Land Stewardship



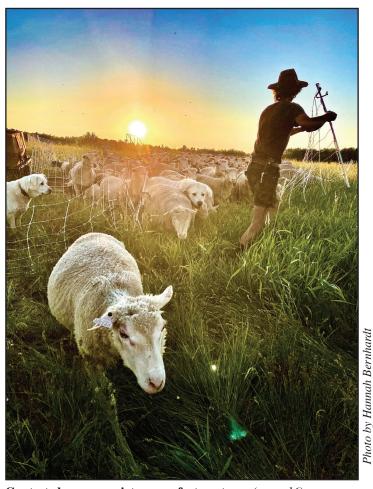
LAND **STEWARDSHIP PROJECT**

38 Years of Keeping the Land & People Together Letter

Volume 38

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Number 3, 2020



Contest showcases picture-perfect pastures (page 16).



- -Sustainable Vs. Regenerative -
- -Fake Meat's False Promise-
 - -Singing Soil's Praises -
- -Farmers Take on Climate Change -
- -Giving Voice to the Needs of Rural Communities -
- -Reaching Beyond Soil Health's Low Hanging Fruit-

Land Stewardship

STEWARDSHIP PROJECT

Keeping the Land & People Together

Vol. 38—Number 3, 2020

The Land Stewardship Letter is published by the Land Stewardship Project, a private, nonprofit organization. The Land Stewardship Project's mission is to foster an ethic of stewardship for farmland, to promote sustainable agriculture, and to develop healthy communities. Members of the Land Stewardship Project receive this publication as a benefit. Annual membership dues are \$35.

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Photo by Dodd Demas

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Stewardship Roots

Sustainable Vs. Regenerative

Maybe it Doesn't Matter So Much What the Word is, but Who's Using it

By Brian DeVore

hen the word "regenerative" is being tossed around freely by the world's largest agribusiness, one takes notice. There it was, on the front page of the Sept. 17 *Star Tribune* business section, a lengthy story on how Cargill Inc. is dedicated to helping farmers convert 10 million acres of row crop farmland to "regenerative practices."

There are plenty of questions around whether this initiative, which will supposedly focus on helping farmers adopt such practices as no-till, cover cropping, and diverse crop rotations, is just another example of a large agribusiness firm doing some creative "greenwashing" — taking on the appearance of caring for the environment even while it does long-lasting damage to the land.

But this is just one more example of how the term "regenerative" is gaining traction. These days, it seems like the media — agricultural and otherwise — is full of references to how farmers are using innovative ways to regenerate a farm's natural processes, thus reducing reliance on those practices that harm the very elements we rely on to produce food — soil, water, the carbon cycle.

But this isn't just a brainchild of a savvy corporate marketing department — "regenerative" is now part of the agricultural lexicon. In fact, in recent years farmers and others have been using it as a substitute for the word "sustainable." This hits home for the Land Stewardship Project, which has a mission to "foster an ethic of stewardship for farmland, to promote sustainable agriculture, and to develop healthy communities." We define sustainable agriculture as a system that is "ecologically sound, socially just, financially viable, and humane."

But many farmers interested in a more ecologically-based agriculture are saying it isn't good enough to just "sustain" our land — we need methods that "regenerate" and bring it back to life, thus making it better than ever. I recently talked to a pasture-based livestock farmer who frequently uses social media to promote her product to consumers. She told me that when she uses the term "regenerative," her posts trend noticeably upward — a sign this word resonates not just with farmers and agribusiness public

relations departments.

This has spawned a bit of a debate over which term better fits innovative, environmentally-friendly farming systems: "sustainable" or "regenerative?" In some cases, the debate has gotten a bit contentious, with at least one Congressional ag leader dismissing the term "regenerative" as a bit too fringy for his tastes.

Well, it turns out this is similar to a debate Dana Jackson was in the midst of over four decades ago. With her former husband, Wes Jackson, Dana co-founded the Land Institute in 1976; she was on LSP's board of directors and eventually served as the organization's associate director. During the past several decades.

she has written and spoken frequently about ways to advance and support a

more sustainable form of agriculture.

In a recent LSP Ear to the Ground podcast (see sidebar), Dana talks about how she and others back in the 1970s were casting about for a term that described a more "permanent" agriculture, rather than one based on short-term mining of resources. The late Robert Rodale, whose family spawned decades of organic agriculture research through the Rodale Institute, was in favor of the term "regenerative." However, others argued that "sustainable," which had long been used to describe ecologically-based farming, offered a broader definition of the type of system we should be striving for: support of the land, as well as people and rural communities.

"We were talking systemic agriculture," Dana says. "We weren't just focused on systems of soil regeneration."

Eventually, the term "sustainable" won out, mostly because, as Wes Jackson quipped, it was already "loose in the culture." Now, "regenerative" is back, and in a big way. One often sees the word mentioned in connection with a particular soil health practice, which could in a sense narrow its ability to be applied to the big picture view of a type of farming that, again, does not undermine the very elements it relies on, including people. Words matter, and having a clear definition to work from is important, especially now that we're increasingly aware

of how our conventional food and farm system undermines the very fabric of society.

But there are signs the word's definition is becoming broader. For example, the Regenerative Agriculture Foundation puts it this way: "...any practice that makes the land, community and bottom-line healthier year after year is regenerative." Also, let's keep in mind that even if someone is focused on building the health of the soil, that's not exactly taking a reductionist view of life. Healthy soil produces healthy land and healthy food, which eventually supports healthy communities. That's pretty big picture. We could do a lot worse than promoting a type of agriculture that does right by the world beneath our feet. And if non-farmers seeking clean water, carbon sequestration, and just, healthy economies support soil-building systems with their food dollar and through policy changes, then that's sustainable long into the future.

Precise, technically correct definitions aren't always a prerequisite for spawning positive change — words that fire the imagi-

Words that fire the imagination

are important too.

nation are important too. When I hear a farmer using the term "regenerative" to describe a practice or system, I detect

a spark that isn't present when the word "sustainable" or "conservation" is used. Partly that's because the word hints at life and activity, and that's exciting. It's similar to how the term "soil health" connotes a biologically-based path for putting farmers in charge of their futures.

So what to do when an agribusiness giant co-opts the word? That puts the onus on groups like LSP to show what real, on-the-ground regenerative agriculture looks like every day. And that means supporting and promoting the very people who have to make it a reality.

As Dana Jackson says, "Maybe that's one of the ways regenerative has the advantage now in that it's being spread among the right people to make changes — the farmers."

Brian DeVore is the editor of the Land Stewardship Letter.

Give it a Listen

In episode 245 of the Land Stewardship Project's Ear to the Ground podcast, Dana Jackson discusses the debate over "sustainable" and "regenerative" and describes the time agribusiness folks started walking out of the room in the middle of one of her talks: www.landstewardshipproject.org/posts/podcast/1325.

In Remembrance

Dennis Johnson: 1940-2020

ack in the 1990s, while working as a Land Stewardship Project organizer, Audrey Arner was facilitating meetings of pasture-based livestock producers in western Minnesota when she noticed a new face popping up in the back of the room. It was Dr. Dennis Johnson, a dairy scientist from the local University of Minnesota experiment station who had done cutting edge research and traveled the world to see the latest innovations in agriculture. But he wasn't there to tell farmers how to produce livestock. He was there to listen.

"He was so discreet — he offered information only when he was asked for it," recalls Arner, who raises grass-fed beef cattle.

Dennis Johnson's ability to listen with an open mind, offer advice when asked for, and dig into the basic questions of what truly makes livestock farming viable for producers and the communities they support will be sorely missed. On Aug. 25, he passed away after a long battle with cancer. He was 79.

Johnson's passing is not only a loss to the larger agricultural community — he played a pivotal role in LSP's work to make sustainable farming systems a component of the U of M's research and outreach efforts. Paul Sobocinski, a southwestern Minnesota hog farmer who just wrapped up a 25-year career as an LSP organizer, recalls that Johnson served on LSP's State Policy Steering Committee while he was on the staff of the U of M; a brave choice, given that LSP is often at odds with the University over its reluctance to support sustainable agriculture.

"Dennis wasn't afraid to speak up," says Sobocinski. "He stood up so clearly on what he thought was right."

Dennis was also a member of LSP's board of directors, serving as chair at one point. "He was an empathetic, astute leader who would listen to farmers' and board members' concerns and ideas and who forged compromises while holding true to his values," says George Boody, who was LSP's executive director while Johnson served on the board.

Even before his involvement with LSP, Johnson did a bit of a pivot in mid-career. When he arrived at the U of M's West Central Research and Outreach Center in 1968, Johnson, like most dairy scientists, focused on developing and promoting methods that produced increasing amounts of milk at all costs. Pastures were replaced with cornfields; large free stall barns and manure lagoons popped up next to milking parlors.

"I concluded there was no future in grazing at the station," Johnson recalled in a 2010 *Land Stewardship Letter* article.

But in the 1980s, Johnson started noticing a troubling trend. Dairy farmers who had made major herd expansions and adopted the industrialized CAFO model, often as a result of the advice of experts like Johnson, were not necessarily making more money. In fact, many were going out of business, even though they were excellent managers.

In 1990, Johnson took a trip to New



Dennis Johnson in a grazing paddock at the West Central Research and Outreach Center in 2010. (LSP Photo)

Zealand and Australia to see firsthand an alternative system that had the reputation for producing milk without a heavy reliance on expensive inputs: managed rotational grazing. The scientist was impressed with what he saw Down Under, but found in this country it was difficult to get good research data on rotational grazing.

So what did he do? He went to the farmers who were leading the way on grass-based agriculture. That's what brought him to the meetings being led by Arner. It was also what prompted him to travel the state, visiting pioneers in pastured based production systems to learn their methods and what their research needs were.

By the mid-1990s, the West Central Research and Outreach Center's dairy herd was being managed via rotational grazing and the station was hosting regular pasture walks for farmers. Thanks to Johnson's work and lobbying efforts on the part of LSP members and staff, in 2007 the Minnesota Legislature designated over \$1 million for research into organics. Today, WCROC, as it's known, is the only U.S. land grant experiment station where an organic dairy herd is being

managed next to a conventional one. By the time Johnson retired in 2010, WCROC was known for the major strides it had taken in studying pasture mixes and herd improvement. His successor, Brad Heins, has continued innovative work in areas such as cover crops, milk quality, and integrating solar electrical generation into pastured systems.

"Dennis's deep roots on the land informed his research and academic career in profound ways," says Dan Guenthner, a pioneering Community Supported Agriculture farmer who served on LSP's board with Johnson. "But equally important to Dennis was helping to share his passion with those with little or no farming background. He knew that broad support for publicly funded research required getting as many people as possible out on the land to see firsthand that animals on grass made ecological sense for the health of the land and the people."

After leaving the U of M, Dennis and his wife, Carole, volunteered frequently in their local community of Morris, Minn. They were deeply involved in efforts through the Evangelical Lutheran Church of America to alleviate world hunger. They also helped launch LSP's Land Legacy initiative through a generous gift of farmland.

"Dennis cared about the policies affecting people's food, and he worked at making our food fair, safe, and environmentally friendly for citizens worldwide," recalls southeastern Minnesota dairy farmer Bonnie Haugen, who also served with Johnson on LSP's board.

When one lives a life that has a positive impact on not only people, but the land they live and work on, signs of that impact are present long after they're gone. Arner recalls that when her farm was making a step-by-step transition to converting more row crops to perennials, Dennis would encourage her to just "plant the whole thing in grass."

"And I didn't think that was likely at the time. Well, of course, that's what came to pass," she says. "So often when I look out at the landscape so different from the cropland we are surrounded by, I think of Dennis."

More on Johnson's Legacy

In episode 81 of the Land Stewardship Project's *Ear to the Ground* podcast, the late Dennis Johnson talks about how listening to farmers guided his approach to research into innovative farming systems: www.landstewardshipproject.org/posts/podcast/197.

For more on Johnson's impact on agricultural research, see the Summer 2010 Land Stewardship Letter: www.landstewardshipproject.org/about/landstewardshipletter.

Myth Buster Box

An Ongoing Series on Ag Myths & Ways of Deflating Them

→ *Myth:* Fake Meat Will Save the Planet's Climate

→ Fact:

The promoters of "meat" that does not come from living, breathing animals go to great

lengths to differentiate their products from the "veggie burgers" that started popping up in the grocery aisle decades ago. The fake meat industry's target customer is not the vegetarian or vegan. These products — also called "alt-meat," "cultured meat," or "synthetic meat" — represent a new generation of food that utilizes recent developments in biochemistry to create something that will taste close enough to the real thing to attract carnivores.

Faux burgers produced by companies like Impossible Foods and Beyond Meat are now being served in restaurants. This fall, McDonald's announced its own alt-meat product, the "McPlant," and Kellogg's and Cargill are getting into this sector of the food industry.

A big part of the fake meat industry's marketing campaign centers around climate change. Stop eating meat and switch to the McPlant, and we can save the planet from ecological doom, argue people like Pat Brown, a biochemist who founded Impossible Foods. In fact, Brown has been particularly blunt about his goal: he wants to use plant-based meat to wipe out all animal agriculture and deep-sea fishing by 2035, according to the *New Yorker* magazine.

Brown and his colleagues are making the argument that since animal agriculture contributes to climate change, having *no* animal agriculture will solve our climate problems. But it's not so much the cow, as the how, something the backers of fake meat fail to acknowledge. They are also failing to be transparent about their own industry's carbon footprint.

Plant-based burgers are a concoction of ingredients like peas, mung beans, brown rice, coconut oil, and cocoa butter. It's a highly processed product that has to be done in expensive, high-tech facilities. The Impossible Burger's key ingredient is a molecule called "heme," which is produced in tanks of genetically modified yeast.

Other companies are pursuing a different path by growing meat from animal cells in vats. As of this writing, only Singapore has approved lab-grown meat for sale to the public (it's "cultured chicken"), but several start-ups are attracting billions in Wall Street and Silicon Valley cash as they produce prototypes that are supposed to taste like beef, pork, and fish.

Although the alt-meat industry correctly points out that their gleaming laboratories would occupy a fraction of the landscape that millions of head of livestock do, there's more to reducing one's carbon footprint than cutting square footage. Highly processed foods of all types have a massive carbon footprint, given the amount of energy and ingredients required. The plants that go into plant-based products have to be grown somewhere, and crops like soybeans are already creating environmental problems because of the role they play in an input-intensive monocultural system. It should also be noted that the more processed a food product, generally the less healthy it is.

On the face of it, alt-meat is just replacing one resource intensive process for another. But it's actually worse than that. By working to eliminate the entire livestock industry, people like Brown aren't just targeting industrialized feedlots and CAFOs, they're going after the regenerative sector of the business — the growing part of agriculture that utilizes managed rotational grazing of deep-rooted grasslands and cover crops, and thus gives farmers an economic reason to grow a diversity of soil-friendly plants. And when that's gone, so goes an incredible opportunity to make agriculture a carbon sink while revitalizing rural economies.

Critics of grass-based livestock production point out that since pastured animals take longer to reach market weight, they have more time to produce greenhouse gases when compared to their counterparts that are fattened on high energy grain in feedlots. But a Michigan State University study found that when cattle were raised in a managed rotational grazing system that allowed pasture grasses to develop deep roots and healthy stands of forage, the soils could sequester enough carbon to more than make up for the longer period of time the animals are putting on market weight. And all that corn being fed in feedlot systems has its own significant carbon footprint when it comes to the energy, tillage, and chemicals used to produce it.

