



LAND STEWARDSHIP PROJECT

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Putting it all in context (page 12).

-An Organic Farmer Meets a Weed Scientist-*—LSP Community Events—* -2025 MN Legislative Preview-- A Piece of the Land Access Pie --Oats & the 3-Legged Stool --Building Community Food Assets --Youth Movement--Reviews: Devil's Element, Dodge County, Soil & Spirit-



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

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Stewardship Roots

An Organic Farmer Meets a Weed Scientist

When Don Wyse died in July as a result of injuries from a fall, we didn't just lose an innovative agricultural scientist — we lost someone who was a standard-bearer for what the land grant mission is all about: using science to serve the land, communities, and, most importantly, people. And he didn't just give lip service to that mission.

Wyse's contributions to plant science during his five decades at the University of Minnesota — from his early days doing ryegrass research to recent breakthroughs in the areas of developing crops that could provide the land in corn and soybean regions with "continuous living cover" — are impressive, and would be enough to label a typical academic career "successful." In fact, if you know anything about Dr. Wyse, it's probably in relation to the development of Kernza, an intermediate wheatgrass that is now considered the world's first commercially viable perennial grain.

But as the commentaries below and on page 5 illustrate, Wyse's true legacy was contributing to a regenerative farming research and outreach infrastructure within a giant institution that hasn't always been friendly to agricultural systems that don't fit into the corn-bean-feedlot machine model of production. As land grant institutions across the nation become increasingly focused on research that benefits an industrialized, corporate-controlled model of farming, science that's accountable to farmers and the general public, as well as the land, is more important than ever. That's why it is so critical that a key contribution Wyse made to regenerative agriculture — co-directing the nationally-known Forever Green initiative and the cutting edge research into the continuous living cover crops associated with it — continue, be further strengthened, and directed in a way that it is accountable, and useful, to the small and medium-sized farmers who are the bedrock of our land and rural communities.

By Carmen Fernholz

ell, here's the damn story. It started nearly 40 years ago, after I had read an article in a farm magazine about research

Don Wyse was engaged with related to Canada thistle management. While mowing highway ditches in the summer during his college years, it turns out that Don took note of a fact that some patches of Canada thistle would turn yellow for some reason. And when he was here in Minnesota, the recollection of those yellowing thistles in the road ditches while driving to work again surfaced. Now that he was a weed scientist, he was going to try and find out the cause.

After reading about his interest in Canada thistle, I wrote Don a letter about my problems with the noxious weed. He assigned a graduate student to the project and he and I worked together for two summers trying to make it work. I should say that in the end, the failure of the *Pseudomonas* bacteria to more permanently suppress Canada thistle was one of Don's greatest disappointments.

However, several years later we came



Carmen Fernholz (*left*) **and Don Wyse, pictured at a field day Fernholz hosted on his farm near Madison, Minn.** (*Forever Green Initiative Photo*)

upon the idea of researching the impact on Canada thistle of an organic rotation that included alfalfa. Don had his technician use global positioning system coordinates to map every thistle patch in a 24-acre field, and then count each thistle plant in each patch. We did this study through a five-year rotation, mapping and counting every spring at the appropriate time. The end result of this study was that alfalfa significantly decreased the thistle population and has become the mainstay and primary means for organic farmers to suppress Canada thistle, the most challenging weed in an organic cropping system.

In fact, shortly after the conclusion of this study, Don and I organized a van tour of organic farmers in southwestern Minnesota and spent the day visiting a number of organic farms in the area. And our suspicions were confirmed that farmers who incorporated alfalfa into their organic rotations were more successful overall than those without alfalfa.

Both of these reflections may seem like small and insignificant stories about just another research project. But the real story is how Don was just as deeply interested and concerned about organic farm production issues as he was about conventional systems. To him, it has always been about equality.

It was during one of Don's early visits to our farm to see how the *Pseudomonas* study was progressing that I first began to realize just how great a teacher and mentor he was to me. He and I took some time that day to just sit in the middle of a restored prairie on the farm and carry on the greatest conversation ever about ecosystems.

The reason this conversation is still fixed in my memory is the simple fact that I was an organic farmer, and paying attention to

> natural systems was just a given for me. On the other hand, most organic farmers had become disillusioned with the university land grant system as personified by the agricultural Extension service and its very critical assessment and absence of support for organic farming. But to listen to a weed scientist immersed in the latest and greatest herbicide research talking about ecosystems got my attention.

Many times, Don complained about organic farmers "throwing stones at the University." But it was a two-way street, and we both knew it. I think from that day on our respect for each other grew to where he would

Wyse, see page 4...

Stewardship Roots

...Wyse, from page 3

ultimately trust me to be the first board chair of the Minnesota Institute for Sustainable Agriculture (MISA). At the same time, my trust for him grew to a level where I could withstand and defend any criticism from my fellow organic farmers who may have perceived me as selling out to the university.

Don would always engage with me not as one who needed to be educated on ways to manage weeds, but as a peer. I sat in his office many times for hours on end, and I've talked to other farmers who have had the same experience. To make a farmer feel like the work I was doing every day out in the field was equally as important as the work going on at a premier land grant university became the substance of our bonding. We could challenge each other, yet hold the deepest respect for each other's expertise and life experiences.

Here are a couple of little stories to help convey the extent of this bonding:

Shortly before I was asked to apply for the first University of Minnesota Endowed Chair for Sustainable Studies, I was at the local high school one evening where we were rehearsing for an upcoming theatre production I was directing. Don happened to be coming through Madison that evening and stopped at the house to visit. My wife, Sally, informed him that I was at a rehearsal. So, without letting me know, he comes walking into the theatre just as the rehearsal was about to begin. His timing was impeccable, but so was the fact that he wanted to see me in my other life. This is a story we have reminisced over many times.

In 2011, Don asked me if I was interested

in growing intermediate wheatgrass. I didn't know much about it, but was always open to try anything that Don was involved in. He gave me enough seed for about two acres, which Sally and I planted that September.

The first year it appeared as though no one was interested in the project, so I ended up cutting and baling the crop. The second year, however, out of the blue I get a call from Don asking me how the intermediate wheatgrass was doing. I assured him that it was growing well and was nearing harvest. "We need to harvest it, you know," he said.



Carmen Fernholz explaining how Kernza fits into his crop rotation during an on-farm event. Don Wyse "would always engage with me not as one who needed to be educated on ways to manage weeds, but as a peer," writes Fernholz. (*Photo by Dana Jackson*)

"So how do I harvest this grain?" I asked. "It's not like any other grain crop, you know."

He simply replied, "You're a farmer — you'll figure it out." And we did.

And seven years later I had the first field of certified organic "Minnesota Clearwater" Kernza variety ready to harvest. The challenge was determining when to harvest based on kernel moisture content. The U of M had a formula it used that in part required utilizing a microwave oven, a scale, and a brown paper bag. Don happened to stop by about the time we were contemplating windrowing the Kernza. He always seemed to appear just at the most opportune time, and this day was one of those times. We went to the field and took our samples and were ready to perform the protocol for determining the moisture level of the grain. I offered to use Sally's microwave oven. He would have none of it. He asked if there was an appliance dealer in Madison. There was, and so we went to town and purchased a microwave. The appliance dealer was especially curious when

I introduced him to Don. In fact, he had Don tell him the whole story of what we were up to; he had always been curious about what was going on at "that farm east of Madison."

And finally on a very personal note, Don and I were once in Michigan for a Cover Crops Council meeting. Just as we were about to leave for home, I received a call from Sally that my dad had passed away. Needless to say, it was a long trip back. When Don finally asked me why I was so quiet, I told him the situation. We spent much of the remainder of that trip talking about our fathers — how they were so much alike and how this father-son relationship, their work ethic, and sense of responsibility had impacted us. Over the years, we would occasionally remark about the stories we shared that night.

Don created for me the best of two worlds. One was the opportunity to participate very deeply and intimately in the academic and scientific community as an engaged, respected, and appreciated person. At the same time, I was able to invite the academic community to participate in my world as a farmer.

In the end, this is about the organic farmer and the weed scientist. We were both farm boys and remained farm boys at heart. We just took different roads that ended up at the same place. \Box

Carmen Fernholz, along with his wife, Sally, owns and operates A-Frame Farm near Madison, Minn.

More on Don Wyse & Forever Green

- → Forever Green Initiative: forevergreen.umn.edu
- → Blog: "Don Wyse's Land Grant Legacy" landstewardshipproject.org/don-wyses-land-grant-legacy
- → Blog: "Forever Green: Relaying Resiliency" landstewardshipproject.org/forever-green-relaying-resiliency
- → Blog: "Forever Green's New Crop of Researchers" landstewardshipproject.org/forever-greens-new-crop-of-researchers
- → Podcast: "How the Forever Green Initiative could make Minnesota farming more efficient" landstewardshipproject.org/podcast/ ear-to-the-ground-153
- → Podcast: "Kernza's Continuous Cover" landstewardshipproject.org/podcast/ear-to-the-ground-229-kernzas-continuous-cover
- → Podcast: "Kernza's Stress Test" landstewardshipproject.org/podcast/ear-to-the-ground-no-259-kernzas-stress-test

Don Wyse's Regenerative Ag Vision Must Continue

By Scott Elkins, Sophia Murphy, Steve Morse, Jan Joannides, Lucinda Winter & Theresa Keaveny

s Minnesota's sustainable farming and environmental community grieves the passing of a giant in the movement, the critical need for public investment in an agricultural system that builds resilient farms, landscapes, and communities is clearer than ever.

When Don Wyse, co-director/founder of the nationally-known Forever Green Initiative at the University of Minnesota, passed away in July, we didn't just lose an innovative plant breeder; we lost someone who was using science to serve farmers, natural resources, rural communities and the greater good. Wyse was the epitome of the land-grant mission in action: public science serving the public good.

He left behind a 50-year legacy of research that is benefiting people and the land today. For example, through Forever Green Wyse drove the development of "continuous living cover" crops that build soil and habitat, protect our water, sequester carbon, and generate economic activity 365-daysa-year. In all, 16 crops — from Kernza to camelina — are under development through the Forever Green Initiative.

Wyse understood there's a reason we are dominated by a duo-culture of corn and soybeans: our agronomic, marketing, transportation, and processing systems, along with public policy, drive this narrow focus. Indeed, it was public investment via the land grant system that helped make such crops so dominant. Now we need public investment to create the next generation of crops. Forever Green isn't just a "crops incubator" — it's driving a food system that delivers multiple benefits to society.

Wyse's greatest legacy is his ability to harness the resources of the U of M — our land grant university — to address critical public needs for agriculture that are beyond the ongoing efforts to further entrench the dominant industrial model. As we increasingly understand the limits and liabilities of the industrial ag system, science that responds to and is accountable to farmers, local communities, and the public is critical.

Wyse recognized that if we are to bring about significant, but practical, changes to Midwestern agriculture, farmers must be key players in research and outreach partnerships. Carmen Fernholz (*see page 3*), a southwestern Minnesota farmer and a pio-

Don Wyse Scholarship

A scholarship fund has been created to support students pursuing studies related to the work Don Wyse did on regenerative agriculture research. To donate, see everloved.com/life-of/dr-donald-wyse/donate.

neering Kernza producer, is a living example of how fruitful such partnerships can be.

"This relationship with Don showed me that the fields on a farm were really no different than plots on the Saint Paul campus," the farmer said recently when reflecting on working with the scientist. "Most of these Forever Green crops have the potential to not only provide a more robust food system but also benefit the land, our water, and the human resource, namely farmers."

Such teamwork has set in motion the creation of a network of regenerative research and outreach that extends beyond one individual scientist's lifespan. But this legacy won't survive and thrive by accident; we need to be intentional and double down on the work to create regenerative continuous living cover systems that protect our environment and are profitable for farmers. This won't be easy. There is incredible inertia pushing for a bigger reliance on the monocultural cropping systems that dominate. But Wyse has shown us it can be done.

