate around it. If you compare a monoculture field to a biodiverse restoration agriculture landscape you can see why the value has increased. I describe all of that in the 2018 Soil and Nutrition Conference talk. That is available on YouTube; do a search for Reimagining Regional Farming for the Future.
If you say, "Oh, that's so complicated, it's tricky, I don't like money, it's a horrible evil system," well, that's how the system works and if you're not using it, it's using you, thank you very much. Remember, we are using a system that has been put in place due to lobbyists getting laws passed to make it work for businesses. We are just using that system to make farming work economically, as farming alone rarely makes a profit, but combined with other compatible businesses on the same land, one can make a living and further land restoration.

One last thought: If one family can start out with 100% in debt, with no jobs, and farming their way to creating a perennial ecosystem in 15 years at a profit, that means we can all do this, and we can revegetate the entire planet in 15 years at a profit while producing food, fuel, medicines and fibers.

Bill: And I think this can solve the climate crisis too.

Mark: That will be a byproduct of restoring the natural ecosystems of the planet.

☼

(Chapter News - from A-7)

NOFA-NEW JERSEY
The New Jersey Assembly passed legislation A2070 (Calabrese)/S1016 (Smith) on Monday, January 10, 2022, to classify bee-killing neonicotinoids, also known as neonics, as restricted-use pesticides. *(See the full Policy Update on page A-10)*

WELCOME
Devin Cornia, incoming Executive Director for NOFA NJ

Devin Cornia, new ED at NOFA-NJ.

THANK YOU
NOFA NJ would like to express our gratitude for Nagisa's service and wish her well in all future endeavors, which includes continued support for NOFA activities and her farm, River Stoan Farm, in Kingston, NJ.

Nagisa Manabe, outgoing Executive Director for NOFA NJ.

CONTACT
NofaNJ.org

NOFA-NEW YORK
Thank you to all of our sponsors, presenters, and participants for making NOFA-NY's 2022 Virtual Winter Conference an amazing six days of education and community building. We are thrilled to share that more than 500+ people joined us over the course of the event making our second virtual conference a huge success!

POLICY
Update on Organic Dairy in the Northeast
In December, a task force of 27 organizations in the northeast, including NOFA-NY, submitted written recommendations to the USDA. The recommendations detail actions that the USDA can take in response to the Horizon Organics and Maple Hill market exit and actions for long-term systems improvement for the northeast organic dairy sector. USDA's response to the recommendations is forthcoming. In January, NOFA-NY joined the National Organic Coalition in submitting testimony on concentration in organic dairy to the House Judiciary Committee in advance of a hearing on "Addressing the Effect of Economic Concentration in America's Food Supply." The testimony highlights the current highly consolidated northeast organic dairy market as an example of how the market, dominated by a few large companies, leaves producers at risk. For more background on the current issues facing organic dairy in NY including more information about the over 90 NY organic dairy producers who are losing their market between Dec 2021 and early 2023, please contact Katie Baildon at **kbaildon@nofany.org**.

NOFA-NY Members: You're invited to join the newly formed NOFA-NY Soil Health Policy Subcommittee. The Soil Health and Climate Resiliency Act was signed into law by Governor Hochul in December! We're working with state partners to ensure that the provisions in this Act are adequately funded. Are you interested in working with us on these efforts and on future soil health policy work? Please consider joining our Soil Health Policy Subcommittee.

WELCOME
NOFA-NY welcomes new Bookkeeper Kim Kopp to our team. Kim is a life long Syracuse resident and will be working from the education office. Most of her professional career was spent as a Budget Director at Syracuse University. After leaving the University she decided to be an entrepreneur owning a variety of businesses. She loves to serve others, including her four children, their spouses and 10 grandchildren. When not working or serving her family she can be found baking or cooking in her kitchen! We are excited to have Kim supporting NOFA-NY's ongoing work.

THANK YOU
NOFA-NY would like to extend our deepest appreciation for Lauren Tonti and all of her amazing work as Certification Co-Director. While Lauren will no longer be working for our organization she will continue to support our community in her new role with Organic Plus Trust as she works to build the Certified Grass-fed Organic Livestock Program. Thank you Lauren for your dedication and many years of service at NOFA-NY, we look forward to staying connected and working together in the future.

OPENINGS
NOFA-NY is hiring Certification Specialists. Visit our website for more details.

CONTACT
315.988.400, **nofany.org, info@nofany.org**

RHODE ISLAND
No update.

NOFA-VERMONT
NOFA-VT hosted our 40th annual Winter Conference this February and March. For almost three weeks, farmers, gardeners, activists, and other food enthusiasts joined together to share knowledge and inspiration. This year the conference was mostly online with the exception of our on-farm socials. In an effort to provide safe opportunities for people to gather in person and enjoy a local farm, we hosted four fun outdoor events full of hot beverages, snowshoeing, and great conversation.

This spring we are distributing another round of Resilience Grants, which are funds given directly to farmers to complete projects that will increase the environmental, economic, and/or social resilience of their farm. This year we're piloting a democratic and participatory grantmaking model, and the grants will be awarded by a committee of Vermont farmers and farm workers.

Other spring highlights include opening up another year of 50% off CSA shares through our Farm Share program, a fruitful racial equity training series for farmers supported by NOFA-VT and MOFGA, and a successful round of Small Farm Action Days and advocacy trainings.

POLICY
The Vermont Legislature is considering H.626, a bill that would prohibit the use of seeds treated with neonicotinoids until the Vermont Agency of Agriculture, Food & Markets develops rules for their use in alignment with the recommendations previously made by the Vermont Pollinator Protection Committee. Neonicotinoids have been found to have limited benefit for many Vermont farmers, but research shows they do substantially harm populations of pollinators, birds, aquatic life, and other species. Vermont is also preparing to start allowing retail sales of adult-use cannabis in 2022. Along with other partners in the Vermont Cannabis Equity Coalition (VCEC), NOFA-VT is tracking a bill, S.188, that would designate outdoor cannabis cultivation as agriculture, which it currently is not under existing law. VCEC is also pushing for specific recommendations to make Vermont's cannabis marketplace socially and racially equitable, including using a portion of tax revenues from cannabis to create a Cannabis Business Development Fund that would support the participation of communities disproportionately harmed by cannabis prohibition in this emerging marketplace. Finally, Vermont's Payment for Ecosystem Services Working Group continues to develop a program and payment structure to compensate farmers for the ecosystem services they provide through excellent land stewardship. NOFA-VT represents small-scale, diversified agriculture on the Working Group and is working with farmers and partners to advocate for a program that centers on biodiversity and a whole-farm approach.

WELCOME
NOFA-VT is excited to welcome two new additions to the team! Nick Sibley and Katie Birkhauser both join NOFA-VT's certification LLC, Vermont Organic Farmers (VOF), as Certification Specialists. Nick brings his dual experiences as an ecologist and farmer to the role. He is committed to honoring our region's agricultural legacy while also promoting innovative, equitable, and sustainable farming practices. Katie also specializes in ecological agriculture and has an extensive research and farming background. To this role, she brings her love for supporting farmers, getting nerdy about soil health, and celebrating successes in sustainable food production.