An Oxford University study directly compared cultured meat production to various forms of beef farming, including pastured

systems. Scientists found that while beef production of all types produces more methane in the near term, in the long term it's the cultured meat industry that causes the most harm given its contribution to carbon dioxide emissions. What the Oxford research found was that the warming effect declines and stabilizes in cattle systems, while the CO2 based warming from cultured meat persists and accumulates, overtaking beef production in some scenarios.

A major reason grass-based livestock production can play a significant role in sequestering greenhouse gases is because of the "biogenic carbon cycle" — a relatively fast removal of carbon dioxide from the atmosphere via photosynthesis in plants, which deposit that carbon into leaves, roots, and stems while oxygen is released back into the atmosphere. Through the biogenic cycle, the methane cattle belch out is broken down and converted back to CO2 in roughly 10 years. But when carbon is released through the burning of fossil fuels to power, for example, an alt-meat processing plant, the cycle is measured in terms of millennia.

That's why it's misleading to say things like, in terms of our carbon footprint, cutting a quarter-pound of beef from our diet each week is the equivalent of taking 10 million cars off the road annually. Gasoline and steel don't cycle carbon back into the soil within a decade, while grass and hooves do.

There's nothing inherently wrong with using technology to create alternative nutrition choices. But if the same corporate mindset that gave us industrial meat is controlling the fake meat game, we shouldn't expect a better result, and perhaps we should be prepared for an even worse one.

More Information

- To read the *Agricultural Systems* journal study, "Impacts of soil carbon sequestration on life cycle greenhouse gas emissions in Midwestern USA beef finishing systems," see https://bit.ly/3kIu9RP.
- "Climate Impacts of Cultured Meat and Beef Cattle" can be found in the *Frontiers in Sustainable Food Systems* journal at https://bit.ly/2UE4rU6.
- For more on work the Land Stewardship Project is doing related to climate change and agriculture, see page 10.



Land Stewardship Project Staff Changes

ame an issue the Land Stewardship Project has worked on, and Paul Sobocinski has probably organized around it during the past quartercentury. Sobocinski, one of agriculture's most effective and experienced grassroots organizers, has retired from LSP.

Since joining LSP's staff in 1995, he has

organizing around issues related to factory farms, maintaining a strong corporate farm law, concentration in the livestock markets, local government control,



Paul Sobocinski

funding for sustainable agriculture research, and healthcare reform.

Sobocinski, who raises hogs near Wabasso in southwestern Minnesota, also played a major role in a campaign undertaken by LSP and other members of the Campaign for Family Farms and the Environment to eliminate the national pork checkoff program and the harmful impacts it was having on farmers like him.

Before coming to LSP, Sobocinski had extensive organizing experience, and had worked to prevent farm foreclosures during the 1980s farm crisis. Most recently, his work had come full circle, when Sobocinski worked with other LSP staff and members to push Minnesota state officials to support farmers suffering through the current economic crisis.

Karen Benson recently departed LSP

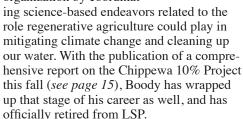


Karen Benson

after 22 years managing the organization's office in Lewiston, Minn. Over the years, Benson not only served as the administrator

of the office, but played a key role in managing the logistics of countless field days, workshops, and member meetings. This required hundreds of hours of behind-the-scenes work to make sure things ran smoothly. She also worked with hundreds of prospective farmers while coordinating the application process for LSP's Farm Beginnings course and its scholarship program.

After ending his 23-year tenure as LSP's executive director in 2016, **George Boody** launched a second career at the organization by coordinat-



George Boody

After becoming executive director of the organization in 1993, Boody guided it through a period of rapid growth. During his tenure, LSP became a membership organization, as well as launched the Community Based Foods, Farm Beginnings, and Soil Health programs. The organization also expanded greatly its organizing and policy work during this time. While serving as executive director, Boody found time to launch and help coordinate key initiatives, including the highly respected Monitoring Project and the Chippewa 10% Project. Both served as foundations for LSP's current soil health and climate change work. In fact, long before it was popular, Boody pushed LSP and other sustainable agriculture organizations to get involved with issues related to the role farming could play in heading off climate disaster.

Perhaps it's fitting, therefore, that one of Boody's last projects as an LSP employee was the writing of the white paper "Farming to Capture Carbon & Address Climate Change Through Building Soil Health" (see page 11).

Boody continues to be involved in issues surrounding developing practical regenerative farming systems in the Midwest: during the past year, he has served as the Endowed Chair in Agricultural Systems at the Minnesota Institute for Sustainable, through which he has been researching ways to integrate managed rotational grazing systems into cropping operations.

When Terry Van-DerPol joined LSP's staff in 1997, she brought with her an extensive background in community organizing and a passion for agriculture that was rooted in her upbringing on a western Minnesota farm. By the time she retired this fall, VanDerPol had coordinated a number of key initiatives at LSP, including the Chippewa 10% Project. As the director of the Community Based Food Systems Program, VanDerPol guided LSP's work with a variety of communities that were

interested in developing a more sustainable food and farm system. Most recently, that involved a collaboration with Hope Community in the Phillips Neighborhood of Minneapolis and playing a lead role in the Twin Cities Good Food Purchasing Program, which is working to transform

Staff, see page 7...



Terry VanDerPol

the way public institutions purchase food by creating a transparent and equitable food system built on five core values: local economies, health, valued workforce, animal welfare, and environmental sustainability.

Whether working on issues related to the positive role agriculture can play in improving the environment or on how to make the food produced on local farms more accessible to everyone, VanDerPol has been particularly effective because of her personal background as a grass-based beef producer in western Minnesota.

Doug Nopar was one of the first community organizers hired by LSP co-founder Ron Kroese back in the early 1980s. Since then, he has worked on everything from helping local communities fight factory farms and supporting migrant workers in their efforts to be treated fairly to spearheading LSP's nationally recognized soil health work. In



Doug Nopar

December, Nopar left the organization after over three decades of service.

Soon after joining LSP in 1984, Nopar, along with his wife JoAnn Thomas, organized meetings in South Dakota counties experiencing high erosion rates. He eventually became director of LSP's southeastern Minnesota office in Lewiston and helped pioneer the use of small group discussions at the organization's meetings. Nopar also helped organize the Stewardship Farming Program, a breakthrough four-year project that brought together 25 farm families to discuss ways of promoting and practicing a stewardship ethic on the land.

Working with former executive director Mark Schultz, Nopar pushed for LSP to get involved in racial justice issues, particularly as they relate to immigrant farmworker rights. Nopar has always believed in the key role cultural programming can play in advancing farmland stewardship. Inspired by how LSP's *Planting in the Dust* play helped communities grapple with soil stewardship issues in the 1980s, Nopar later wrote a oneact play of his own, *Look Who's Knockin'*, which focused on the challenge of transferring farms between generations. In 2020, he worked with musician Bret Hesla to develop LSP's first music videos (*see page 21*).

Given Nopar's early LSP experience working on erosion issues, it's appropriate that one of his last endeavors at the organization was the launching of the Bridge to Soil Health Program, which, through its Soil Builders' Network, has become a model for organizing farmers around profitable and practical regenerative production techniques that are passed on via peer-to-peer learning (see page 15).

After five years directing LSP's work on federal farm policy, **Tom Nuessmeier** has left the organization's staff to devote more time to farming and his family. Nuessmeier, who raises crops and livestock in southern Minnesota's Le Sueur County, first became involved with the organization's work on policy as a member when he joined LSP's Federal Farm Policy Committee in 2009.

Since joining LSP's staff in 2015, he has worked on analyzing and evaluating federal



Tom Nuessmeier

farm policy and programs from the standpoint of small and medium-sized farms. He also served on local and national committees related to federal farm policy and played a key role in two special reports LSP produced on crop insurance reform.

In recent years, Nuessmeier helped LSP farmer-members take their demands for ag policy reform directly to policymakers when he organized visits with members of Congress, both in Washington, D.C., and on Midwestern farms. He worked extensively with journalists to make LSP a significant voice in regional and national media.

During the past two years, Nuessmeier was part of a major LSP effort to organize farmers and other rural residents around policy issues related to the farm crisis. These efforts culminated in a petition drive and gathering in Mankato, Minn., in February, where LSP members from across Minnesota spoke to state Commissioner of Agriculture Thom Petersen and Attorney General Keith Ellison about what programs need to be instituted and regulations enforced to support small and medium-sized farmers.

Bairet Eiter has joined LSP's Bridge to Soil Health Team. Eiter has a bachelor's degree in crop and soil science, with an emphasis on sustainable agriculture and a minor in dairy science, from the University

of Wisconsin-River Falls.

She recently worked as a cover crop specialist for Albert Lea Seed House, where she assisted farmers with seed selection for pastures, forages, and perennial cover crops. Eiter has also worked as a milking



Bairet Eiter

assistant at a dairy farm, as well as an assistant store manager at a food co-op.

Eiter can be contacted at beiter@ landstewardshipproject.org.

Driessen Joins LSP Board

aurie Driessen has joined the Land Stewardship Project's board of directors. Driessen and her family raise crops and livestock near Canby in southwestern Minnesota and she has spent several decades advocating for providing quality services to individuals with disabilities and the elderly.

During the past few years, she has been involved with LSP's Affordable Healthcare

for All work, during which she spoke to policymakers and the media about the important role programs like MinnesotaCare and MNsure play in providing affordable healthcare to farmers and other rural residents. She has pushed the message that state



Laurie Driessen

budget cuts in health and human services programs are particularly harmful for the elderly and disabled people.

Policy & Organizing

A People's Agenda

Giving Voice to the Needs of Rural Communities

Jessica Kochick

annah Bernhardt runs Medicine Creek Farm with her husband, Jason, and their young son, Harvey, where she raises pastured pigs, lamb, and cattle in a managed rotationally-grazed system just outside of Finlayson, in northeastern Minnesota. Jason is in the process of reconstructing a barn with the original wood

from an 1880s-era farm he transported all the way from Amboy, in southern Minnesota. About an hour north of Medicine Creek Farm, almost to the tip of Lake Superior, Timothy Soden-Groves lives with his wife, Diane, in Carlton, Minn. He is a freelance writer, musician, and humorist, and creator of The Rickety Desk of Mothy Groves, an artist's variety site where one can listen to the musical compilations of Timothy and Diane, featuring melodic vocals, guitar, harmonica, and even the concertina. Head south and then follow the Mississippi River down to the Driftless Area, where Tim Ahrens lives on a farm with his wife, Melia, in Altura, Minn. Together, they run a designfocused custom apparel company.

These Land Stewardship Project members, across differences in geography, occupation, and life experience, share an interest in making their rural communities heard. The story told about rural America — especially during this politically polarized time — is often a paper doll version of reality.

"Go big or go home" is the mantra we hear from corporate ag and often government as the only future for agriculture, and a stark urban-rural divide is built upon a claim that the people on either side of the line have irreconcilable differences when it comes to basic values. But this is not the whole story. It doesn't represent innovative small farmers, families trying to make ends meet, or the diversity of race, ethnicity, and cultural backgrounds that can make rural communities strong.

For this reason, People's Action is working with LSP and other rural-based organizations across the country to develop a different agenda — one grounded in the needs and lived experiences of people, rather

than the demands of big business. While decisionmakers at all levels of government speak to the importance of rural America, they often hold up the paper doll version, support the biggest players, and then say their work is done. A special People's Action report, Relief, Recovery and Reimagination: A Federal Policy Agenda to Meet this Moment in Rural and Small Town America, challenges that corporate-driven approach, and through the contributions of

Relief, Recovery and Reimagination

A Federal Policy Agenda to Meet this Moment in Rural and Small Town America



PEOPLE'S ACTION

rural people, puts forward a bold, progressive alternative that if acted on, could bring much needed change. It has been a tough year in many ways, compounded by the COVID-19 pandemic, but the crisis could lead the way to a more stable and just future if we demand it.

As Ahrens says, "This is an opportunity for the government to work for the people again. In southeast Minnesota we could reach a point where our chief export is agricultural waste in the form of manure. This report lays out an opportunity for the government to correct that trajectory and help us build the wholesome communities that we need."

The People's Action agenda was

released in late August, during the summer height of the COVID-19 pandemic, but rural America's economic crisis began long before that. For generations, corporate consolidation, particularly in agriculture, has harmed rural families, soil and water quality, and local, democratic control. Consolidation in the food supply chain has led to food insecurity in both rural and urban communities, as the COVID-19 pandemic lays bare. Yet the political establishment continues to support this model of agriculture, all the while ignoring the gutting of wealth in rural communities and the vulnerability of people across the food system.

"Even people I politically disagree with voice concerns that the wealth is leaving their communities — they see the impact on their children, and know that if their children leave, they're not coming back," says

Soden-Groves. "Real inequities are built into the system that we seem to be unwilling to address and challenge."

The long-term disinvestment from rural communities is addressed head-on in the People's Action agenda, which is organized into three categories: immediate COVID-19 relief; longer term economic crisis recovery, and finally, a structural reimagination that addresses things like access to healthcare, affordable housing, and a transition to a regenerative agricultural model that improves community health and the environment.

Bernhardt is profiled in the report for the regenerative practices she uses on her farm. She got involved in federal policy work through LSP and other organizations to ensure a voice for agriculture within climate activism. She notes a poll done by the Union of Concerned Scientists (https://bit.ly/2Ia6xYH), which found that up to 90% of Minnesotans who participated in the survey support government programs that help farmers implement soil-building practices. Poll respondents agreed that such policies would help everyone, including city dwellers, by keeping water clean, saving tax money spent on disaster relief,

"Taxpayers want us to do the right thing for the environment. Let's get the federal government to act on that and put the money where the public really wants it, which is a better, healthier agriculture," says Bernhardt.

and ensuring a healthy food supply.

Many beginning farmers, including farmers of color and immigrant farmers, are interested in using regenerative practices. Bernhardt emphasized the importance of racial equity in agricultural policy. She notes that the state of Minnesota is working with emerging farmers and the federal govern-

Voices, see page 9...

ment needs to be doing the same thing.

"Let's talk to everyone who's getting food on our table — farmers of color, migrant farmworkers — we need more diversity in who's talking about farming and who's able to access farmland," Bernhardt says.

Coming together as community across differences can strengthen rural power at a time when some politicians are using racial rhetoric to divide folks and distract from government failure to address rural issues.

In order to shine a spotlight on these issues and on much-needed policy changes, People's Action launched a video storytelling campaign through a platform called Soapboxx (https://peoplesaction.soapboxx.us/campaign/ winrural), where people can

easily upload 90-second videos by following a series of prompts. The goal is to highlight the voices of people in rural communities impacted by federal policy, but who are often left out of the conversation or *told* how to feel about it. This series of videos is a reminder that organizing people to take action is an important part of creating change from the ground up.

Ahrens made a video that described the

impact of a factory farm on his community's economic stability and water quality. "When the factory farm fight came around, I saw a lot of people negatively affected who were



"Taxpayers want us to do the right thing for the environment. Let's get the federal government to act on that and put the money where the public really wants it, which is a better, healthier agriculture," says livestock farmer Hannah Bernhardt. (LSP Photo)

afraid to speak, and then others speaking bravely for our community and they didn't have a lot of support," he says. "And I thought, if they're going to go to bat for us, I can't sit at my house and eat Cheetos."

He adds that federal agricultural policy is part of the problem. "Small farmers are working hard on soil health, but the factory farm down the road is subsidized 30 times as much. Farm policy at scale creates a com-

petitive disparity. It's in everybody's interest to start respecting our water. We're polluting our most basic resource."