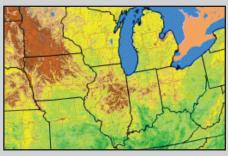
The timing is critical: farming is being rocked by the extreme weather accompanying climate change, and the negative repercussions of undermining our soil's health are showing up in the form of water pollution across our state. Conventional agriculture's focus on producing a handful of crops and removing animals from the land and crowding them into giant confined facilities creates vulnerabilities that we can't ignore.

That's why it's so important that Forever Green continue, be built out, and directed in a way that is accountable and beneficial, especially to the emerging, small and mediumsized farmers who are the bedrock of our land and rural communities.

Minnesota's sustainable agriculture and environmental community calls on public institutions to step up and expand support for agroecological systems to fulfill Don Wyse's vision of building resiliency — on the land, on our farms, and on Main Street. \Box

Scott Elkins, Sophia Murphy, Steve Morse, Jan Joannides, and Lucinda Winter are executive directors of the Land Stewardship Project, the Institute for Agriculture and Trade Policy, the Minnesota Environmental Partnership, Renewing the Countryside, and the Sustainable Farming Association, respectively. Theresa Keaveny is the Minnesota state policy lead for Climate Land Leaders.

Color Contrast

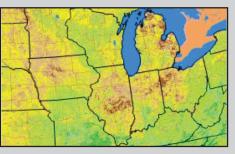


April 20-May 3

During presentations promoting the need for a diversified farming system, Don Wyse would show the following series of slides illustrating how Midwestern crop fields were bare and lacked green vegetation—represented by the brown and pale colors—most of the year. (*Images: USDA VegScape-Vegetation Condition Explorer*)



July 13-26



October 5-16

Myth Buster Box An Ongoing Series on Ag Myths & Ways of Deflating Them

→ *Myth:* More Hogs on Fewer Farms = More Money in Local Piggy Banks

\rightarrow Fact:

Hogs have traditionally been known as "mortgage lifters"

on small and medium-sized farms. That's because they can be brought to market relatively quickly utilizing feed raised right on the farm. Farmers could sell a pen load of pigs on a regular basis, bringing in a steady income that paid bills, and yes, helped pay off the farm. But somewhere along the line, hogs transitioned from being a mortgage lifter for individual farms to a way for Big Ag to foreclose on rural America's economy.

Today, the vast majority of those hogs are not raised in systems that boost incomes for small and medium-sized farms, or, in general, benefit the economies of local communities. That's because the hog industry has become consolidated to an unprecedented level due to the onslaught of concentrated animal feeding operations (CAFOs) and the replacement of open markets with the closed contract system. In Iowa, the nation's top pork producer, the number of farms raising pigs dropped by two-thirds between 1997 and 2022, according to the USDA. During that same period, the average number of pigs per Iowa farm has jumped from 825 to over 4,500. In Minnesota, which is the country's second largest pork producer, the trends are similar: there were over 7,700 farms raising pigs in 1997; in 2022 that figured was below 3,000. Meanwhile, the average Minnesota herd size skyrocketed from 730 to a little over 3.000.

When the National Pork Producers Council (NPPC) reports such statistics in its industry summaries, it tends to gloss over the number of lost livelihoods they represent, and focuses instead on overall economic activity. A recent NPPC report noted that the "\$27.2 billion of gross cash receipts from hog marketings in 2023 represents only a portion of the total economic activity supported by the industry." That's an eye-popping figure, but doesn't tell the whole story of how much money stays in rural communities, where it can be circulated among farmers and local businesses.

In 2022, Food & Water Watch released an analysis examining the relationship between the health of rural Iowa communities and the size of hog operations. The researchers looked at the period between 1982 and 2017 using data gleaned from the U.S. Census of Agriculture and the Iowa Department of Revenue. What they found was that the Iowa counties that sold the most hogs and those with the largest hog farms declined economically based on several categories, including real median household income and total wage jobs. The counties with the most large hog CAFOs also experienced population declines at twice the rate of the state's typical rural county.

On a per capita basis, personal income increased in each Iowa county between 1982 and 2017. But measuring per capita income can mask economic inequality, by, for example, not accounting for the fact that a few large earners inflate the county average. Measuring *median* household income can provide a more accurate gauge by finding the middle point among all households. Indeed, it turns

Hogs have gone from being mortgage lifters to a way for Big Ag to foreclose on rural America's economy.

• • •

out the median household income among counties with high hog sales and large farms was between 6% and 7% less in 2017 than in 1979. In contrast, it increased slightly within counties with smaller farms.

Meanwhile, the four largest meatpacking firms now control 67% of all hog purchases. Brazil-based JBS, the largest meatpacker in the world, has been reporting record profits in recent months. In contrast, an Iowa State University agricultural economist recently wrote that, for farmers, it was possible that 2023 and 2024 will go down as the "worst two year stretch for profitability in hog production."

One benefit touted by the boosters of the consolidated CAFO system is that it provides a ready market for feedstuffs in the form of corn and soybeans. However, the loss of individual crop farms has paralleled the loss of hog operations. When hogs were more integrated on diversified farms that were of moderate size, farmers weren't as vulnerable to crop market price swings — they could simply walk low-priced corn off the farm in the form of a hog.

The economic devastation caused by Big

Pork is another reason the Land Stewardship Project and its allies are working for a Farm Bill that addresses consolidation in the industry and stops subsidizing the establishment of manure digesters and other facilities that make producing livestock in mega-scale operations lucrative at taxpayers' expense. It's also why LSP is working on the state level (*see page 10*) to make CAFOs pay the full cost of managing all that liquid manure they produce.

The real cost of factory farming should give local government leaders pause as they consider approving permits for such facilities as a way to supposedly boost the local economy. As the new book by Sonja Trom Eayrs, *Dodge County, Incorporated* (*see page 33*), points out, too often local township officers and county supervisors buy into the myth that if a few pigs are good for the local economy, then lots and lots of pigs are even better for the bank.

Instead of chasing manure lagoons, they could be taking steps to support a more localized food economy. The National Sustainable Agriculture Coalition recently reported on some interesting figures from the U.S. Census of Agriculture: in 2022, 116,617 farms reported more than \$3.26 billion in direct-to-consumer sales — this is a 150% increase in the value of direct sales since 2012. Research conducted by food analyst Ken Meter shows that local food webs can keep wealth circulating in rural communities at a much higher level than the commodity-based, export-driven system of agriculture.

Someone once erected a billboard along Interstate 35 in northern Iowa that read, "Politicians Take Note...Hogs Don't Vote." Decision-makers should also keep in mind that it's not more hogs that drive a local economy, it's more hog *farmers*.

More Information

• Food & Water Watch report: "The Hog Bosses," foodandwaterwatch.org.

• NSAC blog: "Census of Agriculture Reveals the Promise of Regional Food Systems," bit.ly/nsacblog.

• Other installments in LSP's long-running *Myth Buster* series: landstewardshipproject.org/myth-busters.



LSP Staff Update

eather Benson has joined the Land Stewardship Project's staff as a communications specialist. Benson has over two decades of marketing,

communications, and public relations experience within both the agricultural and nonprofit spheres, and most recently was the digital strategy manager for



Heather Benson

South Dakota Public Broadcasting, that state's National Public Radio and Public Broadcasting Service member station. A recent transplant to Minnesota, she and her daughter operate a farm near Appleton in the western part of the state.

Benson is based out of LSP's office in Montevideo, Minn., and her work focuses on social media outreach, media relations, and other communications initiatives. She can be reached at hbenson@landstewardshipproject.org.

Alex Kiminski has joined LSP as an organizer focused on soil health and land access issues. Kiminski has spent the past two decades working in various aspects of the food industry, including working with crop and livestock farming in Montana.

Kiminski is based out of LSP's Montevideo office and her work focuses on working with crop and livestock farmers who are interested in adopting practices that build soil



Alex Kiminski

health profitably. She also works with non-operating landowners who are looking for ways to continue their conservation legacy. Kiminski can be reached at akiminski@ landstewardshipproject.org. Amanda

LSP News



Amanda Koehler

Koehler has departed LSP's Policy and Organizing Department to join the staff of the National Young Farmers Coalition, where she is working as that organization's land policy associate director. Koehler joined LSP's staff in 2017 and over the years worked with members who were organizing around issues ranging from factory farms and local democracy to legislative support for farmers who want to adopt soil health practices and federal initiatives related to land access for beginning and emerging farmers. Recently, Koehler served as LSP's policy manager; in that role she, among other things, coordinated and expanded the popular Family Farm Breakfast and Day at the Capitol (see page 11).

Martin Moore has left LSP's policy team to return to teaching. Beginning in 2023, Moore was involved with various campaigns in southeastern Minnesota as a policy organizer. He worked with LSP members and allied groups around such issues as nitrate contamination of groundwater, methane digesters, and a large dairy operation's attempt to circumvent Winona County's animal unit limit (see page 8).



Martin Moore

LSP's 5 Year Plan **Approved by Board**

The Land Stewardship Project's board of directors in September approved the organization's long range plan for 2025-2030: The Roots of Resilience: Grow, Challenge, Build & Steward.

Every five years, LSP's board gathers input from members, supporters, allies, and staff on what work should be prioritized so that the organization can develop a long range plan that best fulfills its mission going forward. During the spring of 2024, a member and staff-led committee worked with LSP's consulting partner, Seiche, a social impact strategy and communications firm, to conduct a member and supporter survey and hold six inperson listening sessions. LSP also hosted a panel discussion with some of the Black, Indigenous, and people of color (BIPOC) allies the organization works with.

A copy of the long range plan is available at landstewardshipproject.org/ long-range-plan. For a paper copy, e-mail info@landstewardshipproject.org, or call 612-722-6377.

Vicki Poier: 1948-2024

ong-time Land Stewardship Project member Vicki Poier passed away Aug. 24 at the farm she owned with her husband, Keith, near Montevideo in western Minnesota. She was 76.

Poier was extremely active in her community over the years, and worked frequently with LSP members and staff on various initiatives. She served on the first LSP Land Access Steering Committee and for 30 years was a leader in the annual Hunger Walk.

Robin Moore, an LSP organizer, shared this remembrance of Poier:

"She was deeply committed to the care of both land and community, as well as leaders, in our work and in the greater ecosystem. I can't think of a more consistent, kind,

and generous person that I've met in this community - always willing to listen, to pitch in, and to act on her values. She was committed to creating access and sharing, something I could count on when my own hope flagged."



Vicki Poier

Local Democracy

Court Upholds County's AU Limit

In a victory for local democracy, the Minnesota Court of Appeals issued a ruling Dec. 9 upholding a county's right to limit the size of large animal feedlots operating within its borders. The ruling confirms an earlier state District Court's decision that there was "no actual evidence of bias" when Winona County denied Daley Farm's attempt to circumvent the county's 1,500 animal unit cap. The Court of Appeals decision is at bit.ly/Daleydecision.

For the past five years, Daley Farm has been attempting to obtain a variance to the rules to add 3,000 dairy cows to its facilities near Lewiston, which would put the operation at 5,968 animal units (roughly 4,500 cows), almost four times Winona County's cap. Annually, the expanded facility would use 92 million gallons of the area's groundwater and produce 46 million gallons of manure and wastewater in an area dominated by karst geology and nitrate pollution problems. The Winona County Board of Adjustment has twice denied the variance, and, despite strong opposition from Winona County residents, Daley officials — backed by supporters of industrialized livestock farming on the state level — have repeatedly attempted to circumvent local county government rulings through various means, including suing Winona County. All of these attempts have been unsuccessful. Soon after the Court of Appeals issued its Dec. 9 ruling, Daley Farm announced that it would continue its legal challenges.

"This latest court decision is yet another victory for the right of people to speak up for the future of their community, its farms, the land, and water," says Sean Carroll, LSP's policy director. "It's time that Daley Farm stopped wasting public resources on frivolous lawsuits so we can focus on advancing farming practices that support local economies and protect our groundwater."