CONTACT
802-434-4122, **nofavt.org, info@nofavt.org**

☼

Policy Update

NOFA-NJ Celebrates Passage of Neonics Bill

By Cali Alexander

The New Jersey Assembly passed legislation A2070 (Calabrese)/S1016 (Smith) on Monday, January 10, 2022, to classify bee-killing neonicotinoids, also known as neonics, as restricted-use pesticides. The law prohibits most outdoor non-agricultural uses of harmful neonicotinoid pesticides. In New Jersey, beekeepers have lost more than 40% of their bee colonies nearly every year for the last decade—suggesting possible similar catastrophic losses for the state's 300+ native bee species. These losses threaten both the state's ecosystems and many of New Jersey's most valuable crops, including blueberries, apples, and cherries, which are highly dependent on insect pollination. In New Jersey honeybees are a $7 million industry and they help pollinate nearly $200 million worth of fruits and vegetables annually. The New Jersey Department of Environmental Protection (DEP) found in a 2020 study that most neonic use comes from lawn treatments for insect pests. Certified applicators, including landscapers, applied nearly 30,000 pounds of neonics to New Jersey lawns in 2016. For its 2020 study on neonics, the DEP collected more than 250 samples of surface water and groundwater at 123 sites throughout the state. They found neonics in more than half the water samples and neonic concentrations in most samples are above federal benchmarks for harm to wildlife.

Gov. Phil Murphy signed the measure on January 18, 2022, making New Jersey the sixth state to adopt this type of save-the-bees policy, making it one of the strongest in the nation. New Jersey's law would go farther, taking neonics out of lawn care businesses and off store shelves. NOFA-NJ believes the law is critical for our members as organic farmers, but also in protecting New Jersey's heavily pollinator-dependent agricultural community as a whole. NOFA-NJ joined other environmental groups National Resources Defense Council (NRDC), NJ League of Conservation Voters, NJ Audubon, NJ Beekeepers Association and the NJ Conservation in taking the lead on this important legislation.

More info: **nj.gov/dep/dsr/wq/neonicotinoid-insecticides-rps.pdf**

NRCS Announces Improvements to CSP and EQIP

Reprint: Published by Laura Zaks, National Sustainable Agriculture Coalition

Washington, DC, January 11, 2022 – The Natural Resource Conservation Service (NRCS) made a series of changes to its premier conservation programs to better support farmers' ability to face climate change. First, NRCS improved the re-enrollment process within the Conservation Stewardship Program (CSP). NRCS eliminated the requirement that farmers with expiring contracts who are not selected to renew those contracts must wait two full years to reapply to the program, a change for which the National Sustainable Agriculture Coalition (NSAC) has long advocated.

The second announcement yesterday was that the Environmental Quality Incentives Program Conservation Incentive Contract (EQIP CIC) option will be available nationwide in 2022. Created in the 2018 Farm Bill and piloted in select states in 2021, EQIP CIC combines EQIP style practice payments with five-year contracts, annual management payments, the ability to enhance practices, and a focus on regional resource concerns included in CSP. This blending of program elements provides a stepping-stone for farmers who start working on conservation in their operation with EQIP and want to transition to a whole farm conservation approach with CSP. Again, as layering practices and maintaining them over time are two crucial elements of climate friendly agriculture, the EQIP CIC option is a promising tool for helping farmers build up conservation in their operations and move towards a whole-farm, CSP style conservation system.

Additionally, NRCS announced the creation of a new Cover Crop Initiative. Seeking to increase cover crop adoption in 11 states, this pilot program will spend $38 million supporting producers implementing the practice. Pilot states include Arkansas, California, Colorado, Georgia, Iowa, Michigan, Mississippi, Ohio, Pennsylvania, South Carolina and South Dakota.

Links:
Natural Resource Conservation Service, **nrcs.usda.gov/**

NRCS EQIP: **nrcs.usda.gov/Internet/FSE_MEDIA/nrcseprd1801047.pdf**

New York Wage Board Votes to Lower Farmerworker Overtime Threshold

By Elizabeth Gabriel

After months of hearings and an overwhelming volume of testimony from farm employers, employees, industry experts, and labor advocates, on January 28th, 2022, the New York Farm Labor Wage Board passed three motions were which will lower the overtime threshold for New York farmworkers from the 60 to 40 hours per week in a phased plan;

- January 1, 2024, threshold moves to 56 hours
- January 1, 2026, threshold moves to 52 hours
- January 1, 2028, threshold moves to 48 hours
- January 1, 2030, threshold moves to 44 hours
- January 1, 2032, threshold moves to 40 hours

This law was years in the making. In 2019, when the average dairy worker was working 72 hours, a law made the threshold 60 hours and also made a commitment to make a long-term plan by 2022. At face value, this new plan is a good idea to protect farmworker rights. People who work on farms were excluded from overtime protections in the federal Fair Labor Standards Act of 1938, at the insistence of openly racist Southern Senators and Jim Crow Laws, because such a disproportionate number of farmworkers were Black. It's certainly time to move past this horrific legacy. Yet, after speaking to a few farmers and reading dozens of testimonies, the issue is far more complex than just an issue of labor rights. NOFA-NY even did a quick survey of its constituents in the late fall of 2021, and the responses came back too mixed for NOFA to take a clear position. Laura Colligan, the owner of Dirt Rich Farm in Erie County, told me that most of the 42 testimonies she heard at one of the open forums she attended were against lowering the threshold - most of the speakers were farm owners, while a few were farmworkers.

Dirt Rich Farm is one of many small farms in the state who hire domestic farmworkers, stick to a 40-hour work week, and try to pay better-than minimum wage. But, complexity arises because a one-size-fits-all law will never meet the various types of scenarios that exist on farms - for farm owners and farmworkers.

Speaking with Carlos Aguillera, co-owner of West Haven Organic Farm in Ithaca and former human resource leader for a Central and Northern NY dairy farmworker placement agency, he explains that in NYS there are domestic farmworkers and immigrant farmworkers. Immigrant workers are the backbone of New York's massive agricultural industry with 80,000 to 100,000 migrant, seasonal, and dairy workers annually. Carlos says, "Domestic workers tend to be established in this country, they might have a family and a life off the farm. For these workers, the idea of working more than 40 hours while making the same amount of money isn't very

(continued on A-15)

Critical Spring Temperatures for Tree Fruit Bud Development Stages

While sap producers relish in the freeze-thaw cycle that spring gifts us, anxiety builds for orchardists (and veggie growers alike) as temperatures warm too high, yet, danger of frost-kill is still present. We have a small orchard of 25 trees, and I found this guide extremely useful last year when our apples were at "first pink" and forecasts were predicting high 20 degrees F. While methods vary to save buds - from heating and sprinkling orchards, to covering individual trees with sheets - this guide might help you judge if action is needed as spring arrives this year to the Northeast. -- Your TNF Editor.