Soden-Groves used his video to talk

about a "Just Transition," one that centers the needs of rural people as policy shifts away from subsidizing fossil fuel companies. "I live in a small town with a school district on the edge, people who are economically on the edge, and we need to make sure people's needs are met as we move forward," he says. "Our inclusion of one another and our needs becomes a foundation. We can have a shared joy in envisioning the future we are working toward together, where there is justice and where we are sustainable."

The tagline on the video project is "this is how you win rural." It is a message to decisionmakers that earning the support of rural communities requires listening to real people and developing federal policy that is people-centered, not corporate-driven. We can all play a role in highlighting the vibrancy

of rural communities and in demanding that the government works for the people it represents.

Jessica Kochick is an LSP policy organizer. If you are interested in making your own video about an issue in your community, contact Kochick at jkochick@landsteward-shipproject.org or 612-400-6349.

Join LSP's 2021 Virtual Organizing & Social Change Cohort

In early 2021, the Land Stewardship Project is launching its 4th Annual Organizing and Social Change Cohort. The cohort will be a powerful opportunity to further develop the leadership and organizing skills we collectively need in order to democratize a food and healthcare system that works for all people, the land, animals, and the environment. It will be held virtually via 10 Zoom sessions from late January until early April.

Through this cohort: **identify** your own motivations and what holds you back from building the collective power needed to accomplish our shared vision; **deepen** your understanding of structures of oppression and how they impact each of us and our communities; **create** ways to change the story about the biggest challenges our communities face; **grow** organizing skills to challenge corporate power and win positive change for people and the land; **unite** as leaders to advance strategic issue campaigns that transform our food and farming system; and **engage** with a growing network of Land Stewardship Project member-leaders across the Midwest.

For more information and to register, see https://bit.ly/36kKeZS or contact LSP's Amanda Koehler at 612-400-6355, akoehler@landstewardshipproject.org. \Box

National Suicide Prevention Lifeline

The National Suicide Prevention Lifeline is a national network of local crisis centers that provides free and confidential emotional support to people in suicidal crisis or emotional distress 24-hours-a-day, 7-days-a-week. The Lifeline is committed to improving crisis services and advancing suicide prevention by empowering individuals, advancing professional best practices, and building awareness. Call **1-800-273-8255**.

LSP Farm Crisis Resources

Feeling stressed or know someone who is? Check out LSP's list of hotlines, websites, and other resources at **www.landstewardshipproject. org/farmcrisis**.

Policy & Organizing

People-Powered Climate Solutions

Farmers Take Action on the Greatest Ecological Crisis of Our Time

By Jessica Kochick

For years, Tom Cotter has been a leader in the soil health movement, using cover cropping, diverse rotations, and managed rotational grazing to produce crops and raise livestock on his farm near Austin, in southern Minnesota. Recent high school graduate Claudia Lenz grew up on her family's vegetable Community Supported Agriculture (CSA) farm near the

western Wisconsin community of Star Prairie, and is a youth activist focused on agricultural solutions to climate change. Both Land Stewardship Project members are part of LSP's new Soil Health and Climate Organizing Committee, which organizes to win soil health and regenerative agriculture policy at all levels of government.

Climate change is impacting all of us, no matter our age or where we live. But on a day-to-day basis, it especially affects farmers. As Cotter notes, addressing it "is going to help farmers be more profitable when faced with extreme weather, working with Mother Nature,

not against. We need to do something now, before it's too late."

While our farmers are facing additional challenges due to unpredictable and extreme weather, LSP is committed to policy and organizing that recognizes them as key drivers in making agriculture part of the climate solution. The beauty of the Soil Health and Climate Organizing Committee is that it is a powerful cross-program team that marries LSP's Bridge to Soil Health Program work with the Policy Department's efforts at the state and federal level.

It consists of farmers, as well as rural, and urban members with experience in regenerative practices, lobbying, and community organizing. Launching the team remotely during the COVID-19 pandemic was a challenge, but members have managed

to develop a survey (see page 11), reach out to other affected groups, and lead a series of listening sessions to gain feedback on priorities. This process will help determine LSP's soil health and climate policy agenda.

What We've Learned

Based on outreach efforts, the committee identified strong support for farming programs that incentivize soil health practices and compensate farmers for the ecosystem services they provide. In surveys, members



Tom Cotter says he and other farmers see the negative impacts of climate change every day. "We need to do something now, before it's too late," he says. (*Photo by Dodd Demas*)

and supporters expressed the need to tie government agriculture programs, like federally subsidized crop insurance, to sustainable farming practices. "If we change policy at the Farm Bill level, it'll make a bigger difference," says Cotter.

Soil health and climate policy intersect with many other issues that impact rural communities and span the food system — issues like land access, local market development, and concerns about factory farms. Some members of the committee focus on holding factory farms accountable for their pollution and carbon emissions, and on transitioning to a regenerative food system that gets more farmers on the land to provide healthy food for local communities.

Lenz, who was instrumental in organiz-

ing an LSP Youth Summit in 2018, wants to see more small farms and a cap on farm size. "Caps on farm size are a big thing because you look at the output of gas it takes to run these operations, and it destroys the soil with all the monocropping and lack of diversification," she says. "I'd love to see a program put in place that helps farmers transition from monocropping to something better."

Lenz would also like to see more support for small, beginning farmers trying to access land. In fact, committee members of all ages have expressed this priority: it needs to be easier and more economically viable to pass land from one generation to the next, either to a family member or another young person who wants to begin farming in a sustainable way. Otherwise, as farmers retire, land will become more consolidated.

Committee member Molly Schaus has worked as the farm director at Big River

Farms, a Food Group initiative that trains new immigrants and others looking to get started in fruit and vegetable production.

"I want a community-based food system that explicitly supports farmers of color and immigrant farmers," she says. "I want local farms whose owners and workers are well-paid and healthy, whose growing practices and crops reflect the diversity and agricultural expertise of our community. If we have this food system, we will all be healthier and our ecosystem will be healthier."

At the State Level

This fall, in collaboration with Land Stewardship Action Fund (LSAF), which is LSP's sister political action organization, the committee held a town hall meeting with several Minnesota state

legislative candidates to support candidate education on climate issues in agriculture. In attendance were Representative Todd Lippert (Northfield) and Senate candidates Aleta Borrud (Rochester) and Michelle Lee (Moose Lake). During the 2021 state legislative session, the organizing committee will work with legislative allies and build power in communities in order to develop and pass soil health and climate legislation.

At the Federal Level

The Soil Health and Climate Organizing Committee has been working in collaboration with LSP's Federal Policy Steering Committee to advocate for our priorities

Climate, see page 11...

with the Minnesota Congressional delegation. We joined our partner, the National Sustainable Agriculture Coalition, to gather signatures on a policy letter (https://bit. ly/2VM2d5u). In August, the letter, which was signed by 2,100 U.S. farmers and ranchers, was delivered to the House Select Committee on the Climate Crisis.

In addition, LSP members have joined federal lobbying efforts to share innovative crop rotation and cover cropping practices, to show how severe weather damages their vegetable crops, and to advocate for policy that invests in farmers and local communities. For Karin and Dana Jokela of Sogn Valley Farm

in southeastern Minnesota, this hits close to home for their vegetable operation.

"This year our farm was hit by a fast and furious hailstorm," says Karin. "Farms across the nation are becoming increasingly vulnerable to the hazardous impacts of climate change. We need collective, landscapescale adoption of conservation practices to mitigate the impacts of future extreme

weather events, and to build economic and ecological resilience in rural communities." One exciting example of a proactive

> policy proposal is the Agriculture Resilience Act, authored by Chellie Pingree, a U.S. Representative from Maine. It would expand funding and add soil health and climate criteria for working lands conservation programs, invest in transitioning to alternative manure management programs, and increase set-asides for beginning and socially disadvantaged farmers and ranchers.

LSP's Soil Health and Climate Organizing Committee asked Minnesota U.S. Representative Angie Craig to support the Agriculture Resilience Act.

"We felt it was important because it would incentivize extensive implementation of more sustainable, regenerative farming practices," says Jokela.



The pepper crop on Sogn Valley Farm in Minnesota was exposed to severe storm damage in 2020. "Farms across the nation are becoming increasingly vulnerable to the hazardous impacts of climate change," says Sogn Valley's Karin Jokela. (Photo by Karin Jokela)

Next Steps

The Land Stewardship Project is committed to working in partnership with farmers, allied organizations, and policymakers to build a broad base of folks that can win policy that supports a regenerative and eq-

uitable farm and food system. Organizing is essential to making sure that the voices and experiences of people living and working across Minnesota and beyond are included.

"In all of these issues, we need to remember that there's people behind it," says Lenz. "Whatever change we make, whether good or bad, it's going to have an impact on someone. If we want to make real effective change, we need to look at people first."

Tom Cotter agrees that when it comes to long-term change, it's about people-topeople connections. "It's just one farmer at a time is what it takes," he says, "two or three spread to two or three more."

Jessica Kochick is an LSP policy organizer. If you are interested in getting involved in the Land Stewardship Project's soil health and climate policy work, contact LSP's Amanda Koehler at akoehler@landstewardshipproject.org, 612-400-6355, or Kochick at jkochick@landstewardshipproject.org, 612-400-6349.

Carbon Farming's Climate Change Potential

The Land Stewardship Project recently published "Farming to Capture Carbon & Address Climate Change Through Building Soil Health," a white paper by George Boody that describes how farming systems that build healthy soil can lower greenhouse gases while reducing water pollution.

The paper, which includes several state and federal policy recommendations, is at www.landstewardshipproject.org/ carbonfarming.

A Future Based on Healthy Soil: Survey Taps into Farming's Role in Mitigating Climate Change

To learn more about the climate and soil health-related **1** experiences and perspectives of farmers as well as rural and urban community members across Minnesota, this fall the Land Stewardship Project's Soil Health and Climate Organizing Committee developed and distributed a survey. By December, LSP had received 250 survey responses from members and supporters, both by mail and in digital form. You can find the survey here: http://bit.ly/LSPclimate.

Here are a few of the responses LSP has received:

Why is building soil health and/or mitigating the climate crisis important to you?

- "I live here and would like the grandkids to be able to live here, grow their own food, and not be endangered with every breath — maybe even swim and fish safely."
- "Soil health is one of the best and biggest solutions to climate change, and it will also bring many more rural people into the work

on the solutions we need to protect our lives and futures in Minnesota, the U.S., and worldwide. Love the phrase SOILution!"

• "I am a beginning farmer and am already experiencing challenges brought by climate change. I'm invested in holding our leaders accountable to preventing the climate crisis from going completely out of control, and to developing mitigation strategies for Midwestern farmers."

What opportunities do you see in public policy to promote soil health and to mitigate climate change through carbon sequestration?

- "Stop fueling big ag and divest those funds to regenerative farmers. Increase the farm-to-school produce program. Promote organic and regeneratively produced products."
- "All farm subsidies should be tied to soil health practices. We also need stronger incentives and support for adopting more sustainable practices. As a food consumer, I would like to see a regenerative farming certification that I can trust to help me make informed purchases."
 - "Voting in soil conservation and climate concerned policymakers."

Justice on the Land

Cultivating Cultural Competency

For Nontraditional Farmers, Things Can Get Lost in Translation

hen doing a study, sometimes the resources sought out during the research process can lead one down a slightly different, but ultimately fruitful, path. For example, while developing a relatively straightforward marketing analysis for a vegetable cooperative in central Minnesota recently, Emily Reno was struck by who she was talking to while gathering research. She conducted 39 interviews in all, mostly with people who farmers rely on for general services and support: University of Minnesota Extension personnel, Natural Resources Conservation Service and state

Department of Health staffers, as well as nonprofit groups, for example.

"I noticed that among the people who I interviewed, there were no people of color," recalls Reno, who recently wrapped up her master's work in urban and regional planning at the U of M.

In this situation, that was particularly relevant given that the cooperative she was doing the market analysis for was Agua Gorda, which is operated by Latino farmers in the Long Prairie area. Agua Gorda needed a market analysis done because it was finding it inefficient to haul most of its

produce to the Twin Cities region, which is a two-hour drive away. The cooperative was interested in learning how it could increase wholesale markets in the Long Prairie region, thus reducing travel time and helping bring healthy food to local eaters.

Reno soon realized that especially for farmers of color, marketing success isn't solely tied to better transportation and a spiffy website. As a result, when she finished up her final report this spring, Reno didn't just offer logistical advice to the farmers of Agua Gorda on how the produce cooperative could gain greater access to local wholesale markets: communicate better with the local community, seek out specific markets, partner with local institutions that can provide marketing support, etc. Reno also included an analysis of what role the wider community, particularly all those agencies and

institutions she had come into contact with, could play in helping enterprises like a local farm cooperative become successful.

What she concluded was that it all came down to developing what's called "cultural competency" — an ability to interact with people who are from a different background and who are unfamiliar with how things "work" in their new home. Cultural competency requires learning about the other person's culture, and understanding why, for example, they may not see credit or business management practices in the same way as is considered the "norm" in a certain

area. Although language differences can undermine cultural competency, Reno makes it clear remedying the situation is not just about offering a Spanish or Hmong version of a basic fact sheet, application form, or website.

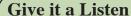
"It's so much more than just a language barrier," she says. "It's creating a sense of belonging for people — that they are there for a reason, that they can contribute, and that they have just as much dignity as anybody else."

Creating an environment of cultural compe-

tency at, say, the local USDA or Extension office is key, given that farmers rely heavily on the services such places provide. Every-

thing from advice on agronomic practices and marketing classes to food safety certification and cost share funds for structures like high tunnels and conservation practices are available through

these agencies and institutions. Most farmers take access to such services for granted. Pile on top of that the fact that many nontraditional farmers are utilizing methods and systems — small- scale organic vegetable and pasture-based livestock production for example — that local service providers used to dealing with large cash crop producers



n episode 244 of the Land Stewardship Project's *Ear to the Ground* podcast, Emily Reno talks about the market analysis she did for Agua Gorda Cooperative and what it revealed about the important role "cultural competency" can play in supporting farmers of color: www.landstewardshipproject. org/posts/podcast/1323.

may not be familiar with, and the barriers to access start to become significant.

In a February 2020 report to the Minnesota Legislature, the state Department of Agriculture identified numerous barriers nontraditional "emerging farmers" face, from lack of culturally appropriate education and resources, to difficultly navigating regulations. Although farmers of color represent a tiny percentage of the general farm population — .03% of Minnesota farmers are Black, .36% Asian, .16% American Indian, and .58% Latino — the report concluded that these types of farmers could serve an important role in the future of the state's agriculture, given that the average age of a Minnesota farmer is now 56. The report's authors made several recommendations, such as providing trainings to farm service providers that help reduce barriers for emerging farmers. That could include workshops on equity and implicit bias, as well as alternative models of agriculture.

The Messenger

"Don't be afraid to fail and to

stumble along the way and make

a fool of yourself. What matters is

the attempt, and the intent."

White service providers can learn cultural competency, and they should take opportunities to do that, says Reno, who lauds the Minnesota Department of Agriculture for its recent efforts to reach out to nonwhite farmers through its Emerging Farmers initiative. But there also needs to be a concerted effort to hire more staffers who are of the same background as some of the nontraditional farmers that walk through the door.

"It's not the message, it's the messenger

— if the person sharing this information with them doesn't necessarily share any of their cultural values or their language, it's challenging, even if the attempt is

- Emily Reno

their language, it's challenging, even if the attempt is from a good place," says Reno. "If you don't have leaders and role models that look like you, talk like you, there's a lot less validity in what's being said."

During her interviews, Reno talked to service providers about hiring more people

Cultural, see page 13...



"It's so much more than just a language barrier," says researcher Emily Reno. "It's creating a sense of belonging." (LSP Photo)

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...Cultural, from page 12

of color, and was surprised that for some, such an idea was not even on their radar. People actually thanked her for bringing it to their attention.