Winona County adopted its animal unit

cap ordinance in 1998 to balance the interests of farmers with the unique risks industrial agricultural practices pose to groundwater within the region's vulnerable karst topography. Groundwater is the area's main source of drinking water, and the Environmental Protection Agency has ordered state agencies to take action to deal with rampant nitrate pollution problems in the region.

Since its founding over four decades ago, LSP has worked in Winona County and other parts of southeastern Minnesota to support farmers in their efforts to develop crop and livestock systems that are economically viable, build healthy soil, and protect water resources.

During the past five years, LSP members in Winona County have been involved in upholding the county's animal unit cap, and in May the organization filed a legal brief with the Minnesota Court of Appeals contesting Daley Farm's appeal of the state District Court's decision. Representing LSP in the case is FarmSTAND, a legal advocacy organization that is dedicated to taking on industrial animal agriculture.

"It's essential that all Big Ag attempts to use the civil justice system to avoid accountability to rural America be rejected," says Holly Bainbridge, FarmSTAND staff attorney and counsel for LSP. \Box

Federal Policy

A Piece of the Land Access Pie

Emerging Farmers Call for Farm Bill Support Via the LASO Act

I havmakers are looking for a wise investment to make in the future of food production and the environment, they should look no further than a growing group of farmers that don't fit neatly into the traditional category of what American agriculture looks like. That was the general conclusion of a recent panel made up of some of these alternative agrarians.

"We are doing so much work," said Zoe Hollomon during a roundtable discussion held at Sharing Our Roots Farm near Northfield, Minn., in August.

The "we" Hollomon was referring to are the kinds of farmers decision-makers often overlook when developing public policy, such as farmers of color and other so-called "emerging farmers." Hollomon, who is the executive director of policy coordination and land fund development for the Midwest Farmers of Color Collective, said such farmers are more likely to utilize sustainable practices that build soil health. They also spend their dollars locally while producing healthy food.

"But all of this depends on having access to land," Hollomon added.

And that's a problem, given that 75% of the farmers in Hollomon's network alone don't own the land they farm.

The challenges of accessing land for emerging farmers, and all types of small and medium-sized operations, for that matter, was the theme of the August discussion. Besides Hollomon's group and Sharing Our Roots, the roundtable was hosted by the Land Stewardship Project and the Latino Economic Development Center. Sharing Our Roots, which was formerly a 163-acre row crop operation, offers long-term land agreements and shared infrastructure for immigrant, BIPOC, LGBTQ+, and emerging farmers through a commons-based cohort model. During the farm tour and roundtable discussion, area emerging farmers shared the challenges they face getting access to land with Chuck Ackman, who is the senior regional outreach director for Minnesota U.S. Senator Amy Klobuchar, and Whitney Place, the executive director of the Minnesota office of the USDA's Farm Service Agency. Also present was Kristi Pursell, a Northfield area state Representative and the vice-chair of the Minnesota House Agriculture Committee.

The farmers who spoke agreed that one concrete step lawmakers could take is to include in the next federal Farm Bill the Increasing Land Access, Security, and Opportunities (LASO) Act. A top LSP priority during discussions over what should go into the next Farm Bill has been getting more farmers on the land. In partnership with the Midwest Farmers of Color Collective and the National Young Farmers Coalition, LSP members have been advocating for the LASO Act, which reauthorizes the federal Increasing Land, Capital, and Market Access Program with an infusion of \$100 million.

LASO, championed by Minnesota U.S.

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Senator Tina Smith, would fund communityled solutions to the land access crisis facing the new generation of young and Black farmers, Indigenous farmers, and farmers of color. This legislation would increase access to capital for underserved farmers, boost training and economic opportunity for beginner farmers, and help make land more affordable for BIPOC farmers.

Gina Aguilar, a graduate of LSP's Farm Beginnings course (*see page 26*) who raises produce and livestock with her husband, Silvano, near Amery in western Wisconsin, told the officials that getting small and medium-sized farmers access to food should Mhonpaj Lee, who operates a certified organic farm in Minnesota's Washington County, agreed, saying it should be part of an overall strategy of how society starts working toward getting more healthy food raised locally. Along with federal policy help, there needs to be changes on the local government level by, for example, modifying zoning to benefit smaller farmers, she said.

"We need a rethinking of how we support a different lifestyle and future generations," said Lee, adding that when she walks through the Saint Paul Farmers' Market, she notices that only a handful of vendors own

the land they farm on.



"I'm tired of all the talking, all the drama that's going on," said vegetable farmer Funwi Tita, referring to the inability of Congress to pass a Farm Bill. Pictured with Tita is Mhonpaj Lee, a vegetable farmer. (LSP Photo)

be viewed as an issue of national security at a time when food safety recalls are rampant and situations like the COVID-19 pandemic show how fragile our consolidated food system is.

"It's entering into our national conversation that our food system is broken," Aguilar said.



"We just want a piece of the pie, and a very small piece of it," said farmer Lily Mboss. (LSP Photo)

Lily Mboss, who has teamed up with four other immigrants from Kenya to raise vegetables on rented land in Minnesota's Carver County, said even if the LASO Act could provide emerging farmers a small portion of the support corn and soybean producers currently get via the Farm Bill, it would go a long ways toward providing them stability when it comes to land access. She shared how commuting to land they are currently renting via a short-term lease involves not having access to bathroom facilities and, at times, even

hauling water for the plants in their cars.

"It's not sustainable," she said. "Imagine just having that security of even a long-term lease as a farmer? I think there's a lot of people out there who want to do organic and sustainable farming, but they just don't have the resources. We just want a piece of the pie, and a very small piece of it."

Tessa Parks, who raises livestock at Sharing Our Roots, said beginning farmers like herself need support in getting access to land so they can focus more of their energies on the kind of innovative experimentation needed to successfully operate a regenerative farm.

"We've learned to farm in drought, now we're learning to farm in floods," said Parks. "But we need a complete Farm Bill that's not just favoring established farmers and disincentivizing everyone else who's trying to farm."

The Farm Bill is re-drafted every five years, and a new one was due to be passed in 2023. However, due to disagreements over everything from funding over hunger relief programs to how conservation programs



"We need a complete Farm Bill that's not just favoring established farmers and disincentivizing everyone else who's trying to farm," said livestock producer Tessa Parks. Pictured with Parks is Levi Welbourn, the regional food systems coordinator for the Latino Economic Development Center. (LSP Photo)

should be directed, Congress failed to pass a new bill in 2023 or 2024; the current law is in limbo as a new Congress convenes.

"We need lawmakers to step up and represent us," said Funwi Tita, who raises vegetables on leased land in the Minnesota communities of Otsego, Montrose, and Medina. Tita is also president of the Minnesota African Immigrant Farmers Association. "I'm tired of all the talking, all the drama that's going on. It's become like a ritual."

LSP's Farm Bill platform can be viewed at landstewardshipproject.org/federalpolicy/farmbill2023. For more information on LSP's federal policy work, contact policy director Sean Carroll at scarroll@ landstewardshipproject.org.



Gina Aguilar said making it easier for more beginning and emerging farmers to get access to land is a matter of "national security." (LSP Photo)

Legislative Preview: Farm to School, Manure Management, Emerging Farmers

s the 2025 session of the Minnesota Legislature gets underway, lawmakers are faced with a budget year. In other words, to avoid a state government shutdown, they will have a mandate to pass legislation which funds the state's various programs. And as a result of the 2024 election results, the Democratic-Farmer-Labor party no longer controls both the Senate and the House. As a result of the DFL trifecta being broken, lawmakers from opposing parties will need to reach across the aisle if they are to successfully pass legislation before adjournment in May.

In this environment, the Land Stewardship Project is uniquely positioned to move our agenda forward because of our history of working with both parties. During the 2024 session, for example, we worked with DFLers and Republicans to win support for the Farm to School Program.

So, this session LSP will be working with its members and allies to push through numerous proposals that support small and medium-sized farmers, clean water, vibrant community food systems, and healthy rural communities.

Farm to School

Over the past five years, LSP and the Institute for Agriculture and Trade Policy (IATP) have worked with numerous partners to bolster regional food systems that open up markets for small and medium-sized farmers while generating (and keeping) wealth in local communities. For example, Minnesota's Farm to School and Early Care Program now has a \$1 million annual budget and is managed by a dedicated position at the Minnesota Department of Agriculture. Creating stable markets for locally grown food is critical to supporting our farmers across the board, especially beginning and emerging producers.

The Farm to School Program has already helped many school districts serve healthy, local food while supporting hundreds of farmers. During fiscal year 2023 alone, the program had \$3.1 million in economic impact on Minnesota's economy, according to an analysis conducted by University of Minnesota Extension and IATP. A total of 435 vendors were involved in direct-to-school sales, and nearly all of them were farmers. But this initiative is sorely underfunded. In 2023, the program had only \$1.25 million in state money available, while the Minnesota Department of Agriculture received over \$5.3 million worth of requests from schools.

Considering how much even a nominally funded Farm to School Program has already benefited Minnesota farmers, the potential for a fully resourced initiative to support with various allies, LSP helped develop the plan, which, among other things, proposes policies that would provide more funding for the Farm to School grant program, and for aggregation, regional coordination, and infrastructure investments, as well as farmer and food service trainings.

During the 2025 legislative session, LSP and IATP are leading a broad coalition that's pushing lawmakers to provide up to \$10 million to the Farm to School and Early Care Program. This amount of money would make it possible for schools and early care facilities in every corner of the state to source locally produced food for their meal programs. The funding would provide resources to not only purchase food straight from farmers but to procure the equipment needed to process and store the food.

Lastly, LSP and IATP are leading a complementary bill to establish regional local food procurement coordinators that can help facilitate connections between producers and buyers, whether in school settings, hospitals, or restaurants.



In the late 1990s, this hog operation in Minnesota's Renville County was the source of a manure spill that killed an estimated 690,000 fish along almost 19 miles of stream. Manure management rules in the state have not been updated in nearly 25 years. (Submitted Aerial Photo)

agriculture is tremendous. In particular, this would give farmers who produce meat, poultry, and dairy products greater access to institutional markets. The U of M Extension-IATP analysis found that nearly half of the local food purchases made by schools during fiscal year 2023 were for protein.

And a fully funded Farm to School and Early Care Program would go a long way toward supporting the Minnesota Department of Agriculture's Farm to Kids Strategic Plan, which provides a five-year road map for advancing local purchasing and agricultural education in K-12 schools and early care settings across the state. Working As the session gets underway, LSP is confident we will yet again have bipartisan support for further fortifying initiatives that smooth the path between farms and schools/ early care facilities.

Manure Management

During the 2024 session of the Legislature, LSP's Animal Agriculture Steering Committee worked with farmer-members of the organization to develop and build support for legislation that supports comprehensive manure management reform in the state.

Preview, see page 11...

Such reform is long overdue — Minnesota feedlot rules have not been updated in nearly 25 years. We need rules that, for example, require large concentrated animal feeding operations (CAFOs) to put in place and adhere to manure management plans that specify strict setbacks from vulnerable water resources. (During the summer of 2024, the Minnesota Pollution Control Agency took comments from the public on updating two permits that regulate livestock operations that are 1,000 animals units or more in size. For details, see bit.ly/feedlotpermit.)

The state's outdated approach to manure management rules are one of the ways the biggest get bigger at the expense of small and mid-sized farmers, rural communities, and our water and climate. These mega-op-

erations can externalize their costs of pollution via rules that aren't up to the task of making sure the proper amount of manure is being applied to cropland and used as a way to build healthy soil.

And not having updated manure management rules is also a threat to our land and water resources. In June

2024, the Minnesota Pollution Control Agency reported that heavy rains caused 17 manure pits at 15 large farms in southwestern Minnesota to overflow, releasing liquid manure, among other contaminants, into the environment. Manure that leaks from a lagoon or runs off farm fields after disposal can flow into waterways — where it causes fish kills — as well as into groundwater, where it raises nitrate levels to unhealthy levels in drinking water.