Download the complete guide from the Michigan State University Extension, at **canr.msu.edu/fruit/uploads/files/PictureTableofFruitFreezeDamageThresholds.pdf**

Pome Fruit (Apples and Pears)

Apples									
Apples	**Silver tip**	**Green Tip**	**Half inch green**	**Tight Cluster**	**First Pink**	**Full Pink**	**First Bloom**	**Full Bloom**	**Post Bloom**
Old temp	16	16	22	27	27	28	28	29	29
10% kill	15	18	23	27	28	28	28	28	28
90% kill	2	10	15	21	24	25	25	25	25
Pears									
Pears	**Bud scales separating**	**Blossom buds exposed**	**No name**	**Tight cluster**	**First White**	**Full White**	**First Bloom**	**Full Bloom**	**Post Bloom**
Old temp	18	23	No data	24	28	29	29	29	30
10% kill	15	20		24	25	26	27	28	28
90% kill	0	6		15	19	22	23	24	24
Peaches									
Peaches	**Swollen Bud**	**Calyx Green**	**Calyx Red**	**First Pink**	**First Bloom**	**Full Bloom**	**Post Bloom**		
Old temp	23	--	--	25	--	27	30		
10% kill	18	21	23	25	26	27	28		
90% kill	1	5	9	15	21	24	25		
Tart Cherries									
Tart Cherries	**Swollen Bud**	**Side Green**	**Green Tip**	**Tight Cluster**	**Open Cluster**	**First White**	**First Bloom**	**Full Bloom**	
10% kill	15	24	26	26	28	28	28	28	
90% kill	0	10	22	24	24	24	24	24	

Old standard temperature is the lowest temperature that can be endured for 30 minutes without damage. This chart also shows the temperature that will kill 10 % and 90% of normal fruit buds.

Studio Hill Farm: A story of resilience and regeneration

By Jacqueline Sussman (she/her), Steward

Livestock roam and graze grasses on a rotating basis, thoroughly distributing their natural fertilizers across the vibrant, green pastures. The land is supporting an abundance of life, from the teeming microbe-rich communities deep in the soils to the pollinators frequenting the flowers above. Visitors regularly pass through to learn about the regenerative techniques used to remove and store atmospheric carbon as a holistic way to mitigate climate change. This is Studio Hill.

An intergenerational, regenerative sheep farm, Studio Hill is owned and run by Caroline and Jesse McDougall in Shaftsbury, Vermont. Caroline's great-grandparents purchased the pastoral hilltop property in 1936. Like most people at the end of The Great Depression, they were looking for a way to ensure long-term food security for their family. After two generations in operation as a small dairy, Caroline's aunt Edie converted the land to an equestrian center and hay farm. A real-life "superhero," Edie's repertoire included equestrian training, piloting planes, and running a thriving tack shop business out of the barn. Edie was a pillar of the community for 40 years, and in the summers Caroline would follow her around to learn the ins and outs of the hay operation.

In those days, there was one model to successfully manage land: heavy tillage to prepare the ground, synthetic fertilizers sprayed to fuel new growth, herbicides to snuff the weeds, and pesticides to kill any unwanted bugs. The farm ran a corn and hay rotation, using Roundup and other synthetic chemicals to remove all invasive species. This was the way of most hay production at the time, and it was prosperous. Then in 2011, Edie got sick with an aggressive form of brain cancer.

Edie passed after a year-long battle, devastating the family and leaving the farm without a steward. Together, Caroline and Jesse decided to honor the work of three generations of the family before them by restoring the ecosystem from the soil up. Fearful of the possible connection between the agrochemicals and Edie's cancer, they were unwilling to spray another drop on the land.

Yet the hayfields didn't flourish without the chemicals; to Caroline and Jesse's great despair, they worsened. Bouncing their baby son, Angus, on his knee one night, Jesse stumbled across Allan Savory's TED Talk on reversing desertification and restoring grasslands through the holistic planned grazing of livestock. Here was the gateway to holistic land restoration and carbon farming they'd been searching for.

Jesse and Caroline began a grazing plan with 50 chickens, rotating them in a mobile coop every 12 hours to break up soil capping and work natural fertilizers deep into the soil. Within a month, the driest patch of land had sprouted lush, green grass. By the end of summer, the ecosystem was bursting, showing new signs of biodiversity and the McDougalls knew they were on the right track. On full scholarship by New England Farmers Union, Jesse underwent a holistic management training intensive at the nearby dairy farm Stonewall Farm in Keene, NH, became a Savory Institute Holistic Management Accredited Professional and made Studio Hill a Savory Influencer Hub.

They now graze chickens, sheep, and pigs on pasture in their soil rehabilitation program. When they dig into the fields these days, they find earthworms, grubs, beetles, roots–a biodiverse ecosystem enriching the soil fertility, all made possible by the transition to holistic land management. The regenerative philosophy of Studio Hill emphasizes two carbon sinks that are in dire need of restoration–the soil and the forests. Their practices sequester atmospheric carbon into the ground through holistic planned grazing, perennial tree crops, and no-till vegetable production.

Coop: Studio Hill raises chickens and other poultry on pasture. Photo provided by author.

On a four-acre section of their property between an old oak forest and pasture, Jesse and Caroline are building a perennial food forest that emulates the high-yield polyculture savanna. Instead of using fossil-fuel run heavy machinery to clear out logs and unwanted vegetation, they used pigs to remove underbrush and break down rotting logs and other bio-matter, speeding up decomposition while sequestering carbon. The forest will optimize the vertical space for food production and carbon sequestration per square foot of soil, producing apples, stone fruits, berries, and more without the

(continued on next page)

(Studio Hill - from A-12)

energy required for traditional orchards.

In tandem with the land restoration, Jesse and Caroline renovated a 19th-century schoolhouse on the property, which hadn't been updated for nearly 70 years. While they initially planned to make this their new family home, they decided to try renting it on Airbnb to help recoup the money invested in the renovation. Soon after listing, it was fully booked for the upcoming year, and actively funding their regenerative management endeavors. The agritourism income has provided the fiscal flexibility and necessary patience for the biological transition on the farm. In partnership with their regenerative agriculture lender, Steward, Studio Hill is currently in the process of increasing their acreage, growing the livestock herd size, and expanding the farm stay capacity to provide more opportunities to share their knowledge and passion for holistically managed farming.

All of this work goes beyond the borders of Studio Hill for Caroline and Jesse. They envision a regenerative ethos taking hold across Vermont, and hopefully the country. Their work is to be shared, which they do in hosting school groups of all ages, consultations, and webinars to show others how it's possible to manage land without chemicals and institute regenerative practices that benefit local ecosystems and sequester carbon to combat climate change.

