

The Land Stewardship



LAND
STEWARDSHIP
PROJECT

39 Years of Keeping the Land & People Together

Letter

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A ground-level peek at regenerative farming's potential (page 22).



—*Dave Serfling's Ag Policy Legacy*—

—*MN State Legislative Preview*—

—*Drought: Short Term Relief & Long Term Solutions*—

—*Prairie's Horizontal Grandeur*—

—*Soil Health & a 'Wonder Field'*—

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Helping Stewardship Farms Deliver Public Goods

How Dave Serfling & an LSP Farmer Committee Changed Conservation Policy

By Brian DeVore

It was the summer of 2005, and Dave Serfling was ecstatic. The 350 acres he and his wife Diane were raising crops and livestock on in southeastern Minnesota had just enrolled in a new USDA conservation program that paid farmers for producing environmental benefits on working farmland. I had called Dave to talk about the implementation of what was then called the “Conservation Security Program,” and he informed me that a 2,000-acre crop operation in his watershed was also enrolled in the program but didn’t qualify for as much money.

Why? It turns out the program was going to reward Dave and Diane not based on how many acres of corn they raised, but on how much of a positive impact they were having on the landscape. Over the years, they had established diverse crop rotations, rotational grazing, and perennial systems like hay and pasture, and they had plans for putting in more of what today would be called “regenerative” practices. In a region where rain can send soil flying off steep hillsides and karst geology makes groundwater vulnerable to contamination, the Serflings felt this was the only way to farm. And now, for the first time, government policy, and indirectly, society itself, was recognizing that fact as well.

“This never happened in the commodity program, where I actually was paid more than the big cropping operations,” Dave told me over the phone.

But he wasn’t bragging about a financial windfall at the expense of a fellow farmer. Dave was simply expressing amazement that for once his diverse production techniques were not being penalized by policy. And the program, called CSP for short, wasn’t prescribing how to farm. Rather, it was providing goals — cleaner water, less erosion, more wildlife habitat, for example — and then leaving it up to the farmers to creativity reach them. That’s exactly what Dave had in mind when, a few years before, he walked into a meeting of the Land Stewardship Project’s Federal Farm Policy Committee with an 11-page proposal to revamp federal farm

conservation policy. His fellow farmers on the committee went over the proposal, and with the assistance of then-LSP policy director Mark Schultz, hammered out an initiative that, rather than promote the production of more monocrops, would reward results-oriented whole-farm conservation practices on working land. This was groundbreaking — federal farm conservation programs have traditionally relied on retiring acres via initiatives such as the Conservation Reserve Program and funding the establishment of piecemeal projects such as terraces that don’t always produce the results intended.

“You have over one million creative



Dave, Hannah, Diane, and Ethan Serfling in a photo taken in 2001. “As you can probably tell, I love farming,” Dave once wrote. (LSP Photo)

farmer minds out there in the country. If you tell them the environmental results that you want and give them financial incentive to achieve them, they will find a way to deliver,” Dave told the U.S. Senate Agriculture Committee in 2001.

“Dave’s idea was that policy ought to reward farming practices that create public goods,” recalls Schultz, who retired in 2020 as the executive director of LSP.

A working lands conservation program that took a whole-farm approach resonated with Tom Harkin, who was then a U.S. Senator from Iowa and chair of the Senate Agriculture Committee. After meeting with members of the LSP committee, Harkin made CSP part of the 2002 Farm Bill.

Two decades later, what is now called the Conservation Stewardship Program is, by farm acreage covered, the largest federal

conservation program in the country — at least 70 million acres of cropland, forest acres, pastures, and rangeland are enrolled in the program. I’ve been on dozens of CSP farms that are using innovative practices to save soil, protect water, build carbon, and provide wildlife habitat.

Unfortunately, Dave never had the opportunity to see his vision fully realized. Less than a year after he signed that CSP contract, he was killed in an auto accident. He was only 46 at the time, and it’s astounding the impact he had on regenerative agriculture, policy, and his local community in such a short time.

Besides being a key player in the development of one of the most innovative farm conservation programs in history, Dave was deeply involved in on-farm research and farmer-to-farmer education. The Serfling farm was frequently featured in the media, and Dave himself was an eloquent and effective communicator. His presentations, essays, and fact sheets blended the farmer’s razor-sharp analysis of numbers with his own family’s experience as land stewards. Dave had a knack for expressing to non-farmers the joys of making a living on the land. “As you can probably tell, I love farming,” he wrote in one newspaper commentary that described in loving detail the life he and Diane, along with their children, Hannah and Ethan, had on those 350 acres.

Perhaps Dave was his most animated when he talked about working with livestock. He loved figuring out how to balance care of the land with profitable production of hogs, cattle, sheep, and chickens, and he saw animals as playing an integral role in creating a diverse, sustainable operation. The Serfling farm was an early supplier of antibiotic-free pork to Niman Ranch.

It’s fitting that Dave is closely associated with an innovative piece of policy like CSP. Its foundation was built on the ideal that when given a chance, farming can have a positive impact on the land, people, and community. Dave Serfling lived that ideal every day. □

Brian DeVore is the editor of the Land Stewardship Letter.

Give it a Listen

Episode 204 of LSP’s *Ear to the Ground* podcast features former executive director Mark Schultz describing how Dave Serfling and other members of the organization’s Federal Farm Policy Committee created the Conservation Stewardship Program: landstewardshipproject.org/series/ear-to-the-ground.

Myth Buster Box

An Ongoing Series on Ag Myths & Ways of Deflating Them

→ **Myth: CAFO Digesters are a Good Public Investment**

→ **Fact:**

It's an enticing concept to take a waste product and transform it into something useful. For example, an on-farm digester breaks down manure and generates a biogas. That biogas is made up mostly of methane, which is the primary component of natural gas, a valuable part of our energy infrastructure.

Any method that can keep a nasty greenhouse gas like methane out of the atmosphere is a big deal. Methane is more than 25 times as potent as carbon dioxide at trapping heat in the atmosphere, according to the Environmental Protection Agency. Methane concentrations in the atmosphere have more than doubled the past 200 years, and that's largely as a result of human-related activities.

Agriculture makes up 9.6% of total U.S. greenhouse gas emissions and the liquid manure systems utilized by concentrated animal feeding operations (CAFOs) are a big reason food production is such a major contributor to climate change. Overall, emissions from manure jumped over 60% between 1990 and 2019, according to the Environmental Protection Agency. Methane emissions alone increased almost 68% during this period. The majority of the increased methane production was from swine and dairy cattle manure.

It's no accident that methane production by agriculture coincides with the boom in large CAFOs. In these industrialized systems, liquid manure is managed by storing it in large lagoon systems in liquid form, which creates an anaerobic (no oxygen) situation, creating the perfect broth for cooking up methane emissions. In such a system, manure is no longer a source of fertility, it's a waste product to be gotten rid of.

Methane digesters offer a way to make that waste into something useful, in the process "greening up" the factory farm industry. Currently, there are 273 manure digesters in operation on U.S. livestock farms, according to the EPA's AgSTAR program, which promotes biogas production from livestock waste. Of those, 216 are strictly dairy operations and 37 focus on swine. Wisconsin has 39 manure digesters, Minnesota has six, and Iowa has five. What's striking when one scans the AgSTAR database is how large the operations are. Most are raising thousands of head of livestock in one location. One esti-

mate is that a dairy would need 2,500 cows to support a standalone digester — the average dairy farm in the U.S. has around 240 cows. Riverview Dairy, which is based out of Morris, Minn., and has operations in several states, is operating digesters on two operations in Minnesota — one has 7,665 cows, the other 6,300.

There's a reason that digesters tend to be on mega-farms — they cost mega-bucks. The price tag can typically be around \$1.2 million, according to AgSTAR. Through grants, cost-share funding, low-interest loans, and tax breaks, agencies like the Minnesota Department of Agriculture, the EPA, and the USDA are supporting the construction of methane digesters on CAFOs.

In an open market situation, a digester wouldn't even come close to making sense economically once a farmer burns through government funding to set one up. But a relatively recent development has altered the math. Traditionally, digesters were used to produce energy that was used right on the farm. But promoters of this technology are particularly excited about the potential to pipe the gas off the farm to other states and regions and provide income via offset carbon markets. Smithfield Foods, the largest pork producer in the country, is getting into biogas in a big way, and has partnered with Dominion Energy to sell natural gas into California's Low Carbon Fuel Standard market. Amp Americas is working with Riverview at three of its dairies to produce biogas that can also tap into the California market. In 2020, the Minnesota Public Utilities Commission approved CenterPoint Energy's proposal to create an infrastructure for supplying biogas generated from manure, among other waste products.

The government's excitement around digesters is beginning to smell a lot like yet another subsidy for factory farm livestock production. *Civil Eats* recently documented how an analysis in California showed government grants typically covered 40% of the costs of building digesters. Ninety-three percent of the projected revenue from the manure digester operations studied by University of California-Davis came from selling government-created environmental credits.

Subsidizing the construction — and providing a bit of taxpayer funded greenwashing — for factory farms is bad news not just for our public coffers. It also helps prop up a system

that has proven to be a major burden on the public in the form of water and air pollution. Those impacts also decimate rural Main Streets that owe their economic survival to the families that run small and medium-sized farms. Subsidizing mega-sized digesters is just one more way to help the Riverviews of the world crush their smaller neighbors.

And this is not the case of a methane digester on a CAFO providing a net gain in the battle to reduce greenhouse gas emissions. Much of the methane produced by a 7,000-cow dairy would not be there in the first place if it wasn't for the fact that it relied on a massive liquid manure system. A problem was created by this system and now the public is being asked to pay for solving it on massive operations that only make this, and numerous other environmental and economic problems, worse.

That's particularly hard to swallow when one realizes there are better ways to raise livestock. Buried in EPA's most recent "Inventory of U.S. Greenhouse Gas Emissions and Sinks" report is a line describing how when manure is "handled as a solid" and deposited on pasture, it tends to decompose aerobically, producing little or no methane. In a nutshell, they are describing why livestock production systems that rely on rotational grazing of cattle or straw bedding for hogs are a climate-smart way to raise animals.

Much of the money that's been going into building manure digesters comes out of the USDA's Environmental Quality Incentives Program (EQIP). There have been calls by LSP and its allies to bar CAFOs from using EQIP funds. That would free up more resources for kick-starting the kind of regenerative livestock production systems that don't treat manure as a waste product, but as a source of biologically-rich fertility.

→ **More Information:**

- EPA Inventory of U.S. Greenhouse Gas Emissions and Sinks (1990-2019), <https://bit.ly/3E7zYII>

- *Civil Eats*: "Are Biogas Subsidies Benefiting the Largest Animal Farms?" <https://bit.ly/3ne6Y5f>

- EPA AgSTAR Livestock Anaerobic Digester Database, <https://bit.ly/3m2NTU8>



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LSP News

LSP Staff Update

After a short hiatus, **Amy Bacigalupo** has returned to the Land Stewardship Project as the co-director of its Farm Beginnings and Food Systems programs. Before leaving LSP in 2020 to spend more time on her family's western Minnesota orchard operation, Bacigalupo spent two decades making LSP's Farm Beginnings Program one of the most successful

and respected beginning farmer training initiatives in the country (see page 17). The follow-up training initiative, Journeyperson, was designed and implemented with her guidance, and Farm Beginnings is now being taught in over a dozen states because of the Beginning Farmer and Rancher Development Program and the Farm Beginnings Collaborative, both of which Bacigalupo took the lead on creating and supporting.

More recently, Bacigalupo served as program director and co-managing director at LSP, and led efforts to make opportunities in agriculture available to more farmers of color, including Indigenous people.

Bacigalupo can be contacted at amyb@landstewardshipproject.org or 320-269-2105.

Olivia Blanchflower has been hired as LSP's development director. Blanchflower has a bachelor's degree in liberal arts from Sarah Lawrence College, and has extensive experience writing grants to support resilient

food systems. Prior to joining LSP, she led and raised money for food systems programs in New York City for 13 years with GrowNYC. During this time, she and her team grew a network of youth-run farm stands into a wholesale distribution enterprise that delivers foods from local farms to hundreds of community-based partners, institutions, and businesses.

At LSP, she is cultivating relationships with potential donors, current donors, strategic partners, and others to ensure the success of the organization's mission. Blanchflower can be contacted at oblanchflower@landstewardshipproject.org or 612-400-6356.

When **Johanna Rupperecht** became a policy organizer in LSP's southeastern Minnesota office in 2012, she didn't need a tutorial on the organization's history. Rupperecht's parents, Mike and Jennifer Rupperecht, were founding farmer-members and have been involved in many aspects of LSP's work over the years. Johanna recently ended her "employment" connection to LSP, taking a position as the arts administrator for the River Arts Alliance in Winona, Minn.

During the past nine years, Rupperecht worked with members to organize successful campaigns related to health-care, corporate control, and stewardship of the land. Most notably,



Olivia Blanchflower

she worked with Winona County residents on a 17-month grassroots campaign to put in place a frac sand mining ban. Through narrative development, organizing meetings, a special report, letters-to-the-editor, lawn signs, and expert testimony, the campaign brought about a ban that set a national precedent. Rupperecht's organizing combined person-to-person connections with rock-solid documentation of the facts. As a result, the ban has withstood numerous legal challenges all the way to the Minnesota Supreme Court.

Maddie Hyde has left LSP to return to farming. Since joining the staff in 2019, Hyde has worked as a membership and base building organizer. In that role, she worked with LSP's programs to help bolster membership recruitment and membership involvement. During her time with LSP, membership grew and new ways were created to increase members' ability to have a positive impact through LSP's work. Hyde also helped develop support initiatives for new members. □



Maddie Hyde



Amy Bacigalupo



Johanna Rupperecht

LSP Staffers Form Union

Land Stewardship Project staff, like many employees of nonprofits around the country, have chosen to form a union. This fall, LSP's board and management announced that they fully support staff members' right to unionize and have recognized the Land Stewardship Workers Union, which is part of Local 12 of the Office and Professional Employees International Union (OPEIU). LSP's management team and board look forward to working with the union as a contract is negotiated. □

Want Someone to Speak about LSP's Work to Your Group?

Would others in your community or a group you're a part of be interested in learning about the Land Stewardship Project's programmatic, policy, or electoral work?

Our staff are available to speak about our various initiatives. Contact us at info@landstewardshipproject.org to learn more and to get something set up.

For details on other ways to connect with LSP, see landstewardshipproject.org/connect-with-lsp.



2022 Minnesota Legislative Session

LSP to Prioritize Soil & Communities

Note: The 2022 session of the Minnesota Legislature will convene Jan. 31 in Saint Paul. Land Stewardship Project policy manager Amanda Koehler recently talked to the *Land Stewardship Letter* about what issues our members will be focusing on during the session.

◆ **LSL:** Describe how the 2022 session will be different from the 2021 session and how that will change LSP's approach.

◆ **Koehler:** The Minnesota Legislature has a biennial calendar. In odd-numbered years, like 2021, the Legislature must write a two-year budget for the state. In even-numbered years, such as the upcoming 2022 legislative session, lawmakers will be focused on a supplemental budget (adjusting the budget from 2021 based on actual revenue and spending), passing policy proposals that generally have no price tag, and putting together a bonding bill. A bonding bill is how the Legislature decides to spend income from the sale of state bonds, which are primarily used for capital projects.

With all that in mind, LSP will be focusing on passing our statewide soil-healthy farming goals, leveraging the bonding bill to invest in the infrastructure needed to support small and mid-sized farms, exploring supplemental budget opportunities, and protecting people and the land from harmful corporate-backed proposals. More priorities may emerge between now and the beginning of the legislative session, based on the direction of our member-led steering committees.

We are also going into an election year where all state Representatives, Senators, the Governor, and others are up for re-election. With a split Legislature — one party controls the House and another controls the Senate — majorities and minorities double down on delivering their priorities and stopping proposals they oppose.

◆ **LSL:** Is there some leftover business from the last session that can be dealt with during this session?

◆ **Koehler:** There is some business from the 2021 session that has yet to be

addressed. The Legislature is still negotiating how to spend funds appropriated for pandemic frontline workers and how the state can provide drought relief for farmers, something LSP has worked to shape and support (*see page 8*). Unfortunately, instead of delivering for frontline workers and farmers, the Senate majority has focused its attention on firing members of Governor

Often the argument is that there isn't enough money to go around to fund various public initiatives.

◆ **Koehler:** We know that there is enough to go around for all Minnesotans and the land to truly thrive. Right now, big corporations and the richest don't pay their fair share. They often skew the laws in their favor and dominate the state budget. That's why LSP has worked with numerous allies to equitably raise revenue in Minnesota, increase the percentage of our state budget's investment in regenerative agriculture and climate change, and confront and expose big corporate interests. During the upcoming legislative session, our biggest opportunity for funding is the multi-billion dollar bonding bill, which we will be leveraging. There are few opportunities to secure funding from the supplemental budget, but we will explore what's available.

It is possible that legislators will also push a supplemental Clean Water Fund bill, which is how LSP has secured funding for numerous sustainable agriculture programs



In September, members of LSP and Clean River Partners gathered on the Mike Peterson farm near Northfield, Minn., to discuss state and federal policy priorities. (LSP Photo)

Tim Walz's cabinet, which they can only do during a regular or special session. Therefore, in valuing a stable state government, as of this writing the Governor has not yet called a special session. It is likely these issues will remain unaddressed until the 2022 regular legislative session.

◆ **LSL:** What are you hearing in the air as far as what funding will be available?

over the years. It's also important to know that the Legacy Amendment, which established the Clean Water Fund, amongst other environmental and arts funds, needs to be renewed on the 2022 ballot.

State Legislature, see page 7...

◆ **LSL:** Does LSP have a certain approach to organizing at the 2022 Legislature? Will we be trying a hybrid of in-person and virtual interactions?

◆ **Koehler:** Due to COVID-19, the Legislature had to create more avenues for engagement in 2020 and 2021. These broadened ways to engage have been meaningful to our members and supporters — people can testify in a hearing, meet with a legislator, and organize from across the state. No one needs to drive three hours to get just two-to-five minutes in front of a committee or their legislator. As accessibility issues and barriers have been reduced, we have seen more engagement in our legislative work.

However, there is a lot of value to in-person organizing. It is powerful to show up in big numbers, confront lawmakers who can easily avoid us in a virtual setting, and be in physical community with one another. We are hopeful that it will be safe to have an in-person element to this coming session.

Despite the positive impact of in-person organizing, we always prioritize the health and safety of our members and supporters. There will certainly be a virtual element, but how much in-person engagement we have will depend on what is open to the public, what COVID-19 cases and hospitalizations look like, and how comfortable our members are with face-to-face engagement.

◆ **LSL:** What's the best way for members to make their voices heard before and during the session? Often, there are special committee hearings before it begins, aren't there?

◆ **Koehler:** Lawmakers need to hear from their constituents, not just corporate lobbyists. Before or during the legislative session, you can call them, e-mail them, or request a virtual or in-person meeting with them. Please reach out to us if you need support in lobbying your legislator or organizing people in your legislative district to meet with your legislator. You can also reach out to us if you're interested in sharing your story with lawmakers, whether that's in a small meeting or in front of a committee.

Another way to get involved is to submit letters to local and statewide newspapers — lawmakers tend to pay attention when their constituents speak out publicly.