Recent advances have been made to deal with this issue. After a series of fish kills in southeastern Minnesota, LSP members in Winona County successfully pushed through legislation in 2023 that updated fish kill reporting requirements for state agencies.

These new rules are a good first step, but don't address how we can be proactive about preventing manure-caused pollution in the first place. During 2024, LSP gathered over 800 petition signatures calling for comprehensive policy that reforms manure management in the state, and in April, 10 LSP rural, urban, and farming members participated in LSP's Animal Ag Day at the Capitol, where we delivered a letter from 85 farmers asking legislators to co-author our manure management reform bill. During the 2024 legislative session, a manure reform proposal gained 19 co-authors. LSP is looking forward to working with them again during the 2025 session to finally make comprehensive manure management rules a reality.

Land Access & Emerging Farmers

In 2023, LSP worked alongside several allies, including groups led by farmers of color, to successfully push for historic public investments in emerging farmers. One of these wins included doubling the funding for and prioritizing emerging farmer applicants within the Minnesota Farmland Down Payment Assistance Program. "Emerging farmers" are farmers from historically underserved communities, including Black, Indigenous, and people of color (BIPOC), immigrants, women, veterans, people with

And in recent years, lawmakers have delivered. In 2019, the Minnesota state budget included just \$500,000 for soil health programs, and there was little conversation about creating a statewide initiative to support soil healthy farming practices that tackle climate change. By 2023, Minnesota's state budget reflected a significant commitment to regenerative agriculture, with more than \$50 million in investment in resources to support farmers implementing soil building practices, thanks in large part to the legislative work of LSP and our allies in promoting the idea that regenerative farming can play a key, positive role in cleaning our water, sequestering carbon, and revitalizing the economies of rural communities.

During the 2024 legislative session, LSP's Climate Policy Steering Committee worked to advance a bill that would create a pilot initiative modeled after the successful Olmsted County Soil and Water Conserva-

> tion District Groundwater Protection and Soil Health Program, which takes a results-based payment approach by incentivizing cover cropping, grazing, and a diverse crop rotation that includes small grains such as oats. The proposed bill that came out of those efforts had two hearings in the House Agriculture Committee, but unfortu-

LSP Family Farm Breakfast & Lobby Day March 13

Ark you calendars for the Land Stewardship Project's 19th Family Farm Breakfast and Day at the Capitol. It will be held Thursday, March 13, from 9 a.m. to 10:30 a.m. This is a chance to gather with hundreds of members and supporters, partners, and public officials over a delicious meal featuring locally sourced products from LSP members' farms. Hear directly from LSP members about the issues we're working on and how we're organizing for change. After the meal, stay for our Lobby Day to meet with your state senator, state representative, and other public officials.

Check LSP's website at landstewardshipproject.org for details on the Breakfast and Lobby Day as they are developed. To volunteer or for other information, contact LSP's Taya Schulte at tschulte@landstewardshipproject.org.

disabilities, young and beginning farmers, LGBTQ farmers, and others.

When the program was launched, it was clear that demand was significantly higher than the available funding. In 2023, for example, only 66 of 172 applicants were able to be funded. The program has a standing budget of \$1 million and offers up to \$15,000 in funding to each recipient.

During the 2025 legislative session, LSP will be working with groups led by farmers of color and other allies to ask the Legislature to prioritize the program by asking that the initiative's budget be expanded enough that all qualified applicants can receive funding. We will also be asking that lawmakers raise the amount individual prospective farmers can qualify for to at least \$20,000.

Soil Health & Climate Resiliency

This past growing season has, yet again, been one for the record books when it comes to extreme weather. It was another reminder that we need to support farmers in their adoption of practices that build the kind of healthy soil that's more climate resilient and that can protect our water resources. nately, most parts were not made part of the 2024 omnibus bill.

In 2025, LSP will continue to advocate for programs on the state and local level that help farmers adopt practices that build soil health in an economically viable manner.

Want to get involved? See LSP's State Policy web page at landstewardshipproject.org/ state-policy, or contact Laura Schreiber, LSP's government relations director, at lschreiber@landstewardshipproject.org.

Land Stewardship Action

LSP's 501(c)(4) partner organization that provides the movement with political and electoral tools for reforming our farm and food system.

For more information on LSA and to get involved in such initiatives as voter education and deep canvassing, see landstewardshipaction.org or contact political organizer Emily Minge at eminge@landstewardshipaction.org, 612-400-6353.

A Sense of Where You Are

11 Examples of Viewing Farms in Context

By Brian DeVore

n a sunny day in June, hundreds of ewes make their way through a narrow grazing paddock, flowing along the contours of a Driftless Area hill in southeastern Minnesota like a woolly river. Later in the growing season, a west-central Minnesota farmer shows off a flatas-a-pancake field that had formerly grown hybrid poplars - it's now being converted to another form of perennials that can be grazed by beef cattle. As trains rumble by just a few yards away, a vegetable farmer in the middle of Minneapolis grapples with the challenges of building soil health in the city. In western Wisconsin, a produce and chicken operation bases part of its marketing strategy on the idea that rural people deserve to eat healthy food as well. In central Minnesota, a dairy farming family realizes that building biology isn't just good for the land and crops - it also improves quality of life. Seventy miles to the south, an organic farmer checks a massive whiteboard "spreadsheet" set up in his machine shed to schedule daily tasks at a time when climate change leaves little room for error. In southwestern Minnesota, a family converts row cropped fields to annual and perennial forages as their neighbors haul corn past their fields to the local ethanol plant.

Doing things in "context" is a big part of the regenerative farming discussion these days. In fact, the original "five principles of soil health" - armor the soil, minimize soil disturbance, increase plant diversity, keep living roots in the soil, and integrate livestock — now have a sixth companion: keep things in context. It's not enough to adopt a practice that, for example, produces a marketable product, reduces labor, or builds good aggregate soil structure. One also needs to figure out where that practice fits in as far as the bigger, interconnected picture is concerned. Raising corn when prices are high makes sense when considering it as an isolated enterprise. But what's

the cost from a labor, input, and equipment point of view? And what happens when the market nosedives? Integrating cover crops into a corn-soybean operation is always a good idea if reducing erosion and building soil biology are the goals, but how sustainable is the practice if it doesn't generate enough economic value to keep it going in the long term?

During the 2024 field day season, consid-



An LSP grazing school in June highlighted the importance of taking a big picture view of livestock farming. (*Drone photo by Nikki Meyer*)

ering things in context was a major theme of discussion in pastures and crop fields, as well as in vegetable plots and high tunnels. On the following pages are 11 examples of farmers connecting the dots and putting them into perspective every chance they get.

1) Red Dresses & Magic Management

One of the ways Rachelle and Jordan Meyer keep things in context is to avoid being distracted by what they call "the woman in the red dress." Is a new enterprise a good fit for the farm, or is its flashiness overshadowing the downsides of adding it to the mix? The Meyers are in their early 30s and have six children. That means any business decisions they make on the farm must be balanced against the needs of the family, first and foremost. That became particularly clear in the spring of 2024, when they experienced the heartbreaking tragedy of having their 2-year-old daughter, April, taken from them in a farm accident.

They keep their balance utilizing the "three-legged stool" strategy: the farm family perches on top of this metaphorical stool, and each leg represents a key ingredient to overall success: profitability, soil health, and quality of life. Such a strategy helped the family not only determine recently that adding an enterprise like sheep worked for them, the land, and their family, but also led them to decide that the cow-calf and turkey businesses they formerly had were not a good fit. Besides raising the ewes and running a conventional dairy, they have pasturebased enterprises that involve rotationally grazing goats, beef cattle, hogs, and poultry. They direct-market meat to consumers, as well as lease out their goats to people hoping to rehabilitate worn-out land that's been taken over by invasive plants.

In late June, the couple explained how they utilize this management strategy while hosting a Land Stewardship Project grazing school on the hilly acres they farm in southeastern Minnesota's Houston County. Over a two-day period, farmers and other experts led discussions on everything from setting up fencing and watering systems on a budget to monitoring soil health, assessing pasture quality, utilizing government conservation programs, and crunching the numbers on farm profitability.

To the mix of aspiring, new, and established graziers present, the Meyers recommended "learning your farm first" before putting in more permanent infrastructure such as perimeter fencing. Fortunately, innovations such

as light-weight, portable electric fencing make it possible to try out grazing techniques in different areas before settling on a more permanent system.

"Our biggest thing is to be adaptive," said Rachelle.

On the second day of the school, the couple led participants to a 15-acre field on rented ground that, before they started farming it, had suffered the environmental and agronomic consequences of years of row-cropping and heavy tillage. The recent addition of the ewes has helped the Meyers add economic value to the perennials and annuals that are now building soil and crowding out the weeds.

"This whole field as far as you can see was giant ragweed," Jordan said, pointing beyond their flock of hair sheep at a diverse

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stand of forages growing along the contour of the hill. With the assistance of Skipper, a massive, white Maremma guard dog, he and Rachelle then moved the flock to a new paddock. Rotational grazing is often associated with squared off, grid-like paddocks, but on this Driftless Area topography, the Meyers often utilize portable fencing to create long, narrow foraging channels. These linear paddocks hug the contours of the rugged landscape and force animals like sheep into smaller areas for a shorter period of time, creating a "mob" effect. Again, it's all about context — the sheep have a lighter impact

on the soil compared to cattle, meaning they needed to be crowded more to get the same effect of trampling manure and biomass into the soil while knocking back weeds; it's the epitome of an adaptive, rather than a cookie-cutter, rote approach to raising livestock.

There's adapting to the landscape, and then there's adapting to the state of the soil and the limiting factor of climate, as well as one's access to that most valuable of resources: time. For example, one of the other grazing school instructors was George Heller, who's launched a livestock operation on sandy, drought-prone soil in northern Minnesota's Wadena County. Before Heller started farming it, the land was impoverished by years of continuous hay production. He's also dealing with a 120-day growing season; in contrast, the growing season in southeastern Minnesota can be 150 days or more. As Heller put it during a discussion about soil biology in one of the Meyers' pastures, "I'm always planning for winter."

"That's his context," quipped Jordan Meyer at one point. The point being that if Heller attempted to stock his paddocks at the same rate the Meyers do on their comparatively rich soil, it would be an economic and ecological disaster.

But over the past five years, Heller has built up an adaptive rotational grazing operation on 290 owned and rented acres that supports his cattle and sheep, as well regenerates the depleted soil. He is building this enterprise literally from the ground-up — beyond fencing and watering systems, as well as a four-wheeler, his infrastructure is minimal, and he estimates that not counting the land costs, he has just a few thousand dollars invested in the whole operation.

Heller's day job is running a concrete business, so he has limited time to spend managing the farm. One way he buys a few precious hours is to run cattle and sheep together in the same paddocks as a "flerd."

In the end, the grazing school wasn't just about stocking rates, or what kind of grass to plant on former corn ground, or which fencing reel works best (even though plenty of talk focused on such nuts and bolts topics) — it was about how to make the kinds of observations and calculations that put daily decisions in context.

As a grazing specialist for the USDA's Natural Resources Conservation Service (NRCS), Jeff Duchene has set up rotational grazing plans for farmers in at least 50 of Minnesota's 87 counties. Not surprisingly, farmers frequently ask him for advice on what type of forage to plant. What is the ultimate species that will withstand drought,



"Our biggest thing is to be adaptive," said pasture-based livestock producer Rachelle Meyer. (LSP Photo)

flooding, and disease, while producing a nutritious feed for decades?

"Not to disappoint anyone, but that grass doesn't exist," said Duchene while leading a plant identification session in one of the Meyers' hilltop pastures. "There is no magic grass — the magic is in the management."