"It was so eye-opening — it was a helpful reminder for me to recognize that we have a lot of work to do, and we have to start somewhere," she says.

Reno, who recently began working as an assistant planner with the West Central Initiative Foundation, undertook the market analysis for the Community Assistantship Program, which is coordinated by the University of Minnesota's Center for Urban and Regional Affairs and the Regional Sustainable Development Partnerships. As a result of the slight side path her research took, Reno feels the final report has a wider audience than she had originally envisioned. Besides cooperatives like Agua Gorda looking for tips on how to access local, wholesale markets, the study has a message for anyone interested in creating communities that have room for all types of food and farming enterprises, owned and operated by all sorts of people.

Lack of local wholesale markets in the communities farmers live and work in is a problem for a lot of producers, and Reno says at a time when the COVID-19 pandemic is showing the fragility of the mainstream food system, there's a prime opportunity to create a more resilient infrastructure based on localized production and distribution systems. That's an important lesson to keep in mind for any farmer, business owner, or local service provider, no matter what their color.

"We get excited about this idea of local foods and selling to urban centers, but there's so much more diversity within our food system that doesn't get a lot of attention, especially in Minnesota," says Reno. "There's a whole other side of the population that lives in small towns and rural places, and they want to eat good food too."

And those eaters, through their buying choices and support of public policy, can have a lot of influence over what type of farm and food system dominates their community. Reno says for her, this research also brought home an important lesson about how widespread change occurs in our communities — it starts with individual action.

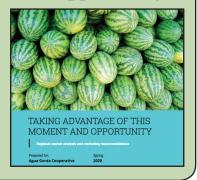
"Figure out where you are on your spectrum of cultural competency and understanding and don't be afraid to fail and to stumble along the way and make a fool of yourself," she says. "What matters is the attempt, and the intent." \square

Taking Advantage of this Moment & Opportunity

Emily Reno's spring 2020 study for Agua Gorda Cooperative is available at conservancy.umn. edu by searching the title "Taking Advantage of this Moment and Opportunity: Regional Market Analysis and Marketing Recommendations."

Emerging Farmers

For more information on the Minnesota Department of Agriculture's Emerging Farmers initiative, including its recent report to the Minnesota Legislature, see www. mda.state.mn.us/emerging-farmers-working-group.



LSP's Core Values: Stewardship, Justice, Democracy, Health & Community

Vision for the Future: 2019-2024 is the Land Stewardship Project's long range plan for working toward our goals of creating a sustainable, just, farm and food system. The plan opens by presenting LSP's core values:

- → Stewardship is the value of living in right relationship with the land and all that is connected to it: the soil, the water, the air, the plants, microorganisms, animals, and our climate. It means giving to the land and receiving from it, and caring about the entire biotic community. Conservation-minded farmers who live on the land, farm it, and care for it are essential to stewardship of farmland.
- → Justice means there is economic, racial, and gender equity for farmers, workers, and all those who are engaged in the food and agriculture system. It means the achievement of related rights like food sovereignty for all communities, and high-quality healthcare for everyone.
 - → **Democracy** means a society in which

the people hold the power to govern, in which those people directly impacted by issues name solutions, set priorities, and win change. It means the health and well-being of people and the land is put before corporate profits.

- → Health is the value of nourishing the beauty, function, and vitality of an ecosystem made up of people, landscapes, plants, animals, soil, and water. The health of the land is a gift that current generations are obligated to provide for future generations.
- → Community is the value of understanding our interdependence and caring for the relationships that sustain each of us. Living in community we are more resilient, creative, resourceful, and powerful we have greater ability to be the change we seek in the world. □

LSP's long range plan is available at www. landstewardshipproject.org/about/ longrangeplan. Free paper copies are available by calling LSP's Minneapolis office at 612-722-6377.

LSP 'Rural Voices for Racial Justice' Videos

The Land Stewardship Project has launched a new video series, "Rural Voices for Racial Justice," featuring LSP members across the Upper Midwest who are amplifying their voices for racial justice in the food and farming system. Links to the video series are on LSP's

Racial Justice web page at www. landstewardshipproject.org/about/racialjustice.

Racial Justice E-letter

While on the Racial Justice web page, you can sign-up for *Amplify!*, LSP's racial justice hotlist. Stay up-to-date on LSP's equity work, upcoming events, and opportunities to engage while connecting with other people doing important racial justice work in their communities.



Hog farmer Dayna Bartness speaking on a "Rural Voices for Racial Justice" video.

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Flexibility on 4 Legs

How Grazing Helps One Beginning Farmer Build Financial & Ecological Health

Note: Beginning farmer Zach Knutson recently talked to Land Stewardship Project soil health organizer Alex Romano about how rotational grazing allows him to manage land, time, and finances more efficiently. Knutson owns and operates Knutson Shorthorns (www.knutsonshorthorns.com) just outside of Zumbrota in southeastern Minnesota, where he rotationally grazes registered Shorthorns and direct markets beef. Knutson also works as a bank examiner with the Farm Credit Administration. Here are excerpts of that conversation. Episode 246 of the Land Stewardship Project's *Ear to the Ground* podcast features Romano's full conversation with Knutson: www.landstewardshipproject. org/posts/1333.

→ Romano: Can you tell me about what goals you have for your farm?

◆ Knutson: "My primary goal is within the next five years or so to convert the 100 acres of row cropland into diverse perennial

pastures. I would like to expand the cowherd up to about 75 breeding cows and the number of hair sheep up to 100. I'm just guessing at carrying capacity because the sheep are new to us. We started rotating grazing paddocks daily in 2020 during the pandemic quarantine, and I'd like to continue doing that as long as I can. Sometimes my off-farm job as a bank examiner will take me on the road for a few days, so we'll adjust management accordingly, but do our best to rotate as frequently as we can because we saw such big benefits from that this year."

→ Romano: Can you give me some examples of those benefits you saw by moving the cattle more frequently?

◆ Knutson: "My favorite was probably seeing the cattle graze thistles and giant ragweed. I never saw cattle eating those. I had to get pictures to prove it because I had to make my dad believe it. We saw a lot healthier pastures. We had so much more grass than we have had in similar years. This year was drier and while we didn't do any hard measurements, just based on how many cattle we were able to run and grazing days, I think we were able to harvest more forage matter this year than we did last year, even without all the rain we had last year.

"The rest periods were huge. The pasture we seeded down took a little bit more time

to establish since it was my first time doing it. So, the rest periods at the start of the season were about 14-17 days. Once we got the new pasture working for us, we got our rest periods up to 34 days. I would say the



Zach Knutson: "Flexibility is huge in being able to make use of all the resources on the farm rather than getting too focused on row crops or too focused on just livestock." (LSP Photo)

amount of grass that was there returning after 34 days compared to 17 days was almost double. So, there were big benefits to extending those rest periods. During periods of dry weather, we would incorporate a couple days of bale feeding in the barnyard just to try and give us a little more rest time."

- → Romano: You mentioned new pasture this year. Can you tell me more about what went into that?
- ◆ Knutson: "We converted 6-7 acres of row cropland that was corn last year to a diverse pasture mix this year that was primarily cool season grasses. The mix-

ture contained around 13 different species. Alongside those fields we were also grazing some waterway areas that had been seeded down for erosion control as the row crops were growing around them. Those particular fields hadn't been made use of in a long time. While we converted around 6 acres into new pasture, in total, we gained almost 10 acres in grazing land overall because we were able to make use of the grasses that were typically just left as is."

- → Romano: It sounds like livestock are allowing you to be more flexible on the farm.
- ◆ Knutson: "Yeah, flexibility is huge in being able to make use of all the resources on the farm, rather than getting too focused on row crops or too focused on just livestock. I believe in making use of as much of the ground as we can while preserving the soil health there.

"Dad said that as he was sticking the shovel into the soil there was a notable difference in the new pasture compared to the bean field and even the old pasture that hadn't been rotationally grazed for quite

some time. By switching this year, it really improved the soil. It was just a lot lighter and easier to get the shovel into. I asked dad if there were worms, and he said, 'Yeah, that seemed weird. I actually had to pull those out before I could do the soil test.' I said, 'At least they were there to pull them out.'

"The different pastures also gave me a lot of flexibility in case I needed to go away. We were able to adjust the pastures and the paddock sizes to fit. We did give up some things by giving them a four-day area instead of a single day rotation. At the end of the day, it is about finding that work-life balance and enjoying what you do. You could try to maximize the potential every single day but burn-out is real.

and that is one of the reasons that flexibility is really important to me."

- → Romano: Would you say you are enjoying what you are doing?
- ♦ Knutson: "Definitely. Cattle have always been a big passion of mine. When I was 11, I told my dad that I love cows, but I just don't like to milk them. That was kind of how the whole beef cattle thing started. It took a few years before I realized that an 11-year-old kid isn't going to get a loan from the bank to go buy cattle, but I saved

Flexibility, see page 15...

...Flexibility, from page 14

up and got started. I'm really optimistic about what the future holds as we expand and diversify the operation and improve the soil health."

- → Romano: How does your off-farm job as a bank examiner influence the way you view farm profitability?
- ◆ Knutson: "One of the big things has been learning from the financial statements of a wide variety of farmers and just getting the exposure to seeing that the average return on assets on beef cattle is notoriously low. It really depends on your area and your farming practices, but in my unprofessional opinion, I would say that 2% is a common return on assets. So, when you are making an investment on the farm and considering whether or not you want to buy that piece of machinery and whether you want to make or buy hay, it's really about considering where you put your capital investments to try and maximize that return on assets. It gives a different perspective on borrowing money. Borrowing money can definitely be a good tool. There are certain circumstance where it pencils out and certain circumstances where it doesn't.

"To me, there's a lot of thought that goes into what enterprises I want to bring into the whole diversity of the operation and which ones I don't. I personally lean towards having the minimal amount of machinery around to get the job done, particularly when it comes to mechanically harvesting forage. I know there are a lot of people around that make hay, and it can certainly be economically viable, but I prefer to let the cattle do the majority of harvesting. I am working out how we can extend the availability of forages that the cattle can harvest throughout the year so that we can just avoid needing that machinery, and whatever hay that we do bring in I look at as bringing in soil nutrition. If you compare opportunity costs between a haymaking enterprise and using machinery versus letting the cattle harvest it, you may be able to harvest more pounds with the machinery but is it really getting more than that 2% return on assets?

"I think if you look at what the cattle are able to harvest when you already got the investment into the land and you've already got the investment into the cattle, letting them do the harvesting instead of a machine has a really big influence on changing that return on assets value.

"It doesn't make sense for my operation to borrow money to buy equipment that can make hay, especially when I'm just getting started. If you are borrowing money, is that borrowed money working for you or are

you working for the entity you borrowed it from?"

- → Romano: What are looking to try in the future that gets you excited?
- **♦ Knutson:** "One thing that I tried this year was at home we had some ground that a piece of a tin shed roof had collapsed on and it laid out there for a full summer and through the winter. There was just a bunch of dead grass out there, so I planted some pepper plants into it and didn't weed it just to see what would happen. I personally don't like weeding gardens — it's a lot of labor and it takes all the fun out of it. I'd much rather just walk out there, pick the crop, and call it good.

"The cool season grasses did not seem to compete with those pepper plants we put in there. They grew up and covered the soil around the pepper plants, but when we got into July and August the grass stopped growing just like we see in our pastures and that was when the pepper plants took off. This is something I would like to try in our sacrifice paddocks where we can plant higher value summer annual plants — peppers, tomatoes - and see if we can't get an extra source of revenue off that ground while also giving it an opportunity to rest and re-set.

"Going back to the marginal costs, some

Join the Soil **Builders' Network**

Join the Land Stewardship Project's Soil Builders' Network to get regular updates on workshops, field days, and on-farm demonstrations, as well as the latest soil health and cover crop research. For more information on joining, see the Soil Builders web page at www.landstewardshipproject.org/ lspsoilbuilders, or call 507-523-3366.

On the Soil Builders web page, you'll also find fact sheets, videos, podcasts, and other resources related to creating healthy soil profitably.

people would argue if you weed it you get a better crop. There's a reason people went to weeding, but if you look at the value of your time, does the marginal return equal the marginal cost? So, I want to kind of experiment in the future when we have these sacrifice paddocks with these cattle, areas that really get beat up by the cattle. I think we should consider applying the same principles of planting summer annual vegetable crops in that ground. In the heat of summer, they are going to be thriving, giving you food for your family and potentially providing crops to sell at a farmers' market."

LSP Releases Reports on Soil Health Initiatives

In October, two reports were released that summarize ways the Land Stewardship Project has been bringing together farmers and others around agricultural practices that build soil health profitably. The reports' purpose is to provide insights to others who might want to borrow or adapt some of the approaches LSP has used. It's hoped these reports inspire others to develop their own ideas and share them with the rest of

the regenerative farming

community.

10% Project

The Chippewa 10% Project was launched in 2010 to help farmers adopt practices that can reduce pollution in the Chippewa River watershed in westcentral Minnesota. By the

time it wrapped up in 2018, the initiative had utilized cutting-edge research, kitchen table conversations, field days, and farmerto-farmer education to successfully promote soil friendly practices in the basin.

The 10% Solution in Minnesota's Chippewa River Basin: Why 10%?—Context, Approaches & Impacts, which was written by George Boody, is at www.landstewardshipproject.org/stewardshipfood/chippewa10project.

Bridge to Soil Health

LSP's Bridge to Soil Health Program was launched in 2015 in southeastern Minnesota to significantly scale-up the number

of crop and livestock farmers in the Upper Midwest implementing soil building farming methods and talking publicly about what they are doing. Five years later, the program has become a model for how to utilize extensive farmer-to-farmer networks and innovations in crop and livestock production to expand soil-friendly

farming practices that are practical and profitable.

Building the Bridge to Soil Health: The Power of Organizing Farmer-to-Farmer Engagement was written by Doug Nopar. It's at www.landstewardshipproject.org/soilbridge.



Soil Health

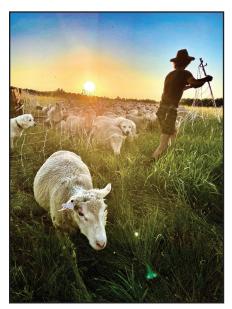
Picture-Perfect Pastures

In 2020, the Land Stewardship Projected hosted a Summer Grazing Photo Contest celebrating the environmental stewardship of managed rotational grazing. Photos were submitted by youth — ages 13-18 — and adults from various grazing operations near and far. We want to send a big *thank you* to everyone who shared their best grazing snapshots of the season. And most importantly, we want to thank them for regenerating our landscapes and nourishing us with the practice of managed rotational grazing. The following pages include the winners, as well as the other entries. \square



Grand Prize Winner — Youth *Evening Graze*By Jessica Crowley, Enchanted Meadows Farm, La Crescent, Minn.

"The cows grazing in a paddock after evening milking."



Grand Prize Winner — General *Evening Paddock Shift*By Hannah Bernhardt, Medicine
Creek Farm, Finlayson, Minn.

"Farm intern, James, opening the electronet fence to move our flock of 80 sheep and five accompanying livestock guardian dogs to a new paddock on a summer evening."



2nd Place — General

Early Morning Graze

By Beth Voss, Paynesville, Minn.

"This is a group of Holstein heifers that are custom grazing on our farm. On July 4, we were hauling them to a new field and this was when a group of them has arrived."



2nd Place — Youth Smiling Lamb By Felicity Johnson, Gibbon, Minn.

"This lamb looks like it's smiling and slightly sticking out its tongue at the camera."