Finally, if members are interested in getting involved, request a one-to-one conversation with a policy organizer. We would love to co-create a meaningful role in this work for members, no matter how much time and resources they have available. □

Get Involved

Want to make your voice heard during the 2022 session of the Minnesota Legislature? Contact Amanda Koehler at akoehler@landstewardshipproject.org or 612-400-6355 for details on how to get involved. For action alerts and other resources related to the upcoming session, check LSP's State Policy web page at landstewardshipproject.org/state-policy.

MN Legislators Can Bolster Local Processing in 2022

The COVID-19 pandemic exposed the fragility of global, concentrated supply chains. In addition, farmers adopting regenerative practices and growing food that nourishes people need markets to sell their production to. That's why the Land Stewardship Project will be working during the 2022 session of the Minnesota Legislature to pass policies that help create a more resilient food and farm system, says Sarah Goldman, who organizes on regional food systems for LSP. Goldman recently outlined three food-related areas LSP will be working on during the session:

Transition Planning

Just as farm owners face many challenges transitioning their operations to the next generation of farmers, so too do meat processors face significant obstacles in creating sustainable business transition plans

when they reach retirement age. Often, a lack of holistic business transition planning leads to processors closing their doors when they reach retirement age or passing on their business to new owners who are not well prepared or informed about how to continue operating small processing facilities.

Certification & Training

All meat and poultry processors under federal or state inspection must have Sanitation Standard Operating Procedures (SSOP) and a Hazard Analysis and Critical Control Points (HACCP) plan or plans in place. These measures help ensure that meat and poultry processors are producing safe products. However, there are limited HACCP training courses available in Minnesota to meet this requirement and often processors do not know how to navigate the certification process.

Workforce Shortages

Many meat processors cannot recruit and retain skilled workers to keep small plants running. In addition, when workers are available, plant managers often need to provide extensive training due to workers' lack of previous experience in meat processing and meat cutting.

The Land Stewardship Project looks forward to working with its allies and members to address these and other regional food issues during the 2022 legislative session. Do you want to get involved? Contact Sarah Goldman at sgoldman@landstewardshipproject.org or 612-400-6341. More on LSP's regional food systems work is at landstewardshipproject.org/regional-food-systems. For more on LSP's efforts to support local meat processing, see page 10.

Resources for Navigating the Meat Processing Business

Confused about the current rules related to starting up and operating a meat and poultry processing business in Minnesota? Join the club — it can be a confusing process that's constantly in flux. The Minnesota Department of Agriculture's Meat, Poultry, and Egg Inspection Division web page has numerous resources to help entrepreneurs navigate the system. Check it

out at mda.state.mn.us/food-feed/starting-meat-poultry-processing-business.

Included on that web page are descriptions of the different inspection types and exemptions, as well as a link to guidelines on Sanitation Standard Operating Procedures (SSOP) and Hazard Analysis Critical Control Point (HACCP) plans. There is also an extensive map showing the location

of the state's various local processors. For details, contact the division at 651-201-6300 or MDA.MeatPoultryEgg@state.mn.us.

Nationally, the Meat Processor Assistance Network provides resources for small and medium-sized meat and poultry businesses, including peer-to-peer consulting. That website is at nichemeatprocessing.org. □

State Issues

Drought-Stricken Farmers Call for Short-Term Relief & Long-Term Climate Solutions

Listening Session Highlights Toll on Small & Medium-Sized Produce & Livestock Farmers

The 2021 drought had a devastating impact on Liz Dwyer: her well went dry, vegetable plantings shriveled, livestock had to be butchered early because of lack of hay, and the Community Supported Agriculture (CSA) program at her Dancing the Land Farm had to stop deliveries eight weeks early. Yet, when the Stearns County, Minn., farmer called her local USDA Farm Service Agency office to find out about drought assistance, Dwyer was told she didn't qualify because her diversified operation didn't fit the mold of farms the agency was used to working with.

"The reality is I feed hundreds of people, and yet there's no support in a year like this, and this is the kind of year that just kills small farms," she said during a drought listening session held by the Land Stewardship Project and the Minnesota Farmers' Market Association in late September.

Other small and medium-sized farmers who raise vegetables, fruit, and livestock shared similar stories during the virtual event, which was attended by Minnesota Commissioner of Agriculture Thom Petersen, as well as several state legislators. In many parts of the region, the drought started in the spring and extended throughout the summer. By August, more than three-quarters of Minnesota was considered to be suffering from "severe" or "extreme" drought, according to the U.S. Drought Monitor.

• • •
"The reality is I feed hundreds of people, and yet there's no support in a year like this, and this is the kind of year that just kills small farms."

— Minnesota farmer Liz Dwyer
• • •

By late summer, nearly 60% of the state's pastureland was in "very poor" or "poor" condition, according to Petersen. Dry conditions did not end come fall: as of December 2021, significant parts of the state's farming regions were still experiencing "moderate drought" or were "abnormally dry," according to the Drought Monitor — an ominous sign for the 2022 growing season.

Listening session participants made it clear that for many farmers this is an emergency situation requiring immediate assistance. During the fall, Governor Tim Walz announced that he is proposing a \$10 million drought assistance package that he would like to be considered at a special session of the Legislature. That proposal includes \$5 million in grants of up to \$5,000 for livestock watering systems and irrigation equipment while also offering \$5 million for a zero-interest loan program.

Land Stewardship Project organizer Sarah Goldman said short-term relief is critical, but the public needs to push for long-term resiliency planning funding to proactively address extreme weather in future growing seasons.

"Over the past few years, we have seen unprecedented droughts and flooding across the state, and these events have pushed farmers to the brink," she said. "It is time to support farmers in integrating practices that will mitigate some of the most harmful effects of these extreme weather events and ensure those currently on the land can stay farming with adequate relief resources."

Other listening session participants made it clear that the state needs to address long-term climate change issues if agriculture is to remain viable. University of Minnesota Extension fruit production educator Annie Klodd said her office is dealing with unprecedented climate-related issues such as the need for more irrigation in areas that historically have not required it. "Climate change is here," said David Manuel, a farm manager for the

Red Lake Nation in northwestern Minnesota. "We need state-mandated climate mitigation action."

KaZoua Berry, program manager for Big River Farms in Washington County, said policymakers need to take steps to help farmers deal with climate change in the long term by adjusting programs to support small-scale farmers while cutting red tape and providing incentives for consumers to support these farmers at places like farmers' markets.

"This is the kind of conversation we should have had a decade ago," she said.

When lawmakers are considering drought assistance, an emphasis should be placed on small to medium-sized producers who have



By August, more than three-quarters of Minnesota was suffering from "severe" or "extreme" drought. (LSP Photo)

the kind of operations often left out of mainstream farm program support, said Kathy Zeman, executive director of the Minnesota Farmers' Market Association.

"It's critical that this relief package is accessible to smaller-scale, diversified farms, those who are renting land, those who are selling good food directly to our communities and ensuring they have the support needed to navigate applying for this aid," said Zeman. □

Crisis Resources

The Minnesota Department of Agriculture (MDA) has an online list of resources to help farmers struggling with drought. Its drought resources web page also includes a link to Farm Advocates, a nationally recognized program the Land Stewardship Project has long supported. Farm Advocates provides one-on-one support for farmers and their families grappling with economic and legal issues. Check out the MDA page at www.mda.state.mn.us/drought-resources.

Court's Decision a Win for Land, Communities & Farms

Winona County Residents Speak Out — Will CAFO Owners Listen?

By Matthew Sheets

In a win for the people and the land of southeastern Minnesota's Winona County, the Minnesota Court of Appeals has declined to take up a case that was brought forward by a large dairy attempting to expand well beyond an existing animal unit cap. This comes after years of neighbor-to-neighbor action and public engagement by Land Stewardship Project members and other people in Winona County in support of the current animal unit cap, which was put in place to protect the communities, as well as the land, water, and air, that everyone relies on.

At issue is Daley Farm's attempt to add roughly 3,000 animals to its existing operation, which would put the operation at around 6,000 animal units, almost four times the county's animal unit cap of 1,500 animal units. That cap is equivalent to 1,071 dairy cows, 5,000 market hogs, and 1,500 beef cows/steers; the overwhelming majority of livestock operations in Winona County and across Minnesota are well below this limit, meaning this cap readily allows for a family farm-based system of livestock agriculture. Such a cap is particularly important in a region like southeastern Minnesota, where groundwater is vulnerable to contamination as a result of the porous karst geology that predominates.

In 2019, the animal unit cap was challenged by Daley Farm's lawyers after the Winona County Board of Adjustment ruled that the proposed expansion could not move forward because it would exceed the cap. The expanded facility would use 92 million gallons of the area's groundwater per year and produce 46 million gallons of manure and wastewater. For context, the nearby town of Lewiston (pop. 1,506) uses 33 million gallons of water annually. And the operation is in a region where tests have shown wells with nitrate levels nearing or above the Environmental Protection Agency's maximum allowable nitrate level of 10 milligrams per liter.

The Minnesota Court of Appeals decision keeps with a long legal tradition in Minnesota of giving regulatory favor to the local governing body and the people who have the most at stake.

Even after being denied an exception to the county animal unit cap rule — called a "variance" — by the local community, and after the courts have decided that the local

decision takes precedence, Daley Farm put forward yet another request for a variance for the same project. And, yet again, the Board of Adjustment voted on Dec. 2 to deny the variance.

During the past two years, neighbors to the proposed expansion, along with other folks in Winona County, have repeatedly made it clear such a large expansion is not welcome in their community. They have testified at public meetings, submitted detailed evidence to the Minnesota Pollution Control Agency, and written letters-to-the-editor.

Unfortunately, the owners of Daley Farm have strongly hinted that they will continue to push for this unwanted expansion. This proposal is seen as a bellwether by large agribusiness interests within Minnesota, which are pushing for ever more expansion of mega-sized concentrated animal feeding operations (CAFOs) at the expense of small and moderate-sized family farms. As a result, Daley Farm has had significant resources backing up its expansion efforts, including a law firm that serves major agribusiness clients. Rather than follow the law, Daley Farm is attempting to force the law to follow it by basically rewriting the ordinance, despite the wishes of the community.

It should be made clear that this expansion doesn't just violate what's considered a sensible animal unit limitation in Winona County. Several other southeastern Minnesota counties — Freeborn, Fillmore, Dodge, and Faribault — also limit the size of livestock operations. Local governments are taking serious steps toward protecting groundwater and the viability of small to moderate-sized livestock farms. As LSP farmer-members in the region have been proving for decades, concentrating thousands of animals in CAFOs is not the future of agriculture; there are ways to profitably raise livestock while keeping our communities and the land viable and healthy.

The people of Winona County made it clear in 1998 when the animal unit cap was instituted, in 2019 when the original request for a variance was denied, and now in 2021 when it was denied again — the area's water, air, and small to mid-sized farms are more important to the community than the profits of one mega-operation or the advancement of an unsustainable model of agriculture that has already decimated numerous other communities across the country. Those community values have remained rock solid over the years.

That was made apparent earlier this fall when LSP member-leaders in Winona County brought together other members of the community to talk about Daley Farm's continued efforts to overturn those community values and how local people can ensure that the county animal unit cap is enforced. The folks who pulled together for this meeting shared a resolve to protect their community and be in communication with their neighbors about the importance of the county animal unit cap and the values that are behind it. One result of that discussion was that residents penned over a dozen letters-to-the editor expressing their stewardship values and how the proposed Daley Farm expansion undermines them.

LSP is looking forward to this renewed community conversation and is confident that the people of Winona County will, yet again, make their voices heard. Local government and the courts have listened and acted accordingly. It's time the owners of Daley Farm and other boosters of the mega-dairy model got the message as well. □

LSP organizer Matthew Sheets works on factory farm and livestock concentration issues. He can be reached at msheets@landstewardshipproject.org or at 612-767-9709. For more on how to get involved with LSP's factory farm work, see landstewardshipproject.org/factory-farms.

LSP 'Fighting Factory Farms' Cohort this Winter

The Land Stewardship Project invites members to participate in its "Fighting Factory Farms" cohort this winter.

This will be an opportunity to learn about local, state, and judiciary levers available to stop factory farms in your community. There will be opportunities to ask questions of experts and to develop skills around having one-on-one conversations with your neighbors, building leadership in your community, testifying at local meetings, and developing communications and narrative strategies.

The gatherings will be held Jan. 22, Feb. 5, and Feb. 19. At this time, LSP is planning to gather in-person in a central location for this cohort. Participants must be fully vaccinated against COVID-19 or show proof of a negative test within 48 hours of each gathering.

The cost is \$100 (or a donation that is meaningful to you). You can register at <https://bit.ly/FFcohortreg>. For more information, contact Matthew Sheets (320-766-4395, msheets@landstewardshipproject.org) or Amanda Koehler (612-400-6355, akoehler@landstewardshipproject.org).

Federal Policy

Corporate Meat's Supply Chain Chokehold

LSP Members Advocate for Competition in the Processing Sector

By Sarah Goldman

In July, the White House issued a sweeping executive order on Competition in the American Economy, shedding light on the issues that Land Stewardship Project members have been talking about for years. The opening line in the agriculture section of the statement succinctly summarizes the issue: “Over the past few decades, key agricultural markets have become more concentrated and less competitive.” As the sidebar below indicates, this concentration is bad news not just for farmers, but consumers as well.

LSP members and supporters have talked about the negative consequences of consolidation in agriculture, especially in the livestock sectors, and the COVID-19 pandemic has only exacerbated and made farmers and consumers more aware of the negative consequences that arise when brittle supply chains begin to snap.

Kristin Tombers owns Clancey's Meats & Fish in Minneapolis and sources meat from local farmers. She says that as a result of the pandemic, customers became aware of the vulnerability of a corporate-controlled food supply chain. Now's the time to act on that teachable moment and let the public know how this consolidated system has negative impacts all the way down to the farm level.

“Many small, local processing plants have gone out of business because of corporate consolidation in the food system,” says Beth Slocum, an LSP member who raises livestock in Goodhue County, Minn. “This ends up costing us, the local independent livestock producers, more.”

National Reforms to Address Consolidation

At the national level, the federal government has started to show signs that it is ready to tackle corporate consolidation head-on. As part of the Executive Order on

Competition, the White House has directed the USDA to consider issuing new rules under the Packers and Stockyards Act to provide additional protections to livestock farmers. The 100-year-old law was originally designed to protect livestock farmers from unfair, deceptive, and anti-competitive practices in meat markets.

However, not only are stronger antitrust policies needed, but small processors and farmers require additional support in order to get off the ground and remain viable. The federal government has also expanded funding for small meat processing, recently requesting input for how to invest an estimated \$500 million of American Rescue Plan funds to improve infrastructure, increase capacity, and bring about diversification across the processing industry.

LSP members took the opportunity to weigh-in on this request, with over 80 signing-on to a public comment (*see page 11*) asking for the USDA to create a grants program to help small-scale federally inspected plants expand and update their infrastructure and equipment, and thus increase processing capacity. In addition, members requested that the federal government fund technical assistance to support processors with workforce shortages and prioritize funding for Black, Indigenous, and people of color owned businesses, as well as for plants that serve these groups of people.

Supply Chain, *see page 11...*

Meat Concentration: Turns Out it's Bad for Consumers Too

The statistics are staggering. At last count, four companies — Cargill, JBS, Tyson Foods, and National Beef Packing — slaughter over 80% of the nation's cattle at 24 plants.

The problems with such immense concentration briefly became clear to the general public in 2020 when COVID-19 outbreaks swept through meatpacking plants, slowing and even closing some of the massive operations. A cyber attack last summer forced a shutdown of JBS plants until the company paid a ransom to hackers. These are just two signs that a highly concentrated food processing system is also highly vulnerable.

There's no doubt this is hurting farmers. For every dollar spent on food, the share that went to ranchers and farmers dropped from 35 cents in the 1970s to around 14 cents this year, according to the USDA. As *DTN's* Chris Clayton points out, during the fall of 2021 farmers received on average

about \$122.56 per hundredweight for their cattle, which is roughly 12.5% higher than what they were receiving a year ago. But the packers were receiving around \$297 per hundredweight, almost 27% higher than the year previous, according to the USDA.

Overall, the argument made for allowing such massive concentration in agriculture, or any industry for that matter, is that it's more “efficient” and thus produces benefits for the consumer via lower prices, among other things. In the late 1970s, law professor Robert Bork wrote an influential book called *The Antitrust Paradox: A Policy at War With Itself*, which argued that antitrust laws actually increased prices for consumers and protected inefficient businesses from competition. As the *New Yorker's* Dan Kaufman recently pointed out, “The prioritization of consumer benefits—over the wages of farmers and other producers—has shaped antitrust enforcement ever since.”

But there are indications that mega-concentration doesn't just hurt farmers.

Kaufman reports on the research of economist John Kwoka, who analyzed the effects of 46 mergers approved by the federal government. For 38 of them, prices for consumers rose by more than 10% on average. In October, the U.S. Bureau of Labor Statistics reported that the consumer price index for beef consumed at home rose 17.6% compared to a year ago. Overall, the prices consumers paid for food produced by an industry that is fast consolidating in just about every sector increased 4.5% during the past 12 months.

Not surprisingly, in October JBS reported earnings before interest, taxes, and depreciation in its beef sector for the second quarter of 2021 was up 162% from the first quarter, and 23.1% higher than a year ago.

State-level Support

Programs also exist at the state level to support small-scale meat producers and processors, including the AGRI Meat, Poultry, Egg, and Milk Processing Grant, which funds the start-up, modernization, or expansion of meat, poultry, egg, and milk processing businesses, and the AGRI Value-Added Grant, which funds projects that increase the sales of Minnesota agricultural products and

increase market access. The AGRI Livestock Investment Grant helps Minnesota livestock farmers improve, update, and modernize their livestock operation infrastructure and equipment.

Most notably, during the last Minnesota state legislative session the Minnesota Farmers Union, an LSP ally, successfully pushed for funding that allows Central Lakes College to offer a meat processing course, beginning next fall.

While there is much work to be done to reform the meat processing sector, action at

the state and federal level is encouraging. Now's the time to make it clear to policymakers that a resilient food and farming system requires a fair, locally-based processing system. Contact me for details on how to get involved. ☐

LSP organizer Sarah Goldman works on food systems policy and can be reached at landstewardshipproject.org/regional-food-systems. For more on LSP's 2022 Minnesota state legislative proposals for supporting local processing, see page 7.

LSP Letter: Time to Invest in Local Processing

Note: Over 80 LSP members recently signed this letter, which was submitted to the USDA.

The Land Stewardship Project is grateful for the opportunity to provide input on the U.S. Department of Agriculture's investment of an estimated \$500 million of American Rescue Plan funds to improve infrastructure, increase capacity, and bring about diversification across the processing industry. The Land Stewardship Project is a private, nonprofit organization founded in 1982 to foster an ethic of stewardship for farmland, to promote sustainable agriculture, and to develop sustainable communities. LSP's work has a broad and deep impact, from new farmer training and local organizing to federal policy and community-based food systems development.

At the core of all our work are the values of stewardship, justice, and democracy. Integral to our mission is the integration of livestock into a diversified agricultural system. In order to achieve this goal, farmers need consistent access to local processing facilities. The Land Stewardship Project has several recommendations as the USDA makes these new investments in the meat and poultry processing industry.