Clifford Johnson, a central Minnesota crop and livestock farmer, explained to the participants that regenerative management often involves compromises — sometimes one may have to turn to tillage or chemical applications, which can set soil health back temporarily. It's all about keeping the big picture in perspective and not allowing a few backward steps stop a farm's overall trajectory forward. It also helps to have a sense of humor.

"I call myself the HRH — Honest Regenerative Hypocrite," Johnson joked. ◆

2) In the Blood

History is a critical piece of context. All too often, farming practices are carried out without taking into consideration past practices and their subsequent impact. Regenerative farmers often say they are "listening to the land" when making management decisions. Chemicals, iron, and oil can muffle what the land's saying, but only temporarily. And the results of such a disconnect can be disastrous: both in terms of keeping the operation financially and ecologically sustainable, as well as when it comes to maintaining a farming future generations want to be involved in.

During an Iowa Organic Association field day in late August, brothers Parker and Sam Beard made it clear that they are quite aware of the historical context of their family's farm, which is tucked away amongst the picturesque hills near Decorah, in northeastern Iowa. At the beginning of the field day, the brothers took field day participants to a ridge overlooking the farm's milking parlor. While

people watched, Sam and his wife, Jen, moved the dairy herd to a new grazing paddock — the land was covered in a dense stand of grasses and forbs, which were doing well despite a recent spate of droughty weather. But there is some erosive history here. It turns out long before the brother's parents, Dan and Bonnie Beard, bought this farm, it had been plowed and row-cropped.

"At one point it had to be farmed in 17 different pieces because of the gullies," said Parker.

That history was one reason the elder Beards adopted pasture-based dairy production soon after moving onto the land ed in the 1980s. In 2003, they transitioned to certified organic. In 2017, the Beards entered the grass-milk market, which means they receive another price boost on top of their organic premium for feeding their cows a 100% forage-based diet.

These days, Canoe Creek Dairy is being managed by a new generation of graziers — Parker, 30, and Sam, 32, have transitioned into the operation. Parker, along with his wife Esther, focus on the dairy end of the operation, while Sam and Jen produce beef.

Spend any time with the Beards and it's clear that the family has not only made farming a viable option for the next generation — all four of the Beard children are involved in farming — from an economic and agronomic point of view, but from a quality of life standpoint as well.

"It's always something we did as a family," said Sam of producing livestock on grass. "There's the joy of doing it together and getting to share the responsibilities and victories and difficulties."

During the tour of Canoe Creek's hilly pastures, it was evident that the brothers are more committed than ever to their family's legacy of perennial plant-based livestock production. But that doesn't mean they

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Farmer-to-Farmer

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aren't willing to add their own twists to the system. For example, instead of weaning calves soon after they are born, the Beards now utilize a smaller herd of nurse cows, also called nanny cows, to feed the young stock. This not only saves the labor of hauling milk buckets to calves while keeping them healthy, it also provides a way to make use of parts of the farm that would be difficult to graze the main milking herd on.

And now that the brothers are having children of their own, new generational depth is being sunk into the soil: these days, their young daughters play at "making fence" using beat-up wire spools.

"They say, 'We're going fencing, papa,' " said Parker with a smile. "I think grazing is in our blood, and this farm's blood too." •

3) Seeking Signs of Life

Jerry and Nancy Ackermann's context is this: for around four decades, they have been raising corn and soybeans in southwestern Minnesota's Jackson County, a region dominated by the kind of flat, fertile fields that regularly churn out impressive yields of row crops utilizing conventional production methods. So the Ackermanns would be forgiven for pretty much raising crops the way folks always have in their neighborhood. Such production methods rely on tillage, exposed soil, and killing off weed and insect pests with chemicals.

But the Ackermanns also bring the context of being long-term stewards to the table. "I was always taught you try to leave the ground in better shape than when you took it over," said Jerry during a late-August field day the couple hosted.

So they've long implemented no-till practices to protect the soil from eroding. And it became clear a few years ago that just armoring the soil wasn't enough, that biology also needed to be built up utilizing the living roots cover crops can provide. As a result of these soil health practices, they're seeing better water infiltration and increased organic matter levels. The farmers have also been able to maintain high yields, despite the fact that they've reduced nitrogen fertilizer applications over the years.

During the field day, which was sponsored by the Soil Health Coalition, Practical Farmers of Iowa, and Pheasants Forever, Jerry emphasized how less tillage and more resilient, self-reliant soil has allowed them to cut their spending on fertilizer, fuel, tile drainage, and tillage equipment.

"I look at cover crops as an investment and not an expense," Jerry said. "I'm using the money I'm saving on fuel and labor to pay for the cover cropping, and I feel I'm still 40 or 50 bucks ahead."

Particularly striking is how, since they've adopted no-till and cover cropping, the Ackermanns have experienced fewer problems with pest insects. Jerry comes across as a no-nonsense row crop farmer, one

who crunches the numbers and notices cause and effect. But he made it clear that when it comes to the complex, often mysterious, interactions that result from building biological life on his farm, he's willing to step back and just enjoy the results. In fact, his agronomist is a bit mystified at how little spraying for insect pests needs to be done on the Ackermann farm.

"Whether it's beneficial insects that's controlling the bad bugs or whether it's your soil practices, I don't know," Jerry recalled the agronomist once telling him. "But something is working."

Sometimes the answer is as simple as this: life generates more life. During the field day, Stephanie McLain, a soil health specialist for the Minnesota office of the NRCS, showed the results of some insect trapping she had done on the Ackermann land that week. What was particularly exciting for her was that beneficial insects that feed on the "bad bugs" were found not just

in a patch of wetland habitat the farmers have restored, but in the cropped fields as well — the ecological boundaries between the domesticated and wild parts of the farm were porous.

"In agriculture, we often focus on killing things," said McLain later. "These farmers who get into soil health realize it's not about death, it's about life, and it's about building this ecosystem." \blacklozenge

4) Forest for the Trees

Grazing livestock have been described as "combines that poop." That's



Sam and Jen Beard moving cows on their northeastern Iowa farm. "It's always something we did as a family," says Sam of grass-based livestock production. (*LSP Photo*)

an accurate, if somewhat graphic, depiction of how moving cattle and other animals through well-managed paddocks can rebuild soil that's been decimated by tillage, chemical use, and compaction.

Langdon Collom farms in a part of westcentral Minnesota that sorely is in need of such rejuvenation. On parts of the land he farms, the soil starts to thin out to the point where it's not unheard of to hit gravel when digging down just a bit past the surface. On a hot evening in mid-September, under a sky made smoky by distant Canadian wild fires, the farmer explained how he's used beef cattle to bring the soil back to life. His family was hosting a field day sponsored by "Match Made In Heaven: Livestock Plus Crops," an initiative that's helping show ways crops and livestock can be integrated in a profitable and sustainable manner. Match Made In Heaven is a six-state collaboration involving 50-plus groups, including LSP.

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Jerry Ackermann's agronomist is a bit mystified at how little spraying is needed on his farm. "Something is working," the agronomist told the farmer. (*LSP Photo*)

...Context, from page 14

And Collom wasted little time showing that when done under the auspices of managed rotational grazing, the marriage of animals and land can be a happy one. He walked field day participants out to a spot that had grown corn and soybeans for years. Six years ago, he seeded it down to perennial forages and started rotationally grazing it. That worked well, but three years ago, thanks to advice he received from Sustainable Farming Association grazing specialists Kent Solberg and Jonathan Kilpatrick, he "upped his game," as he put it, by increasing the number of paddocks, varying their sizes, and manipulating stocking densities.

On this September evening, the results were evident: there was a verdant mix of perennials that had been grazed 40 days before and were ready for another pass by Collom's Black Angus cow-calf beef herd. This was a field that had weathered three years of drought and then, in a reversal of fortune, early 2024 rains so pervasive that at one point part of his herd was stranded on the opposite side of a swollen waterway.

"The pasture just rejuvenates itself," Collom said in half amazement as Kilpatrick dug up a fragrant spadeful of soil.

It's one thing to bring a field growing annual row crops back to life using walking biology, but quite another to take on a parcel of land that resembles a dendrological obstacle course. At one point, Collom led the group across the road to a 40-acre field that represented a failed experiment in perennialization. Three decades ago, a company came in and bought up thousands of acres of land in the neighborhood and planted fastgrowing hybrid poplars for the pulp paper market. The business went bust, and Collom bought this particular field with the trees still growing on it.

The poplars had sucked massive amounts of fertility out of the ground and when they were cut, stumps and logs made it difficult to even navigate a four-wheeler though the field. The farmer bought a type of heavy disc used by road construction crews and "beatup" on the woody leftovers. He then planted a 15-way mix of cover crops and began grazing it. Besides getting low-cost forage off the field, Collom is finding that the biological activity he's triggered is helping break down the plantation's remnants.

On this particular evening, a few bare spots were evident, but the former poplar grove was beginning to resemble a thriving stand of forages. "After only three years,



Langdon Collom (*right*) and Jonathan Kilpatrick examine a field that has been converted from row crops to perennial forages. "The only thing we're taking off the soil is a pound of beef, versus a bunch of hay or corn, and all the organic matter with it," said Collom. (*LSP Photo*)

it's become a field I could conceivably raise corn on," said Collom.

But he isn't breaking out the corn planter anytime soon. His experience with adaptive grazing on other parts of the farm has, by the farmer's estimation, virtually doubled his carrying capacity. That's resulted in a healthier biological cycle and more money in the bank.

"Actually, when we do taxes now it's not quite as easy to show losses as it used to be, so we're coming on to a new problem there," Collom chuckled. "But we'll be able to handle that one." \blacklozenge

5) The Quickening

When your context is farming in the city, everything is a little faster, denser, and louder.

"We grow everything very intensively," said Elyssa Eull on a warm evening in early September while she stood near the entrance to California Street Farm, an urban vegetable operation that grows food on a third-of-an-acre. As she said this, a BNSF train engine rolled by a few yards away.

Aspiring and newbie farmers had gathered here on this particular day to see how this Northeast Minneapolis operation was able to make a go of it on land tucked between a set of railroad tracks and an open lot, just across the street from a collection of artist spaces called the California Building. The event was being put on by the Twin Cities Metro Growers Network, which is an initiative of the Sustainable Farming Association.

During the field day, staffers with the University of Minnesota's Extension

Service, as well as the local office of the NRCS and the USDA's Farm Service Agency, were on-hand to share information on resources available to farmers raising food in urban areas. As she provided a tour of the well-tended vegetable plots and two hoop houses she uses to raise over 50 varieties of vegetables, Eull fielded questions about soil health, fertility issues, government cost-share funding that's available, and the economics of producing food in the city. It was clear the field day participants were here to learn how to make a go of it in agriculture, even if the setting was concrete and curbs, rather than fields and fencelines.

During the 2024 growing season, the farm had 37 Community Supported Agri-

Context, see page 16...



"Because it's such a small area, the challenges I'm experiencing with soil health are quickened," said Elyssa Eull, shown leading a field day on her vegetable operation in Northeast Minneapolis. (LSP Photo)

Farmer-to-Farmer

...Context, from page 15

culture (CSA) shares and marketed produce through a farmstand set up next to the plots, as well as via the Northeast Minneapolis Farmers' Market. Eull, who's 30, makes enough during the growing season to pay two part-time employees and to support herself. But she didn't sugarcoat it: urban agriculture comes with plenty of potholes, particularly when it comes to soil health.

"Because it's such a small area, the challenges I'm experiencing with soil health are quickened," she said. "It's like in one year I have three years of accumulation of disease, or stress, or using up those nutrients."

The farmer has responded by focusing on



"It's for the benefit of not just farmers, but the community," said Wisconsin farmer Rodrigo Cala of a program that gets locally produced food into area food shelves. (LSP Photo)

utilizing cover crops and low-till methods to build the soil's resiliency. Eull also removes the plastic from the hoop houses periodically so that natural precipitation can dilute salts that tend to accumulate in the soil.