Pictured Pastures, see page 17...

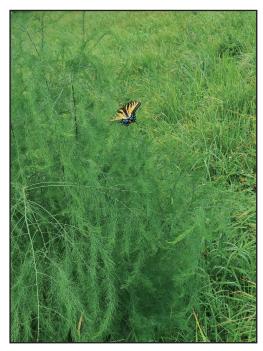


3rd Place — General

Evening Glow Graze

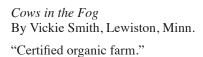
By Haley Nelson, Waupaca, Wis.

"Gorgeous Wisconsin summer sunset glow creates a serene scene. I was able to catch this moment of our daughter's Targhee sheep peacefully grazing on pasture."



Wild Asparagus Visitor By Melissa Crowley, La Crescent, Minn.

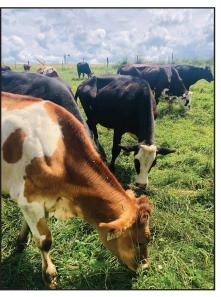
"Spotted this beauty resting on a wild asparagus plant growing in our cattle pastures."





We're Here By Isaac Voss, Paynesville, Minn.

"Just moved the cows to a new pasture. Fresh grass and they are very happy. We walked them across the highway."



3rd Place — YouthSunny Summer Grazing
By Sawyer Mierau, Caledonia, Minn.

"I help with the cattle almost daily, opening and shutting gates, putting mineral out, salt blocks, checking herd health, as well as driving some equipment for making hay for the cattle. I like this photo because it's colorful, sunny, and you can see the windmill in the far background."



Pictured Pastures, see page 18...

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Soil Health

...Pictured Pastures, from page 17



Where Nature and Agriculture Collide By Jared Luhman, Goodhue, Minn.

"When moving cattle to a new paddock, I came across this sight, which I found humorous and also neat. To see nature and livestock in the same place is exciting. While this specific sight is rare, to find nature in the form of insects, frogs, rabbits, deer, and countless other forms of wildlife sharing habitat with our livestock is common!"



First Day
By Chris Gunderson, Chatfield, Minn.

"It is a beautiful day, especially if it is your first day."



*United We Stand*By Greta Mierau, Caledonia, Minn.

"This is the first entrance to a paddock for this herd, and for us trying paddocks in summer time. An exciting day! These grass-fed cattle are amazing in that they always eat lined-up, head-to-head, shoulder-to-shoulder, until they hit the next fence; then they turn, make a line and go united to the next fence."



The Little Shepherd By Keith Johnson, Gibbon, Minn.

"Our daughter has snuggled, hugged, tended, and taken care of the bottle babies since she could walk, taking more responsibility each year. They are her little friends for the summer!"



The Stuff Dreams Are Made On By Kurt Schulz, McLeod County, Minn.

"This photo was taken on a day there was a move to new grass. The cow and her calf are part of my herd of Angus and Shorthorns."

Pictured Pastures, see page 19...

...Pictured Pastures, from page 18



The Calm Before the Storm By Linda Rieke, Franklin, Minn.

"The dry cows waited anxiously to be led up to the barn from the pasture as a large thunderstorm brewed in the west."



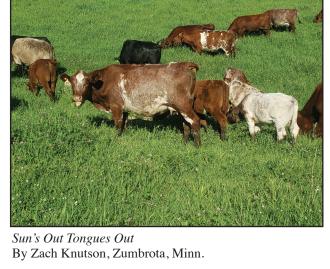
Sweet Summer Nights By Amanda McCabe, Pilot Mound, Minn.

"This photo was taken on a summer night that was absolute perfection! The cows were moved to a new paddock, the sun was setting, and our whole family was sitting in our ATV admiring our beautiful landscape! Blessed beyond words for that 'Sweet Summer Night!'"



Multi-Species Grazing
By Rylee Nelson, Waupaca, Wis.

"I graze my flock of Targhee sheep in electronet while my family's herd of cattle grazes on the other side."

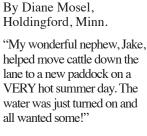


"I was trying to get a nice pasture picture of the group, but Ellen apparently decided it was an appropriate time to make a funny face."



Johann & Cows Grazing Rye By Cherlyn Beachy, St. Ansgar, Iowa

"Our family walked out after dinner to see how the cows were enjoying the rye pasture they were grazing. Our little 1-year-old-son, Johann, was very interested but he needed to stand securely close to daddy to watch the cows."



Everybody is Thirsty

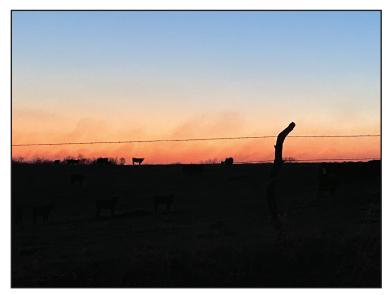


Pictured Pastures, see page 20...

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...Pictured Pastures, from page 19



Hagen's Herd at Sunset By Justin Upmeyer, Northern Missouri

"Sunset with cows on horizon."



Early Summer Graze
By Paul & Delores Moechnig, Lake City, Minn.

"We took this picture in the late afternoon. This is our herd of Normande and crossbred Normande cows and calves."

Farm Creatures Calendar Available

Want to gaze at a different farm animal every month of the year? The new "Farm Creatures of LSP" 2021 picture calendar is now available for \$20 from the Land Stewardship Project. See page 31 for details on getting one shipped to you.



Fresh Faces of Spring
By Anna Johnson, Gibbon, Minn.

"We calve our British White cows on pasture, and I caught this early morning view of the newest arrivals and their attentive mothers."

Grazing & Soil Health

Check out the Land Stewardship Project's Grazing & Soil Health web page for fact sheets, podcasts, videos, and other resources for farmers and landowners interested in using livestock to build soil resiliency in a profitable way: www.landstewardship-project.org/lspsoilbuilers/grazing.

For more information on pasture walks, workshops, and other events related to grazing and soil health, see www.landstewardship-project.org/workshops. You can also contact LSP's Alex Romano (aromano@landstewardshipproject.org) or Connor Dunn (cdunn@landstewardshipproject.org).



Family Time Looking for Dung Beetles By John Snyder, Preston, Minn.

"The grandkids and I were flipping over cow pats today and finding all kinds of dung beetles!"

Singing the Praises of Healthy Soil

LSP Releases Bret Hesla-Six Feet Deep Music Videos

he Land Stewardship Project released a pair of music videos recently that offer an entertaining look at the importance of building soil health. "Got Cover Crops" and Back to Soil" were commissioned from Austin, Minn., native and singer-songwriter Bret Hesla, who performed them with the band Six Feet Deep. Video editing and production was by Kobi Dansingburg.

While composing the music, Hesla got deeply grounded in soil health through visits to the farms of Land Stewardship Project members Tom and Alma Cotter of Austin, and Kaleb and Angie Anderson of Goodhue, Minn. The goal of these videos is to further build the energy and community that's been growing among farmers interested in improving soil health



A scene from the "Got Cover Crops" music video.

in the Upper Midwest.

"We're hoping this music can help inject a bit of hope and levity and support for those that are doing the right thing out on the land," says Doug Nopar, who worked with Hesla on the video project while serving as co-director of LSP's Bridge to Soil Health Program.

The music videos are available for public use and at no charge, and can be accessed at www.landstewardshipproject.org/soilmusic. On that page, you can also download copies of the lyrics. If you'd like mp3 audio files of the songs, contact LSP's Brian DeVore at bdevore@landstewardshipproject.org.

Other LSP videos on soil building techniques such as cover cropping, managed rotational grazing, no-till, and composting are available at www.landstewardshipproject. org/lspsoilbuilders/soilbuildervideos.

'Back to Soil' Lyrics

- 1. If you study history, then you'll know | The empire falls when the topsoil goes. Well the signs today are pretty clear to read | Soil's looking bad and we've lost six feet. But here's the news, we could build it back | And I heard about farmers with a plan for that. So I paid one a visit, we sat to chat 'n that | one cup of coffee set me on a whole new track.
- 2. I went to no-till, let the soil be still. I quit fighting what's on my side.

 Then it was cover crop, covered every bare spot I with the armor of a thick green hide.

 And when the fields turned into gaudy buffet I I put new ways to graze in place.

 Now I'm working with nature, "Hallelujah!"

 The dirt's coming back, back to soil.
- **3.** I keep living roots, year round living in the soil | Pulling carbon out of the sky. They pull it down underground, then it's shot right out | To feed the little microbes, mycorrhizal fungi.

I make 'em happy, and they send back | all the nutrients that I was paying money for. I'm building back black. "Hallelujah!"
The dirt's coming back, back to soil.

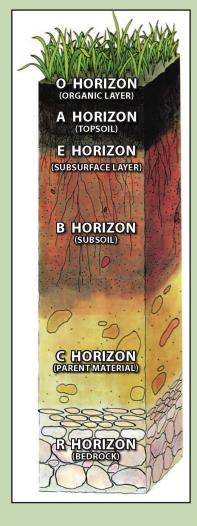
- **4.** It takes a lotta swag, to buck big ag | Still farm and keep the family fed. You gotta first find a mentor that you respect | You study Mother Nature, and scratch your head. I made a lotta mistakes as I was changing things | But one day I noticed all the rain soaked in. Best of all, my money stopped eroding | all the way to the Gulf of Monsanto.
- 5. And it's joy, joy, there's a certain kind of joy | I feel when I'm down on my knees. Joy, joy, when I grab a chunk of soil | And it crumbles like cottage cheese. I know I'm on the right track, standing near | 'Cause it smells like a good cup of coffee. Here's a little cup for you. Hallelujah! One sip and I think you'll see Why the soil's got me singing, "Hallelujah!" One sip and I think you'll see Why the soil's got me singing, "Hallelujah!"

Why the soil's got me singing, "Hallelujah!"
The dirt's coming back, back to soil.
The dead dirt's coming back. | Here's a little cup for you.

The dead dirt's coming back. Here's a little cup for you

I hope you like it black.

Words and music by Bret Hesla. Written on commission for Land Stewardship Project © 2020 Bret Hesla. All rights reserved. Use with permission, please. Contact: bret.hesla@gmail.com.



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Reaching a Little Higher up the Tree

MOSH Hopes to Take Adoption of Soil Health Practices to the Next Level

By Brian DeVore

espite her deep devotion to building organic matter on her farm, Dawn Breitkreutz is, frankly, not the type of producer soil scientist Anna Cates is focused on reaching out to these days. Breitkreutz is what sociologists call an "early adopter" — someone who isn't afraid to take on the economic and agronomic risks of trying out new ideas and sticking with them through those challenging early years of trial-and-error. How do we know she's an early adopter? Just listen to how she deals with one of ag innovation's most powerful deterrents: peer pressure.

"We like to keep our neighbors guessing. Our neighbors still are betting that we're going to fail. We know they've placed bets on it," Breitkreutz said with a laugh during a recent Land Stewardship Project soil health workshop.

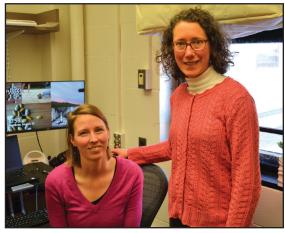
"Early adopters don't mind being an oddball in their community. They have fun with that, they enjoy that role to a certain extent," says Cates, who is the state soil health specialist with the Minnesota Office for Soil Health.

Dawn and her husband, Grant, are "odd-balls" for stepping out of the typical cornsoybean duo-culture and utilizing multispecies cover cropping, no-till, multiple crop rotations, and managed grazing of cattle to increase the organic matter on their southwestern Minnesota farm. In short, they've made a wager on linking overall farm success with the kind of diversity that builds soil health.

According to their own firsthand observations, as well as some impressive financials, it's paid off in the form of a more resilient farm. And although there have been plenty of missteps along the way, the Breitkreutzes say they will never go back to their old way of farming: mining the soil for nutrients utilizing lots of tillage, chemicals, and monocultures. Despite their success, there are still the neighborhood wagers that their biologically-based system will collapse. And then there are those who think the Breitkreutzes may be onto something, but aren't willing to risk too much on their own land. One farmer the Breitkreutzes know experimented with

cover crops for seven years before he was comfortable planting them in a place where his neighbors could see them.

Farmers like the Breitkreutzes are the low-hanging fruit, the innovators who are committed to sticking with building soil health no matter what the obstacles. If we are to see more land being managed utilizing even basic soil health methods, then outreach is needed that goes beyond the early-adopting true believers to their more risk-adverse neighbors who are hesitant to plant a cover crop in public view. That, says Cates, will require alleviating their concerns around economics, yields, and



The Minnesota Office for Soil Health's Anna Cates (*left*) and Ann Lewandowski. "This isn't just dealing with nitrogen or just dealing with a particular pest or something. This is a systems approach," says Lewandowski. (*LSP Photo*)

One major area of research that's ne is around economics. Do farmers have access to livestock that can add value to cover crops? Is the cost and hassle of particular pest or something. (*LSP Photo*)

logistics. That means the kind of land grant research and outreach that goes beyond the inspirational stories pioneering farmers like the Breitkreutzes can tell. That's the role the Minnesota Office for Soil Health hopes it can fulfill.

Good Timing

The Minnesota Office for Soil Health was launched in 2017 as a collaboration of the Minnesota Board of Water and Soil Resources, in partnership with the University of Minnesota Water Resources Center. Called MOSH for short, this U of M-based entity is using a multi-disciplinary approach to help those late adopters with going beyond the

experimental stage and removing a bit of the risk involved with being an innovator.

The creation of the office comes at a critical juncture for the soil health movement. Early adopters like the Breitkreutzes have generated a lot of excitement around the power of building biologically active soil. North Dakota's Gabe Brown has even become a minor celebrity beyond the agricultural community — he's published a book and is featured in a Netflix film. But recent surveys (*see page 23*) show the vast majority of cropland in the U.S. is not being managed with even that most basic of soil health practices: cover cropping.

The soil health movement is a prime example of a bottom-up approach — many of the innovations have come from farmers on the ground, rather than scientists. Farmer-to-farmer networking has paid major dividends in localized areas. For example, LSP's Soil Builders' Network is a group of 750 farmers and others who share information on soil health practices in southeastern Minnesota, northeastern Iowa, and southwestern

Wisconsin. And in west-central Minnesota, between 2010 and 2018 the Chippewa 10% Project brought together farmers to share information on cover cropping, no-till, and managed rotational grazing. Both efforts have resulted in a significant growth in soil building practices in those localized regions (*see page 15*).

"Of all the topics in conservation, soil health is definitely one that's not a top-down sort of thing," says Ann Lewandowski, research and outreach coordinator for the Water Resources Center and the coordinator of MOSH. "And so the farmers are ahead in many ways in figuring out the management logistics. We want to be one more voice based on research."

One major area of research that's needed is around economics. Do farmers have access to livestock that can add value to cover crops? Is the cost and hassle of putting in cover crops made up for financially by the fact that they can generate fertility, reduce compaction, and break up weed cycles? Despite all the anecdotal evidence from farmers that soil health practices boost their bottom line, it's been frustratingly difficult to come up with hard, research-based data that can be applied across a wide spectrum of farms. Analyses based on university data could help provide that.

Another big question MOSH is trying to address is around what exactly good soil health looks like to farmers, and how that impacts their management. Lewandowski says a lot of excellent data sets have been collected over the years that measure soil

MOSH, see page 23...

...MOSH, from page 22

health. Scientists love those numbers, but it's not clear they serve much of a purpose on the field level. And it's not just farmers who need practical indicators of whether their techniques are taking soil health in the right direction. Food companies like General Mills have shown interest in paying premiums for products raised in a soil-friendly way. Consumer surveys show food produced using soil smart methods is a selling point. But how do we create indicators that are universally recognized and meaningful, and yet useful to individual farmers?