Jesse is a founding partner of Regenerative Food Network Inc.–a regional effort to rebuild farming infrastructure throughout the northeastern United States, providing small farms access to the processing equipment and markets needed to create and sell value-added products. He also serves on the advisory board for the organization Soil4Climate, which educates people on regenerative land management as a climate mitigation solution.

Studio Hill serves as an encouraging example of how conventional farmland can gradually transform into a fertile, ecologically thriving, carbon-sequestering oasis. Their young kids are the fifth generation to farm this land, and the McDougalls are always thinking about the bigger picture when it comes to regenerating both land and communities.

Sheep: Studio Hill raises sheep on pasture as part of their holistic management plan. Photo provided by author.

"There's another generation coming. We view ourselves as stewards of this land, but we have to expand our definition of stewardship from what we own, to the things we care for: the community, the school, the wider natural resources of the region. I would like to see the societal expansion of stewardship—a reacceptance of the responsibility of passing on something stronger and better for our kids," says Jesse.

Resources:
Allan Savory's Ted Talk: **youtube.com/watch?v=vpTHi7O66pI**

Steward is a private lending partner that helps human-scale regenerative farms access the capital they need to grow. Learn more at **gosteward.com**, **hello@gosteward.com**

☼

Pricing Milk

By Jen Miller

How many mature cows did you have as of January 1, 2020? Did you buy or sell any equipment in 2019? How much milk did you produce that year? How much did you spend on repairs and maintenance? Can I see your Schedule F tax return?

I pepper the farmer sitting opposite me (whether on Zoom or across the table) with these questions and so many more, inputting the answers into my spreadsheet. There are frequent pauses not only to shuffle through papers or click through QuickBooks categories but also to talk about how a new production technique is working or how their neighbors' kids have started helping out on their farm.

Twenty-four organic dairy farmers scattered across Vermont experienced a similar visit in 2021. They had all agreed to participate in NOFA-VT's Organic Dairy Cost of Production (COP) Project. In short, a farmer's cost of production is how much it costs them to produce a hundredweight (cwt) of milk (1 cwt is approximately 11.6 gallons of milk). This includes not only expenses you would automatically think of, such as the cost of grain and labor, but also needs to take into account their family living allocations and debt payments. In an ideal world, all farmers would be selling their products for at least their full cost of production, plus a bit more for farm improvements and a rainy day fund.

NOFA-VT's Farmer Services Program has been conducting this Organic Dairy COP work since 2018; carrying on the legacy of late UVM Extension Professor Bob Parsons who started collecting the data in 2007. Each year we collect financial and production information from a subset of organic dairy farms in Vermont, input the data into a spreadsheet, and analyze their cost of production and other key financial and production metrics. The analysis happens at both the individual and aggregated levels, enabling farmers to compare their performance to both statewide benchmarks and also to their own business's historical results. The information assists farmers with identifying opportunities to increase revenue and decrease expenses in order to maximize their profit margins and improve their long-term viability. Results are also disseminated to and used by Vermont's network of agricultural service providers, lenders, milk buyers, industry stakeholders, and the Agency of Agriculture, with the same long-term goal of supporting the profitability and sustainability of these businesses.

My takeaways from our 2021 COP effort fall into three different categories: farmers, NOFA-VT staff, and industry stakeholders.

Farmers: We have amazing organic dairy farmers in this state, caring for their land, herds, and families while upholding the highest of standards. Results are variable from farm to farm but two things are certain. First, the cost of producing milk in the Northeast is higher than in other areas of the country, primarily due to our geographic location and climate. And second, labor efficiency (think of milking in some of the older, historical barns in this state) and sourcing (finding reliable and skilled employees) is a challenge on many farms that needs to be addressed.

NOFA-VT Staff: 2021 marked the first year that Bill Cavanaugh, Farm Business Advisor, joined me in the COP quest. When asked about his overarching thoughts about this project Bill had this to say; "It was an educational and enlightening chance to connect with farmers on their numbers. It also was a good opportunity for me to build relationships with more dairy farmers."

Industry Stakeholders: This project catalyzes the deepening of working relationships between NOFA-VT and key stakeholders of the organic dairy industry such as milk buyers (Organic Valley and Stonyfield), lenders, grain dealers, UVM Extension, and the Vermont Agency of Agriculture, Food and Market's Dairy Section. This year I have felt especially aware and appreciative of these collaborative relationships. Bill and I will be off to the COP races again beginning in January of 2022, continuing to document the development and challenges of the organic dairy industry and support Vermont's organic dairy farmers.

For more on the project and to see past results, visit **nofavt.org/DairyCOP**.

Jen Miller is the Farmer Services Director at NOFA-VT

☼

(Policy - continued from A-10)

appealing." But with immigrant farmworkers, those in the H-2A Program (the primary way in which immigrant workers can legally perform short-term farm labor in the U.S), "most live in a farm camp or a cramped apartment. They left their family in their home country and tend to be in this country to work as much as possible and make as much money as they can while they are here. With this law, since most small to medium-sized farmers won't be able to afford to pay overtime, they will not let any workers work more than 40 hours. That may result in immigrant farmworkers choosing a different state to work in in the future" - a move that would drastically impact NYS agriculture - a State already struggling to meet farm labor requirements.

Carlos brings up another key issue. Farming is not like any other job. He reminds us, "Being a farmworker or farmer - it's a very different industry. If you are farming strawberries and it's pouring, you can't harvest or your crop will rot before it sells. So, you wait but when the weather is right, if all your workers have hit 40 hours for the week, you might have to let the crop rot in the field anyway because you can't afford to pay overtime". It can become a lose-lose situation and is especially taxing on small farms like Carlos's which rely on a diversity of crops to be profitable.

Nathaniel Thompson, owner of Remembrance Farm in Trumansburg, relates to Carlos's last point. Farm work is seasonal, he states, "You work a lot during some of the year, and then you don't work for other parts of the year, so it's reasonable to work more in the [growing] season". Most farmers can relate to this. While Nathanial understands the logic of the law and recognizes there are terrible working conditions for some farmworkers that need to change, he doesn't agree with its approach. For Remembrance and any farm which hires H2A workers, the farm is required to provide reasonable housing. Even *if* Nathaniel could find more workers to meet the farm's demands *and* limit everybody to 40 hour weeks, he would also have to invest significant money to build more housing accommodations - a huge cost for farms that the law didn't take into account. (There are other issues the law should have considered for small farmers as well; such as subsidizing farmworker programs, ever-increasing production and transportation costs, and overtime expenses; and more support for farmworkers who want to get Green Cards).

As the threshold drops to 40 hours per week, farms like Nathaniel hope their H2A workers don't go to another state. "Losing people who know our system so well would be a huge challenge", Nathaniel says, "and they know they take a risk starting at a new farm, where working and housing conditions are unknown. But either way, the 40-hour threshold will mean we have to consider cutting some of our production".