Eull, who is a graduate of LSP's Farm Beginnings course (*see page 26*), feels she has the confidence to tackle such problems because raising food in the city on a commercial basis is starting to be taken more seriously. She's benefited greatly from U of M Extension research and NRCS conservation cost-share programs that have in the past been mostly directed at bigger row crop farmers in rural areas. For example, one of her hoop houses was funded by the Environmental Quality Incentives Program (EQIP), an initiative of the NRCS.

"I think there's a real awareness of urban farming being real farming," said Eull as she headed over to California Street's farmstand on a nearby street corner, brimming with late-summer bounty. ◆

6) Food Bank Booster

Here's some troubling context in the land of plenty: in 2023, 18 million U.S. households were food insecure at some time during the year, according to the USDA. That figure is up from 17 million in 2022. Food insecurity is defined as a situation where people can't access the sustenance they need to live their fullest lives. In short, these are people who simply aren't getting enough to eat. It's a problem that's more common in rural communities; such areas comprise less than two-thirds of all U.S. counties, but nine out of 10 counties with the highest food insecurity rates are rural, says Feeding America.

Meanwhile, there are plenty of farmers who are willing and able to produce food

for local eaters in their communities, but who are stymied by a marketing and distribution system that's structured around commodities like corn and soybeans. This troubling gap between farmers and eaters was the focus of attention during an August field day on Rodrigo Cala's farm in western Wisconsin's Barron County.

"In rural communities it's difficult to get really healthy food," said Cala. "We need to find a way to help lowincome families get access to organic food, natural food."

That's why Cala, who raises produce, chickens,

hogs, and sheep, is participating in a program that's trying to reduce some of that food insecurity in rural areas while supporting farmers who churn out produce, meats, and value-added products. The Wisconsin Local Food Purchase Assistance Program pays farmers a fair price for their production, and then distributes that food to local food pantries and food banks. Called LFPA for short, versions of the initiative exist in other parts of the country, and are often structured around a partnership between state departments of agriculture and farm and food nonprofits. The USDA administers the program, which is funded by the federal American Rescue Plan.

In Wisconsin, the program has been up and running for two years and is led by the Department of Agriculture, Trade, and Consumer Protection, in collaboration with Marbleseed, the Wisconsin Food Hub Cooperative, and the Wisconsin Farmers Union. In 2024 alone, 125 farmers from throughout the state sold \$1.8 million worth of food through the program.

Cala sells produce and pork through the LFPA, and said it now accounts for about 20% of his farm's income. Since the program picks up the food at the farm, it helps alleviate two major headaches for farmers: marketing and transportation.

One of the farmers attending the field day was Mike Lenz, who, along with his wife, Jody, operates Threshing Table Farm in Star Prairie, Wis. Like Cala, the Lenzes have been selling produce through the LFPA program the past two years.

Lenz said being involved with the program has allowed them to employ at least four more seasonal employees, which means more money is circulated in the community.

"The money stays local to our area and the produce stays local to our area," he said. "It gives me a lot of hope, actually." ◆

7) First Things First

So, here's a chicken or egg situation to ponder: when launching a farming operation, when should you approach the local NRCS office about applying for funding to set up infrastructure such as a high tunnel or a rotational grazing system? It might be tempting to apply for an EQIP grant right from the get-go, so when you buy that first herd of cattle, they're ready to be plopped into the paddocks, where they'll immediately start turning grass into protein.

Not so fast, say Klaus Zimmermann-Mayo and Emily Hanson. They operate Whetstone Farm, a vegetable and grassbased livestock enterprise in western Wisconsin's Polk County. Their advice is to first figure out what kind of farming you like to do and what kind of system fits best with the land, resources, and labor available. In other words, determine what kind of context you'd like to set that infrastructure up in.

"We tried to do a lot of things when we first started and had a lot of ideas about what we wanted to do and what farming would look like," Zimmermann-Mayo said recently while standing next to Whetstone's oldfashioned barn. "Some things we got more passionate about and got better at and are still doing, and a lot of things we dropped."

For example, through trial-and-error the couple figured out that raising pigs and chickens didn't quite work out for Whetstone; a cow-calf beef herd and a flock of ewes were a better fit. Today, besides livestock, they raise vegetables and market the food via CSA, a farmers' market, and direct-to-eater sales. They launched the farm

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...Context, from page 16

on 40 acres a decade ago, and recently added another 135 acres. Over the years, the operation has brought together multiple partners and enterprises. It is now run as a collaborative farm consisting of eight adults in total.

Whetstone has benefited from multiple NRCS programs — they used EQIP funds to put in a high tunnel and a rotational grazing system, and receive payments for grazing their livestock in a way that builds carbon, prevents erosion, and keeps water clean.

Hanson and Zimmermann-Mayo shared their experiences with utilizing government conservation programs during an August field day sponsored by GO FARM CONNECT, a farmer-led initiative to build relationships between non-traditional farmers and agricultural support agencies such as the NRCS and Farm Service Agency. Other sponsors of the field day included Renewing the Countryside and the USDA.

The couple led field day participants on a tour of their rotational grazing system as well as their vegetable plots and the high tunnel. The farmers made it clear that this infrastructure didn't get established right away. Whetstone, for example, didn't get cost-share funding to put in a high tunnel until Hanson and Zimmermann-Mayo had been on this land for four years.

Brandon Wiarda agrees with this trialand-error, wait-and-see, approach. He's a NRCS resource conservationist for Wisconsin's Pierce, Saint Croix, Polk, Burnett, and Washburn counties. During the field day, he reminded participants that the NRCS's priority is to fund on-farm projects that help address conservation issues, such as water quality and soil health. That's why it's important for applicants to look around their farm and figure out what kind of NRCSfunded infrastructure can help them be more viable economically, agronomically, and environmentally. In a sense, applying for NRCS funds successfully is a bit of a dance that involves matching the agency's goals with what the farmers want to accomplish. He acknowledged that a lot of beginning farmers get frustrated that the NRCS can't help fund projects as soon as an operation is getting launched.

"We're not just helping farmers build up infrastructure from scratch," said Wiarda.

"We need to be solving some existing environmental problem as justification to use taxpayer dollars."

In the case of Whetstone, the high tunnel has provided a way to raise vulnerable vegetables in a new climate reality.

"We simply couldn't raise certain crops without the high tunnel," said Hanson while giving a tour of the structure, which was fragrant with a crop of August tomatoes.

Once a farmer has bootstrapped it a few years and feels ready to commit to a certain kind of production infrastructure, approaching an agency like the NRCS can be worth the paperwork — yes, there's plenty of paperwork

— involved with applying for funding. As Wiarda pointed out, the federal Inflation Reduction Act almost doubled his agency's budget, and more money is now being earmarked for small and beginning farmers, as well as producers who were historically underserved.

"This is how we want to farm and these programs have made it more doable," said

Zimmermann-Mayo. "The myth of the individual going out and doing it on your own is BS." •

8) The Big Picture

When someone calls Matthew Fitzgerald for advice about getting into organic crop production, the central Minnesota farmer's first response is a question of his own: "Do you own a fishing boat?" If they say yes, Fitzgerald then recommends they sell it, because, as he puts it, "You're going to have to work all summer" to raise organic crops.

On an overcast day in late August, the 33-year-old farmer provided a visual representation to back up his argument that organic crop producers would be better off investing in ice fishing gear.

"This is what being an organic farm looks like," Fitzgerald quipped as he spun around a large dry-erase whiteboard set up in his farm's cavernous machine shed. This "big

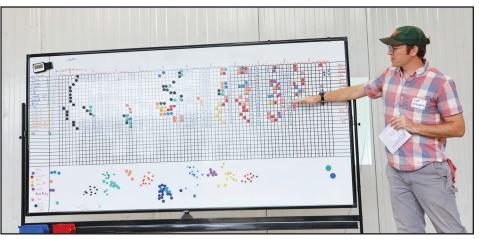


As a result of climate change, "We simply couldn't raise certain crops without the high tunnel," said Emily Hanson, shown here with Klaus Zimmermann-Mayo. (LSP Photo)

reveal," as he called it, was meant to show a group of farmers — along with lenders and folks involved with the marketing-end of organic farming — gathered for a field day that although organic agriculture comes with benefits such as a lower impact on the environment and premium prices, it also involves some very, very busy days during the growing season, days made even more hectic by the fact that climate change narrows the window of opportunity available for getting critical field work done.

The field day, which was sponsored by the Organic Agronomy Training Service, Grain Millers, the U of M's Forever Green Initiative, and the Minnesota Office for Soil Health, was focused on providing a comprehensive view of the opportunities and challenges associated with organic crop production. Fitzgerald's planning board, which he calls "Farm Flow," was a good place to start.

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"This is what being an organic farm looks like," said Matthew Fitzgerald, referring to the "Farm Flow" planner his operation uses during the growing season. (*LSP Photo*)

Farmer-to-Farmer

...Context, from page 17

The chart uses different colored dots to track daily weed management across the 2,700 acres the McLeod County farm grows certified organic corn, soybeans, wheat, peas, and edible beans on. Each color represents a different weed control method — tine weeding, rotary hoeing, flame weeding, and utilizing an electric zapper. Why the fixation on weed control? Fitzgerald said that they've found that the biggest factor impacting organic yields is how well weed pests are controlled. And whereas a conventional farm might have at its disposal a few "big hammers" in the form of chemicals to control problems, an organic farm has to rely on several smaller practices and tools. Timing is everything: getting rained out on a day when you needed to get in and rotary hoe can have major negative repercussions down the line. And such weather disruptions are more common than ever these days.

"We're really on the front lines of climate change as organic farmers," said Fitzgerald. "We don't have cover-up tools available to deal with those swings in the weather."

Fitzgerald's father, Joe, has been raising organic crops since 1994, and he says the Farm Flow board provides a handy way to, at a glance, track gaps in the weed control schedule and figure out what needs to be done to fill in those blank spots. The Fitzgeralds are so happy with the Farm Flow system that they are in the process of digitizing it and making it available to other farmers.

After a farmer panel on marketing, a mini-tour of the Fitzgeralds' weed control equipment, and a field-side discussion about the balancing act organic crop farmers must strike between controlling weeds with tillage and maintaining soil health, it became



Field day participants examine a cover crop planting the farm is focused on getting demonstration at Meadowbrook Dairy. "It seems like we are working less and getting more done as a family," said Alex Udermann. (LSP Photo)

clear why something like a giant planner is needed to help navigate the growing season. It can also help a farmer justify that feeling of being a bit overwhelmed at times.

"Stepping back after going through a weeding season, it's like, 'Wow, *that's* why I'm so tired,' "Matthew said. ◆

Give it a Listen

Tune in to LSP's Ear to the Ground podcast to hear the voices of the farmers and others featured in this "Farmer-to-Farmer" feature. The episodes are available at landstewardshipproject.org/series/ ear-to-the-ground, or on various podcast platforms.

- ✓ Episode 342: Ignoring the Red Dress (Rachelle Meyer)
- ✓ Episode 343: Healthy Soil Vs. Plastic Worms (Clifford Johnson)
- Episode 344: Flerd is the Word (George Heller)
- ✓ Episode 346: Pasture Pixie Dust (Jeff Duchene)

- ✓ Episode 348: Urban Agrarian (Elyssa Eull)
- ✓ Episode 349: Family, Farming
 & Forages (Parker & Sam Beard)
- Episode 350: Cranking Up Capacity (Langdon Collom & Jonathan Kilpatrick)
- Episode 351: Less Tillage, More Money (Jerry Ackermann)
- Episode 352: Land of the Living (Stephanie McLain)
- ✓ Episode 353: 7 Years Later (Jon Stevens)
- ✓ Episode 354: Great Expectations (Jay Fuhrer)

9) The Snowball Effect

There's nothing like getting diminishing returns on your investment in time, labor, and resources to put things in context.