Corporate consolidation in the meat and

poultry sector has negative impacts on farmers, plant-workers, and consumers. LSP members, many of whom are small and mid-sized farmers, are alarmed by the fact that many small, local processing plants have gone out of



Southeastern Minnesota livestock producers Lisa and Eric Klein, shown here with meat cutter Geoff Hart, launched Dover Processing in 2017 because of a shortage of processing capacity. On episode 253 of LSP's *Ear to the Ground* podcast, organizer Alex Romano talks to Eric about the challenges associated with meat processing and how local facilities can contribute to the economy of their communities. The *Ear to the Ground* podcast page is at landstewardshipproject.org/series/ear-to-the-ground. (LSP Photo)

business because they could not compete in a corporately controlled and consolidated industry. For a brief period during the pandemic,

people realized the fragility of a corporate-controlled food supply-chain, and the critical role of small, local processors should be acknowledged and supported. USDA should create a grants program to help small-scale federally inspected plants expand and update their infrastructure and equipment and thus increase processing capacity. It is also important that grant programs support new plants in areas where there is critical need for investment.

Many farmers, especially over the past year-and-a-half, had nowhere to go with their animals, and we heard from small and mid-sized processors about the pressures they faced having to turn away customers who had no alternatives. Due to the workforce shortages in the small meat sector, USDA should fund technical assistance and support for small processors and their employees.

LSP believes that we can't have a healthy food and farming system in this nation without creating opportunities for all. For many farmers, ranchers, and business owners who are Black, Indigenous, and people of color, structural and institutional racism has hindered access to agricultural programs and the funding necessary to establish and maintain farm and processing operations. USDA should prioritize funding for Black, Indigenous, and people of color owned businesses, as well as for plants that serve these groups of people.

Sign-up for the Land Stewardship Action Fund Hotlist

Interested in learning more about how the Land Stewardship Project and its members are harnessing collective political power to elect candidates who will be champions for our vision of a just food and farming system? Then check out LSP's sister political advocacy organization, the Land Stewardship Action Fund (LSAF).

Getting on the LSAF hotlist provides a chance to stay up-to-date on this work and to get involved. You can register at the LSAF website: landstewardshipaction.org/take-action/sign-up. ☐



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The Wonder of Working with Nature

John Snyder's Soil Health Journey Started with a Question: Where were the Worms?

By Barb Sogn-Frank

Some five decades ago, a young aspiring farmer named John Snyder brought his bride Bernadette back to Minnesota from Tennessee to begin their farm and family dream together. The newlyweds settled in on a piece of rolling farmland near Preston in southeastern Minnesota where oak savanna forests, limestone ridges, and prairie meet. That first farmhouse had no running water, but it was home. And with just a few hundred dollars in the bank, they launched their life's work with beef cattle and dairying, growing corn, soybeans and a family.

Fast forward to October 2021: their farm dream has taken on proportions they'd never have imagined decades ago. In addition to conventional row crops and hay, the Snyders raise hogs and goats. All along, as John and his son, Ben, planned, planted and harvested, they took care observing their land, its weather, and water patterns. They paid attention to the farm's wildlife and the health of their crops and livestock as carefully as

• • •

"What's underneath your feet is what's making the health of those plants."

— John Snyder

• • •

they managed seasonal planting, production cycles, and farm finances.

Over time, John got concerned about some things he was observing on the farm.

"Something was wrong with my livestock — puffy joints, ornery...I went to the vet and he recommended no Roundup Ready infused feed and to go with non-GMO feed in general. I did, and the animals got healthier and happier," he recalls. "I think Roundup is doing more damage than we know. I'm talking as a farmer here, I'm not a radical, left-wing, socialist...There's something going on there. I got a lot to learn and I think we all do."

Erosion and the lack of soil life bothered the farmer too. One question in particular nagged him: Where were the worms?

Snyder says his brother, who has some of the best farmland in the area, loves to fish. When it was time to go drop a line, he'd say, "I gotta go to the Amish to get some worms." Even though the brother's farm looked great, John says, "His soil didn't have the life and diversity that you find in Amish country where they use more diverse cropping and livestock integration."

John and Ben started to make the switch from Roundup Ready seed to non-GMO and organic production. That required taking a different approach to weed control that relies on a rotary hoe, a cultivator, and an electric weed zapper, along with a mix of cover crops. John's learned that, "... timing is critical. You're not a windshield farmer anymore. Next year I'll do barley. Also, clover, alfalfa, and grass, and then I hay it for a couple of rounds. You gotta break up the cycle, you gotta have oats or beans.

All your weeds germinate at different times so you gotta change up your tillage."

They switched to spring interseeding of cover crops in standing corn. About 200 of their 700 acres are now either certified organic or in transition away from conventional, non-GMO corn and soybeans to organic. Their remaining acres are conventional, non-GMO crops and cover crops.

The Snyders are happy

with the many positive changes they're seeing on their farm as a result of the switch to regenerative practices over the past few years. Their crops withstand drought better — a particularly key trait during the summer of 2021 — because there's more moisture retained in the soil. Wildlife is also more plentiful around the farm. An added benefit to building fertility naturally is lowered cost of production.

"Conventional corn's \$260 a bag," John says. "My preferred organic seed corn is \$160 a bag. And fertilizer just went up in price six times in six weeks."

Wonder, see page 13...



In October, John Snyder (left) described his soil health methods to Minnesota Commissioner of Agriculture Thom Petersen. (Photo by Barb Sogn-Frank)

Video: Soil & the Next Generation

In a Land Stewardship Project video, John Snyder describes why building soil health on his farm is key to allowing him to pass the land on to the next generation: www.youtube.com/watch?v=4438_5qQ3fY.

The 'Wonder Field' Tells the Story

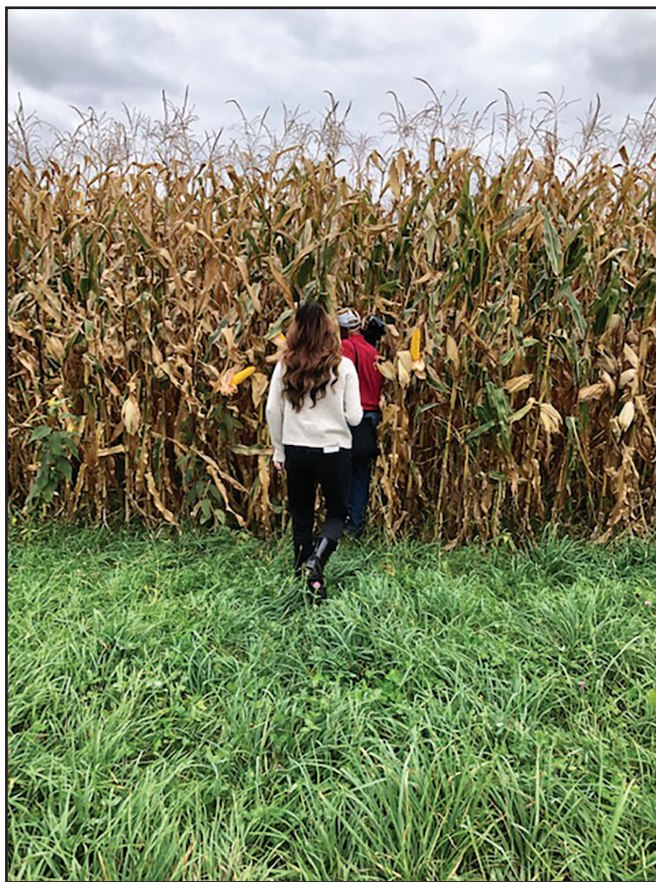
Recently, on an unseasonably warm, overcast October afternoon, John hosted a group of about a dozen visitors, including Thom Petersen, Commissioner of the Minnesota Department of Agriculture. They came to see and hear about what Snyder calls his “wonder field” — a stand of 11-foot-tall organic corn. It was indeed a wonder to see and walk through; the response of the visitors that day was genuine awe and appreciation.

John and Ben led the group into the midst of the massive stalks to demonstrate how to do a yield estimate by counting kernels on a cob and extrapolating. Folks calculated the averages on their phones, yielding a reasonable estimate of 188 bushels per-acre, which would make for a profitable harvest for the Snyders.

“What’s underneath your feet is what’s making the health of those plants,” John told his guests emphatically.

Towards the end of the Commissioner’s visit, he and the farmer had a chance to walk and talk a bit. To John, this was the most important aspect of the Commissioner’s visit. While it was nice to have him stop by to see the Snyders’ soil building results firsthand, the vital element was for the Agriculture Department head to leave with a visceral understanding of what the future of farming could and should be for the next generation. □

LSP soil health organizer Barb Sogn-Frank can be reached at bsognfrank@landstewardshipproject.org or 507-479-9119.



John Snyder says his corn’s vibrant health has its roots in healthy soil. (Photo by Barb Sogn-Frank)

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 web page at landstewardshipproject.org/soil-health or call 507-523-3366.

Winter Soil Health Workshops

LSP’s Bridge to Soil Health initiative will be holding several soil health workshops this winter. See page 36 or landstewardshipproject.org/upcoming-events for details.

Ear Dirt Podcast Series

Check out LSP’s *Ear Dirt* podcast series for conversations on cover cropping, no-till, managed rotational grazing, fungi, and just about anything else that builds soil health: landstewardshipproject.org/ear-dirt. □

Grass-based Meat Marketing Videos

In a new Land Stewardship Project video series, three pasture-based farmers describe how they are marketing meat directly to consumers:

Fostering Connection in a Digital World

Leslie Svacina of Cylon Rolling Acres describes how she uses website sales and social media to market her meat through wholesale accounts and directly to customers locally and nationwide: <https://bit.ly/3vD3nBe>.

Building Relationships and Running a Business

Rachelle Meyer of Wholesome Family Farms describes how her farm direct markets multiple grass-fed species through a combination of local farmers’ markets and website sales: <https://bit.ly/3m3cEzC>.

Raising and Selling an Exceptionally Good Product

Mike Rupprecht of Earth-Be-Glad Farm describe how decades of refining grazing techniques and grass-fed genetics has resulted in a high-quality beef product which his family sells direct: <https://bit.ly/3b2NJWy>.



The Hidden Charisma of Grasslands

Prairie BioBlitz Reveals the Power of Observation

By Brian DeVore

You can't appreciate what you don't know, and in the case of some natural habitats, one may need to work a little harder to unearth that needed knowledge. Consider the tallgrass prairie — to the untrained, auto-bound eye buzzing by at 65-miles-per-hour, it lacks the charisma of the Big Woods or the Rocky Mountains. But by getting out of the car, wading through the grasses and forbs, and taking a closer look, one can get a sense of this habitat's "horizontal grandeur," as writer Bill Holm calls it.

During two days in mid-July, some 270 people gathered at Lac qui Parle State Park and environs in western Minnesota to do some "bioblitzing" and add a little to the knowledge base of this critical resource, in the process providing insights into how it can be protected and propagated. The conversion of the tallgrass prairie to crops over the past century-and-a-half may represent one of the biggest alternations of a natural landscape ever. Minnesota was once covered by 18 million acres of prairie; today around 1% of that is left, mostly on public lands, in private natural areas, and along railroad rights-of-way. Hundreds of species of plants can live in a native prairie, and their deep root systems have created incredibly rich soil, which provides a myriad of ecosystem services: carbon sequestration and water management, as well as pollinator and wildlife habitat, among others.

"You hear the stories about the first Europeans to break the prairie with their plows and the prairie grasses would almost sing as they snapped with the plow being pulled through them," said Margaret Kuchenreuther, an associate professor of biology at the University of Minnesota-Morris. She was one of the prairie experts who led walking tours during the 2021 Tallgrass Prairie BioBlitz, which was sponsored by

the Land Stewardship Project, Clean Up the River Environment (CURE), University of Minnesota Extension's Master Naturalist Program, and the Minnesota Department of Natural Resources.

A BioBlitz is an intense, community-based period of biological surveying that attempts to record as many living species possible in a designated area. Groups of scientists, naturalists, and volunteers conduct this survey over a specific period of time, often uploading their observations on the iNaturalist app straight from the field. This



During the BioBlitz, volunteers surveyed vegetation on a calcareous fen, a type of small wetland that produces habitat for a unique set of plants. (LSP Photo)

Parle Wildlife Management Area, which is 30,000 acres of natural habitat, including prairie, that runs 35 miles along the Minnesota River, including a 6,000-acre reservoir formed in 1939 to control flooding on the Minnesota River.

The BioBlitz surveys focus on the birds, plants, mammals, insects, amphibians, and fish that call a region home. But this isn't just about the health of the natural world, said Peg Fursong, Operations and Program Director for CURE.

"From CURE's perspective, we know that if we have a healthy, vibrant environment, we have healthy vibrant communities," she told the crowd before they headed out to the prairie with binoculars, nets, smart phones, and notebooks in-hand to assess just how healthy the natural community was.

The results were mixed: during one insect survey, experts with the Minnesota Dragonfly Society expressed disappointment at the lack of dragonflies showing up in nets near the reservoir and a wetland. Insects

like dragonflies and mayflies rely on water systems that aren't full of eroded soil, which can disrupt reproduction and make it difficult to access their food supply. In this case, although the BioBlitz was taking place in natural habitat, the area is surrounded by corn and soybean fields that drain into the Minnesota River, which has long had a problem with sedimentation and agrichemical contamination. It was a reminder that threats



The Tallgrass Prairie BioBlitz brought together scientists, naturalists, and volunteers to tabulate as many living species as possible in the area of Lac qui Parle State Park. (LSP Photo)

is the fifth BioBlitz LSP has been involved with in western Minnesota in recent years.

Kuchenreuther and other prairie enthusiasts are excited to see events such as this BioBlitz take place since they get the public out into this incredibly diverse habitat that, from the road, can be easily dismissed.

"We take better care of things we know more about," said LSP organizer Robin Moore on the first morning of the BioBlitz. She was addressing the dozens of people gathered at the headquarters of the Lac qui

BioBlitz, see page 15...

to healthy ecosystems don't respect property boundaries.

"So they're kind of like the canaries in the coal mines of our prairie streams," said Kuchenreuther of the winged insects.

Dragonflies and mayflies aren't unique in the insect world when it comes to the challenges they face. Pesticides, loss of habitat, and climate change have combined to cause dramatic population drops in the largest class of animals on Earth. The journal *Science* reported in 2020 that about a quarter of the world's terrestrial insects have perished in the past three decades. The study found that the Midwest had some of the most dramatic declines, with 4% of its bug population being lost annually. That has major implications for the many services insects provide: pollination of crops and other plants, decomposition of manure and other "waste," and serving as a source of food for many birds, animals, and fish.

Higher up on the prairie itself, the news was better. Despite the intense drought blanketing the region, plants like big bluestem, Indian grass, leadplant, wild bergamot, and dogbane seemed to be thriving. A few miles from the Wildlife Management Area, surveyors checked out a calcareous fen, a unique type of small wetland — usually less than 4 acres — that is formed when water is confined by limestone long enough to make it high in calcium and magnesium carbonates. This, in turn, provides a unique habitat for various plant species not usually found in the region; the presence of a fen says a lot about the health of the groundwater.

This particular fen was located in a pasture and was marked by cattails growing in the wet ground. It was around 200-feet-wide and hugged a hillside for about 100 yards in a curve — above and below the hummocky habitat, the soil was bone dry. As BioBlitz participants waded through the fen, they found wetland species like marsh bellflower and American water horehound — good signs that this habitat was thriving in the middle of working farmland.

Knowledge is Power

Eventually, over the course of the week-end over 1,400 observations were uploaded to iNaturalist. It was clear the main goal of the event was accomplished: people got out and learned more about this critical habitat. But what to do with that knowledge?



Prairie ecologist Margaret Kuchenreuther, shown here leading a plant survey during the BioBlitz, has seen firsthand how farmers have used working lands conservation practices like managed grazing to revitalize grasslands. "We can have a landscape that supports all of the organisms that should be part of this beautiful prairie puzzle — humans as well as native flora and fauna," she said. (LSP Photo)

As part of the BioBlitz, there were workshops on how to restore prairie habitat on farms and in backyards. Amy Rager, a U of M Extension educator who works with the Master Naturalist Program, described how she recently raced to collect prairie seed from a Conservation Reserve Program planting that was slated to be sprayed with herbicide and planted to row crops. Such "rescue operations" are important, but in the long run we need to find ways to add economic value to natural grasslands, said Moore and Kuchenreuther. One way to do that is via managed rotational grazing of livestock, which can provide the animal impact, fertility (in the form of manure), and control of invasive species that prairies need and which they've lacked since large bison herds were removed from the landscape. Kuchenreuther cited a handful of examples of farmers in the region who are grazing livestock on restored prairie utilizing managed rotational systems that take into account when these grasslands are at their most vulnerable and when they need disturbance.

"Their prairies look beautiful because they graze them," she said.

In addition, state and federal natural resource agencies, along with private environmental groups like The Nature Conservancy, are increasingly utilizing rotational grazing of livestock to improve natural habitats on lands they manage.

BioBlitz participant Brian Christiansen, who, before retiring, was a soil conservationist with the USDA's Natural Resources Conservation Service, has been monitoring the impact of grazing on waterfowl habitat the U.S. Fish and Wildlife Service manages in southwestern Minnesota. By the third year, a flash grazing strategy that effectively controls weeds was leaving the mix of native grasses and forbs thriving, and he's noticed more bird life. Christiansen says this piece of land is marginal, and shouldn't be planted to crops in the first place. It's a prime location for working lands conservation in action.

"That's supplemental feed for the cattle producers, so that's a win situation for them," he said. "Plus we need to replicate the bison's impact with those hooves to remove excess vegetation. It's a win-win." □

Give it a Listen

What happens when you get out of the car and wade into a prairie? On episode 258 of the Land Stewardship Project's *Ear to the Ground* podcast, prairie ecologist Margaret Kuchenreuther talks about this biome's under-appreciated beauty, its outsized benefits, and how grazing can fuel its ecological energy: landstewardshipproject.org/series/ear-to-the-ground.

Prairie Podcasts Galore

Want to learn more about the relationship between prairies and regenerative agriculture? The podcast page for episode 258 includes links to over a dozen other episodes about the role agriculture can play in supporting these natural grasslands.

Making Room for Relationships

How Journeyperson is Helping Racing Heart Pace Itself

By Brian DeVore

Pack-shed or people? That's the question Les Macare and Els Dobrick are grappling with on a dank day in mid-March as they brave a biting wind to inspect the garden plots, cover crops, and outbuildings on Racing Heart Farm in western Wisconsin. With the exception of some onions sprouting in one of the hoop houses, little sign of the coming spring is in sight, but the vegetable farmers need to decide soon how they will approach the 2021 growing season. Like many Community Supported Agriculture (CSA) operations, COVID-19 launched Racing Heart on a bit of a roller coaster ride in 2020. Demand for shares exploded as the pandemic fueled concerns about the food system and people were spending more time at home, cooking.

"We had a hard time saying 'no' last year. We capped it at 100 members and then opened it up again when we were hearing everybody's CSA was filling up," recalls Macare. "And also we heard that one of our farmers' markets was going totally online."