"At this point we are just so far from connecting functions like nutrient release or crop yield to any of the indicators we're using," says Cates.

As a result, MOSH is collecting soil health indicator data from farms across Minnesota. The office and its partners hope to eventually have a database of regional soil health measurements, a suite of case studies highlighting farmers who have adopted soil health practices, and a detailed economic analysis of soil health management systems.

Cates says one key way MOSH is making practical use of this research is to conduct trainings with people who work directly with farmers on soil health techniques: staffers with Soil and Water Conservation Districts and the USDA's Natural Resources Conservation Service, for example. Other "audiences" MOSH would like to build relationships with are input suppliers and crop consultants, two groups that are also extremely influential in farm country. In Indiana, similar outreach to these latter groups has fueled successful efforts to expand cover cropping there.

The 250-Bushel Bugaboo

Cates and Lewandowski say an Upper Midwestern state like Minnesota faces its own particular challenges when it comes to adoption of soil health practices. Besides cold, wet soils and a short growing season that can disrupt efforts to grow cover crops and utilize no-till, there is the issue of, ironically, good soil fertility. In a sense, Minnesota's position represents a Venn diagram encompassing the highly productive Corn Belt to the south, and the climatic limitations of the High Plains and Canada.

"And where those two intersect, you have the pressures of the cold climate growing season on top of the pressures of you could be growing 250-bushel corn on this land," says Cates. "And anything else looks like a waste of time."

Indeed, Minnesota lags behind Iowa, Illinois, Indiana, Wisconsin, and Michigan in the number of cover cropped acres, and is dead last in the country when it comes to how much land is managed under no-till.

But extreme weather conditions brought on by climate change are making it a little less of a sure bet to raise 250-bushel corn consistently in places like southern Minnesota. In a sense, all those non-gamblers are having risk visited upon them in the form of a changing climate. This may make efforts that build soil resiliency more appealing, no matter what the land's corn suitability rating.

And getting more late adopters on board with building soil health has taken on a sense of urgency when it comes to the state of the larger landscape. Namely, it's become evident that many water quality problems can be traced to how the soil is treated on farmland. Healthier soil sheds fewer contaminants, including chemicals and sediment. It also manages water better, an increasingly important service as climate change spawns intense storm events. Lewandowski says that's why an interdisciplinary approach to building soil health is key. Not just soil scientists need to be involved, but people who know about hydraulics, economics, cropping systems, plant pathology, and engineering. Even specialists who can speak to how policy impacts farming methods or what the food industry is looking for are needed. A place like the U of M is where all those areas of expertise are represented.

"This isn't just dealing with nitrogen or just dealing with a particular pest or something," says Lewandowski. "This is a systems approach."

But she and Cates make it clear that no matter how much scientific clout MOSH can bring to the table, in the end what matters is making sure the true leaders in this movement, farmers, are listened to. After all, they are the ones that have to implement these practices on a daily basis. That means providing them hard evidence to back up what they are seeing take place in their own fields as they take those first steps beyond non-adopters to early adopters. In a sense, the U of M is arriving on the soil health scene at about the same time that an increasing number of conventional farmers are as well.

"The University isn't the fastest moving organization on the block, but we're getting there," says Cates while sitting in her cramped basement office on the U's St. Paul campus. "Now I think we need to get to those people who wouldn't enjoy that role of being an early adopter, but are excited about changing some things."

For more on the Minnesota Office for Soil Health, see www.wrc.umn.edu/mosh or contact Anna Cates at 612-625-3135.

Soil Health Stats: Good News & Bad News

Since 2012, the USDA's Sustainable Agriculture Research and Education program and the Conservation Technology Information Center have been working together to survey farmers across the country about cover cropping practices. The surveys have unearthed some promising trends in the soil health movement.

For example, the 2019-2020 survey found that around a quarter of the 1,172 respondents had more than 10 years of experience with cover cropping. These are the early adopters and they have become committed to not only building soil health, but adding new twists in the future such as interseeding and planting row crops into living covers. But just as exciting is that just under 12% of the survey respondents had

started planting cover crops sometime between 2015 and 2019, which represents a significant number of later adopters.

They represent a promising future, but that future needs to come a little sooner. Minnesota is a poster child for the potential, as well as the reality, in terms of soil building practices.

The good news is that between 2012 and 2017, cover cropped acreage in Minnesota increased almost 42% to 579,147 acres, according to the U.S. Census of Agriculture. However, that only represents 3% of cropland in the state. Perhaps even more troubling, only 5.8% of Minnesota's crop acres are managed under no-till, which, percentage-wise, puts the state dead last in the U.S., according to the Soil Health Institute.

Nationally, a similar dynamic is at play:

trends are encouraging, but we've got a long ways to go. U.S. cropland planted to cover crops increased 50% between 2012 and 2017, a jump from roughly 10 million acres on 133,500 farms to more than 15 million acres on 153,400 farms. But overall, less than 6% of U.S. cropland is cover cropped.

The good news is that there's little doubt that farmer-to-farmer networks can produce results when it comes to adoption of soil health practices. For example, the Land Stewardship Project has been working in southeastern Minnesota the past few years to bring early adopters and late adopters together through the Soil Builders' Network. According to a Minnesota Department of Agriculture report released in July, all the counties in that region — with the exception of Houston County — are showing cover crop adoption on over 10% of the farms.

Farm Beginnings

An Enigmatic Edge in Corn Country

This Gateway into Farming Hinges on Small Grains, Livestock & Soil Health

ith its pool table topography and coffee-colored soils, southern Minnesota's Nicollet County perennially ranks as one of the top producers of corn and soybeans in the state, and land prices reflect it — in 2019 the average annual non-irrigated cropland rental rate in the county was \$208 per acre, according to the USDA's

National Agricultural Statistics Service. That's \$45 above the state average. It's a great place for an established row crop farmer. But if you're a beginner looking to step out of the mainstream commodity system, launching an operation in these parts is daunting.

"It's pretty competitive around here," says Dan Coffman on a fall day while taking a break from harvest work. He and his wife, Alysha, along with their four young children, live near the town of Nicollet. "We've got a lot of well-established farmers and with the very productive land, that makes it extra competitive. Probably a double whammy for me is being a beginning farmer. It would be one thing if an established farmer tried

something that didn't work out very good, but I just don't have the financial stability yet to do that."

So the 34-year-old is looking for any competitive advantage he can dig up. For example, he's pursuing diverse enterprises, value added production, and niche markets. But at the core of all that is a strategic edge that goes even deeper, literally into the dark organic matter of southern Minnesota.

"We farm using soil health practices," says Dan. "When we started farming, we just decided that's how we're going to do it, and there's not going to be any other way."

The Coffmans feel that building healthy soil utilizing no-till, cover cropping, and rotational grazing gives their farm a leg-up when it comes to resiliency in the face of challenges such as extreme weather. But it's also allowed them to gain an advantage in accessing land in the first place, a critical

issue for beginning farmers.

Two years ago, a landowner with a 280-acre parcel actually approached the Coffmans about renting it. Dan had been doing some no-till and strip-till crop production with his father-in-law, and the landowner liked how those systems protect the soil; he also wanted to see organic matter built up



Dan Coffman uses a retrofitted silage wagon as a mobile grazing headquarters for raising cattle on a remote pasture. He sees livestock as a way to add value to cover crops and to make use of the few pastures in his region that haven't been lost to corn and soybeans. (*LSP Photo*)

utilizing methods like cover cropping.

Dan is excited that the landlord reached out to them specifically based on what kind of farming they practice. That kind of attitude can give a beginning farmer a chance to compete for land in an area dominated by big row crop operations.

The landowner gave the Coffmans a break on the rental rate, but that's not the only benefit that's resulted from this lease. Dan's relationship with the landlord led the young crop and livestock producer to take the Land Stewardship Project's Farm Beginnings class, which, he says, gave him one more edge in the farming game: a deep background in business planning and innovative marketing skills.

Beginning Farmer Tax Break

Dan didn't grow up on a working farm, but was introduced to soil conservation at an early age by his father, Tom, who recently retired from the USDA's Natural Resources Conservation Service. Dan studied ag systems management at North Dakota State University and, after graduating in 2009, worked as an agronomist for co-ops in that state. In 2015, he and Alysha returned to Nicollet County, where her family farms. Dan works as a truck driver and helps his inlaws on their cropping operation. He always knew he wanted to farm fulltime, but wasn't interested in the large-scale, input-intensive systems he worked with in North Dakota.

And when he read *Dirt to Soil*, the book by regenerative farming rock star Gabe Brown, the young farmer was even more convinced that building a system based on healthy soil and a diverse system that

integrates crops, pasture, and livestock was the way to go ecologically and economically.

As it happens, the Coffmans' search for rental land coincided with the launching of a new state program that eases land access for people like them. By renting to a beginning farmer, the owner of that 280-acre parcel qualified for a tax break through the Minnesota Beginning Farmer Tax Credit, which was championed by LSP for over 10 years before it was passed by the Minnesota Legislature in 2017. This law provides an incentive to sell or rent land or other agricultural assets - machinery, buildings, facilities, livestock, etc.—to a beginning farmer. In order for the landowner to qualify for the credit, the beginning farmer must enroll in a finan-

cial management program approved by the Rural Finance Authority. Dan chose Farm Beginnings as his qualifying course. The 12-month class helps participants clarify their goals and strengths, establish a strong enterprise plan, and start building their operation (see page 26).

Dan liked the course's emphasis on goal setting, financial management, and marketing via direct sales and niche products. But he also liked that the farmers who lead class sessions emphasize healthy soil and diversity in their production systems. He saw Farm Beginnings as offering ideas for not only farming in a way that was good for the soil, but making it pay. So, every few weeks during the winter of 2019-2020, Dan made the five-hour round-trip drive to Menomonie, Wis., for the class sessions.

Enigma, see page 25...

...Enigma, from page 24

Although Dan has an ag-related college degree and some farming experience, he felt that he needed more grounding in the financial aspects of running a business. One of the requirements of the class is to develop a business plan for a student's potential farming enterprise, something Dan feels helped him think deeply about the reality of making farming a fulltime career. His business plan was centered around utilizing diversity and niche markets as much as possible.

Fortunately, his enrollment in Farm Beginnings led Dan to connect with a mentor who has spent decades building up an operation based on diversity and creative marketing: Carmen Fernholz. Fernholz, a pioneering organic farmer in southwestern Minnesota (see the No. 1, 2020, Land Stewardship Letter), showed Coffman that growing for specialty markets could be lucrative and practical. He also encouraged the young farmer to enroll in Farm Business Management, a statewide educational program where instructors work one-on-one with farmers to help them with the details of managing their books.

"The financial piece in farming is really important, and without it you could be stuck real fast," says Dan.

Kernza Connection

Fernholz's promotion of creative innovation based on diversity and good old-fashioned financial and marketing savvy struck home for Dan when he attended a field day the older farmer hosted in 2019. The event featured Fernholz's work with Kernza, an intermediate wheatgrass that can produce grain, livestock forage, and straw for at least three years in a row without having to be replanted. Farmers like Carmen have been working with the University of Minnesota's Forever Green initiative to propagate a line of Kernza that will do well in the Upper Midwest. At the same time, businesses such as General Mills have been working to show there is a viable consumer market for food and beverage products made from the grain.

One thing that impressed Dan when he was working in North Dakota was the amount of small grains many farmers produced. He immediately saw Kernza's potential for making small grains a viable part of his southern Minnesota farming operation. And since it can be used as a forage, it fits with his plans to introduce livestock into the mix as well.

Within a month of attending the field day, the young farmer had planted 10 acres of Kernza with seed obtained from the U of M. On a recent October morning, he walks into

his garage and opens one of the totes that holds the results of that planting. He scoops out a double handful of the small elongated grain, which is being sold to a specialty miller. In addition, Dan was able to produce dozens of large bales of forage from those acres. Coffman planted 20 more acres of Kernza this fall, and is looking forward to grazing some in the future.

Because Kernza can be grown for at least three years without replanting, this makes it an ideal crop for making the three-year transition into certified organic; the Coffmans



Coffman hopes Kernza, a form of intermediate wheatgrass, can play a key role in a diversified operation based on small grains, livestock, and building soil health. "It's not just what Kernza does for the budget on paper, but also what it does for the ecosystem," he says. (LSP Photo)

want to eventually raise all their crops for the organic market.

"It's not just what Kernza does for the budget on paper, but also what it does for the ecosystem," says Dan. "There are fewer tillage passes, living roots in the soil 365-daysa-year, sinking carbon into the ground. It's tough to put a price on those benefits."

Diversity, Distance & Downsides

However, it's clear there are challenges to stepping out of the monocultural main-stream. On the 450 acres the Coffmans rented in 2020, along with the Kernza, they raised heritage winter wheat, rye, oats, alfalfa, corn, and non-GMO soybeans. They like the flexibility having such diversity offers, but Dan concedes it got to be a bit much

grappling with different harvest systems and schedules. Dan's truck-driving job is fulltime, and the closest rented acres are 10 miles away; plus, he and Alysha have a new baby. "Next year, we're going to simplify things a bit," he says.

They have also been reminded that come harvest time, the transportation, storage, and marketing infrastructure in southern Minnesota is set up for two main crops — corn and soybeans — to the exclusion of almost everything else. For example, in 2019 they had an arrangement to sell their food-grade rye to a company just a dozen miles away. At harvest, Dan called the mill and was chagrined to learn, yes, they could take the grain, but not at their Minnesota location. He ended up driving two hours one-way to a mill in Iowa to dump his harvest.

It was yet one more reminder that when you step off the corn-soybean treadmill, there's a price to pay. But as a beginning farmer, Dan sees accessing specialty organic markets as a critical way to make a go of it in the long term. Fortunately, he has the support of his landlords, who have provided five-year leases. Long-term rental arrangements are critical when one puts time and effort into building soil and getting certified organic.

The Coffmans are also committed to making livestock a key part of their operation, despite the logistical challenges. Cattle can add value to cover crops while building soil health, as well as make use of the few remaining odd pastures in the region that haven't been lost to corn and soybeans. Again, this makes the young farmers oddities in a region where livestock such as hogs and dairy cattle have been taken off the land and concentrated into large CAFOs.

In 2020 the Coffmans were able to rotationally graze five cow-calf pairs on an odd-sized rented pasture that had escaped the plow. It was a challenge — it has no water or good fencing infrastructure, and is 10 miles from their home. Dan made do by retrofitting an old silage wagon as a moveable grazing-mobile. It has a 1,500-gallon water tank, along with storage for hay and extra fencing supplies.

"I don't have to say, 'Oh shoot, I forgot pliers, and I'm 10 miles away.' It's all there when I need it," he says.

Such improvising will no doubt become familiar to the Coffmans as they figure out more ways to give their farming enterprise a competitive edge in monoculture country. Plans include adding more cattle to the herd, getting certified organic, and finding consistent markets for their production.

"In his book, I think Gabe Brown's quote at the end says, 'Do something,' " says Dan. "So, okay, it's time." □

Farm Beginnings

'Intro to Conservation on Rented Land' Workshops in January

A series of Land Stewardship Project introductory workshops focused on conservation leases and conservation practices on rented farmland will be held in January. These virtual, online "Renting It Out Right" workshops are for non-operating landowners and farmers who rent land and would like resources for working with their landlords:

- → Jan. 12, 12:30 p.m.- 2 p.m. (featuring Swift County Soil and Water Conservation District)
- → Jan. 20, 6 p.m.-8:30 p.m. (featuring Kandiyohi Soil and Water Conservation District)
- → Jan. 29, 1:30 p.m.-4 p.m. (for women landowners and producers only, featuring Douglas County Soil and Water Conservation District)

For more information and to register, contact LSP's Robin Moore at rmoore@landstewardshipproject.org, 320-269-2105, or see www. landstewardshipproject.org/workshops. \Box

Is Farming in Your Future?