Most farmers - especially small farmers - will tell you a similar story - they are working in a business that already doesn't have great margins, so to reduce margins anywhere, can be really problematic. Every time a new law like this changes the cost of production, small farms go out of business or are forced to mechanize production and/or conglomerate with the big guys - a move that will drastically shift NYS agriculture.

Strong labor rights laws are important, and this law is a move in that direction. As Liz Henderson, organic farmer and NOFA-NY co-founder, said in her testimony about this bill, "The central issues we face here are fairness for farmers and for the workers on our farms, and whether we can have a viable system of food production in this country with vital rural communities. As a farming community, we have been forced into an untenable situation. The laws on labor should be set at the national level so that farmers in NY are not at a disadvantage compared to neighboring states. It is urgent to change the National Labor Relations Act and the Fair Labor Standards Act." And so it seems that the NY legislation doesn't go far enough to consider the protection of the farmworkers and the small farmer in an already-challenging industry that is fighting for local ag to remain viable.

More info: **agworkforce.cals.cornell.edu/2022/01/28/new-york-wage-board-votes-to-lower-overtime-threshold-to-40-hours-by-2032/**

State Healthy Soils legislation progress + status

by Steven Keleti

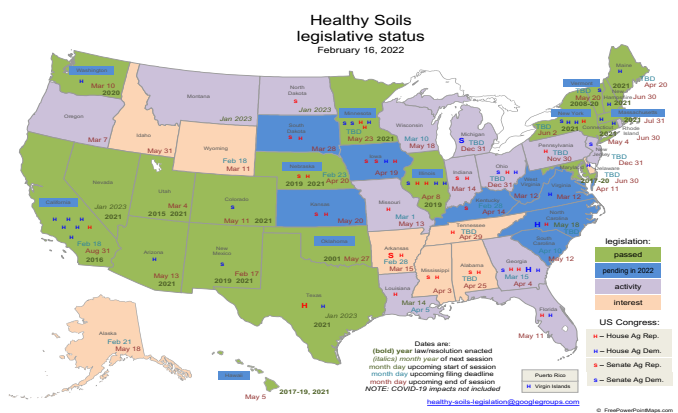
In 2021, the number of states having passed Healthy Soils legislation increased from 10 to 20 states. These 20 states include 47.5% of U.S. farm acreage (427,242,872 of 900,217,576 acres, based on 2017 NASSAC).

It looks like 2022 may show similar progress. In 2021, there were bills on the docket or proposed in at least 33 states. In 2022 there will likely be 28+ bills, with bills already filed in 18 states.

The requirement to have a state soil health program to be enacted and funded to receive funding under Rep. Chellie Pingree's 2020 Agricultural Resilience Act (ARA) was a motivator in legislation moving forward in many states last year. Of the 20 states that have passed Healthy Soils legislation, 15 passed legislation that involved the creation of a soil health program or added soil health to existing programs. Of the bills filed thus far in 2022, the bills in 7 states (IA, IL, KS, KY, NC, OK and WV) create a soil health program or add soil health to existing programs. Things look promising for bills that include soil health in programs to be filed in GA, LA, MI, MO, and PA.

Given the percentage of farmland and population in states that have enacted Healthy Soils legislation, and the momentum of states enacting Healthy Soils legislation, it is likely that the Farm Bill will include some version of the ARA. It is increasingly important that states enact legislation to clearly support soil health programs (which most of the states in the Northeast have done) and for states to develop soil health plans.

More info: congress.gov/bill/117th-congress/house-bill/2803/text?r=1&s=2



NOSB Report to NOFA-NY

By Brian Caldwell

I have been pleased to represent consumers and the public interest as a member of the National Organic Standards Board for just over a year now. The experience has been quite gratifying in spite of requiring a lot of work. The function of the NOSB is to provide feedback to the USDA National Organic Program from the Organic community. It has the specific charge of making decisions regarding the National List of Allowed and Prohibited Substances to be used in growing and processing Organic food.

It has been amazing to me that every decision we make turns out to be more complicated and involved than I expected. For example: Who would have guessed that today's biodegradable plastic mulch products are at least 80% derived from petroleum? Maybe you, but not me. Are they fully biodegradable? Maybe. Are they better products than polyethylene plastic mulch? Hm, probably…. Biodegradable Biobased Mulch Film (BBMF) has been approved for use on the National List, but only if it is made of 100% biobased (from biological sources) constituents. Such products don't exist. Paper mulches exist, but unfortunately thus far they do not stretch and persist well enough to be used in commercial production.

What to do? Last fall, the NOSB approved a wording change so that BBMF products were approved as long as they were comprised of at least 80% biobased constituents, and were at least 90% biodegradable in less than 2 years. Those products don't currently exist either—but manufacturers have stated that they are feasible. It is hoped that in a few years, better, approved BBMF products will be on the market. If so, they may take the place of at least some of the polyethylene plastic mulch used on organic farms—a product that is 100% waste after one season.

That may have been a convoluted ride, but it has nothing on Ammonia Extracts. These are a relatively new class of non-synthetic fertilizers, in which ammonia is concentrated or extracted from natural materials like manure. Several questions arise here. Do such fertilizers act like synthetic ammonia fertilizers? Are they good for the soil microorganism community? These two are basic. Digging deeper, do they require heavy energy inputs to produce; in other words, do they work against the ability of organic farming as a whole to be a good energy alternative? Do they release lots of CO_2 in their production? Do they favor huge non-organic CAFO farms because such farms are the only ones that can afford to process their manure in this way?

On the other hand, do they capture nitrogen that is normally lost to the atmosphere for use, reducing the production of N_2O, a potent greenhouse gas? Do they allow for targeted nitrogen fertilization, avoiding the phosphorus buildup that occurs with compost and manure?

Safe to say that these questions have not been fully answered. However, the NOSB felt that the answers to the first two basic questions above were firm enough to reject their use in organic production. Higher analysis ammonia extract fertilizers act like synthetic N, bypassing (ie. not feeding) the microbial community. They feed the plant, not the soil, so they do not support organic farming goals.

These are the sorts of thorny questions that the NOSB tries to grapple with. Currently on the docket are decisions on "borderline" GMO methods and more. I am encouraged by the good will and wisdom of my fellow members, which is based on input from the organic community. Twice a year, the NOSB receives thousands of valued comments from stakeholders on proposed decisions.

It is clear that the organic movement is in a difficult spot right now, with issues of fraudulent grain, spotty enforcement of dairy standards, novel GMO's, plastics, hydroponics, and more. Integrity is the base of our movement. The NOSB needs to be used by groups like NOFA-NY as a conduit to the National Organic Program to foster farming that contributes to a healing, peaceful, earth-regenerating future. It really makes a difference when NOFA-NY members encourage Congress to pressure the NOP towards those goals--in addition to all our other good work!

Brian Caldwell has farmed organically for over 40 years at Hemlock Grove Farm in West Danby, NY and was a co-founder of NOFA-NY. He is also retired from managing organic farming experiments at Cornell University.