As a result, the CSA portion of Macare and Dobrick's farm more than doubled from 70 to 200 shares in one year. The vegetables produced for those shares were shifted away from what they had been selling through two farmers' markets they serviced on a weekly basis, so they didn't have to cultivate more land to meet the requirements of the expanded CSA enterprise. But there was one downside to the CSA-centric shift: preparing more share boxes means more time in the packing shed and less time with customers.

"We like the efficiency of the CSA but we also get a lot from the farmers' market — it's exhilarating, it's fun, we get to have face-to-face interaction with the people who are seeing the vegetables right in front of them and oohing and ahing," says Macare.

Would 2021 be another mega-CSA year, or would they shrink back that portion of the enterprise to provide more face time at farmers' markets? Fortunately, Dobrick and Macare feel equipped to make such decisions thanks to the training they received through the Land Stewardship Project's Journeyper-

son Course. Through that experience, they learned that when making farming decisions, it's not just about dollars and cents, productivity, and efficiency — it's also about meeting the needs of every aspect of the farm in a holistic way, from the health of the soil to the quality-of-life of the farmers themselves.

That training has given them the tools to regularly "check in" and assess whether the

They concede that first foray into farming together was a flop agronomically — it was on extremely sandy soil with a pH level only a pickle maker could love. But it helped them realize they liked farming and that they could work together raising food.

Neither Dobrick nor Macare grew up on a farm, although they both have grandparents with farming backgrounds. Macare, 38, grew up in Connecticut and has worked on vegetable operations on both the East and West Coast. Dobrick, 45, grew up in Minneapolis, lived in Seattle for a dozen years, and came to farming through an interest in native plants and small-scale gardening.

After the first year on the "sand farm," they rented land for two more seasons on another piece of ground in the Twin Cities area. Through that experience, they gained



Els Dobrick (left) and Les Macare say training they received through LSP's Journeyperson is helping them balance the needs of the land, community, and themselves. Having a common language to work with as a result of their Journeyperson training is key, says Macare. "It isn't just about our relationship with the land, it's also about how we interact together." (LSP Photo)

decisions they are making contribute to the overall success of the farm or are leading them down unfruitful side roads.

"We can actually take a particular piece out if it's not working for us and that's okay," says Dobrick. "We don't have to just get so focused on one enterprise or spreading ourselves too thin, or focusing on something that isn't working out."

From Sand to Soil

The couple has been thinking a lot about how to stay true to their values since launching a small vegetable operation in Minnesota on a half-acre of rented land in 2014.

more confidence in how to raise vegetables on a larger scale for a combination of farmers' markets and CSA customers. But the couple felt they still lacked the business acumen needed to make farming a fulltime career.

"We had no idea how to do the finances and just having some structure sounded really nice," says Dobrick.

In 2015, they enrolled in LSP's Journeyperson Course to get grounded in nuts-and-bolts financial management. The

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year-long Journeyperson Course is designed to support people who have several years of managing a farm under their belt, and are working to take their operation to the next level. It provides advanced farm business planning, a matched savings account, and a mentorship, as well as guidance on balancing farm, family, and personal needs.

In a sense, Journeyperson is a good “post-graduate” step for people who take LSP’s Farm Beginnings course (see sidebar below). However, like some other Journeyperson participants, Dobrick and Macare are actually not Farm Beginnings grads.

They found Journeyperson’s focus on Holistic Management particularly useful. Holistic Management, which was developed four decades ago by Allan Savory, focuses on “big picture” decision-making and goal setting processes. Savory’s expertise is in the area of livestock grazing, but over the years Holistic Management has helped farmers of all types, as well as other entrepreneurs and natural resource professionals, achieve a “triple bottom line” of sustainable economic, environmental, and social benefits. In a Holistic Management system, a farmer’s quality of life is put on the same level as the health of the soil or the operation’s economic viability. Holistic Management relies on a process of constantly monitoring whether a certain decision on the farm is helping meet long-term overall goals, or is just an off-ramp toward something that in the end may undermine a farmer’s values and needs.

For Macare, who studied “non-violent communication” some years ago, Holistic Management was a bit of a homecoming. Founded by Marshall Rosenberg, non-violent communication is based on the idea that every person has the same basic set of human needs, and every action that we take in life is an attempt to meet one of those universal needs.

“Basically, Holistic Management is non-violent communication for your farm,” says Macare. “When you think about holistic goals, you’re really talking about your needs, your values. Conflict only arises when we’re trying to meet those needs or values with a specific strategy.”

To reduce that conflict, one needs to keep in mind not only their own needs, but the needs of who they are farming with, as well as neighbors and the wider community, say Macare and Dobrick, adding that when they started farming together their romantic partnership was new. That meant having a framework for talking about bigger personal/farm business visions and goals was even more critical.

“Farming is very much a lifestyle, so

having language to talk about that within a structure that we’re trying to create together is key,” says Macare. “It isn’t just about our relationship with the land, it’s also about how we interact together.”

A Useful Delay

Such relationships became even more real to the couple in 2017 when they purchased 36 acres of a former dairy farm in Wisconsin’s Dunn County. The farm is an hour-and-a-half from the Twin Cities and 25 miles from Menomonie, Wis., providing good access to markets. However, Dobrick and Macare ended up with more land than they need for their garden plots. They grow about 1.5 acres of vegetables — the rest is pasture and woods. The farm was sold to them by landowners who had listed it in LSP’s *Seeking Farmers-Seeking Land Clearinghouse* (see page 19) because they were looking for someone who would use it as a farm and a home, rather than just bulldoze the house and outbuildings and make it another corn-soybean field. Thus, the sellers were patient as Dobrick and Macare went through the eight-month application process of getting a USDA Farm Service Agency (FSA) Beginning Farmer Loan.

Beginning farmers often express frustration over the lengthy FSA loan process, but

Give it a Listen

On episode 264 of the Land Stewardship Project’s *Ear to the Ground* podcast, Els Dobrick and Les Macare talk about how Journeyperson, holistic decision-making, and networking are helping make Racing Heart Farm successful: landstewardshipproject.org/series/ear-to-the-ground.

Macare and Dobrick say the delay actually helped them become convinced they were ready to be landowners.

“After the second season of renting, I was ready to have our own place to invest in,” says Dobrick.

And the loan application process gave them a chance to put the Holistic Management financial plan they had developed through Journeyperson to good use.

“We could just hand over the spreadsheet to our loan officer and it made sense to her, it wasn’t just my chicken scratch note-keeping,” says Macare.

Having organized financials has also paid off since they moved onto the land and applied for other grants to help with devel-

Racing Heart, see page 18...

LSP’s Farm Beginnings & Journeyperson Courses

Farm Beginnings

The Land Stewardship Project’s **Farm Beginnings** class is a 12-month training session that helps beginning farmers clarify their goals and strengths, establish a strong enterprise plan, and start building their operation. The course uses a mix of farmer-led classroom sessions, on-farm tours, and an extensive farmer network.

Farm Beginnings is designed for new and prospective farmers who want to plan a profitable farm business. Students do not need to currently own land, but some farming or production experience is helpful to get the most out of the class.

In this class, participants will:

- Establish quality-of-life goals and clarify their values.
- Learn about whole farm planning, marketing and financing.
- Write a farm business proposal.
- Learn from some of the most innovative and skilled farmers operating in the Midwest.
- Be in a peer-based classroom setting.
- Access an extensive network of farmers through LSP’s Farmer Network.

- See sustainable farming practices in action on working farms.

The classes take place each winter between December and February, and are followed by on-farm educational events and special workshop offerings. Due to COVID-19, the past two sessions have taken place online; it is yet to be determined how the 2022-2023 course will be presented.

Journeyperson

LSP’s **Journeyperson Course** is designed to support people who have several years of managing their own farm under their belt, and are working to take their operation to the next level. The course involves advanced farm business planning, a matched savings account, and a mentorship, as well as guidance on balancing farm, family, and personal needs. Farm Beginnings is a good prerequisite to taking Journeyperson, but non-graduates of Farm Beginnings are welcome to apply to Journeyperson.

For more on Farm Beginnings or Journeyperson, including application details, see landstewardshipproject.org/new-farmers or contact Annelie Livingston-Anderson at annelie@landstewardshipproject.org, 612-400-6350.

Farm Beginnings

...Racing Heart, from page 17

oping infrastructure. In the past few years, they've received another FSA loan along with a private grant through the Lakewinds Organic Field Fund to help build a pack-shed. Macare and Dobrick also successfully applied for USDA Environmental Quality Incentives Program support to erect a second hoop house in addition to the one that was already present on the farm.

"It seems like every year we have occasion to organize and submit our finances to somebody," Macare says.

In general, the news that those spreadsheets are relaying is good. Through expansion of markets and putting aside money on a regular basis (something they got accustomed to through Journeyperson's matched savings account program), Dobrick and Macare are at a place where they aren't relying on off-farm income to get by. This has provided them the ability to take a longer view of what they, and the land, need.

All Ears

As the farmers walk the land on that March day, they point out areas where they want to establish more pollinator and other natural habitat. They also describe the no-till production system they are establishing as a way to build soil health and shield the land from the extreme weather that's become more common as a result of climate change. With a combination of hay mulch, cover crops, broadforking, and utilizing landscape fabric to deny weeds access to sunlight, they've been able to avoid intense disturbance of the soil without using chemical-based weed control.

Long term plans include possibly using the rest of the farm as an incubator for other

beginning farmers. They are currently letting a neighbor hay their extra open land, and there are possibilities for other enterprises. Dobrick and Macare feel that when they were launching their own farming operation, they benefited from having access to land through low-cost rental arrangements — now they'd like to pay it forward. After all, because of the topography and soil type present on the farm, they don't see themselves raising vegetables on much more than the few acres that already make up the garden plots — that leaves a lot of real estate for other enterprises.

"It hasn't been revealed to us yet what exactly we're going to do," says Dobrick. "We're in the listening phase."

They are also getting a chance to listen to other farmers in the region who are dealing with similar challenges and opportunities. Macare and Dobrick get together regularly with a group of other producers from a six-county area who direct-market what they raise. The group communicates via an e-mail listserv and holds "mini-conferences" every-other-year or so — the last one drew 50 to 60 people.

"It's been really valuable to connect with other folks in this region," says Dobrick. "I didn't really know what we were getting into when we moved out here from Minneapolis. I was sort of worried about moving away from something, and I was so pleased to realize I actually moved *towards* something."

...And Back to that Decision

So, fast forward: once the growing season arrived, where did Racing Heart Farm land on the question of spending more time in the pack-shed or with people? In some ways, it



Dobrick hamming it up during the peak of the season at Racing Heart's farmers' market stand. "We like the efficiency of the CSA but we also get a lot from the farmers' market — it's exhilarating, it's fun," says Macare. (Photo Courtesy of Racing Heart Farm)

was a harder decision than what they faced in 2020, when the pandemic shut-down limited choices.

"In 2020 it was like, something happened, and we have to make decisions now, now, now," says Dobrick, punctuating the words with a slap of the hands.

If the decision was based on pure economics and efficiencies, a 200-member CSA might have been the way to go. But in the end, after considering quality-of-life issues and what really excites them about farming, the vegetable producers went with an option somewhere in the middle. When they got word that at least one of the farmers' markets they had served in the past would be open to in-person access, they decided to go with 120 CSA shares in 2021, which gave them the time and resources needed to still have face-to-face contact with customers at the market stall.

In this case, they didn't just listen to their bank account, the land, or even the community — they also listened to themselves. ☐

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 that need to be addressed before diving in is long. If you are dreaming of farming and puzzled about how to get started, the Land Stewardship Project's Farm Dreams initiative is for you. Farm Dreams is a four-hour 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.

Workshops are scheduled throughout the region during the course of a year. Details on upcoming workshops will be posted at landstewardshipproject.org/farm-dreams-workshop. Details on future classes are also available by contacting LSP's Annelie Livingston-Anderson at annelie@landstewardshipproject.org or 612-400-6350.

Self-led Farm Dreams Exercise

By the way, during the Farm Dreams class, participants go through a special visioning exercise. To conduct this exercise at home, download it as a pdf document from landstewardshipproject.org/farm-dreams-workshop.

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 landstewardshipproject.org/farmland-clearinghouse. You can also obtain forms by e-mailing LSP's Karen Stettler at stettler@landstewardshipproject.org, or by calling her at 507-523-3366. Below are a few recent listings. For the latest listings, see landstewardshipproject.org/farmland-clearinghouse.

Seeking Farmland

◆ Katie Knott is seeking to purchase 1-2 acres of farmland in **Minnesota**. Land with greenhouses or space for greenhouses is needed. Contact: Katie Knott, 612-210-2825, k2flowers.edibles@gmail.com.

◆ Pa Xiong is seeking to rent 1 acre of tillable farmland in **Minnesota**. No house is required. Contact: Pa Xiong, 763-318-6506, paxiong354@gmail.com.

◆ Kindra Ericksen is seeking to rent 20-50 acres of farmland in **Wisconsin**. Ericksen is seeking pasture to rotationally graze sheep on, and prefers land with perimeter fencing, water, and a barn/shed with electricity. Contact: Kindra Ericksen, 540-533-6658, kindra@oneofakindstudio.com.

◆ Grace Brosnan is seeking to purchase 3-10 acres of farmland in **Minnesota (Goodhue County preferred)**. Brosnan would like land that has 3-5 buildable acres for a composting site. Land with fencing, road, wells, and electrical hookup would be great. No house is required. Contact: Grace Brosnan, 507-995-8905, gcbrosnan@gmail.com.

◆ Christopher Brenna is seeking to purchase 5 acres of tillable farmland in **Minnesota**. Land with 1 tillable acre, 3 forest acres, and 1 pasture acre is preferred. Land with water and power is preferred; no house is required. Contact: Christopher Brenna, 612-242-1434, cjbrenna@gmail.com.

◆ Carly Talsma is seeking to rent 1+ acres of farmland in **Michigan**. Land with at least .5+ tillable acres is preferred. Land with outbuildings and water is preferred; no house is required. Contact: Carly Talsma, 248-808-7659, carly.talsma@gmail.com.

◆ Cj Sandven is seeking to purchase 5-50 acres of farmland in **Minnesota (Kandiyohi County area preferred)**. Land with 5-30 acres of pasture, 5-30 tillable acres, and 5-15 forest acres is preferred. Land that has not been sprayed is preferred. No house required; open to a long-term lease. Contact: Cj Sandven, 320-979-2131, 320-409-1149.

◆ Sreenivas Pondicherry is seeking to purchase 15 acres of farmland in the **U.S. (Wisconsin is preferred)**. Land with 5 pasture acres, 5 tillable acres, and 5 forest acres is preferred. Land with a house, an outbuilding, water, and fencing is preferred. Land that hasn't been sprayed for several years is preferred. Contact: Sreenivas Pondicherry, 312-340-9776, sreenivas.pondicherry@gmail.com.

◆ Chaede Vig is seeking to purchase farmland in **Minnesota**. Land that has not been sprayed for several years is preferred; no house is required. Contact: Chaede Vig, 715-815-0892, chaederv@gmail.com.

◆ Lorna Grant is seeking to purchase 5+ acres of farmland in **Minnesota**. Land with 3+ acres of pasture and 3+ acres of forest is preferred. Land that has not been sprayed for several years is preferred; no house is required. Contact: Lorna Grant, 651-347-3764, ImLornaGrant@gmail.com.

◆ John Douglas is seeking to purchase 15 acres of farmland in **Illinois or Indiana**. Land that includes 5 pasture acres, 5 tillable acres, and 5 forest acres is preferred. Land with a house and at least one outbuilding is preferred. Contact: John Douglas, 360-774-9084, John10251995@icloud.com.

◆ Experienced beekeepers Megan and Temuri are looking for a 3+ acre farm to rent in **Minnesota**. Land with 2+ acres of pasture and 1+ forest acres is preferred. Land that has not been sprayed for several years is preferred. Land with a house is required. They are interested in using pasture for restoration for pollinators and making honey, growing cut flowers, and having some poultry on the property. Contact: Megan and Temuri, 612-963-9368, m.wannarka@gmail.com.

Farmland Available

◆ Nancy Lunzer has for sale 15.25 acres of farmland in **east-central Minnesota's Kanabec County (near Ogilvie)**. It consists of 2 tillable acres and it has not been sprayed for over 10 years. This is a Certified Water Quality

Farm and there are apple and ornamental trees. The land is fenced and cross-fenced for rotational grazing and there is an automatic waterer. There are several outbuildings and a fixer-upper house with fiber optic internet. The asking price is \$174,900. Contact: Nancy Luzner, 320-223-3269, beartreeranch@gmail.com.

◆ Dusty Hinz has available 129 acres of gazing land in **Spring Grove in southeastern Minnesota**. The land consists of 72 acres that has previously been tilled, which he plans to convert to pasture. There are 57 acres of woods. There is electricity and a well. Hinz is seeking a farmer that can rotationally graze the land with their own cattle, sheep, or goats. Contact: Dusty Hinz, dusty.hinz@alumni.augsburg.edu.

◆ Ed Lysne has for rent 10 acres of farmland in **Minnesota's Rice County (near Northfield)**. There are 5 tillable acres and 1 forested acre, and the land has not been sprayed in six growing seasons. Sugar maples are available to tap. There is a house and a small garage. The price range is \$1,500; lease is somewhat negotiable. Contact: Ed Lysne, 612-790-7873, edriclysne@gmail.com.

◆ Steven Harder has for sale a 15-acre operation in **southwestern Minnesota's Cottonwood County (near Mountain Lake)**. This land has been farmed with mixed vegetable production for 12 years using regenerative principals. No herbicides have been used; an integrated pest management system using only OMRI approved products was in place. An in-ground irrigation system is connected to hydrants at many of the plots. There are fruit and nut trees. An adjacent property includes a commercial building with a climate battery greenhouse and a cistern, which is currently attached to the in-ground irrigation system. This property is being sold separately. No housing is available. Contact: Steven Harder, 507-360-3294, stevenharder70@gmail.com.

Continuing a Stewardship Farming Legacy

Whether you are a new farmer looking for farmland or a retiring farmer looking to transition your operation to the next generation, the Land Stewardship Project's website has resources for you at landstewardshipproject.org/new-farmers or landstewardshipproject.org/retiring-farmers-landowners. To discuss various land access/transition options, contact LSP's Robin Moore (rmoore@landstewardshipproject.org, 320-269-2105) or Karen Stettler (stettler@landstewardshipproject.org, 507-523-3366). □

The Non-Tragedy of the Commons

Cooperative Ownership of Farmland Offers Alternative Access to Acres

By Robin Moore

Meet Sasa Organic Farms, a collective of Kenyan farmers. Sasa (sasaorganicfarms.com) is five family farms: Dawn2Dusk Organic Farms, Lisaviole Farms, Lisaviole Organic Farms, Green Joy Farm, Gedef Organic Farm, and Laurens Organic Farm.

They provide Community Supported Agriculture (CSA) shares, produce, and seedlings to customers in and around Minnesota's Twin Cities. Like many beginning farmers, their goal is to improve the health of a diversified Minnesota population and preserve farmland for future generations. They also strive to grow for their families and communities culturally appropriate food that cannot always be found in American supermarkets.

Sasa farmers have been supported by the work of Moses Monyami and Lonah, who mentor new agrarians on their land in Cambridge, Minn. But the Sasa farmers are quickly outgrowing the incubator acres and are ready to establish themselves in long-term relationship with farmland and begin to grow their businesses serving Minnesota communities.