The desire to farm is powerful — sparked by love of food, the land, community, entrepreneurship, and more. But it is a complicated undertaking, and the list of questions to answer before diving in is long. Farm Dreams is a four-hour Land Stewardship Project workshop designed to help people clarify what motivates them to farm, get their vision on paper, inventory their strengths and training needs, and get perspective from an experienced farmer. It's a good precursor to LSP's Farm Beginnings course (see below).

Farm Dreams participants will:

- Assess their resources, skills, and motivations for farming.
- Learn about important things to consider when starting to farm.
- Write down their farm vision.
- Develop an educational plan.
- Learn about training opportunities and support networks.
- Talk to an experienced farmer about their path into farming.

Farm Dreams classes are held periodically throughout the year. For dates and to register, see www. landstewardshipproject.org/morefarmers/farmdreams, or contact LSP's Annelie Livingston-Anderson at 507-523-3366, annelie@landstewardshipproject.org.



2021-2022 LSP Farm Beginnings Course

The Land Stewardship Project's Farm Beginnings Program is marking its second decade of providing firsthand training in low-cost, sustainable methods of farm management. Over the years, more than 860 people have graduated from the Minnesota-Wisconsin region Farm Beginnings course. Graduates are involved in a wide-range of enterprises, including grass-based livestock, organic vegetables, Community Supported Agriculture, and specialty products.

The course is for people just getting started in farming, as well as established farmers looking to make changes in their operations. Farm Beginnings participants learn goal setting, financial and enterprise planning, and innovative marketing techniques. This 12-month course provides training and hands-on learning opportunities in the form of regular classroom sessions, as well as farm tours, field days, workshops, and access to an extensive farmer network. Classes are led by farmers and other agricultural professionals.

The next set of classes will run from November 2021 until March 2022, followed by an on-farm component that includes farm tours and skills sessions. Completion of the course fulfills the educational requirements needed for USDA Farm Service Agency loans and the Minnesota Beginning Farmer Tax Credit; for more information on the tax credit, see www.landstewardshipproject.org/morefarmers/beginningfarmertax-credit.

For more information on the Farm Beginnings course, see www.landstewardshipproject.org/morefarmers/farmbeginningsclass. You can also get details from LSP's Annelie Livingston-Anderson at 507-523-3366 or annelie@landstewardshipproject.org.

Beginning Farmer Stories

What's it like to launch and operate a farm these days? Check out stories of beginning farmers meeting agriculture's challenges and taking advantage of its opportunities on LSP's "Talking Beginning Farming" podcast page (www.landstewardshipproject.org/morefarmers/talkingbeginningfarming) and the "Meet Our Graduates" profile page (www.landstewardshipproject.org/morefarmers/meetourgraduates).

Seeking Farmers-Seeking Land Clearinghouse

Are you a beginning farmer looking to rent or purchase farmland in the Midwest? Or are you an established farmer/landowner in the Midwest who is seeking a beginning farmer to purchase or rent your land, or to work with in a partnership/employee situation? Then consider having your information circulated via the Land Stewardship Project's *Seeking Farmers-Seeking Land Clearinghouse*. To fill out an online form and for more information, see **www.landstewardshipproject.org/morefarmers/seekingfarmersseekinglandclearinghouse**. You can also obtain forms by e-mailing LSP's Karen Stettler at stettler@landstewardshipproject.org, or by calling her at 507-523-3366. For the latest listings, see **www.landstewardshipproject.org/morefarmers/seekingfarmersseekinglandclearinghouse**.

Seeking Farmland

- ◆ Jessie Camarillo is seeking to purchase 50-500 acres of farmland in *Minnesota*. Land with 50 acres pasture, 100 acres tillable, and 50 acres forest is preferred. No house is required. Contact: Jessie Camarillo, 320-262-6357, mcwgroup4domes@inbox.com.
- ◆ Paige Carlson is seeking to purchase 1-5 acres of farmland in *Minnesota* (other parts of the U.S. would also be considered). Land with 1-2 tillable acres, 1-2 pasture acres, and 1-2 forest acres is preferred. Land that has not been sprayed for several years is preferred. Carlson would consider taking over an existing organic farm; her primary interest is in medicinal herb farming. Contact: Paige Carlson, 612-296-1260, paigekcarlson@gmail.com.
- ♦ Kody Heideman is seeking to purchase 80-160 acres of farmland in *Minnesota*; no house is required. Contact: Kody Heideman, 507-227-8909, kody_1989@hotmail.com.
- ♦ Nathaniel Dioh is seeking to rent 5 tillable acres in *Minnesota*. Land that has not been sprayed for several years is preferred; no house is required. Contact: Nathaniel Dioh, 571-524-3975, ndioh@yahoo.com.
- ◆ Daniel Gloege is seeking to rent 5+ tillable acres of farmland in *Minnesota*. Land with a barn, shed, electricity, and a house is preferred. Contact: Daniel Gloege, 612-805-1377, danielgloege@gmail.com.
- ◆ Kelly LaFond is seeking 20 acres of farmland to purchase in *Minnesota*. Land with 5-10 acres pasture, 1-5 acres tillable,

- and 1-5 acres forest is preferred. LaFond would prefer to purchase, but would consider a rent-to-own situation. LaFond owns live-stock and plans to expand on that enterprise, along with building a greenhouse and market garden. Land that has not been sprayed for several years and that has a barn, storage, and a house is preferred. Contact: Kelly LaFond, 612-743-8918, keltice@gmail.com.
- ◆ Liberty Hunter is seeking to purchase 20+ acres of land in western Wisconsin or in Wisconsin's Driftless Region. Land that has not been sprayed for several years and that has a house is preferred. Land that has a barn, pole shed, and workshop would be good, but is not a necessity. Hunter would like to set up a grazing and perennial tree/shrub operation on the land. Rental, rent-to-own, long-term lease, or outright purchase are all on the table. Contact: Liberty Hunter, libertyhunter@gmail.com.

Farmland Available

- ◆ Sylvester Wetle has for rent 40 acres of pasture in *south-central Wisconsin's Adams County (near Oxford)*. It has not been sprayed for several years. Water and electricity will be available in 2021; no house is available. The rent is \$4,000 annually. Contact: Sylvester Wetle, 630-207-5733, smwetle@att.net.
- ◆ Douglas Eayrs has for sale 80 acres of farmland in *southeastern Minnesota's Dodge County*. The land consists of 72 tillable acres and 6 pasture acres. There is a single-level ranch style house, a pole shed with a fenced lot, two sheds for equipment storage, and a barn.

- The farm is 25 miles from Rochester and 26 miles from Owatonna. The price is negotiable. Contact: Douglas Eayrs, 612-384-9319, douglas@medvestcapital.com.
- ◆ Jeff Olson has for rent 4 tillable acres in western Wisconsin's Saint Croix County (near New Richmond). Olson is willing to split up the farm into smaller plots for gardeners or farmers looking to grow smaller batches of crops. The soil hasn't been sprayed for two years and Olson hopes to keep it that way. The rental price is negotiable. Contact: Jeff Olson, 651-276-2932, jeffwolson2019 @gmail.com.
- ◆ Paul Bromen has for rent 206 acres of farmland near *Stillwater*, *Minn*. There are 156 tillable acres and 50 forest acres. There are two barns and no house. The rate is \$100+ per acre. Contact: Paul Bromen, 651-216-9595, bromen@gmail.com.
- ♦ Lois Brink has for rent 40 acres of farmland in southeastern Minnesota's Houston County (near Spring Grove). The land has 20 pasture acres and 20 forest acres, and has not been sprayed for several years. No house is available. The land would need movable fencing to rotate pasture areas; could be part of rental cost. Price is negotiable. Contact: Lois Brink, 612-251-5650, lbrink6587@gmail.com.
- ◆ Dan Wilson has available organic custom rotational grazing land in *southeastern Minnesota*. Fifteen animal units are available for the 2021 season. Contact: Dan Wilson, 507-329-0507, dratfarm@gmail.com.

Farm Transition Workshops This Winter

The Land Stewardship Project will be holding a series of virtual workshops this winter on the basics of planning the transition of a farm to the next generation. On **Jan. 19** (1 p.m.-3 p.m.) and **Jan. 21** (5:30 p.m.-7:30 p.m.), retiring farmers and non-operating landowners interested in long-term sustainable practices and how to help beginning farmers access land will have the chance to hear from peers who are in the process of or have already completed a farm transition. On a series of Tuesdays — **Feb. 2**, **9**, **16**, **23**, as well as **March 2** and **9** — from 5:30 p.m. to 7:30 p.m., farm transition workshops will focus on goal setting, financial planning, legal aspects, long-term care considerations, an introduction to soil health, and planning for conservation. There will be opportunities to network with others.

For details and to register, contact LSP's Karen Stettler at stettler@landstewardshipproject.org or see www.landstewardshipproject.org/workshops.



Perilous Bounty The Looming Collapse of American Farming and How We Can Prevent It

By Tom Philpott 368 pages Bloomsbury Press www.bloomsbury.com

Reviewed by Ken Meter

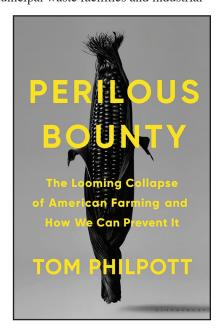
om Philpott, who morphed from a career as a respected business reporter to covering agribusiness for *Mother Jones* magazine, provides plenty of reasons to read his new book, *Perilous Bounty*. It is worth reading for his coverage of the environmental dilemmas facing California agriculture alone, but it also offers a compelling and thoroughly documented overview of the dilemmas inherent to Big Ag in general. These harm all of us.

Philpott directs a bright spotlight on the catastrophic water issues that threaten the state that grows much of the produce the U.S. eats. He highlights California's importance: "Why must just a few clusters of water-stressed counties in a single state provide 81 percent of U.S.-grown carrots, 95 percent of broccoli, 78 percent of cauliflower, 74 percent of raspberries, 91 percent of strawberries, 66 percent of lettuce, 63 percent of tomatoes, and on and on?" Further, he notes that one single firm, called the Wonderful Company, controls 80 percent of the state's \$1.5 billion pistachio crop, and a "substantial but undisclosed share" of the state's \$5 billion almond crop, on its 50,000 acres of nut orchards. The firm also commands significant holdings in pomegranates and mandarin oranges. These crops consume large quantities of water, requiring "a gallon of water to grow a single almond." Thus, the fact that a handful of companies dominate produce markets threatens the resource most precious to life itself.

This centralized industrial engine is endangered, however, because it turns a blind eye to the very water cycles that sustain it. Philpott notes that California's rivers have experienced massive floods at sporadic intervals for centuries — erupting in 1235, 1395, 1555, 1750, 1810, and 1862, spanning as many as 10 to 125 years during each event. These floods deposit nutrients on the land, making agriculture possible, but also refashion the landscape in ways that threaten industrial agriculture itself. Worse, scientists estimate that the risk of such massive flood-

ing has increased threefold. And potential human and property damage increases exponentially as development intensifies.

Native villages anticipated the historical floods and adapted by moving to higher ground. That strategy is far more difficult to pursue in an era of constructed towns and infrastructure. During the 1862 flood, Philpott notes, 200,000 cattle were drowned. The herd fell another 2.2 million in size (from a previous total of 3 million) due to a subsequent drought, as animals were sold off because they could not be fed. Today, however, the state hosts 5 million beef cattle and 1.4 million dairy cows. Those animals are mostly present in the Central Valley, which is extremely prone to flooding. Now immense manure lagoons concentrate wastes in small areas. When combined with the municipal waste facilities and industrial



detritus that occupy the valley, U.S. Geological Survey researchers warn that a toxic soup of "petroleum, mercury, asbestos, persistent organic pollutants, molds, and soil-borne or sewage-borne pathogens" could spread across much of the Central Valley, along with manure, fertilizer, and pesticides.

Honing in on the farm of Joe del Bosque, Philpott encapsulates the dilemmas faced by a farmer who is wondering if he will be able to continue in his profession. "Melons are a relatively water-efficient crop that faces increasingly high labor costs, and almonds are an extremely labor-efficient crop that takes a huge gulp out of an increasingly scarce water supply," Philpott concludes.

To compound these dilemmas, as the Sierra Nevada snowpack recedes, California simultaneously faces a future of declining water resources. This amplifies a horrific legacy that pushed the surface of the Central Valley 29 feet lower than its original elevation. Beginning in the 1920s, when irrigation first pumped water out of the ground, subterranean water pockets collapsed. These potential water storage channels won't come back, Philpott argues, because the geologic structure of those open channels is gone. This would, I assume, make the destructive potential of future floods all the more fierce.

Having lived in California for nine years, Philpott harvests a wealth of stories from his reporting, and he shows a seasoned grasp of the state. His account of the agricultural situation in Iowa is solid, but less compelling, since it relies more heavily on secondary information. Land Stewardship Project members who are familiar with the state may learn less in this section, but will still find useful analysis here. He writes about the stark erosion of soil in Iowa, with losses more than 16 times the soil's rate of replenishment. He cites research showing that the farms of this single state cause 29% of the Mississippi River's nitrogen load. Philpott adds that 60% of Iowa's farms have been lost since industrial agriculture took hold, with the biggest victims being mid-sized diversified operations. But Philpott essentially uses "Iowa" as a narrative frame for the corn-soy-meat complex that has harmed large swaths of the U.S. He looks far beyond this one Midwestern state to draw some of his key conclusions. He shows that in many regions corn and soybean growers frequently lose money producing these essential crops, and much of the research data and corporate influence Philpott cites is national or international.

One additional chapter that is well worth the price of admission features Philpott's visit to the Monsanto corporate headquarters in St. Louis. He expects to encounter a bold defense of the Roundup herbicide system, but in fact participates in a very gentle discussion of how the firm — which is now a subsidiary of Bayer — is repositioning itself for a future beyond the chemical. Philpott does an elegant job of relaying this story with gentility, while not overlooking the damage Roundup has caused.

For all of us who care about the soil and farm communities, it is always easier to describe the dilemmas we encounter than to celebrate positive motion forward. Philpott's book is no exception. He offers surface treatment of "how we can prevent" the collapse of agriculture, only partially fulfilling the promise of his book's subtitle. He does report from Tom and Irene Frantzen's farm in northeastern Iowa to showcase these particular sustainable ag pioneers' efforts to build soil organic matter. Philpott also calls

Perilous, see page 29...

...Perilous, from page 28

for more localized food production, and correctly argues that merely urging privileged consumers to shop for local food will not be sufficient — we need supportive infrastructure and effective policy that overturn food insecurity. He identifies the importance of supply management for farm commodities. Yet given the remarkable fact that Farm Bureau and Farmers Union leaders have jointly embraced the concept of supply management for dairy in the throes of the dairy crisis — a crisis fueled by oversupply — Philpott neglects to highlight the farm groups that have championed this stance for decades. Rather, he speaks of Bernie Sanders' support for the concept, without acknowledging how strenuously sustainable

agriculture groups had to work to inject this proposal into the Vermont Senator's recent presidential campaign. This is not the best framing for opening a conversation about farm policy that needs to be farmer-led and bipartisan to win. Significantly, Philpott does not mention that global market conditions and the looming presence of the World Trade Organization make supply management both more difficult, and more costly, to implement than in the past. It is a strategy we need, but one that has to be reinvented for a new era.