☼

NYFARMNET

1-800-547-3276 | www.nyfarmnet.org

100% free, 100% confidential on-farm consulting

NO MATTER THE SEASON, NO MATTER THE REASON, WE'RE HERE FOR YOU.

*Available to farmers, farm families, and agbusiness employees.

FINANCIAL ANALYSIS + DECISION MAKING | PERSONAL WELL-BEING
RETIREMENT + ESTATE PLANNING
FAMILY BUSINESS RELATIONSHIPS | BUSINESS PLANNING
COMMUNICATION | COPING WITH COVID-19 STRESS
REFERRALS TO ADDITIONAL RESOURCES

Dyson
Cornell
SC Johnson College of Business

CornellCALS
College of Agriculture and Life Sciences

Input from a Small Farmer on the VT Climate Caucus

To Solve the Climate Crisis We Need Healthy Soils: the Case for Base Income Payments to Regenerative Land Managers

By Stephen Leslie

VT HEALTHY SOIL PROTECTION & RESTORATION ACT

To meet the greenhouse gas emission reduction targets as established under the passage of the Vermont Global Warming Solutions Act, we need to elevate healthy soil as an essential ingredient to solve the climate emergency. Simply reducing Greenhouse Gas emissions (GHG) won't be enough to halt climate change. We need to maximize the sequestration capacity of our farms and forests. More importantly, we need to focus on habitat restoration.

In this time of societal reckoning, farming is fundamental reparation. Not only does the dominant society need to address the historical and contemporary wrongs committed against BIPOC communities, we also need to repair and restore the natural world. Land managers need to be trained and supported to do this work. We must decouple organic-regenerative farming from the capitalist system, or at least provide sufficient safety nets to guarantee a living wage for all farmers and farm workers engaged in organic regenerative land management.

Irreversible abrupt climate change is the symptom of the fundamental rupture from settlement and colonialist culture. We can't expect farmers to focus on ecological services while they have to compete to survive in the industrial global food market. We need many more young people to work in regenerative organic land management. We must provide training and a viable career path for this fundamentally vital work of healing land and feeding local communities.

The state has a fiduciary responsibility to protect and restore our soil resources by providing a base income to land managers who can regenerate soil while producing food, fuel, fiber, building materials, and medicine. In this era of ecological collapse, regenerative land managers are our frontline essential workers.

In 1972, under pressure from a burgeoning environmental movement, the Nixon administration passed the Clean Air and Clean Water Protection Acts. Although this was a landmark victory for the environment, it was also a clear case of putting the cart before the horse: until we pass a Healthy Soil Protection and Restoration Act, we cannot have clean air and water. It is not possible without healthy soil. We need progressive soil health policy reflective of a radical shift in societal prioritieswhere soil is recognized as "basic infrastructure".

CONTEXT IS EVERYTHING

Context is the recognition that each farm organism is unique and that this must be reflected in the application of the soil health principles in order for them to be effective. Context will need to be central to any Payment for Environmental Services (PES) program if it is to be sensible and equitable. For instance, if we consider the physical context of a farm, each will have a distinct soil type and land-use history. A farm with sandy loam will likely start out at a lower base level of SOM (soil organic matter) compared to a farm with silt loam, and even if the sandy loam farmer implements regenerative practices it could take years to bring up the SOM in that context. Conversely, a silt loam farmer implementing regenerative practices may quickly reach a plateau in which high SOM levels are stable but no longer see a dramatic increase. In either case, we would still want to reward these farmers for the continued implementation of regenerative practices.

We typically think of farmers and forest managers in terms of the output of their operations--yields of corn or so many board feet harvested. We need to match expectations for production with management aimed at the restoration of the carbon cycle. Restoration of the carbon cycle leads to restoration of hydrologic cycles, which is critical to landscape function and climate change impact mitigation.

Going forward, we need policymakers and land managers to understand that biology is the driver of soil health and carbon sequestration. In natural systems, carbon inputs continuously come in through living roots, animal activity, and deposition of plant residue. In a cropping system, the farmer is removing carbon. Through cover cropping and crop rotations, composting and mulching, perennial crops and agroforestry, adaptive multi-species grazing and organic reduced tillage and no-till, farmers can restore and augment the carbon bank.

SOIL HEALTH MANAGEMENT SYSTEMS

We can begin a phased transition for agriculture and forestry by implementing Soil Health Management Systems (SHMS). This is a model that was first developed by NRCS agents and farmers in North Dakota. Here in Vermont, we could begin by using Nutrient Management Plans as a model. Technical Service Providers can assist land managers in developing soil health plans. The aim is for long-term adoption of practices with commensurate long-term financial incentives and technical assistance. Field agents can do yearly site visits to monitor and assist in implementation.

The strategy is to build on on already existing programs of federal and state government and the NGO's, in order to coordinate and amplify the collective impact of all these efforts exponentially. We can build out the regional Conservation District offices to coordinate the delivery of technical assistance in each major watershed.

The six principles of soil health developed by the NRCS provide a rubric for the adoption of healthy soil practices; Know Your Context, Cover the Soil, Minimize Soil Disturbance, Increase Diversity, Maintain Continuous Living Plants/Roots, Integrate Livestock.

Each land manager would have a "team" of experts to help implement and troubleshoot. This team could coordinate with the Farm Viability Program to strive for successful outcomes at every level. Site characteristics and social context will be taken into account to ensure an equitable and just transition. All practices should be seen as comprising a synergy of effects to restore the totality of the farm ecosystem. Incentives will no longer be granted piecemeal for specific practices, rather participants are aided to develop comprehensive plans.

SHMS would allow for the land manager to apply for assistance on a variety of practices under a single contract. This would increase enrollment and voluntary compliance with Required Agricultural Practices. Incentives are a favorable approach over regulations. Successful pilot projects and farmer-to-farmer training are proven methods for accelerating the adoption of healthy soils practices among the legacy farming community.

It is not practical to measure carbon sequestration, water quality and other enhanced functions on every farm every year. Therefore UVM should continue to conduct trials and monitor pilot farms to establish median averages. Farmers will be expected to document practices.

Let's ensure that payments for ecological services are aimed not only at incentives for the adoption of practices but to sustain them over the long haul, and to equally reward those who are already practicing them. Ecological services should not be restricted to cleaner water and carbon sequestration. We need a holistic measure of the ecological and economic benefits farmers contribute to society. We need to take into account all of the landscape functions of a farm or forest and how restoring these contributes to the health of the bioregion. Not only do local organic regenerative farms sequester carbon and restore habitat, but they also reduce the overall carbon footprint associated with food production by eliminating chemical inputs, reducing tractor use, and reducing transportation through local distribution.