Most beginning farmers face a similar dilemma: once they get enough experience to launch a going enterprise, they run into the brick wall of permanent access to land. This is especially true for farmers of color, who have less generational wealth and often lack a background in generational land ownership. They also have less access to traditional and alternative sources of credit.

This is where the Agrarian Trust can play a role. I am part of a group of people working in Minnesota to use the "land commons" model as a way to provide access to acres for folks like the Sasa farmers. A "commons" creates a perpetual trust protecting the land for agricultural stewardship while removing it from private ownership, and farmers are given leases that last for their

working lives and that can be passed on.

Farmers build equity by investing in their business rather than the mortgage, by owning any buildings or improvements they add to the land, and by having dependable, long-term tenure on agricultural land. The commons are governed and supported by a board consisting of one-third community members, one-third Agrarian Trust members, and one-third farmers who are part of the commons. The focus is on sustainable, soil-building practices, as well as sustainable community building practices and support for the farmers.



Farmers working on the Sasa Organic Farms operation near Cambridge, Minn. They've outgrown their incubator acres and are seeking a permanent home for their agricultural enterprises. (Photo courtesy of Sasa)

The Commons Concept

Land commons are not a new concept. Indigenous cultures in this country and abroad, for whom land ownership is a settler/colonial imposition, practiced for millennia (and still practice) community land relationships that do not involve private ownership. Nobel laureate Elinor Ostrom researched and published important work (<https://bit.ly/2XmUrDu>) on sustainable community commons in answer to a dominant belief that such cooperative arrangements were doomed to failure.

In a commons situation, land is held

by, stewarded for, and contributes to the surrounding community. Under this model, poor stewardship of the farm is seen as damaging to the community, and community members hold each other accountable as well as support each other in the healing of the land. (The Agrarian Trust's website has details about structure, equity building, and other aspects of agrarian commons operations, which are being created all over the country: agrariantrust.org.)

It sounds so simple, but it's complicated to rebuild and recreate land access under the "commons" model. For one thing, it runs counter to what most of us know about land ownership, financial value, wealth building, land tenure, independence, and success. Federal, state, and local laws, as well as ordinances and support structures, are all built for private ownership. That means quite a lot of work goes into finding legal paths for a different structure that includes the community's as well as the individual's values.

The commons model is not the answer for everyone. There are many communities and individuals who prefer private ownership for good reasons, including a desire to control land use and the building of wealth. For others, this is a much needed path to altering our tendency to monetize land.

There's no mistake: it takes a lot of effort to step off the well-beaten path of private land ownership. For the Minnesota Agrarian Commons, it has taken over a year-and-a-half to get to the point where we are ready to enroll land into a commons situation and have a group of farmers ready to lease that land.

One Farm's Land Needs

Currently, Minnesota Agrarian Commons (agrariantrust.org/commons/minnesota-agrarian-commons) is working to help with Sasa Organic Farms' land access needs. The Agrarian Trust would like to identify, with the collaboration of the Sasa farmers and a willing landowner, land that would fulfill the needs of the Sasa collective and put its members in a good position to succeed with their collective farm ventures. The landowner could either gift the land to Agrarian Trust, enter into a bargain sale (below market value), or sell the land to the Trust at market value, depending on the landowner's needs.

Agrarian Trust, working with partners,

Commons, see page 21...

will then begin a fundraising campaign to acquire the land, cover legal costs, and create a fund to establish appropriate infrastructure for the farmers. We will also work to identify and create a supportive community around the Sasa farmers, giving them the best opportunity to succeed. This model presents an opportunity for landowners ready for transition and looking to make a change in the systems that have been unfair

for a long time, especially in the realm of agricultural land access.

So many Land Stewardship Project members have been champions for conservation values, seeing the connections these values have to overall community health. We're asking landowners to start being champions for their social values as well, starting with their plans for land transition. Land is power, and we can start turning the wheel together to share that power with more intention.

Are you interested in learning more about

this model and how you can help? Contact me at 320-269-2105 or rmoore@landstewardshipproject.org. □

Land Stewardship Project organizer Robin Moore is based in western Minnesota and works with retiring farmers and non-operating landowners who are looking to continue a stewardship legacy. For more on this work, see landstewardshipproject.org/retiring-farmers-landowners.

Diving into Safer Waters

Nettle Valley Launches its 1st Pair of Incubatees

Dayna Burtness calls the incubator system she and Nick Nguyen have set up on Nettle Valley Farm a kind of “informed sink or swim” experience. And the first two incubatees to pass through the program appear to be, at the least, treading water vigorously as they take the next step in their farming careers.

Bailey Lutz and Heidi Eger just wrapped up a three-year stint at Nettle Valley Farm (nettlevalleyfarm.com), which is a pasture-based operation in southeastern Minnesota's Houston County. Burtness says that when she was launching her own farming career about a decade ago, she benefited greatly from being on an incubator farm. It not only allowed her to make mistakes without the financial burden of owning land and infrastructure, but helped her decide what type of farming she *did not* want to do.

Burtness makes it clear Nettle Valley's incubator is not an internship, job, or apprenticeship. It's set up so that beginning farmers can share land and equipment as they run their own enterprises separate from Nettle Valley's main business. In return, incubatees provide 12 hours of labor per month to Burtness and Nguyen.

Communication is key to making it work: there are weekly check-ins and an off-farm mediator is used to deal with conflict. Burtness says besides having the opportunity to support the next generation of farmers, the incubator program provides Nettle Valley a chance to better utilize its land base. Burtness and Nguyen are raising heritage breed hogs for direct marketing on about 10 acres of pasture, and would eventually like to use

67 acres of grass-pastured and silvopastured land they have access to. Lutz's Listenmore Farm raises goats and Eger's Radicle Heart Farm produces sheep and chickens.

Burtness says having multispecies grazing present on the Nettle Valley operation helps make better use of the landscape,



Bailey Lutz (left) and Heidi Eger just wrapped up their three-year incubator relationship with Nettle Valley Farm, owned by Dayna Burtness (behind gate) and Nick Nguyen. (LSP Photo)

much of which is hilly and marginal.

“I know myself enough to know that I need to do one, maybe two things, and just focus on that,” she says.

Lutz and Eger grew up in Twin Cities suburbs, and got interested in farming while at their respective colleges. Both were drawn to regenerative methods such as rotational grazing of livestock as a way to balance food production with ecological health.

They had interned on farms, but felt launching their own enterprises in an incubator type setting was the best way to figure out if they were cut out to making food production a career.

In a sense, the fact that Burtness and Nguyen are not experts in sheep or goat production has been a plus, says Eger — it has provided freedom to make mistakes and learn from them.

Lutz agrees. “I know I’ve made some choices that other people witnessed me make that they wouldn’t have made, and no one said anything. I learn a lot more from experience than I do from someone telling me something.”

During the incubation period, both beginning farmers learned some hard lessons

about the importance of biosecurity and disease control when raising livestock. Eger also saw the potential for making a living farming on land that's not considered highly productive in the conventional sense.

“It just makes accessing land feel feasible,” says the beginning farmer.

Both are direct-marketing their products, and Lutz is interested in using goats to do prescribed contract grazing in the area. After leaving Nettle Valley in the fall of 2021, both farmers landed separate opportunities to rent acres they can graze and live on. “It's definitely another stepping stone to a forever place,” says Lutz.

Burtness, for her part, is excited about launching the next three-year incubator cohort at Nettle Valley. The first round was a learning experience for her as well. “This next cohort, we'll have a lot more things written down,” she says. □

For more on Nettle Valley, see page 26.

Give it a Listen

On episode 265 of the Land Stewardship Project's *Ear to the Ground* podcast, Dayna Burtness, Heidi Eger, and Bailey Lutz discuss the incubator program at Nettle Valley Farm: landstewardshipproject.org/series/ear-to-the-ground.

A Season of Field Days

A Ground-Level Peek at the Challenges (& Promise) of Regenerative Ag

By Brian DeVore

It's easy to get a bit down about the state of our farm and food system these days, what with consolidation making it difficult for small and medium-sized farmers to get a fair price, climate change wreaking the kind of weather havoc that at times resembles the plot of a bad movie, decades of abuse coming home to roost in the form of degraded soil, lack of local meat processing constricting family farm

together on a particular farm and see firsthand what its operators are experimenting with. Field days are the foundation of the farmer-to-farmer education model that the regenerative/sustainable agriculture movement was built on — a model that runs counter to the conventional system of passing on knowledge: an expert from academia or industry hands down the ultimate “truth” about a certain production method in a cookie-cutter manner, and then moves on to the next farm.

True agricultural innovation isn't that



Martin Larsen: “If I had a bigger dream for southeast Minnesota in the next 10 years, it’s that we need more small grains.” (LSP Photo)

livestock production, bloated land prices blocking a new generation of farmers from launching careers, an “insect apocalypse” threatening the survival of key pollinators, and agriculture policy increasingly tilted in favor of industrialized, monocultural production that shutter Main Streets.

But spending time on a farm that's using creativity and grit to tackle any of these issues can provide one with a sense of hope and confidence that with a policy change here, a market shift there (coupled with a paradigm adjustment), a regenerative form of farming that supports economically and ecologically resilient communities has a real shot at becoming mainstream.

One way to cultivate that optimism is to attend a field day. For decades, such events have been used by groups like the Land Stewardship Project, the Sustainable Farming Association of Minnesota, Practical Farmers of Iowa, and MOSES to bring folks

clean and simple. Every farm — heck, every *field* — is different. Field days are a way for farmers to not only share what's working, but just as importantly, what's not. It takes a lot of courage to open up to the community and host a field day in farm country, a place where farmers will often plant a cover crop far from a public road to avoid the derision that can come with failure. Chris Gunderson, who hosted an LSP field day on his southeastern Minnesota corn and soybean farm in July, made it clear his initial foray into cover cropping has so far raised more questions than answers. “I’m just getting my feet wet,” he said while showing off the no-till equipment he uses.

The following pages include mini-reports on eight field days held in Minnesota, Iowa, and Wisconsin during the summer of 2021. Some were sponsored by LSP, others by allied organizations, and

still others were a group effort. Some of the methods and systems that were discussed at these events represent a major overhaul of a farm's production system — converting row crops to grass-based livestock, for example. Other innovations are less dramatic — one farm has simply re-introduced a small grain into its corn-soybean rotation. But these changes, ideas, and tweaks, taken as a whole, provide insights into the potential for creating a more sustainable, resilient system of producing food. ●

Small Grains, Rotations & Economics **Witness to the Long View**

Standing in the shade on his farmstead west of Rochester in southeastern Minnesota on a 90-degree July day, Martin Larsen pointed out a cross-section of a burr oak that he had recently cut down. “It’s 195-years-old and it’s witnessed my entire family’s history here, from homesteading in 1865 ‘til just a number of years ago when it died,” he told the roughly 40 farmers who had gathered there for a field day sponsored by LSP’s Soil Builders’ Network, along with the Soil and Water Conservation Districts in Olmsted and Wabasha counties.

Larsen talked about all that this “witness tree” had overseen, from wars and economic collapse to changes in land ownership.

Larsen’s point was that like that burr oak, farmers need to be in it for the long haul. That means building systems that create the kind of soil that can withstand the extremes climate change tosses their way. A few years ago in this part of Minnesota, that meant struggling with flooding of Biblical proportions. In 2021, it was the other extreme.

By mid-July, over 70% of the state was experiencing “severe” drought, according to the National Weather Service. Although the part of the state where Larsen’s farm is located was only in a “moderate” state of dryness at the time of the field day, the impact of extreme weather in other parts of the country was literally in the air. Smoke from wildfires in Canada and out West had drifted into the Midwest, and during the field day one could catch the acrid smell of burning timber on the breeze. In fact, on this particular day the combination of smoke drift and weather patterns had created a situation where Minnesota had the worst air quality in the nation.

“We went almost a full 28 days without

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any rain in that May-June period,” said Larsen, who farms 700 acres of rented and owned land. But thanks to soil-building methods such as no-till, cover cropping, and diverse rotations, the farmer was able to retain enough moisture to get through that dry spell. He explained that by bolstering organic matter levels and keeping the soil covered he was able to retain any moisture that was present, plus reduce the surface temperature of that soil. Larsen described how one day the temperature of some of his bare soils had soared to a moisture-sucking 115 degrees Fahrenheit, a full 30 degrees higher than what it measured under crop residue.

The farmer is convinced that not disturbing the soil and planting cover crops are key ways to build the soil’s resilience. Besides farming, Larsen also works for the Olmsted County Soil and Water Conservation District, where, among other things, he helps coordinate trials on a research farm dedicated to soil health. Those trials have shown that cover cropping dramatically cuts the amount of nitrogen fertilizer leaching out of farm fields and into the groundwater. That’s important to Larsen, who, as an avid caver, is intimately aware of the quality and quantity of water that runs through the karst geology of southeastern Minnesota.

He’s even more excited about the potential offered up by reintroducing small grains into a row crop rotation. For the past few years, Larsen has had good luck with oats, which he raises for the food market while selling the straw to construction companies and transportation departments. He’s found that a small grain like oats breaks up pest cycles, provides fibrous roots that keep nutrients in place, and overall provides the diversity healthy soil needs.

“I think we need more cover crops, but if I had a bigger dream for southeast Minnesota in the next 10 years, it’s that we need more small grains,” Larsen said. “It’s good for the farm, good for the water.”

He walked the field day participants over to a recently harvested oat field, where some of the equipment he uses to grow and harvest the crop was parked: a grain drill, a hay rake, and a combine — the latter which he also uses for corn and soybeans. Larsen’s point was that it doesn’t take a lot of extra expensive equipment to bring small grains

back into the rotation.

The farmer is particularly happy with the 2021 oat harvest, which produced an impressive yield of around 115 bushels per acre. Larsen did a quick calculation showing that when one considers the lower input costs associated with oats, along with the markets available for the grain and straw, it can at times out-compete corn financially. And that doesn’t include the long-term financial boost he receives by introducing a third crop into the rotation. Research out of Iowa shows that making small grains part of a rotation results in a yield bump for row crops down the line. In addition, harvesting an oat crop in July opens wide a planting window for a soil-building cover crop that might be hard to get established after harvesting corn in the fall. That, said Larsen, is the advantage of thinking beyond one growing season — of taking the long view.

At one point, a field day participant



Rachelle (left) and Jordan Meyer conducted a Brix test on giant ragweed growing in one of their paddocks to determine its sugar content. “We realized we could use these weeds rather than pull them,” said Jordan. “The land was telling us we need to graze this.” (LSP Photo)

asked the farmer whether he considers soil health or economics when making planting decisions. “Both,” he said while holding a double handful of oats. “We’re here to make money off our farm and we make that off our soils.” ●

Soil Health & Land Access Embracing the Weed

Sometimes the land speaks to farmers, and what it’s saying in none-too-subtle terms is that a certain form of management isn’t quite working for this particular piece of real estate. Maybe it’s too wet, too dry, too hilly or just plain too impoverished to raise a decent crop of corn

using conventional methods, for example. This communication can take the form of bad or inconsistent yields, eroded soil, even chronic pest problems. Conventional practices can sometimes quiet the land’s complaining through intense use of inputs, but that’s just a short-term fix, at best.

A few days after the LSP field day at the Larsen farm, Rachelle and Jordan Meyer were telling a group of their neighbors that the message they received was less a whisper in the ear and more of a slap in the head. The beginning farmers — they are in their late 20s — have launched an ag enterprise on a combination of owned and rented acres in southeastern Minnesota’s Houston County. They are farming in the heart of the Driftless Region and some of those parcels are pretty rugged — hillsides, wooded stretches, and oddly shaped fields are the norm.

The site of this LSP Soil Builders’ Network field day, in particular, has been a challenge to farm. The Meyers tried row-cropping some of the open land for five years, and struggled mightily. Much of the land on this particular farm is highly susceptible to erosion, especially when planted to corn and soybeans. And the plant pests — especially giant ragweed, thistle, and wild parsnip — were loving having the soil opened up and exposed for much of the growing season. It was clear the soils here were dominated by bacteria. That’s important, since soil high in bacteria has a harder time making use of and storing fertility, and weed pests take advantage of the situation. Soil that’s higher in fungal activity, on the other hand, is efficient at recycling and utilizing nutrients.

The Meyers had an idea — why not listen to what the land was telling them and, rather than trying to make it grow input-intensive row crops, run all those weeds through grazing livestock? With that, they could accomplish two goals: in the short term it would provide a cheap feed source for their animals, and in the long run they could feed fungal communities in the soil high amounts of carbon, which they thrive on. The Meyers’ grazing system, which relies on high-density, short-duration rotations of animals, is an ideal way to feed carbon to the soil in the form of cellulose provided by the plants that are stomped into the ground during frequent paddock shifts.

“We realized we could use these weeds

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rather than pull them,” said Jordan. “The land was telling us we need to graze this.”

The couple led the group behind a barn to a field that was covered in five-foot-tall-plus weeds. Using portable fencing, the Meyers had set up a long, narrow paddock along a ridge. While people watched, they turned a small group of beef stockers into the paddock. Because of the narrowness of the paddock, the bovines were forced to feed on the weeds.

“The first thing they’re eating is the ragweed!” shouted an onlooker.

What they didn’t eat they were stomping



U of M researcher Jacob Jungers (left) and farmer Kaleb Anderson describe how they are pushing Kernza’s productive life with grazing. “The question is, ‘Can you continue to push it each year and still get profitable grain yields?’” said Jungers. (LSP Photo)

into the ground, which the young farmers explained helps build biomass while covering the soil. While the cattle grazed, Jordan and Rachelle used a portable Brix Meter to measure the sugar content of a few crushed ragweed leaves. The reading was relatively high, a sign that it can serve as a good source of forage for livestock.

“In fact, maybe I should start raising ragweed for seed,” Jordan said with a sly smile. In recent years, giant ragweed has evolved into one of the Corn Belt’s nastiest weed pests. Jordan’s comment elicited a nervous laugh among the gathered farmers.

But the goal is not to propagate more ragweed in this paddock. Within 30 days, it will be growing a lush carpet of grass and other forage species, said Jordan.

“When we trample that down and let other things grow back, we see *lots* of new species come through from the seed bank

that we already have in the soil,” he said.

In other intensively grazed paddocks, they’ve seen perennial rye grass, orchard grass, red clover, and white clover emerge. Even native species like wild bergamot and common yarrow come back.

“It just opens the environment for a lot of different things to come in,” said Jordan.

The pasture walk continued down a narrow, rocky path that passed through a gully surrounded by trees. The Meyers led the group up the other side of the gully and emerged into an open pasture full of goats. This pasture had been overgrazed in the past — neighbors used to joke that some pastures on the farm were so short that you could see a mouse run across them a-half-mile-away. But today, even under dry conditions, it was full of lush forage for the goats and other livestock. Chicory, red clover, and wild bergamot were growing in this pasture, and the soil compaction had been reduced to the

a variety of terrain — from almost impenetrable woods to open, steep pastures.

“It’s definitely a learning experience,” said Rachelle. “You have to be willing to learn every year. We’ve learned to be a resilient farm.”