"I just got sick and tired of spending money on fertilizer, planting in the dry powder, and watching the soil blow away," said Alex Udermann while sitting next to a stack of hay bales on his family's farm in central

> Minnesota's Stearns County. "And we were working until 11 or 12 every night trying to get everything done."

In 2016, Meadowbrook Dairy, after decades of conventional tillage, began cutting soil disturbance and utilizing cover crop mixes to reduce erosion and build organic matter. The farm consists of an 80-cow dairy and 300 beef steers. It also raises corn, soybeans, alfalfa, and small grains on 1,000 acres. Today, the operation is 100% no-till on its corn and soybean acres, multispecies mixes of cover crops are a regular part of the rotation, and manure applied across fields correct.

When Meadowbrook hosted a Practical Farmers of Iowa field day in August, it was clear these changes were paying off. A slaking demonstration and some impromptu sampling showed that the somewhat sandy soil had good aggregate structure, with signs

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- Episode 355: Silver Buckshot (Matthew & Joe Fitzgerald)
- ✓ Episode 356: First Things First (Klaus Zimmermann-Mayo & Brandon Wiarda)
- ✓ Episode 357: Against the Grain (Allen Deutz)
- Episode 358: Low Input-High Returns (Alex Udermann)
- ✓ Episode 359: Trash to Treasure (Julie Reberg)
- ✓ Episode 360: Food Bank Booster (Rodrigo Cala & Mike Lenz)

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of activity on the part of earthworms and other beneficial critters.

Udermann is the fifth generation on this farm, which also consists of his wife, Krissy,

his brother, Jake, and the brothers' parents, John and Mary Lou. As Alex explained during the field day, this transition to regenerative practices has helped the farm dramatically reduce its reliance on chemical inputs. Udermann estimates they've saved roughly \$100 per acre on the cost of putting in a crop, and that accounts for the roughly \$55 an acre they spend on cover cropping. A lot of that savings results from fewer tire trips across the fields.

"We now have just the three steps — cover cropping, applying manure, and planting — instead of the eight or 10 we had before," said the farmer. "It seems like we are working less and getting more done as a family. It's fun farming again."

Getting so many payoffs from building soil health doesn't come without some investments. But in a process that Udermann describes as a "low input transition," the farmers avoided large outlays of money in the beginning. Rather than sinking big bucks into new equipment, for example, Meadowbrook Dairy invested more in taking a different approach to management and the way they viewed their soil. They did this, for instance, by using their existing field equipment to no-till soybeans. And once those notilled beans began to show signs of paying off financially, then the family began putting money into tools such as a no-till planter for corn. At that point, Udermann explains, such purchases are no longer seen as a one-way expense - expenditures graduated to the level of being long-term investments in fortifying a more resilient way of farming.

More investments are in the offing. The last stop on the field day tour was a demonstration of some experimentation Meadowbrook is doing with composting. Julie Reberg, a district conservationist for the NRCS, explained that by breaking down into a biologically rich soil amendment manure and other "waste" materials produced by the farm, the operation can further reduce its reliance on purchased inputs while building the land's long-term resilience. Udermann has been playing around with low-cost composting by making piles consisting of manure, wood chips, straw, and other materials, and flipping them with his skid steer loader. He'd also like to do more with the kind of

compost extracts that are produced via the static Johnson-Su Bioreactor system.

"There's always more," a visibly excited Udermann said after the field day. "Once you get bit by the soil bug, it just becomes a snowball rolling down the mountain." \blacklozenge



Soil health expert Jay Fuhrer examined a field sample on the Jon and Carin Stevens farm seven years after first visiting the operation. "...the bar has been raised when it comes to soil health on this farm," he said. (*LSP Photo*)

10) 7 Years Later

Be careful who you invite onto the farm, especially if it's a return visit. Jon and Carin Stevens learned that lesson in late August when a nationally known soil health expert walked their fields and grubbed up some samples during a field day sponsored by the Minnesota Soil Health Coalition, U of M Extension, and the state department of agriculture, among others.

The Stevenses' farming context is that they are raising corn and soybeans pretty much on the edge of where such row crops can be raised successfully in Minnesota. They have 750 crop and pasture acres in Pine County. To get a sense of how far north that is, there are times when they've had to use tillage to fix damage black bears wreak on their fields. And as Jon puts it, the lowlying landscape of the farm can be pretty unforgiving when it comes to compaction, turning into a layer of "concrete" so hard that water can barely penetrate.

Traditionally, operating in such a harsh environment has prompted Maple Grove Farm to rely on moldboard plowing and other forms of intense tillage to tame the soil. But during the past half-dozen-years, the farmers have made some significant changes to the operation, including utilizing more no-till practices and cover cropping. And Carin has added a cow-calf herd, which they rotationally graze. Overall, the Stevenses have developed a rotation that involves, for example, four years of grazing their beef herd on forages, and then taking advantage of the fertility added by the manure and legumes to grow two years of cash crops like corn and soybeans on the former grazing paddocks.

The farmers have noticed dramatic changes to their fields as a result of this

integration of row crops, livestock, and perennials. Water is infiltrating better, their beef herd is thriving, and their input costs have dropped.

"Those food grade soybeans over there had no purchased phosphorus and potassium applied to them this year," said Jon, pointing to a lush stand of the legume. "It's working."

Still, the couple was nervous about having Jay Fuhrer be the main speaker at their field day. While a staffer with the NRCS, he was instrumental in developing the Burleigh County Soil Health Team in North Dakota. That team, which consisted of farmers like Gabe Brown, as well as government natural resource experts and scientists, played a key role in sparking the current soil health revolution we're seeing in this country and beyond. Today, Fuhrer travels widely as a soil health

consultant and speaker. By coincidence, he had visited Maple Grove Farm seven years ago, just as the operation was beginning to make major changes to the way it managed soil. Back then, Fuhrer could barely get his shovel in the ground to take samples.

So, when he hiked the operation's fields in 2024, there was some trepidation as to what he'd find. This time, the shovel slid in easily, unearthing dark clumps of soil with good aggregate structure.

"What I'm really seeing here is that the bar has been raised when it comes to soil health on this farm," Fuhrer said. "I think they've done a really good job of connecting the cropping system and the grazing system. Maybe seven years from now we can look at it again." ◆

11) Against the Grain

In case Allen and Kathleen Deutz need a reminder of one of the main reasons corn dominates the landscape in their part of southwestern Minnesota, they need to look no further than the massive Archer-Daniels-Midland ethanol plant that rises to the sky just across one of their fields. Here's their context: that plant has been gobbling up corn in the region since the mid-1980s. As a result, fences have been taken down, pastures and hay ground plowed up, and livestock pretty much removed from the land.

"It changed the landscape," said Allen

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...Context, from page 19

one evening recently, gesturing toward the biofuel plant across the Redwood River.

The Deutzes farm some 800 acres in Lyon County. They do raise corn, and yes, much of it goes to that ADM plant. But as farmers from throughout the region haul corn past the Deutz place — Allen jokes that "every farmer in four counties drives by my farm at some point" — they can't help but notice a different look to this particular farm's landscape: there are small grains such as wheat, well-kept fences, and forages and animals out there grazing those forages.

Literally in biofuel's massive shadow, the Deutzes are going against the grain. About half the acres that make up Redwood River Farms produce crops for the organic market. They have a cow-calf beef herd, as well as a flock of hair sheep. Goats and hogs are also part of the mix, and the couple direct-markets meat to area eaters. All those animals are raised on rotationally grazed perennials and summer annuals. They also graze a local Minnesota Department of Natural Resources wildlife area. The Deutzes dairy farmed until they sold the herd in 2016, and re-integrating animals onto the farm hasn't been easy. For one thing, they had to set up miles of fencing, which they were able to do with the help of the NRCS's EQIP program.

At first glance, not taking full advantage of a handy local market for a crop that grows well on this land may not seem to make sense. But the Deutzes have some good, commonsense reasons for not going whole hog into growing corn for biofuels. Allen has a master's degree in economics and teaches ag business at Southwest Minnesota State University in Marshall, so he knows how to crunch the numbers and do financial projections. He sees livestock as a way to diversify the farm's income stream while providing a kind of insurance policy that fortifies the farm against crop failures — something that's become particularly critical in recent years as climate change cooks up extreme weather events on a regular basis.

For example, during a September field day sponsored by the Sustainable Farming Association and the Department of Natural Resources, Allen explained how a drought in 2023 devastated a corn crop he had planted. However, after checking with his insurance agent, he was able to bring cattle onto the fenced field and graze it. That not only produced some economic value from the ruined crop while controlling weeds, but built soil fertility for the next growing season, when he planted organic wheat on the field. That wheat

was his most profitable crop in 2024. The Deutzes knew that the drought-stricken field probably got some second looks from farmers driving to the ethanol plant, but over the long-term, it's turned out to be a success.

"It didn't look good, but I knew that failed corn field made sense economically," Allen said while standing at the edge of the 40-acre plot. "I'm not stuck in a rut of always having to make money from having corn and soybeans in my rotation. The livestock and fencing system gives us options, and with the erratic weather systems we have now, it provides some resilience."

At one point, the Deutzes took the field day participants to a 170-acre parcel north of the farmstead. Allen explained how this



Allen Deutz examines a stand of forages he plans to graze. In the background is an ADM ethanol plant, which buys corn from a wide area around his southwestern Minnesota farm. The farmer sees not devoting his entire land base to growing corn for the plant as a way to stay economically and agronomically nimble. (*LSP Photo*)

"summer pasture," which was made up of wheat, oats, barley, field peas, common vetch, and buckwheat, would be grazed. In 2025, organic corn will be planted in the resulting nutrient-rich soil.

As the sun set, the lights of the ADM plant twinkled at the edge of the field. Biofuel was being distilled above the ground. Biology was being built beneath it. **□**

Numerous groups sponsor on-farm field days in the region. For details, see LSP's events calendar at landstewardshipproject.org/ upcoming-events, or sign-up for the LIVE-WIRE e-letter at landstewardshipproject. org/live-wire-sign-up.

Soil Health

Oats & the 3-Legged Stool of Farm Resilience

By Shea-Lynn Ramthun

In case you haven't noticed, the humble oat is having a bit of a moment. After decades of declines in oat plantings in Minnesota, acreage increased in 2024. Market demand for the small grain is up, a group of farmers are attempting to pull together funding for a major processing plant in southern Minnesota, and research is showing that this crop can serve as a key linchpin in a rotation that builds healthy soil and protects water quality. Finally, myself and other southeastern Minnesota farmers who are organizing around cooperatively marketing the grain were recently featured prominently in the *Star Tribune* newspaper.

As a beginning farmer, Land Stewardship Project soil health organizer, and rural resident who cares about the economic and environmental health of my community, I'm thrilled to see this small grain getting some big attention. It's become clear that if we are successful in making it a key part of our rotation, it could serve as a three-legged stool that supports economic, agronomic, and environmental sustainability. The oat isn't the GOAT, but it does have some pretty cool superpowers. For example, on my farm I recently interseeded oats with clover — oats serve as an excellent protective "nurse crop" for forages while they're getting started. I harvested the oats for the grain and the straw, and started rotationally grazing my beef herd on the forage a month later. This saved me two months of feeding hay, which resulted in a roughly \$1,500 reduction in my feed bill for my herd of nine cattle. That's a major boost for a beginning farmer who is trying to figure out how to integrate livestock back onto the land in a practical, economically

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viable manner. To top it off, because of the high feed value provided by the forage, I had to call the butcher and move up the slaughter date by six weeks. By the way, my customers said that was the best beef they'd ever had.

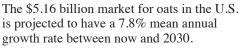
There are other economic benefits to diversifying the rotation with a crop like oats. When paired with a legume like clover, oats create a field environment where nitrogen can be fixed naturally. In fact, studies show that integrating small grains like oats into a

rotation can boost corn and soybean yields by 5%, adding \$30 per acre in farmer income. In addition, when integrated with legumes, oats can result in a \$15 per acre savings as a result of reduced fertilizer costs. That's important at a time when commercial fertilizer prices remain stubbornly high.