(continued on A-18)

(VT Soils - continued from A-17)

ECOLOGICAL FOREST MANAGEMENT
A starting point for "context" as our first soil health principle is to consider what was here before humans altered it (in our context that would mean before European settlement, as the Indigenous people were practicing what we now refer to as Agroecology). We need to take the soil health of the old-growth forests as a measure for soil health in our region. Here in Vermont, that means understanding the ecology of the primary forests, where soil carbon accrued through centuries in a forest system that tended to experience localized and relatively minor disturbances. For all the tons of carbon held in the trunks and branches, the real long-term stable carbon was built up over centuries in this substrata of deep humus. That legacy is the carbon bank we are still farming on.

Beginning in 2010, for the first time in over one hundred years, Vermont is again losing forest to the tune of 1500 acres a year. Unchecked development, clear-cutting and fragmentation all threaten the health of woodlands.

80% of our forest is in family ownership. We need to understand the forest as a system and grant incentives to woodland owners who manage for long-term health and adaptability. This doesn't have to entail the "not-in-my-backyard" syndrome. We can sustain a local harvest while managing for enhanced complexity. In fact, the promotion of ecological forest management could help jump-start a "local-vore" movement in the timber and wood products industries. If we really care about our own forests we need to reduce consumption and waste. The current prevalent practices of shelterwood and clear cuts may have made sense in our region in the 20th century but with the advent of climate change, with flash droughts, extreme precipitation events, wind shears, invasive pathogens and pests, we have no guarantee that regeneration will occur on such sites as it once could reasonably be expected to do.

Worldwide 50% of the carbon stored in a forest is held by the top 1% of the biggest trees. New findings show that, although it is not as rapid as in young trees, sequestration is greatest from the growth period of 50 years to 150 years of age and is continuous after that. The soil biome of an old-growth forest is so robust that an estimated 60% of the carbon is stored below the ground. There are innumerable benefits accruing to old forests in terms of healthy landscape function and biodiversity.

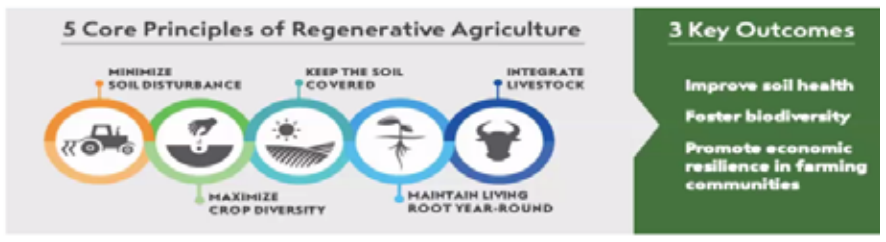
We can unite with the international "30x30" initiative and call for the establishment of 30% "forever wild" designation of forest lands in this state by 2030. And aim for "half-wild" by 2050. We should also ask our legislators to place a moratorium on new biomass projects for heat and energy. Weatherization of homes and subsidies for thermal heat pumps could bring us better gains without further environmental destruction.

JUST TRANSITION
Small diversified and intensively managed farms have the flexibility and resilience to best withstand the shocks and disruptions that are coming our way. According to the United Nation's FAO, small farmers (25 acres or less) are still providing 70% of the world's food.

Our current economic system does not reward small diversified farmers whose focus is building soil health. Nor does it reward large commodity producers whose focus is on yields and mechanical efficiency. With unstable markets and rising operational costs, all farmers are hurting. The purveyors of agricultural inputs and machinery are the only ones reaping record profits in this game.

Despite the well-deserved hype about Vermont's burgeoning local food movement-those of us who have been on the ground building the local food system for decades are engaged in a labor of love. Most of us pay our employees more than we pay ourselves but still can't pay a living wage. It's hard to find a dairy farmer who does not have long-term debt. Many of us have a family member with an off-farm income. Prior to the Affordable Health Care Act, most farmers were without health insurance, and you'll find many aging farmers with no retirement or succession plan. This is a hard sell for attracting new and young farmers-and the prospects look even worse when you factor in skyrocketing land prices.

Five Broad Principles from USDA/NRCS



PES should take into account that carbon farming is a long-term proposition. Land managers willing and able to practice regenerative practices will require a steady guaranteed income. Every farm will experience ebbs and flows in sequestration, but there is not a farm in Vermont that can't build more soil organic matter. It is this cumulative effect that is exponentially important and why payment should be equitable across the board for all land managers participating in soil health management regardless of acreage.

By offering incentives and technical assistance the 80% of VT Ag acres currently devoted to dairy can be transitioned to produce a wide diversity of annual and perennial crops. It's not a matter of getting rid of cows, it's a matter of adding back in everything else. Sure, this kind of farming is management-intensive but that can translate into an era of opportunity for future farmers. This transition must happen as swiftly as possible in order to stave off the worst effects of climate change and loss of biodiversity and to ensure regional food sovereignty as macro supply chains become more unreliable.

A regenerative farm renaissance could boost Vermont's tourism industry. Imagine our hills and valleys graced with a tapestry of organic regenerative diversified farms and regional food hubs. Tourists could travel hub-to-hub in electric buses charged by on-farm renewables to experience the specialty products of each region. We could become the "Napa Valley" of the organic regenerative movement. New and young farmers would flock here to attend Ag schools and intern on our farms, dairy plants & abattoirs. At the same time, we could create opportunities to resettle climate refugees by offering access to land for farming and good-paying jobs in the growing foodservice sector. We could establish "new commons" through partnerships between government, nonprofits and landowners to grant land access to climate refugees, young and new farmers, Indigenous populations, People of Color, women farmers, and others historically and still excluded from land tenure.

Healthy soil practices are applicable in suburban and urban settings too. Cities, towns and villages may implement healthy soil plans by creating more green spaces, community gardens and food parks. Water infiltration can be improved by establishing riparian buffers and replacing asphalt and concrete with permeable surfaces. Urban greywater and run-off can be filtered through living filtration systems. Property managers and homeowners who practice organic regenerative yard care have an important role. Grass lawns taken as a crop make up the greatest percentage of irrigated acres in the US. On-farm and municipal composting can put us on track toward a circular economy and a zero-waste society.

But for any of this to happen we need to elevate healthy soil as the essential ingredient to solving the climate and ecological crisis. Soil is such a critical resource that we can no longer leave its management unregulated. Ownership, leasehold or any other form of land tenure can no longer mean a free license to degenerate or destroy soil. Government must protect and offer transformational incentives for the adoption and maintenance of Soil Health Management Systems.

The roots of all social injustice are bound up with the exploitation of land, water and air. The colonial-capitalist system that historically and currently inflicts so much cruelty especially upon Indigenous people and People of Color, but also on small farmers globally, is the same system that exploits and degrades the natural world. Reparations to one without the other will be meaningless. Progressive soil health policy can be a first step to re-establishing the commons and recognizing the rights of all living beings.

Climate scientists the world over have declared that this transition to organic regenerative land management and habitat restoration must begin now in order to stave off the worst effects of climate change. Soil health protection and restoration is our last best chance to pass on a livable planet to the next generation. The first step for the legislature is to define healthy soil and enshrine the healthy soil principles into statutory language. This would establish true north for all farmers, agencies and advocates. Vermonters can lead the way.