Adding value to marginal land by building soil health with careful management of livestock fits in nicely with the Meyers’ business plan. They raise beef cattle, goats, chickens, and hogs on pasture. Through their Wholesome Family Farms business, they direct-market this meat as a grass-fed, non-GMO product. And the goats, which are a relatively recent addition to the business, provide another way to make use of marginal, rough land; Rachelle and Jordan find the goats can graze hillsides that are inaccessible to other livestock and are excellent at controlling invasive species such as multi-flora rose. As with many beginning farmers, finding creative ways to add a spark to marginal acres is key for the young couple as they seek to access land affordably.

“We don’t have to go around looking for the best land out there,” said Jordan. “Grazing brings life to the table.” ●

Land Grant Research Pushing a Perennial

Let’s be honest, despite all the impressive innovations it’s spawned in American agriculture, the land grant research system has not exactly been an ally of regenerative farming. In fact, the system’s emphasis on input-intensive, industrialized crop and livestock production systems has resulted in some significant economic and ecological problems over the years. It’s frustrating to watch the resources of all those labs, test plots, and classrooms focused almost solely on such a reductionist way of producing food.

That’s why it’s so gratifying when an innovation emerges from the land grant system that is not just one more way to boost yields of corn and soybeans or represents a new twist on producing livestock in large concentrated animal feeding operations (CAFOs). Take, for example, the Forever Green Initiative at the University of Minnesota. Forever Green is working to develop a variety of crops that can provide an alternative to monocultural plantings of corn and soybeans while keeping the soil covered year-round.

During the past several sessions of the Minnesota state Legislature, LSP and its

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allies have successfully pushed for public funding of Forever Green. This funding not only helps advance this key research, it is a moral victory for farmers and others who would like to see more public resources directed at promoting a diverse form of agriculture.

Perhaps the most exciting crop to come out of this initiative thus far is a form of perennial grain. Intermediate wheatgrass was first introduced to the United States in 1907 as a forage, and in recent decades groups like the Rodale Institute and the Land Institute have been experimenting with it to develop a grain and forage crop that would produce multiple economic and environmental benefits without having to be re-planted year-after-year.

Out of this research has emerged Kernza, an intermediate wheatgrass that appears to grow well in the Midwest. In recent years, the University of Minnesota has been working with Kernza germplasm to develop lines that will thrive in the climate and soil conditions found in the Upper Midwest. Kernza represents a key step in developing the world's first commercially viable perennial grain.

Innovation in regenerative agriculture is always exciting. What's particularly positive about Kernza is how farmers are taking the baton from researchers and putting their own creative twist on raising this innovative crop.

For example, consider what Kaleb Anderson is doing. For the past three years he's been attempting to boost the lifespan of Kernza on his southeastern Minnesota farm by utilizing an intensive form of managed rotational grazing. It turns out that although Kernza is a perennial, the older and more mature it gets, the more its productivity starts to wane. In fact, research and real-world results on other farms shows productivity starts to slump significantly after the third year. Anderson's hope is that by pushing the plant through intensive grazing, he can extend its productive life well beyond three years.

Anderson, along with U of M Kernza researcher Jacob Jungers, described this plant hack during a field day in late July sponsored by the Cannon River Watershed Joint Powers Board, Goodhue County Soil and Water Conservation District, the Forever

Green Initiative, the Sustainable Farming Association of Minnesota, the USDA's Natural Resources Conservation Service (NRCS), and Clean River Partners. The two gave their presentation while standing in front of Anderson's six-acre Kernza field, which looked to be thriving after three years of intensive grazing.

Anderson explained that he grazes the Kernza in the spring for a short, intense time — four to six days — and compares the viability of the stands to control plots that are not grazed. After the cattle are taken off, the



"I think the common story or narrative out there when it comes to farming and growing food is it's either farmland, or it's woods," said Dayna Burtness (in yellow jacket), shown leading a tour of Nettle Valley Farm. "I want to illustrate we can do all of these things at once." (LSP Photo)

Kernza re-grows and it's harvested for grain in late July or early August. Anderson also harvests the straw, which he uses as a source of feed for over-wintering cattle. He then grazes the Kernza again in the fall.

The goal is to not only get multiple sources of income off the stand, but to keep the plant stressed, and thus in a reproductive state. It's a fine line between pushing the plant too hard and just hard enough to keep it viable.

"The question is, 'Can you continue to push it each year and still get profitable grain yields?'" said Jungers, adding that so far, this grazing regimen is showing great potential for extending the life of the perennial. "This is probably the best third-year crop of Kernza I've ever seen."

Anderson grew up on this farm and was initially not a fan of livestock — he had seen how overgrazing resulted in erosion and water quality problems. However, after

traveling to North Dakota to see how Gabe Brown and other members of the Burleigh County Soil Health Team were using animal impact and cover crops to build soil health, Anderson began raising livestock on permanent pasture as well as cover crops. His focus now is to utilize managed rotational grazing to balance productivity with ecological health. Having a crop like Kernza helps the farmer strike this balance, since grazing it in the spring takes pressure off cool season pastures that might otherwise be damaged by early-season livestock impact.

"Soil regeneration is everything that we do. And we are dealing with a degraded resource on this farm," said Anderson. "So, everything that we do needs to be an attempt to improve that resource. The organic matter levels in your soil are directly related to the profitability of your farm."

Finding a way for a farmer like Anderson to make a perennial like Kernza profitable isn't just good for this specific farm. At one point during the field day, participants checked out a pit that had been dug at the edge of the stand of Kernza. The root system of the wheatgrass spider-webbed through the soil profile that was exposed to the July air. Standing in the bottom of the pit, Bailey Tangen, a University of Minnesota graduate student in water resources science, pointed out the impressive root mass and root depth.

"We dug down five-and-a-half feet and we haven't even reached the bottom of the root," she said.

Soil scientist John Beck pointed out that this kind of root system is made for the new climate reality — it can help soils manage water both by storing moisture during dry times and by taking up excessive rains during extreme precipitation events. In fact, research has shown Kernza can cut nitrogen fertilizer pollution by 90% compared to annual row crops.

That's good news in this part of the state, which is home to the 1,460 square-mile Cannon River watershed, a basin that empties into the Mississippi River just above Lake Pepin and that has been heavily impacted by agricultural runoff.

"Any drop of rain that falls on our farm we want it to stay on our farm," said Anderson. "So, anything we can do to improve our soils and have that deep, deep root system, that's attractive to me. And those root systems will hold the soil and keep sediment from running into Lake Pepin."

But can this alternative crop be lucrative

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enough to have a significant impact on a wide expanse of the Midwestern landscape? After all, despite all the buzz, it's still seen as a niche product that only a few specialty bakers and brewers have experimented with.

Currently, roughly 1,200 acres of Kernza are raised on farms around Minnesota, and it faces the classic chicken-and-egg dilemma: how do we create a profitable, consistent market for a product that is just getting off the ground? Carmen Fernholz, a pioneering Kernza producer from southwestern Minnesota, stepped before the field day crowd to announce that prior to the event, a group of Kernza producers had held a meeting at the Anderson farm. There, they signed the articles of incorporation for the Perennial Promise Growers Cooperative, which Fernholz, Anderson, and others hope will provide a way for Kernza producers to access profitable markets far into the future. It was one more example of farmers taking a land grant innovation and pushing it just a little bit further.

"It's exciting," said Fernholz. ●

Silvopasturing & Marginal Land Interaction & Integration

At its most basic, silvopasturing is a system of integrating livestock grazing with wooded habitat. Ecologists are excited by the potential this system holds for giving farmers an economic incentive to preserve healthy timber and control invasive species. This holds special promise in areas of the Upper Midwest where oak savanna habitat — open meadows interspersed with trees — once dominated much of the region, but which has been replaced by row cropped fields and development, as well as decimated by invasive species.

On the other hand, because of the difficulty of row-cropping some of the steeper hillsides that make up places like the Driftless Region of southwestern Wisconsin, southeastern Minnesota, northeastern Iowa, and extreme northwestern Illinois, that region has prime pockets of oak savanna habitat remaining. In fact, scientists believe this region has the largest area of what they call "restorable" oak savanna.

And beginning farmers benefit from finding a way to raise livestock in stands

of timber and woodlots because those trees are often growing on land too marginal to be prime corn and soybean ground anyway, which makes them more affordable.

But on a Saturday in early August, Dayna Burtness wanted to make one thing crystal clear: good silvopasturing management *does not* entail simply turning animals out amongst the trees and forgetting about them, especially on a day like this — a steady, drought-breaking downpour was in progress, and chain-linked lightning flashes in the surrounding hills signaled that an outright thunderstorm was in the offing.

"They'd be liquefying the soil, so right now the pigs as we speak are in their barn in a deep bedded system snuggled up in the hay," she said while leading a sodden group of Practical Farmers of Iowa field day participants past Nettle Valley Farm's grazing paddocks and down into a wooded valley.

The farm is near Spring Grove in the heart of the Driftless Region, and, not surprisingly, it's extremely hilly. The marginal nature of the land made it affordable for Burtness and her husband, Nick Nguyen, when they came to the area seven years ago to raise heritage breed hogs on pasture.

"As a beginning farmer, that was the only kind of land we could afford," said Burtness. "We would have never been able to get prime, tillable land."

And that's okay, since by using portable fencing and frequent movement of the hogs, along with innovative direct-marketing techniques, they've been able to draw economic value from these owned and rented acres. It's taken adaptation as well. For example, on this day the hogs are holed up in a barn that's part of Nettle Valley's "wagon wheel hub" system, which consists of centering the grazing paddocks around the main structure like the spokes of a wagon wheel. It provides the hogs shelter during rough weather and allows Burtness and Nguyen the flexibility of keeping them off those hilly paddocks when they are vulnerable to damage — such as during a rainstorm.

Joining the group touring the paddocks on this day were Bailey Lutz and Heidi Eger, two young farmers who represent another way in which Nettle Valley is trying to make the best use of this marginal land while supporting the next generation of agrarians. In 2021, Lutz and Eger wrapped up a three-year incubator program on the farm, which has helped them launch their own farming careers without investing heavily in land and facilities (see page 21). Burtness benefited from her own incubator experience when she was getting started in agriculture, and sees this as a way to give back. And having two more enterprises on the land also helps Nettle Valley make use of acres that its hog enterprise simply can't. Lutz's Listenmore Farm is a goat-production enterprise, and Eger's Radicle Heart Farm focuses on sheep and chickens. Burtness feels that multi-species grazing is what this



"Pastured livestock really complete our system," said Rachel Henderson (center), shown leading a tour of her orchard. (LSP Photo)

land needs economically and ecologically, but she's quite satisfied to focus on one animal: hogs.

"This land needs sheep and goats and eventually it needs cattle, but I certainly don't want to manage all these enterprises," said Burtness. "I do think we need to be able to farm in a way that doesn't force us to do everything all the time."

By utilizing livestock to control invasive species in these woods, Burtness and Nguyen have gained a greater appreciation for the ecological benefits of sustaining an oak savanna habitat. That's why one of the tour participants was Karin Jokela, a pollinator conservation planner for the USDA's NRCS. Pollinators are in major peril these days, with exposure to pesticides and

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chronic disease threatening the viability of a class of animals that is responsible for every third bite of food. Hanging over all of this is a massive loss of insect habitat and places for these beleaguered critters to forage.

Jokela explained to the participants that when people think of establishing pollinator habitat, their thoughts naturally turn to open meadows. But it turns out wooded areas also provide key support for insects like the rusty patched bumblebee, a federally endangered species. That's why Jokela is recruiting farmers who are interested in pollinator habitat in the Driftless Region. Supported by the Wildlife Conservation Society, the Xerces Society, Practical Farmers of Iowa, and the U.S. Fish and Wildlife Service, Jokela is helping farmers optimize habitat in places like remnant woods.

Jokela, who also co-owns and operates Sogn Valley Farm, a Community Supported Agriculture (CSA) vegetable operation, said her business benefits immensely from the services provided by pollinators. She is especially excited about working with Nettle Valley, where the enhancement involves using "forestry mowing" — basically using a mulcher mounted on a skid steer loader to clear out multiflora rose and other invasive species on a few acres of forest floor this winter. In 2022, grasses and forbs will be seeded in the area that's been opened to sunlight. Those grasses and forbs will benefit pollinators as well as provide forage for livestock, which, in turn, can help control the return of invasive species.

Livestock and woods have a mixed history, with overgrazing often resulting in wrecked habitat. But managed rotational grazing has shown great promise for balancing farming and habitat improvement.

"What I like about the silvopasture system is that it's bringing people and animals to parts of the farm that have been ignored for a long time and become impenetrable because of invasive species," said Jokela as she took shelter from the storm under a porch overhang. "We just need more interaction and integration." ●

An Orchard's Fruitful Side Enterprise Completing the System

In its efforts to blend farming and forests, Nettle Valley Farm is executing a "silvopasture by subtraction" strategy via removal of invasive species that crowd out beneficial plants. Two weeks after that



"Biology needs one thing — it needs plants," said soil expert Steve Lawler, shown here holding a soil sample on the Jon and Ruth Jovaag farm. (LSP Photo)

sodden field day, Mary Dirty Face Farm in western Wisconsin's Dunn County showcased the opposite approach: "silvopasture by addition." Rachel Henderson, who owns and operates the farm with Anton Ptak, led a group participating in this MOSES field day out into a pasture where two parallel rows ran 100 yards apart as they headed downhill several hundred feet. The rows were sprouting a mix of a couple dozen species of trees and berry bushes, some as tall as 18 inches, which were planted in the spring of 2021. Species like red maple, dogwood, basswood, Juneberry, quaking aspen, burr oak, shagbark hickory, and hackberry were represented.

Fencing was protecting these new plantings for now, but eventually they will be mature enough to provide dual services to the farm: pollinator habitat and shade for grazing livestock. Unlike forestry mowing and seeding grass, this is a long game: although benefits for pollinators will emerge almost immediately (leafcutting bees were already utilizing the Juneberry leaves on this day in late summer), it will be five to 10 years before any meaningful shade will come from some of the canopy producing trees.

That's not a big problem for Henderson and Ptak, given the nature of their farming operation. On both sides of the pasture stands of organically certified apple and other fruit trees such as plums grew on gentle slopes. The farmers started planting the orchard soon after acquiring an open, 20-acre hay field in 2008. Henderson and Ptak eventually purchased 40 adjoining acres, and they didn't get their first fruit crop until around 2012. It's only been in the past few years that they've had enough fruit and berry production to consistently supply CSA

and farmers' market customers.

"It is a long-term project when you're doing an orchard and a long-term project to establish silvopasture," said Henderson. "So I think we have the right temperament to do this kind of work."

One of the participants in the field day was Sarah Foltz Jordan, a senior pollinator conservation specialist with the Xerces Society, which focuses on invertebrate conservation. Last winter, she approached Mary Dirty Face Farm about establishing more pollinator habitat. That appealed to Henderson and Ptak — they have always focused on farming in a way that enhances natural habitat, and as fruit producers they rely on the pollination services of insects.

"When I got the e-mail and had my first conversation with Sarah, my mind sort of went to wildflower plantings," recalled Henderson.

But, as Karin Jokela has found across the border in southeastern Minnesota, wooded habitat can be critical for pollinators as well. Over 350 species of butterflies and moths feed on the leaves of certain canopy tree species, for example.

It turns out Henderson and Ptak have long been interested in silvopasturing. They are graduates of LSP's Farm Beginnings and Journeyperson courses (see page 17), through which they were introduced to Holistic Management, which teaches participants to look at things from a whole farm perspective, rather than focusing on raising just one commodity. Once they got the orchard business set up, they began thinking about what would complement it without interfering with their existing workload too

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much. Vegetable production can be labor intensive at a time when fruit production is as well. They needed another enterprise that was perennially based. A few years ago, the couple started rotationally grazing a neighbor's cattle on open land not planted to trees. They also turn hogs into their orchards in the spring and fall to clean up apples, helping to break up pest cycles.

"Pastured livestock really complete our system," said Henderson.

So, she and Foltz Jordan struck on a plan to establish trees and bushes in a pasture. Henderson said one major benefit for the farm is that with climate change making extreme heat waves more common, livestock increasingly need access to shade. Henderson and Ptak are also interested in adding other ruminants to the farm eventually, and species like goats can actually feed off some woody species without damaging them.

Foltz Jordan is fascinated by ways working farms and pollinator habitat can go hand-in-hand, often in ways more nuanced than planting a row of trees and shrubs. At one point during the tour, she pointed out how carpenter bees were nesting in the pruned canes of raspberries. Creating habitat by carrying out a routine orchard chore strikes a critical eco-agricultural balance on this farm, said the insect expert. "It's really a win-win for their agricultural systems and also for wildlife conservation." ●

Organics, Crimping & Soil Structure The House Biology Built

It's been said that soil without biology is just geology. Such a clever quip succinctly describes why, without bugs, fungi, bacteria, and other organisms, that stuff beneath our feet is about as lively as a box of rocks. And participants in an LSP field day at the Ruth and Jon Jovaag farm in southern Minnesota were reminded that all that biology doesn't just magically materialize out of thin air.

"Biology needs one thing — it needs plants," said Steve Lawler, a resource specialist with the Mower County Soil and Water Conservation District. He was saying this while spading up a sample of Jovaag soil a few hundred yards from the Cedar River,

and he liked what he saw. This field was sprouting a cocktail mix of cover crops such as peas, buckwheat, and brassicas that had been seeded after cereal rye was harvested a few weeks before. Years of management that relies on a diverse mix of cover crops and as little tillage as possible was paying off in the form of stable soil aggregates that were sticking together while allowing space for air and water to move through. "Sometimes we are dealing with compaction created by 100 years of certain farming methods," Lawler observed while farmers gathered around the sample. "What I'm seeing here is that the soil is repairing itself."

Keeping enough living plant roots in the ground can be a challenge when raising crops in the harsh climate of the Upper Midwest. Add to that the fact that the Jovaags are transitioning all their 500 acres to certified organic production. Although avoiding the use of petroleum-based fertilizers and pesticides is good for the soil biome, organic farmers are often more reliant on mechani-

ers gathered for the field day. "We're trying to mimic nature, somewhat. You never see a single crop in nature."

Of particular interest to the farmers in attendance was the Jovaag family's use of an implement called a "roller crimper" — a long metal drum mounted on a tractor with a chevron pattern welded to its face. The tool, which was developed by the Rodale Institute, is designed to pass over a cover crop in the spring at the time when it's most vulnerable to being killed by having the stalks crimped. That method not only terminates the cover without chemicals or tillage, but leaves a natural mulch layer. The mulch, combined with the allelopathic weed suppression characteristics provided by cover crops like cereal rye, is a nice fit for an organic system.

In September 2019, the Jovaags planted a field to a cereal rye cover crop after oats were harvested. The rye overwintered and when it was about five-feet-tall in the spring, the farmers crimped it and planted



Anna Racer described how Waxwing Farm has used various government programs to build its infrastructure and become a consistent source of local food in the community. (LSP Photo)

cal weed control than they'd like. And that tillage is bad news for soil structure.

So, since their first field was certified organic in 2014, the Jovaags have relied on a strategy of diverse rotations and cover crops to keep the soil as biologically active as possible. Besides corn, soybeans, and hay, they raise small grains like oats and rye for organic markets. They have also grown sunflowers and buckwheat. Their most recent foray into soil health involves participation in an LSP on-farm experiment involving the Johnson-Su Bioreactor, a composting system that has shown promise for inoculating soil with the kind of biology it needs to achieve a healthy balance.