For me, Perilous Bounty underscores the fact that there is no way to create effective policies for agriculture if we focus solely on farms. We have to address entire food systems in their complexity, and adopt policies that can flex in rapidly changing times. Food businesses and public officials need to collaborate in building market power for farmers. Low-income residents must be engaged in creating answers. I hope that my forthcoming book, Building Community Food Webs, will complement Philpott's fine work by adding a deeper economic perspective and documenting the growth of community foods efforts across the U.S. □

LSP member Ken Meter is one of the most experienced food system analysts in the country, working with 144 community partners in 41 states. His work can be found at www.crcworks.org. His book, Building Community Food Webs, will be published by Island Press in March.

Erosion **Essays of Undoing**

By Terry Tempest Williams 318 pages Farrar, Straus & Giroux www.coyoteclan.com

Reviewed by Dale Hadler

Trosion: Essays of Undoing is, as author Terry Tempest Williams explains, "a gathering of stories, poems, and pleas in the name of Beauty in an erosional landscape sculpted by wind, water, and time." Williams, a native of Utah, may be the finest "Western" writer working today, but her latest work will appeal to anyone connected to a landscape that is being sculpted not just by natural forces, but by human activity, positive as well as negative.

During a highly productive career, Williams has addressed a wide range of political, environmental, and cultural issues, and how the three intertwine, often on a personal level. Erosion continues this theme as she writes eloquently about her experiences in various American national parks and monuments and her frustration and fear surrounding the anti-environmental stands of the Trump Administration. The war on the land is heartbreaking, but Williams is at her most poignant when she writes about her brother, Dan Dixon Tempest, and his tragic suicide stemming from years of mental illness and substance abuse issues.

Through the breadth of issues she addresses, Williams gives us a glimpse of her personal spirituality, which she describes as being based on humanity's relationship with the natural world. To a large extent,

this spirituality is a reaction against the very conservative faith of her Mormon childhood. Williams makes it clear that upbringing was too restrictive for her, but she also credits

the Mormon Church with connecting her to nature in the first place through outings to nearby national parks like Mesa Verde and Canyonlands.

Williams is no mere observer — she also describes her own work to preserve the flora and fauna of the West, as well as to protect endangered species such as prairie dogs near Grand Teton National Park.

She is at her best when she describes the public lands she loves so passionately. In fact,

I would highly recommend reading Erosion in conjunction with Williams' 2016 book, The Hour of Land: A Personal Topography of America's National Parks. Together, these two books make a compelling argument for the preservation of public lands in the face of threats posed by federal policies that are opening them up to development that will produce short-term gains with long-term, negative consequences.

These policies, she argues, are stripping future generations of a public land inheritance that belongs to all Americans. In spite of these myriad threats, the author believes this inheritance can be preserved. While visiting Great Falls National Park outside of Washington, D.C., she observes: "Standing at Great Falls on a hot humid day when the

political temperature in Washington registered like a fever, an uncommon peace came over me. I allowed myself to believe that in another hundred years, there will be others

Essays of

Undoing

Terry Tempest Williams

standing on this same brink of beauty, grateful for all that remains wild and wholesome and free."

How does someone so aware of the threats our ecosystem faces find it in themselves to feel so optimistic? For Terry Tempest Williams, such inner strength comes not just from the land itself, but from the inhabitants who live in harmony with it.

That's an important lesson to keep in mind as we here in the Midwest struggle to create farming systems that take their cue from the land and all the beauty it can offer. As Williams observes during the great sandhill crane migration while

crouched in a blind on Nebraska's Platte River: "Through the open window framing and focusing our attention, we saw what survival looks like in the shimmering light of awe."

Land Stewardship Project member Dale Hadler lives in southeastern Minnesota.

Get Current With



Sign up for the *LIVE-WIRE* e-letter to get monthly updates from the Land Stewardship Project sent straight to your inbox. Details are at www.landstewardship-



Membership Update

Help Reinforce LSP's Roots of Resilience

By Megan Smith

his year has brought unparalleled challenges. Hundreds of thousands of people have been lost to COVID-19, millions have lost their jobs, we had to hold on tight to our democracy as we waited for our votes to be counted, and we've had to adapt to social distancing, remote school, and Zoom gatherings. The list could go on.

Yet in the face of all of this, Land Stewardship Project members remind me of how resilient we are when we work together and care for each other.

This issue of the *Land Stewardship Letter* is full of stories of how members come together to carry out this work. They are working to build the kind of healthy soil that makes our farms more resilient while having a significant positive impact on our water and climate. LSP members create more vibrant rural communities that include

and serve everyone across race, gender, or class. They're organizing to make sure that everyone has access to quality, affordable healthcare, especially important during a pandemic that is pushing rural hospitals to the brink. For many members, all of this work is urgent and only possible through LSP's grassroots efforts.

The financial support of LSP members makes this organizing possible and helps LSP become more resilient as an organization. Contributions from members are put right to work where they are needed most.

As we start the new year, I want to ask you to take a moment and make a contribution to LSP.

That could mean starting a new monthly pledge or adding \$10 or \$15 a month to your current pledge. It could mean doubling your annual membership renewal gift this year. It could mean making a special gift of \$25,

\$75, \$250, or \$1,000. It could mean making a gift of stock or adding LSP to your planned giving.

Whatever gift you choose to make, know that it will make a difference. I want to wish you all a healthy and safe 2021 and thank you for your support of LSP. \square

Megan Smith, LSP's interim director of advancement, can be reached at megans@ landstewardshipproject. org or 612-722-6377.



LSP members show us how resilient we are when we work together and care for each other. (LSP Photo)

A Couple Ways to Support the Land Stewardship Project in 2021

Give the Gift of Stewardship

Gift memberships are a great way to introduce friends and family to the Land Stewardship Project while supporting the organization. When you purchase a gift membership, LSP will send the recipient a special card along with an introductory membership packet. Contact LSP membership assistant Elizabeth Makarewicz at emakarewicz@landstewardshipproject.org to give a gift membership, or visit our website at www.landstewardshipproject.org/donate.

This Tax Season

For those who have contributed to tax-deferred 401(k)s and IRAs (Individual Retirement Accounts), income tax is due on that money when you take withdrawals in retirement. Annual withdrawals from these retirement accounts are often required after age 70½, and the penalty for skipping a required minimum distribution is 50% of the amount that should have been withdrawn. However, if you are in the position of not needing your distribution for living expenses and are

interested in supporting the Land Stewardship Project, you can avoid income tax on your required withdrawal by donating that money directly to LSP. If you are over 70½ and have an IRA that requires a minimum distribution, ask your IRA broker or tax planner how your retirement account can be used to help grow LSP's work and reduce your tax bill.

The Coronavirus Aid, Relief, and Economic Security (CARES) Act was signed into law this past March to address the current health and financial crisis. Provisions in the act may help you with your charitable giving, including a new \$300 charitable deduction for taxpayers who do not itemize deductions. If you do itemize, the act increases the amount you can deduct for a cash gift in 2020 from 60% of adjusted gross income (AGI) to 100% of AGI.

For more information, contact Josh Journey-Heinz, LSP's membership and major gifts officer, at 612-722-6377 or jjourney-heinz@landstewardshipproject.org.

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Support LSP in Your Workplace

he Land Stewardship Project is a proud member of the Minnesota Environmental Fund, which is a coalition of environmental organizations in Minnesota that offers workplace giving as an option in making our communities better places to live. Together, member organizations of the Minnesota Environmental Fund work to:

- → promote the sustainability of our rural communities and family farms;
- → protect Minnesotans from health hazards;
- → educate citizens and our youth on conservation efforts;
- → preserve wilderness areas, parks, wetlands, and wildlife habitat.



You can support LSP in your workplace by giving through the Minnesota Environmental Fund. Options include giving a designated amount through payroll deduction, or a single gift. You may also choose to give to the entire coalition or specify the organization of your choice within the coalition, such as the Land Stewardship Project.

If your employer does not provide this opportunity to give through the Minnesota Environmental Fund, ask the person in charge of workplace giving to include it. For details, contact LSP's Amelia Shoptaugh at amelias@landstewardshipproject.org or 612-722-6377.

Membership Questions?

f you have questions about your Land Stewardship Project membership, contact LSP's membership coordinator, Clara Sanders Marcus, at 612-722-6377 or cmarcus@landstewardshipproject.org. To renew, mail in the envelope included with this *Land Stewardship Letter*, or see www.landstewardshipproject.org/home/donate.

Go Public With Your LSP Support

There are numerous fun ways you can show your support for the Land Stewardship Project. LSP has available for purchase t-shirts (\$20), window decals (\$3), tote bags (\$15) and, marking the return of a classic, "Let's Stop Treating our Soil Like Dirt" bumper stickers (\$3). As a bonus, we are also offering a "Farm Creatures of LSP 2021 Calendar" for \$20. All of these items can be ordered from our online store at **www.landstewardshipproject.org/store** or by calling **612-722-6377**.



T-shirt



Window Decal



Tote Bag



Farm Creatures Calendar



Bumper Sticker

In Memory & in Honor...

The Land Stewardship Project is grateful to have received the following gifts made to honor and remember loved ones and friends:

In Memory of Dennis Johnson

- ◆ Athena & Arne Kildegaard
- ◆ Donald & Joan Reicosky
- ◆ Roland Guyotte & Barbara Posadas
- ♦ Wynne Wright
- ◆ Carole, David & Darlyne & Mary Ellyn Johnson
- ◆ Sally & Bart Finzel

In Honor of John & May Lindstrom

♦ Kathleen Mary Kiemen

In Memory of Joann Pederson

◆ Verna & Howard Patrick

In Honor of Linda Soucie's 81st Birthday

◆ Fred & Linda Soucie

In Honor of Good Turn Farm

◆ Angela Lindberg-Livingston

In Memory of Ted Myers

◆ Anonymous

In Memory of Charles Meredith Bend

- ◆ River Market Community Co-op
- ◆ Kevin, Sue & Chris Clark
- ◆ David Hartwell

In Memory of Les Young

◆ Joyce Young

In Memory of Stewart Eayrs

◆ Catherine Eayrs

In Honor of Nanna B

◆ Anna Barker

In Honor of the Passionate Young People Welcoming & Inspiring Me

♦ Mary Voight

In Honor of Past Generations Seeking Land to Steward; Future Generations Needing Healthy Soil, Water & Air

◆ Rhonda Simonson

To donate to LSP in the name of someone, contact Clara Sanders Marcus at 612-722-6377 or cmarcus@landstewardshipproject.org. Donations can be made online at www.landstewardshipproject.org/home/donate.



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STEWARDSHIP CALENDAR

- → JAN. 5—2021 Minnesota Legislative Session Convenes. Contact: Amanda Koehler, LSP, akoehler@landstewardshipproject.org → JAN. 6—LSP/SFA/Extension Soil Health Workshop for Vegetable Farmers. Virtual event: noon-1:30 p.m. Contact: https://bit. ly/2GV3xz8, Nick Olson, LSP, nicko @landstewardshipproject.org, 320-269-1057
- → JAN. 7-8 Minnesota Organic Conference. Virtual event. Contact: www. mda.state.mn.us/environment-sustainability/ minnesota-organic-conference, Cassie Dahl, 651-201-6134
- → JAN. 12 Renting It Out Right Intro to Conservation on Rented Land. Virtual event (see page 26)
- → JAN. 19 —LSP Introductory Workshop on Farm Transition Planning. Virtual event. (see page 27)
- → JAN. 19 —LSP Compost Check-in Call Featuring Kassie Brown of Potter Ridge Farm. Virtual event: 6 p.m-8 p.m. Contact: Connor Dunn, LSP, cdunn@landstewardshipproject.org, 507-523-3366
- → JAN. 20 Farm Listings Deadline for 2021 CSA Farm Directory (see below) → JAN. 20 — Renting It Out Right — Intro to Conservation on Rented Land. Virtual

event (see page 26)

- → JAN. 20 LSP/SFA/Extension Soil Health Workshop for Vegetable Farmers. Virtual event: 7 p.m.-8:30 p.m. Contact: https://bit.ly/2GV3xz8, Nick Olson, LSP, nicko@landstewardshipproject.org, 320-269-1057
- → JAN. 20 —Northern Plains Sustainable Ag Society Winter Food & Farming Conference. Contact: www.npsas.org, 218-331-4099
- → JAN. 21 LSP Introductory Workshop on Farm Transition Planning. Virtual event (see page 27)
- → JAN. 21-23 Practical Farmers of Iowa Conference. Virtual event. Contact: https://practicalfarmers.org, 515-232-5661
- → JAN. 29 Renting It Out Right Intro to Conservation on Rented Land. Virtual event (see page 26)
- → JAN. 29-30 16th Annual Emerging Farmers Conference Reclaiming Our Voices: For Farmers, by Farmers, with Farmers. Virtual event. Contact: https://emergingfarmers.org, KaZoua Berry, 651-504-8105, kberry@thefoodgroupmn.org
- → FEB. 2 LSP Farm Transition Planning Series. Virtual event. (see page 27)
- → FEB. 9 LSP Farm Transition Planning Series. Virtual event. (see page 27)

→ FEB. 13 — Sustainable Farming Association of Minnesota Conference. Virtual Zoom event & in-person gatherings. Contact: www.sfa-mn.org, 1-844-922-5573

- → FEB. 16 LSP Soil Health Workshop on Planting Green & Grazing Cover Crops, Featuring Jay Fuhrer & Kristin Brennan of the NRCS. Virtual event: 1 p.m. 5 p.m. Contact: Connor Dunn, LSP, cdunn@ landstewardshipproject.org, 507-523-3366
- → FEB. 16 LSP Farm Transition

 Planning Series. Virtual event. (see page 27)

 → FEB. 23 LSP Farm Transition
- Planning Series. Virtual event. (see page 27) → FEB. 25-27 — MOSES Organic Farming Conference. Virtual event. Contact: www.
- mosesorganic.org/conference, 715-778-5775

 → MARCH 2 LSP Farm Transition

 Planning Series. Virtual event. (see page 27)
- → MARCH 9 LSP Farm Transition
 Planning Series. Virtual event. (see page 27)
- → JULY 24 LSP-CURE Tallgrass
 Prairie BioBlitz 2021, 8 a.m.-8 p.m., Lac Qui
 Parle State Park, Watson, Minn. Contact: Peg
 Furshong, peg@cureriver.org, 320-269-2984
- → SEPT. 1 Application Deadline for LSP's 2021-2022 Farm Beginnings Course (see page 26)

For the latest LSP events, see www.landstewardshipproject.org/workshops.

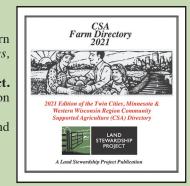
CSA Farmers: Time to Sign-up for the 2021 Directory

If you are a Community Supported Agriculture (CSA) farmer operating in Minnesota or western Wisconsin, the Land Stewardship Project invites you to be listed in the 2021 edition of LSP's *Twin Cities*, *Minnesota & Western Wisconsin Region CSA Farm Directory*.

An online version of the *CSA Farm Directory* will be available by Feb. 1 at **www.landstewardshipproject. org/stewardshipfood/csa**. On that web page, you will find a link to an online form for submitting information about your farm: **www.landstewardshipproject.org/forms/csa**.

The deadline for submitting listings is **Wednesday**, **Jan. 20**. The listing fee is \$15 for LSP members and \$20 for non-members. There is a 250-word limit for listings.

For more information on having your farm listed, contact LSP's Brian DeVore at bdevore@landstewardshipproject.org or 612-816-9342.



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