HOW TO PAY FOR PES?
All farmers and forest land managers who are willing to adopt SHMS should be offered a base income. This would be a simplified way of compensating for ecological services. It would rely on mean averages for measurement on comparable pilot operations. It would ensure that small farmers don't get left behind by carbon trading schemes.

Industrial agriculture in the US is already fully subsidized to the tune of $4.2 billion paid out in 2019 to farmers through Risk Management Assessment (RMA) program, aka crop insurance. There are currently 2 million farms in the US. The problem is the way RMAs get paid out: Corn $2.6 billion - 60% of annual RMA payments. Soy $1.1 billion - 25%. Corn and soy are grown chiefly for animal feed. 40% of corn goes to ethanol, 30% goes to livestock feed and high fructose corn syrup, the rest is sold to China so their growing middle class can eat more meat. Crop insurance measures from the farm's previous history of yields. It rewards over-production. It discourages soil building practices that might have a negative impact on maximum yields. The majority of the $4.2 billion spent on crop insurance in 2019 was for delayed planting payments due to the extreme flooding events along the Missouri River. These kinds of events will only increase in duration and intensity.

Reforming crop insurance is critical to saving soil in the US. A good Whole Farm Insurance package -- where the farm's previous history of total revenue is the baseline for compensation -- would be a first step. Support to farmers could include programs to create equity in the market, such as: price parity for local farm products, regional supply management of milk and other commodities, and whole-farm revenue insurance.

We cannot expect farmers with annual operating debt and long-term debt to be innovators and risk-takers. Dairy farmers invest enormous amounts of capital in equipment, infrastructure, inputs, and labor. They have seen profit margins flat-lined going on for almost on 50 years, while operating costs have sky-rocketed. To those who say we cannot afford to subsidize land managers just so they'll do the right thing, consider that the annual budget for Pentagon for 2022 was $770 billion (that means the daily budget averaged out at $2 billion) while the average farm income is negative $1200. Doesn't a resilient and healthy agriculture have a part to play in our national security future?

We protect what we love.

Stephen Leslie is a co-owner of Cedar Mountain Farm and Cobb Hill Cheese located at Cobb Hill co-housing in Hartland, VT. Stephen is an author with Chelsea Green Publishing.

☼

Farming & Parenting

This series highlights stories about farm babies, parenting and farming - the joys and the disasters. Submit your stories, interviews, tips, photos, regrets, hopes, and more! Visit TheNaturalFarmer.org.

Parenting and Farming: Seeding Gratitude, Cultivating Care

By Nikki Kolb

A cow is crossing the road. It's mostly white with rusty spots and curvy horns, head high, at once regal and nervous as it spans the pavement surrounded by a group of farmers who've stopped traffic, which is just two cars -- us, on our way to pick apples at an orchard in town, and an oncoming driver. Century-old farmhouses looking seasoned and storied are perched on either side of the street. To the left, a field overlooks mountains in the distance. To our right, woods fan around the house. I point out the cow to my son. He's two and a half and watching with excitement out the back passenger window as the animal reaches grass and disappears behind the old house. We wave goodbye to the farmers, who smile, and continue to the orchard, passing trees ablaze with autumn leaves. My son calls out the colors he sees while my six-month-old coos from her car seat, catching glimpses at the kaleidoscope world whizzing past the windows.

At the farm, we park on the edge of a field. I strap my infant to my chest and herd my toddler past picnic tables toward two pens with sheep and goats. He mimics the bigger kids he sees, feeding long strands of grass through the fence to whoever will eat them. Then we stop in the farm store to pay for the bag we intend to fill with our bounty and snack on fresh-baked donuts, holding hands as we enter a sea of ripening apple trees. We wander and pick and eat until our bellies and hearts are full and our bag is overflowing. Delighted with our haul, we manage to make it home in time for everyone's mid-afternoon nap, passing farm stands and homesteads all along the way.

The next weekend I take the kids to a NOFA event on organic maple sugaring at a farm down the street from our house. It's my day off, so I get to enjoy the tour as a spectator. The highlight for my son, of course, is sampling the syrups and maple butter at the end of our visit. I buy a pint to take back with us, excited about the hyper-locality of my purchase, how the syrup we'll drizzle on our pancakes is made by our neighbors from trees practically in our own backyard. Before we part, I get a chance to introduce my children to an old friend and housemate who has recently started a farm a few towns over, and whose influence I credit with my interest in agriculture, leading to my career at NOFA today. I feel a sense of things coming full circle.

Growing up in the suburbs of northern New Jersey, I didn't know anyone who cultivated their own food. Though we lived in a town with a lovely farm that we visited several times a year, and that's still in operation today, gardening in the Garden State meant little more to me than finely manicured ornamental flowers. Homesteading wasn't a part of my vocabulary, and despite having that farm in town I still viewed agriculture as something that happened elsewhere.

Recalling this perception reminds me of one of my earliest memories – picking wild raspberries on the edge of my neighbor's property before the plants were removed. Our houses straddled a narrow creek and the bushes butted up against the banks, but only on their side. Last season, my neighbors in central New Hampshire had a thriving raspberry patch, a gift from the earth that offered up juicy fuchsia gems all the way through the end of October. The kids and I reveled in our weekly invitations to pick, my little boy stuffing one berry into his mouth after another, my daughter clamoring for the leaves, and me, charmed by the thought that my children might recall these everyday agricultural experiences long into their adulthood as fondly as I do. I easily recall picking berries at the edge of the stream, gathering pumpkins with my mom at the farm in town, and even how at age 70, my mother still reminiscences about her annual visits to a farm in the Catskills as a little girl.

The world of agriculture is at our fingertips here in the Granite State, one that can provide my children with an example of a thriving rural life. Yet small farms are continually under threat as cheap food reigns, markets continue to consolidate, farmers retire without successors, and land prices soar. Like so many farmers and gardeners, I am often thinking of climate change, how the longer berry season is shortening the maple season, the ups and downs of dry spells and floods, and the future of our food system.

These threats have placed even greater importance on my desire for my children to grow up learning skills that will help them make the world a better place for themselves and their communities. And I hope that in the garden they will find many teachers and lessons: to honor the land and people who stewarded it for generations before us, to grow together, learn together, succeed and fail, to take pride in their work, to share their plenty, gather patience, and harvest awe. Through gardening I imagine them imbued with both independence and interdependence, an understanding that everything is connected, and an impetus to cultivate their soil, relationships, and lives with care.

The authors older kiddo, harvesting radishes. Photo provided by author.

For now, at ages 1 and 3, I'm just planting these seeds, savoring the fruit of my children's pure joy in pulling carrots and picking snap peas, knowing this time together when they are small – like the earth and our connection to it – is sacred. I like to think they feel it too.

Nikki Kolb, she/her, is NOFA-NH's Operations Manager and an aspiring homesteader.

☼