"What you do this year will impact the next three to four years," Jon told the farm-

soybeans into the mulch with a no-till drill. By October of 2020, those organic soybeans had yielded an impressive 58-bushels-per-acre. "It was a perfect year," said Jon. Roller crimping not only suppresses weeds and builds organic matter, its mulching effect saves moisture by keeping the soil cool in the depths of summer. Moisture probes showed the Jovaags were able to delay turning on their irrigators for an extra week or more during the summer of 2020.

Ruth and Jon led the field day participants across the road from their farmstead to another soybean field that had been roller crimped, this time in the spring of 2021. They planted those soybeans on June 4, and

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it didn't rain for two weeks, but they looked good during the field day, which was being held during the first week of September. A thick mat of dead rye covered the soil between rows. However, Jon expressed some concern that the soybeans were a little behind as the first frost fast approached. Roller crimping worked so well in 2020 that the farmer was afraid he was being set up for a letdown. It doesn't hurt to remind oneself that every year is different when it comes to weather, soil conditions, and work schedules.

"With organics, I joke that it will always keep you humble, because the minute that you think you might have something figured out, a curve ball comes in, and you don't have some of the Band-Aids that you have in the conventional system," Jon said.

Roller crimping is a creative way to control weeds without chemicals while protecting the soil. But the Jovaag field day also highlighted that a piece of ingenuous iron used in isolation isn't enough—it must be coupled with a diverse rotation that opens wide a cover crop planting window.

Léa Vereecke, an organic consultant with the Rodale Institute who has worked with roller crimping research at the University of Wisconsin, walked into the soybean field and checked out the mat of dead rye between the rows. She congratulated the Jovaags on the "best roller crimped field" she'd ever seen. She said the key was that they planted a crop like oats that could be taken off early enough in the growing season to get the rye cover crop established well before fall freeze-up. That provided the biomass needed to suppress weeds throughout the growing season. Waiting until after corn or soybean harvest in the fall wouldn't have provided the same opportunity.

"That's why the four-year rotation is important," said Vereecke.

Field day attendees, many of whom were transitioning to organic crop production on their own farms in Minnesota and Iowa, peppered the Jovaags with a myriad of questions about roller crimping. What about seeding rates? What kind of cover crop mix is best? When's the best time to plant the cover crop and to terminate it?

The Jovaags fielded the questions as best they could, but also acknowledged that last year was different than this year, which will be different from the following year. After all, regenerative farming is not a destination, but an ongoing journey.

"We're five years from where we want to be, and then we'll be five years from where we want to be," said Jon with a laugh. ●

Government Programs & Local Foods Infrastructure Investment

One can get pretty cynical about government's relationship with agriculture. Over the years, countless billions in tax dollars have gone into creating and supporting a system that often does more harm to small and medium-sized farmers than good. It's frequently a case of good intentions gone awry. Federally subsidized crop insurance, for example, was set up to protect farmers from weather disasters. While it still does that, it also has given mega-cropping operations the resources needed to crowd smaller producers and beginning farmers out of the land market. And the Environmental Quality Incentives Program (EQIP), which was set up to provide grants to farmers looking to adopt environmentally friendly production systems, has unfortunately become a major source of funds for CAFOs looking to build massive liquid manure systems.

But during an LSP-Clean River Partners field day in late August, the good side of food and farm policy was showcased. The audience was farmers, but just as importantly, legislators, local food enthusiasts, and environmentalists. The focus of the event was to make the case for using public funds to support a public good—in this case, regenerative farms. One way to support these farms is to take a little of the risk out of experimenting with an innovative practice.

"What we need the public to understand is that conservation can't lead to crop failures," said crop and livestock producer Mike Peterson during the first stop of the field day on his farm near Northfield, just south of Minnesota's Twin Cities. He explained that planting cover crops on his farm is a \$35 per-acre investment that may not produce economic benefits right away. The majority of farmers won't adopt such a practice without some sort of public support to get them through those first few trial years.

The federal Conservation Stewardship Program (CSP) provided Peterson the financial support needed for him to transition from moldboard plowing to conservation tillage. It was a good public investment: after the CSP contract expired, the farmer liked the new system so much he made it a permanent part of his operation.

That kind of "priming the pump strategy" went into LSP's push for the "100% Soil-Healthy Farming Bill" during the 2021 session of the Minnesota Legislature. In the end, parts of the legislation went into initiatives that provide \$5.35 million in funding to help farmers adopt practices such as cover cropping and managed rotational grazing.

After leaving the Peterson farm, tour

participants caravanned a few miles west to Waxwing Farm, where Anna Racer and Pete Skold explained how they've used a variety of state and federal grants to help launch a thriving vegetable operation. Since graduating from LSP's Farm Beginnings program and starting their farm over a decade ago, Racer and Skold have built up a 130-share CSA that also markets produce to local schools and restaurants. They had one fulltime employee in 2014; in 2021 they had close to four fulltime equivalent workers.

The farmers did all this thanks to hard work, creativity, and a little bit of luck. But Racer and Skold are the first to admit that another key ingredient has been government programs that help jump-start infrastructure building. They've used EQIP money to erect high tunnels, Minnesota Department of Agriculture AGRI funds for packing facilities, and a USDA Sustainable Agriculture Research and Education grant to establish a radicchio and Belgian endive growing operation, which allows them to market to restaurants during the winter.

Racer pointed out that there are indirect ways public support can help support more local, resilient farms. For example, recent Minnesota state legislative funding to create smoother connections between farms and schools has helped break down barriers that kept these two parties from doing business in the past.

"Public schools are something our state has already invested in," said Racer. "So why wouldn't we connect those dots and help to invest in those schools purchasing from local farmers?"

It's important to note that the kind of government support Peterson, Racer, and Skold have benefited from is not a long-term subsidy in the way that price supports or even subsidized crop insurance premiums can be. Rather, it's a short-term push down the road toward self-reliance and resiliency. Such help is a sparkplug, rather than a tank of gas that constantly needs refilling.

"We're not reliant on the income from those infrastructure grants we've received," said Skold. "But they lowered the cost of entry for those big investments that have had *huge* impacts on the profitability of our farm. It's a onetime infusion that allows us to take the next step, or to get over those barriers when we couldn't just go and get a loan for the full amount we needed."

And Waxwing's stable infrastructure makes it possible for Racer and Skold to spend more locally on Main Street and to employ more people for more of the year, in a way closing the public expenditure loop by putting money back in the state coffers via

Farmer-to-Farmer

...Field Day Season, from page 29

the payroll tax.

"That's going to add up and the return on investment is going to be significant," said Skold.

Jessica Kochick, who organizes around federal policy issues for LSP, told the field day participants that since the COVID-19 pandemic revealed to the general public just how fragile our food and farm system is, it's become clearer than ever that we need a public investment in making it more resilient. That means directing public resources toward climate-friendly, regenerative practices, as well as local processing facilities and safe working environments for food industry workers. That's one reason the Land Stewardship Project and its allies have been pushing for funding of such initiatives in infrastructure legislation Congress has recently passed (*see page 10*).

"The farm and food system *is* infrastructure," said Kochick. ●

Innovators, Adopters & Networking Sugar High to Soil Health

All the on-farm events described in the preceding pages share a common element: farmers sharing information with farmers. For good measure, stir into the mix experts in areas like soil science, agronomy, organic weed control, and entomology to provide that crucial link between innovative idea and implementation.

And, oh yeah, it never hurts to launch the proceedings with a little shot of adrenaline.

"Good morning! We're going to have fun today!" shouted Ray Archuleta at around 8:30 a.m. on an August day while standing in front of some 100 field day attendees on a farm in northern Iowa's Mitchell County.

Archuleta is very aware of the purpose he serves in the soil health movement: he's a messenger of doom and source of hope, all rolled up into one. The bad news is that conventional agriculture has decimated our soil's health. The good news is we can fix it, and farmers have the ability to do that on their very own piece of real estate.

"I'm like the grandparent that comes and brings candy to the kids and gets them all wound up and then gives them back to the local parents," Archuleta said with a laugh

later that day. By that time, he had spent roughly eight hours presenting, leading soil health demonstrations, grubbing up dirt samples, answering endless questions, and putting up with the demands of a French television crew that was following him around. His energy level seemed little diminished, despite the long day and hot weather.

He's a soil scientist who, before retiring in 2017, spent over 30 years with the USDA's NRCS. He has recently founded two initiatives related to regenerative farming: Understanding Ag and the Soil Health Academy. Archuleta also owns and operates a farm in southwestern Missouri. It's fair to say that during the past decade or so, he has played a critical role in launching and advancing the soil health movement. He travels the country and gives presentations to farmers and soil conservation professionals about the ecological interconnectedness of soil systems. His PowerPoints and hands-on demonstrations touch on a wide array of topics: from chemistry and biology to ancient history and psychology. He takes audiences on a journey around the world of soil and then brings them back to the farm. The message: sick soil is a global problem, but we can do something about it right here at home utilizing a basic knowledge of ecological interactions.

"How we farm affects the rest of the world," Archuleta said at one point during his opening presentation. "It's all connected." He uttered that last phrase several times during the course of the day.

If you've spent anytime viewing YouTube videos related to soil health, you've probably run into one of his high-energy presentations, which have been tailored to appeal to a variety of audiences. Farmers and conservation professionals are the main folks he's trying to reach, but gardeners, public officials, and environmentalists also come away from his talks inspired about the power of the soil biome. This field day was dominated by farmers — regenerative, conventional, even some members of the Amish community — but there were also a handful of non-farmers who represented organiza-



Ray Archuleta talked about experimenting with soil health practices at an LSP field day. "I tell farmers, 'Don't do this on your own,'" he said. (LSP Photo)

tions and municipalities trying to figure out ways healthy soil can protect water quality and sequester greenhouse gases.

Mervin Beachy is a prime example of someone who has been energized by Archuleta's sugar shot. He and his wife, Cherlyn, operate Red Rooster Ranch, which was hosting this field day with the support of LSP, the NRCS, the Mitchell County Soil and Water Conservation District, the Iowa Department of Agriculture and Land Stewardship, Byron Seeds, and the Rock Creek Watershed Project.

The Beachy family raises beef, pork, broilers, and eggs using rotational grazing and other soil healthy methods, and they sell their products direct to consumers. Mervin launched his farming enterprise six years ago armed with information he had gleaned from some conventional sources and, as he tells it, had a rough start as a result of "advice they were giving me."

"I thought I was farming, but was going backwards," he said. Animals were sick, the workload was unsustainable, and the economics were simply not working out.

One thing he noticed during this time was that his fields were suffering as well, with compaction and lack of earthworms tell-tale signs. Inspired by the writings of farmers like Gabe Brown and Joel Salatin, as well as food journalist Michael Pollan, Mervin became committed to raising livestock in a way that mimicked nature.

"They were all saying get biology in the soil," said the farmer of the people he was reading about. But how? Then, while attending a soil health conference in Kansas, he saw Archuleta speak, and Mervin began

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to connect the dots. The Beachy family experimented with cover crops on a small scale in their garden plots, put up fencing for rotational grazing, and by 2018 were well on their way to changing their relationship with soil and food production.

In fact, Mervin is so committed to cover crops that he started Focus Forage and Consulting, which provides seed to other farmers for cover crop and forage systems. While speaking to the field day participants, the farmer conceded he is very early in his journey, but has already seen some significant benefits to building soil health such as healthier livestock, double the pasture productivity, better water infiltration, and lower stress for him and his family.

"I'm not telling this story because I think everyone should do what we're doing. Every farm is different," he said.

"Isn't that awesome? You would be surprised how many people don't want to share their story," Archuleta said after Mervin finished.

Archuleta is convinced that the soil has a story to tell as well. That's why a mainstay of his presentation on Red Rooster Ranch consisted of four hands-on, tabletop soil demonstrations. With the help of audience members, he showed how building soil biology helps this natural resource manage water better, build its own fertility, and, in general, remain more resilient. The demonstrations compared conventionally farmed soils to those managed using cover crops, no-till, and rotational grazing. The evidence was hard to ignore: the conventionally managed soils that Archuleta exposed to various tests crumbled and dissolved before the audience's eyes, a sure sign they were wasting water and sunlight, and in the process wasting farmers' money by remaining so reliant on purchased inputs to be productive.

"The more sunlight you capture, the more freedom you have," he said during one demonstration. "More freedom from the bank,

freedom from the chemical companies."

After a morning of pure motivation, it was time to get people's hands dirty. When lunch was finished, field day participants headed out into Red Rooster's fields for practical break-out sessions on cover cropping, setting up a no-till planter, monitoring soil health, and using a roller crimper.

At the various learning stations, farmers shot Archuleta, Beachy, and other presenters questions about seed varieties, weed control, forage management, disease issues, and ways to monitor soil health.

Perhaps the best conversations took place as people rotated between stations. While they walked, farmers shared with each other ideas around equipment hacks and seeding tricks, as well as what hasn't worked so well. Sociologists have long studied how innovations in agriculture are germinated and broadcast. A landmark 1941 study conducted in Greene County in central Iowa traced the adoption of hybrid seed corn during the 1930s. On the face of it, this technology appeared to be an overnight success — in 1927 it was considered an experimental product not seen outside of college research plots; a decade later it was almost universally planted by Iowa farmers. But through extensive interviews, rural sociologists discovered that the majority of farmers did not accept the innovation immediately, but rather "delayed acceptance for a considerable time after initial contact with innovation."

That's a key point to keep in mind when considering that one can't pick up a farm magazine these days without seeing an article on soil health — the word on cover cropping and diverse rotations is getting out. However, awareness of an innovation does not always result in immediate adoption — many Iowa farmers who put off planting hybrid seed for years were first made aware of its existence at the same time as their early-innovator neighbors.

Archuleta thinks a lot about how soil health practices catch on. After all, despite all the buzz around soil regeneration, only around 3% of U.S. farm fields are regularly

cover cropped. But he likes to point to statistics showing how that figure was next to zero not so long ago.

"We're gaining," said the eternal optimist after the field day. He's confident it will continue to grow because of what he observes at field days like this one: early innovators — farmers who are constantly pushing the envelope and questioning the status quo — having conversations with the early adopters who will take on a new practice once they see a few thought leaders in the neighborhood making successful use of it. Once those two groups show an innovation like cover cropping works, then the rest follow, with the exception of what Archuleta calls the "incurables" — folks "you will never reach" no matter how much evidence they are exposed to. "I don't worry about them — I get the first 80%, I'm good," he said.

But the key is forging consistent connections between those groups of farmers long after Grandpa Sugar has left the building. Field days like this help, but they tend to be seasonal. The long-term, sustainable way to make regenerative practices as ubiquitous as hybrid corn is for farmers to get together with other farmers on a regular basis — formerly and informally. That's the idea behind LSP's Soil Builders' Network, which is made up of over 800 farmers who regularly trade ideas and resources (see page 13).

Glomalin, a protein produced by fungi, is the "glue" that holds soil aggregates together. In a way, farmer networks are the glomalin that gives the regenerative ag movement the long-term stability it needs.

"I tell farmers, 'Don't do this on your own, you'll spend the rest of your life figuring it out,'" said Archuleta before climbing into his truck and heading back to Missouri. "Community. The collective whole. Criticizing. Working with people that really think like you. That's power." □

For the latest details on field days, workshops, and other events, see page 36 or check out LSP's online events page at landstewardshipproject.org/upcoming-events.

Podcast Series: Out Loud-Out in the Field

A special "field day series" of *Ear to the Ground* podcasts features the voices of farmers, soil health experts, and ecologists. Check out the episodes on Spotify, Stitcher, or other podcasts platforms. You can also find these and other *Ear to the Ground* episodes at landstewardshipproject.org/series/ear-to-the-ground.

- **Episode 255:** What happened when beginning farmers Rachelle and Jordan Meyer started listening to the land.
- **Episode 256:** Soil health cheerleader Ray Archuleta and Iowa farmer Mervin Beachy talk about the importance of farmer learning networks.
- **Episode 257:** Soil without biology is just geology, and that biology needs one thing: plants.
- **Episode 259:** Kaleb Anderson is pushing a plant science breakthrough further using rotational grazing.
- **Episode 260:** Martin Larsen's focus on integrating small grains into his cropping operation is building resilience in the long term.
- **Episode 261:** What happens when operations like Nettle Valley Farm pay attention to neglected corners of the land?
- **Episode 262:** An orchard's search for a side enterprise opens the door for pollinator habitat restoration.
- **Episode 263:** How Waxwing Farm is proving that public goods need a public investment.



Building Community Food Webs

By Ken Meter

304 pages

Island Press

islandpress.org

Reviewed by Dana Jackson

My friend Ann was helping me look for a window air conditioner on the seventh, consecutive, unprecedented, blistering hot day in June, and every department store in the town where I live — Stillwater, Minn. — was sold out. We were close to an Aldi grocery store, so we went there to look too, because, Ann said, “You never know what you’ll find there.” She’s right — I wouldn’t know because I never shop at Aldi. It’s a German-owned supermarket chain operating 10,000 stores worldwide, including all the Trader Joe’s in the U. S., and it does not pretend to care about the geographical origin of products on its shelves. That matters to me, so I choose to shop for groceries at River Market Community Food Co-op in Stillwater. The receipt for my last shopping trip stated: “45% of your purchases today were local items.” Although “local” is not easy to define, I’m fairly confident my food dollars didn’t end up in Germany.

Aldi is not that different from American owned-supermarkets as they are all part of the prevailing food supply structure, which “systematically extracts wealth from rural and urban communities alike,” according to Ken Meter, author of *Building Community Food Webs*. He explains that most of today’s farms do not grow food for their neighbors, but produce raw commodities such as corn and soybeans, cattle, pigs, or milk for industrial processing. The farmers’ income — some from government subsidies — flows out of the farm community to pay for equipment and chemical inputs to achieve high productivity. In 2017, farmers earned less cash income than at the onset of the Great Depression. In the same year, the U. S. government paid out \$60 billion in food stamps to prevent malnutrition, and Americans became increasingly obese, while the dollars they spent for food left their communities to

be dispersed nationally — and increasingly, internationally.

Building Community Food Webs is about networks of people and organizations that have challenged the prevailing food supply structure by working to reintegrate the growing and eating of food into local economies through community food systems. Eight chapters describe these successful collaborations in eight different places. But before he dives into these fascinating profiles, Meter prefaces things with a must-read first chapter: “The Extractive U.S. Economy.” It’s a history, with extensive economic data, of how the American food system became what it is today. He explains that “potent economic structures” created through public policy to draw money away from rural America pushed farmers into commodity production. Public policy could reverse this extractive economy, but likely won’t. No one is better credentialed to write this instructive chapter than Meter, who has performed food system assessments in 15 states and provinces and is well known for consulting, speaking, and writing on food system economics.

The first food web profiled in the book was initiated in Montana during the farm credit crisis of the 1980s, when some very discouraged farmers, aided by AERO (Alternative Energy Resources Organization), based in Helena, began meeting in small groups to explore new crop systems involving edible legumes and grains — alternatives to the major commodity crop, wheat. The groups

evolved into Farm and Ranch Improvement Clubs for diverse crop and livestock farmers. Growers’ cooperatives opened new marketing avenues, and the Mission Mountain Food Enterprise Center was built in Ronan, Mont., to convert raw crops into value-added foods, such as lentil burgers, frozen cherries, and herbal tea. Over several decades, AERO staff helped farmers acquire grant funds for research, connected them to university advisers and legislative agencies, and promoted new food products to consumers. Meter calls it “an effort to create a social movement centered on collaboration.”

“Invoking Traditional Wisdom to Recover from Plantation Agriculture” is a memorable chapter about the building of community food webs in Hawaii. The island people there were once food self-sufficient,

reliant upon traditional foods harvested without destroying natural resources. But the imposition of a plantation system to produce sugar and pineapple for export ended their food self-sufficiency and forced islanders to import what they ate. A high level of poverty, hunger, and homelessness became the burdens of this legacy. Meter describes how Hawaiian leaders found that reviving old customs and traditional foods led to healthier life patterns.

A food agency called the Food Basket began to purchase and distribute fresh food from farms instead of just surplus foods

donated by retail markets. It helped farmers form a cooperative to raise breadfruit, a traditional and nutritious tree food, and garnered the finances to process it for longer shelf life.

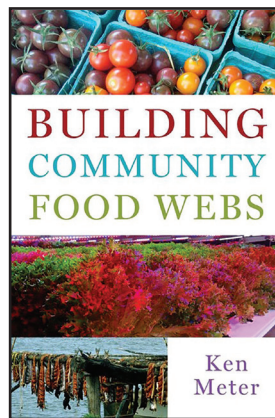
Chapters that follow describe community food webs in other regions, where, after years of collaborator meetings involving farmers, local governments, food banks, economic development agencies, and food distribution companies, farmers again produced and sold food that regional people purchased.

In chapter 10, Meter tackles the most important obstacle to creating community food webs: building market power for farmers so that they get the prices they need to make a profit. He describes tactics for building consumer loyalty and collaborative business strategies that keep buyers paying the prices producers need.

This book is not about “local” food, although the author writes: “To reduce our food’s dependence on fossil fuels and to obtain the freshest foods possible, we need to localize our food supplies.” The point isn’t just how far the food item traveled to get to the consumer, but what kind of food system brought it there. “Local food is an outcome we desire, not the purpose of food work,” Meter writes.

River Market Community Co-op is where I’ll continue to spend my food dollars because it offers products — pork, ground beef, milk, butter, pancake mixes, and vegetables — from regional growers and companies that care about good land stewardship. I don’t care if there are thousands more, lower-priced grocery items at Aldi. By the way, it doesn’t sell air conditioners. □

Former Land Stewardship Project associate director Dana Jackson has a deep background in developing and promoting regional food systems in Minnesota and western Wisconsin.



• • •
This book is not about “local” food. The point isn’t just how far the food item traveled to get to the consumer, but what kind of food system brought it there.
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Sacred Cow

The Case for (Better) Meat: Why Well-Raised Meat Is Good for You and Good for the Planet

By Diana Rodgers & Robb Wolf
320 pages
BenBella Books
sacredcow.info/book

Reviewed by Angela Anderson

The authors of *Sacred Cow* — Diana Rodgers and Robb Wolf — are dietitians. That's good, because this book is an important look at the issues of today's agricultural and food industries from all angles, including the detrimental effects of those industries on the health of humans and the planet.

Perhaps the book's title should have been "It's Not the Cow, It's the How," as they write at the end of chapter 9, because this phrase so succinctly summarizes the livestock problem in our food and food industries. We are omnivores and must eat a variety of foods, including meat, plenty of vegetables, and unprocessed grains to stay healthy, which is why the book's ultimate suggestion is a "nutrivore" diet, which, in short, involves eating a combination of locally grown, seasonal, sustainably-produced options and reducing your intake of highly processed foods.

This book may be too basic for those already well-versed in the issues inherent in these industries and, unfortunately, it became a tedious read for me because of the format in which the information was presented. The authors attempt to get their message across by using a basic question-and-answer approach. While the message of growing better meat is there, it gets lost, scattered amongst tables and charts and many digressions. The authors spend each chapter first debunking the industry's claims and then making suggestions on what and how people should eat.

It would have perhaps been better to present a clear message on what the authors stand for and let that speak for itself. This could have been said in half the number of pages and would have made a stronger counterpoint to people's assumptions and the narratives put forth by the promoters of industrial food and big agribusiness.

The authors begin by explaining the various terms and concepts presented and used in the book. A section titled "Snacks for the Cold War" explains how we got into our present food situation. The advent of

synthetic fertilizers after World War II and the subsidies provided by the government encouraging farmers to produce as much food as possible—especially grain, corn, and soybeans in monocultures—were the true beginning of our current obesity epidemic and billion-dollar junk food industry. I remember growing up in postwar Germany and being appalled when I read about America dumping food because of overproduction.

I found the book's section on the "Mid-Victorian Diet" an illustrative snapshot of a diet that could be a model for an improved way of eating today. During the Victorian Age, food was grown and consumed mostly locally and regionally and was abundant and much less processed. Many people, members of the middle class in particular, were generally healthy. Meat was a consistent part of the diet. At that time, it was paramount for farmers to assure soil health through vigorous crop rotations, cover cropping, and using the manure of animals that were grazed on pastures. Today's regenerative farming is nothing new; we have simply forgotten, within a span of several generations, how to do it without massive amounts of synthetic fertilizers and pesticides.

With the advent of chemical fertilizers, pesticides, and big machinery, it became possible to ignore the soil for the short term and create enormous fields of monocultural crops, which destroyed living soil and the natural diversity of the land. Many government subsidies implemented in the second half of the 20th century still support these industrialized practices. To reverse this damage, those subsidies need to be reined in or done away with entirely while support for small and medium-sized farmers that practice regenerative agriculture needs to increase significantly.

The authors clearly demonstrate the health benefits of eating meat as part of one's diet. For people less well off, grass-fed beef and organic produce are often not seen as financially feasible and highly processed junk food is the "affordable" option. The book's table illustrating what Americans spend on dining out annually highlights just how much of this financial outlay is actually a question of priority and convenience. This begs the question: If dining out dollars were redirected to whole or "real" foods intended to be prepared at home, could grass-fed and organic be accessible to all?

I took issue with the book's tables that explain vegetarian and vegan diets, lumping

them together and labeling them as nutrient deficient. There is a big difference between vegetarian and vegan diets, and they should not really be addressed as a single diet. Vegetarians eat animal proteins in the form of milk, cheese, eggs, etc. and are less prone to nutrient deficiencies as a result.

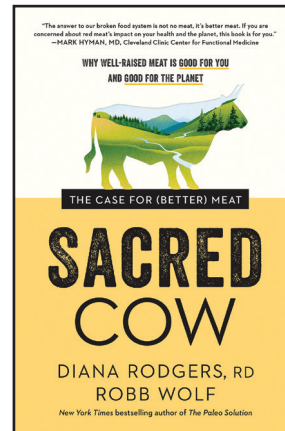
In the chapter titled "Are Cattle Contributing to Climate Change?" the authors erroneously state that "methane claims against cattle are overblown," instead blaming the problem on the pork, egg, and dairy industries. In fact, large, industrialized cattle feedlots are also an integral part of the problem. The authors do not hesitate

to include "conventional" or "typical beef" in their dietary recommendations, for reasons of affordability; however, these cattle are often raised in concentrated animal feeding operations (CAFOs), which are highly problematic. These animals may see some grass in their youth, but are "finished" in a CAFO environment where they are fed grain and antibiotics are used to promote growth. That grain is grown in monocultural systems, which create their own environmental problems. One problem with

all CAFOs, including those for beef, is that they greatly exceed the carrying capacity of the land they occupy — there simply aren't enough acres to use up all the waste manure they produce. Once this land is turned into feedlots, it becomes "sacrifice" land, useless for anything else. This means that "typical" (conventional) beef also contributes considerably to emissions of methane, in the short term an even more dangerous greenhouse gas than carbon dioxide. Of course, if cattle are raised using well managed rotational grazing systems on perennial pastures, as is described in various parts of the book, they are beneficial to the land. But the same would then hold true for any well-managed type of livestock.

This book is a good entry point for people new to sustainable food production and looking for ways to improve their eating habits. It is heavy on nutrition and light on sustainable agricultural practices. I found the 2021 film documentary (sacredcow.info) based on this book to be a more digestible summary of the authors' message. □

LSP member Angela Anderson has spent more than half-a-century working in natural resource preservation and restoration and has a particular interest in sustainable agriculture and environmental stewardship.





The Drama of a Rural Community's Life Cycle

Its Prehistory, Birth, Growth, Maturity, Decline, and Rebirth

By S. Roy Kaufman
277 pages
Wipf & Stock
wipfandstock.com

Reviewed by Dale Hadler

What happens when a group of people known for their communal culture relocates to one of the most individualistic countries on the planet? History shows that for most immigrants some assimilation is inevitable. But as S. Roy Kaufman points out in his book, *The Drama of a Rural Community's Life Cycle*, we never really lose connection to our roots, no matter how overwhelming our new home may be. And in the case of rural communities in the Midwest and Great Plains, tapping into some of the communal ideals of old may save them.

Kaufman approaches his argument by providing a detailed, 150-year "life cycle" analysis of his home community of Freeman (pop. 1,306) in southeastern South Dakota. The author grew up on a farm in the community and went on to be a Mennonite pastor for four decades, serving rural communities in Iowa, Illinois, and Saskatchewan before being called to serve his hometown in 1999. In a book that melds personal observation with research on history, theology, and environmental ethics, Kaufman pres-

ents a "drama" revolving around European "Anabaptist" groups that settled in the Freeman area in the 1870s. Anabaptism is a Protestant movement that traces its origins to the Radical Reformation. In this country, we associate Anabaptism with groups like the Amish, the Brethren, Hutterites, and the Mennonites. Traditionally, Anabaptist communities are centered around adherence to Protestant Christianity, of course, but they are also deeply connected to agrarianism and living and working in communal settings.

At first, the Freeman Anabaptists resisted adopting "modern" Americanized approaches to life, but one overwhelming force became too much to resist: industrial agriculture. It started with leaving behind the communal village lifestyle they had in the old country and settling on isolated homesteads. By the latter half of the 20th century, the Freeman Anabaptists, far removed from their communal foundations, felt compelled to compete with other farmers to remain viable. They planted monocrops, erected large concentrated animal feeding operations, and outbid each other for land.

Kaufman noted this shift away from the communal in his own congregations. "Faith became an individual, private matter, irrelevant to the forces of dominant culture being imposed upon the community," he writes.

The results were predictable — populations in town and in the countryside plummeted as farms became larger and wealth was sucked out of the area by the export-driven economy. The population of the two counties in the Freeman area is around half of what it was in the 1930s. This impacts not just Main Street businesses, but also

the institutions that are the heart of communities. In one particularly poignant "case study," Kaufman tells the story of depopulation through the history of Salem Mennonite Church — in 1970 it had 578 members; today it consists of less than 340 souls.

But he's an optimist. For one thing, there is a greater acknowledgement that an industrialized, corporate-controlled agricultural system that sets farmer-against-farmer doesn't just decimate the Freemans of the world; it impacts all of us. The author acknowledges the work of groups like the Land Stewardship Project, specifically citing *Look Who's Knockin'*, a play written

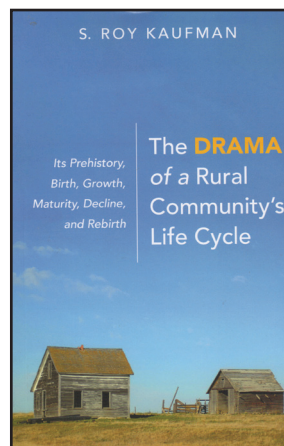
by Doug Nopar that features a couple grappling with their farm's legacy and the ramifications for the larger community.

Kaufman's key source of hope lies in a simple act that has traditionally tied members of faith communities together: the sharing of food. He sees this act as sacred, and the raising, processing, and preparation of it as a "divine vocation." All of us — no matter what, if any, our religious background — can help reverse the secularization of food through systems that

reconnect land, people, and communities. It will require an acknowledgement that our personal faith in a more resilient world hinges on significant communal connections.

"I have a hunch that the Freeman community is in the process of recovering its agricultural vocation of raising food to sustain life," writes Kaufman. "In the process, the community itself will be restored." □

LSP member Dale Hadler lives in Winona in southeastern Minnesota.



Go Public With Your LSP Support

There are numerous fun ways you can show your support publicly 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). Our latest additions to the LSP store are an 8 x 10 metal barn sign (\$20) and our 2022 edition of the "Farm Creatures of LSP Calendar" (\$20). All of these items can be ordered from our online store at landstewardshipproject.org/shop or by calling 612-722-6377.



T-shirt



Bumper Sticker



Window Decal



Tote Bag



Metal Barn Sign



Farm Creatures of LSP Calendar



**LAND
STEWARDSHIP
PROJECT**

Membership Update

Membership Questions?

If you have questions about your Land Stewardship Project membership, contact LSP's membership coordinator, Clara Sanders, at 612-400-6340 or csanders@landstewardshipproject.org. To renew, mail in the envelope included in this *Land Stewardship Letter*, or see landstewardshipproject.org/join.

Has Your Address Changed?

Has your address changed or do you anticipate moving in the next few months? Take a moment to update your address with the Land Stewardship Project so that you can continue receiving the *Land Stewardship Letter*, event invitations, and other updates. To update your address, see landstewardshipproject.org/address. Make sure you use the same e-mail address you have on file with LSP to ensure your data updates correctly.

Volunteer for LSP

The Land Stewardship Project literally could not fulfill its mission without the hard work of our volunteers. Volunteers help us do everything from stuff envelopes and make telephone calls to enter data and set up logistics for meetings. Remote opportunities are available.

If you'd like to volunteer, call 612-400-6340 or fill out the form at landstewardshipproject.org/volunteer.

Get Current With

LIVE  **WIRE**

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 landstewardshipproject.org/live-wire-sign-up. □

LSP Fact Sheets

Want a quick primer on everything from regenerative farming techniques and the negative repercussions of factory farming to how to write a letter-to-the-editor and make sure a lease meets your stewardship goals? Check out LSP's fact sheets at landstewardshipproject.org/fact-sheets. □

Showing Up Where it Counts



"We've been members since we started farming in 2014, and the LSP Journey person class really helped us to form our business around our values and the life we want to live. As our business grows, LSP continues to offer quality education, support, and community. We know LSP shows up where it counts for small farms like us, and we are proud to support them." — Les Macare, shown here (right) with Els Dobrick on their Racing Heart Farm in Colfax, Wis. For more on Macare and Dobrick's experience with Journey person, see page 16. (LSP Photo)

MEF Closes its Doors

We are sad to share the news that the Minnesota Environmental Fund (MEF), a long-time funder of the Land Stewardship Project, will be closing its doors in early 2022. LSP is extremely grateful for the many years of support this workplace initiative provided us through the generous donations of our members. You can read MEF's full announcement at mnenvirofund.org. □

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 Lawrence Wendell Peterson

◆ Jean Greenwood

In Memory of Thomas & Joel Walsh

◆ Diane Calabria

In Honor of Dave Serfling & LSP

◆ Alicia Laporte of Niman Ranch

In Memory of Les Young

◆ Joyce Young

To donate to the Land Stewardship Project in the name of someone, contact Clara Sanders at 612-400-6340 or csanders@landstewardshipproject.org. Donations can be made online at landstewardshipproject.org/join.



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Stewardship Calendar

→ **JAN. 6** — **LSP Whole Farm Planning for Climate Resiliency**, online, 9:30 a.m.-noon, landstewardshipproject.org/upcoming-events
 → **JAN. 13** — **LSP Resiliency Forum for Specialty Crop Producers (Time & People Management)**, online, noon-1:30 p.m., landstewardshipproject.org/upcoming-events
 → **JAN. 20** — **2022 CSA Farm Directory Submission Deadline** (see sidebar)
 → **JAN. 20** — **LSP Whole Farm Planning for Climate Resiliency**, online, 9:30 a.m.-noon, landstewardshipproject.org/upcoming-events
 → **JAN. 22** — **LSP Fighting Factory Farms Cohort** (see page 9)
 → **JAN. 27** — **LSP Resiliency Forum for Specialty Crop Producers (Irrigation Systems)**, online, 7 p.m.-8:30 p.m., landstewardshipproject.org/upcoming-events
 → **JAN. 31** — **2022 session of the Minnesota Legislature Convenes** (see page 6)
 → **FEB. 1** — **LSP Soil Health Workshop with Alejandro Carrillo of Las Damas Ranch**, Willmar, Minn., landstewardshipproject.org/upcoming-events
 → **FEB. 2** — **LSP Soil Health Workshop with Alejandro Carrillo of Las Damas Ranch**, Stewartville, Minn., landstewardshipproject.org/upcoming-events
 → **FEB. 3** — **LSP Soil Health Workshop with Alejandro Carrillo of Las Damas Ranch**, Plainview, Minn., landstewardshipproject.org/upcoming-events
 → **FEB. 3** — **LSP Whole Farm Planning for Climate Resiliency**, online, 9:30 a.m.-noon, landstewardshipproject.org/upcoming-events
 → **FEB. 4** — **LSP Soil Health Workshop with Alejandro Carrillo of Las Damas Ranch**, River Falls, Wis., landstewardshipproject.org/upcoming-events
 → **FEB. 5** — **LSP Fighting Factory Farms Cohort** (see page 9)
 → **FEB. 10** — **LSP Resiliency Forum for**

Specialty Crop Producers (Incubating Beginning Farmers), online, noon-1:30 p.m., landstewardshipproject.org/upcoming-events
 → **FEB. 17** — **LSP Whole Farm Planning for Climate Resiliency**, online, 9:30 a.m.-noon, landstewardshipproject.org/upcoming-events
 → **FEB. 19** — **LSP Fighting Factory Farms Cohort** (see page 9)
 → **LATE FEBRUARY** — **LSP Soil Health Workshop with Allen Williams of the Soil Health Academy** (location to be determined), landstewardshipproject.org/upcoming-events
 → **MARCH 3** — **LSP Whole Farm Planning for Climate Resiliency**, online, 9:30 a.m.-

noon, landstewardshipproject.org/upcoming-events

→ **MARCH 10** — **LSP Resiliency Forum for Specialty Crop Producers (Whole Farm Planning)**, online, 7 p.m.-8:30 p.m., landstewardshipproject.org/upcoming-events
 → **SEPT. 15** — **Application Deadline for LSP's 2022-2023 Farm Beginnings Course** (see page 17)

Latest LSP Events:
landstewardshipproject.org/upcoming-events

CSA Farmers: Time to Sign-up for the 2022 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 2022 edition of LSP's *Twin Cities, Minnesota & Western Wisconsin Region CSA Farm Directory*.

An online version of the CSA Farm Directory will be available in February at landstewardshipproject.org/csa-farm-directory. On that web page, you will find an online form for submitting information about your farm.

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

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

Register now to list your farm in the 2022 CSA Farm Directory!

Sign-up by January 20



We've Revamped Our Website!

The Land Stewardship Project's website has received a significant makeover. The new design offers more resources than ever on policy campaigns, soil health, land access, transitioning farms to the next generation, and launching a regenerative farm operation. Thanks to the work of Scott Anderson at Room34, our digital presence is more user-friendly and interactive, giving LSP's members and allies more ways than ever to help us advance the work of "keeping the land and people together."

Check it out at landstewardshipproject.org. □