And it turns out less of a reliance on purchased nitrogen fertilizer means less nitrate pollution in our groundwater, a key issue here in southeastern Minnesota. Adding a single small grain like oats to a rotation can have a significant positive impact on our air and climate, according to research conducted by the University of Minnesota and Iowa State University. That study found more diverse rotations used 56% less fossil fuels, generated 54% fewer greenhouse gas emissions, and had monetized damages from greenhouse gas emissions and air pollutants that were 42% lower than the conventional corn-soybean system.

The other farmers I work with through LSP's Soil Builders' Network (*see page 22*) have found that oats can play a key role in building soil health profitably. Oats provide cover for the soil and fibrous living roots beneath the surface at a time when row crops like corn and soybeans are just getting their growing season started. The beauty of oats is that, unlike some experimental "third crops" out there, they have a long history on Midwestern farms; oats have been grown on our farm for six generations, for example. Growing this grain does not require a major shift in equipment or handling and storage facilities. And oats can play a complementary role in our existing corn-soybean rotation.

Raising a crop like oats may not produce profitable returns immediately (like corn and soybeans can in good years), but it creates a good investment in the soil and my bank account over several growing seasons. That long-term resiliency is particularly important when volatile price swings plague commodity crops and extreme weather caused by



So what can be done to get more oats growing on more Minnesota farms? For one, farmers like me need to be guaranteed a consistently profitable market if we are expected to make this crop part of our regular rotation. Two out of the top 10 companies with the largest oat market shares are based in Minnesota. Ironically, those companies, General Mills and Grain Millers, source most of their oats from Canada; in fact, the U.S. is the biggest importer of oats in the world. What if our homegrown companies

bought more homegrown product?

The potential for rural Minnesota is huge. Consider this: farmers who are proposing a processing facility in Albert Lea that could handle 30,000 acres of oats annually estimate that each oat-producing acre would use 50 pounds less purchased nitrogen per year. Now what if we expanded this environmental (and economic) opportunity by having additional oat processing facilities located in other parts of Minnesota? One estimate is that three oat processing facilities would support 500 small to mid-sized farms through the addition of a profitable third crop while creating dozens of new jobs.

Are oats some sort of magical silver bullet? No, but they

do represent one commonsense approach to diversifying our landscape while building economic, agronomic, and environmental resiliency. Let's take advantage of oats' moment in the sun while we have the chance.

LSP soil health organizer Shea-Lynn Ramthun is a Farm Beginnings graduate and raises crops and livestock in southeastern Minnesota's Goodhue County.

A forage crop emerges from a harvested oat field on Shea-Lynn Ramthun's farm. (Photo by Shea-Lynn Ramthun)

climate change makes farming more challenging that ever.

There are big picture economic benefits to increasing the presence of oats here in Minnesota as well. With a growing consumer trend toward healthy, sustainable foods, oats present a prime opportunity to build a resilient, locally-driven supply chain for an in-demand product. Oat sales climbed almost 45% during the 2022 growing season, according to one market research analysis.

Jan. 28 LSP Workshop: 'Economic Opportunity in a New Small Grains Market Environment'

On Tuesday, Jan. 28, the Land Stewardship Project is hosting a workshop in Albert, Lea, Minn., for farmers who are seeking practical know-how related to raising and selling small grains. Presenters will include farmer Bob Quinn of Kamut International, along with farmers Roy Pfaltzgraff of Pfz Farms and Landon and Anne Plagge of Green Acres Milling. Learn how farmers are:

- Increasing the value of what they produce and demonstrating the value of those products to human and environmental health.
- Diversifying crop production while maintaining quality and profitability.
- Organizing around cooperatively processing and marketing grains.

To register, see bit.ly/LSPsmallgrains. For details, contact LSP's Shea-Lynn Ramthun at slramthun@landstewardshipproject.org or 651-301-1897.

LSP's Soil Health Farm Leadership Team Sets Priorities

The Land Stewardship Project's Soil Health Steering Committee got together in September to discuss ways of helping farmers in the region successfully adopt cover cropping, managed rotational grazing, no-till, and other regenerative practices. Discussions focused on developing a more viable small grains marketing infrastructure, supporting livestock integration into cropping operations, strengthening the Soil Builders' Network, and making deeper investments in our localized peer learning groups such as soil hubs and grazing groups. See below and the next page for short bios on the Soil Health Steering Committee members.

Over the past five years, LSP's Soil Builders' Network has grown to 4,000 people, encompassing the region that covers southern Minnesota, northeastern Iowa, and southwestern Wisconsin. Based on surveys, it's estimated that the Network has directly supported farmers in implementing regenerative practices such as cover cropping, reduced or no-till, and managed rotational grazing on more than 38,000 acres.



LSP's Soil Health Steering Committee has committed to making deeper investments in peer learning hubs like the grazing group pictured here. (LSP Photo)

For details on joining the Soil Builders' Network,

see landstewardshipproject.org/soil-health/soil-builders-network. Are you interested in guiding LSP's Soil Health Program vision? LSP will be recruiting new members for its Soil Health Steering Committee this spring. Contact LSP's Alex Romano at aromano@landstewardshipproject.org if you are interested or would like more information. Are you interested in joining a farmer-to-farmer soil hub? Contact LSP's Shea-Lynn Ramthun at slramthun@landstewardshipproject.org for details.

Stacie Madson

Ilive by Hartland, Minn., about 15 minutes north of Albert Lea, with my husband, Casey, and our three children. We raise organic corn, soybeans, oats, and peas, along with conventional corn and soybeans. We tine harrow, cultivate, flame cultivate, ridge till, weed zap, and plant cover crops. This year, we planted a few prairie strips. I joined LSP's Soil Health Steering Committee because I am interested in more sustainable practices for farming, and I'm excited to learn more from other's experiences. ◆



Stacie Madson

Josh Nelson

I'm from Wright County, Iowa, in the Inorth-central portion of the state. My wife, Kate, and I run Cardinal Creek Farm, a diversified operation raising corn, soybeans, cereal rye, oats, and other assorted small grains. We also have a commercial hog operation. I'm focused on implementing the soil health principles and improving market access for "alternative" crops here in the land of King Corn. I use cover crops on all my acres, and strip-till or no-till techniques for my various crops. I also use extensive crop and soil testing to figure out ideal rates



Josh Nelson

for fertilizers, focusing on utilizing animal manures when I have access to them. I previously raised registered Highland cattle and sold vegetables through a regional food cooperative. I joined LSP's Soil Health Steering Committee to see if there was some broader regional cooperation that can be done to improve the state of agriculture in our area. ◆

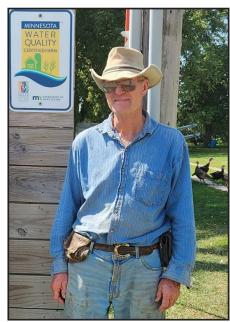
John Snyder

run a diversified farm with my wife, Bernie, and son, Ben, near Preston, Minn. We produce cattle, hogs, goats, turkeys, chickens, and eggs. Our hogs are raised in deep-bedded straw, with no GMOs, antibiotics, or growth hormones. The goats are raised on feed produced on the farm. The cattle, chickens, and turkeys are pastureraised with diets supplemented by grain. For crops, we raise non-GMO corn, soybeans, oats, barley, alfalfa/clover/grass mix, and cover crops. We've also been trying to get peas in the rotation. We use no-till or minimum till on organic acres as well as conventional acres that are transitioning to organic. I joined LSP's Soil Health Steering Committee because we must make farming better

Soil Leadership, see page 23...

....Soil Leadership, from page 22

for future generations — from soil health to financial health to people's health. \blacklozenge



John Snyder

Scott Holthaus

My wife, Amanda, and I own Oak Creek Pastures near Decorah, Iowa. We raise cattle, sheep, and chickens in a grass pasture-based operation. We directmarket some of our production. The reason I am active with the Land Stewardship Project is that I want to spread the hope of healthier, more sustainable farming. ◆



Scott Holthaus



Tony Hackbarth

Tony Hackbarth

took on this role on the Land Steward-ship Project's Soil Health Steering Committee to offer my perspective as a young farmer navigating the challenges of starting a farm from scratch. My journey through agriculture thus far has introduced me to some excellent role models. Many of these influences have helped shape my journey by showing me tons of different ideas and production models. I have also been blessed to have some very financiallyminded people explain the importance of business in my farming journey. This spicemix of styles has created a healthy, hybrid system that allows us to have a good quality of life and financial freedom. The mentors I have did a fantastic job of teaching me that success is self-defined — it is not to be determined by your neighbors. I hope I can help by sharing my experiences. \blacklozenge

Mark Klinski

Tam from Caledonia, Minn., where I raise organic crops. My farm has been certified organic since 2015, and I have grown corn, soybeans, oats, wheat, rye, and peas. I retired in 2021 from my day job as a heavy truck mechanic in La Crosse, Wis. I first got interested in soil health to add "livestock" to my organic ground, and have been trying some biologicals/biochar to improve soil life. I enjoy living in the Driftless Area with its scenic hills, where I spend time in the woods to relax, forage for mushrooms, and hunt for ginseng. I joined LSP's Soil Health Steering Committee to continue working with leaders in soil health. Field days, events on composting and grazing, and working with people that are doing good things and promoting these ideas are all things that get me excited to do this

work. I also try to promote soil health in my neighborhood when and where I can. \blacklozenge



Mark Klinski

Bob Leisen

I farm with my brother on a farm south of Plainview Minn., in southern Wabasha County. We also run a couple of farms in northern Olmsted County. We are currently growing just corn and soybeans, with a few beef cattle on the side. Until a few years ago, we had around 70-plus dairy cows, plus



Bob Leisen

young stock. We plant using a mix of tillage styles, depending on the crop, field, and the history of the field. We have been using different styles of cover crops and no-till for over 10 years now and are still learning. I joined LSP's Soil Health Steering Committee to both learn more about soil health practices and to help promote smaller and large-sized operations. ◆

Soil Health Podcasts

C heck out LSP's *Ear Dirt* podcast series for conversations on cover cropping, no-till, rotational grazing, fungi, and anything else that builds soil health: landstewardshipproject.org/ear-dirt.

Community-Based Food Systems

us move forward on taking this beyond just the mapping phase?

DeMuth: "One of the things we've heard from a lot of producers about as far as where we should be focusing our energy right now is trying to build relationships with institutions through initiatives like Farm to School (*see page 10*). Also, hospitals and food shelves offer a great opportunity.

"Rather than having to find 100 customers in a community, you have one customer, which is the school district. When going for some of these bigger wholesale markets, we have to create some infrastructure and coordination among producers and in terms of aggregation and distribution. And by doing that work, we're also creating a lot of the same infrastructure that would allow producers to sell more directly retail.

"But we need to answer questions like, 'Is there a commercial kitchen? Is there a way to process the food?' Transportation issues and aggregation are other big challenges that people are facing.

"When you look at costs, I think distribution is a big one for folks, and having the volume of sales needed to really make those costs worth it. And so part of the asset mapping was identifying a lot of things like commercial kitchens in our region, as well as refrigeration space. You know, we don't have a lot of open, usable refrigeration space. We do have a lot of commercial kitchens that people could be using.

"A lot of this is about repurposing existing space. The Madison Mercantile in Madison, Minnesota, for example, is taking this old mercantile building, which has a huge square footage of area, and creating multiple incubation spaces in it. They are also looking at converting part of that into cold storage that producers could use, and that could be a potential aggregation and

transportation hub.

"We've been working with the Regional Sustainable Development Partnership to set up a list of 10 to 20 products that local farmers can produce that would be competitive at could be marketed via

Building Community Food Assets Bite-by-Bite

As part of the work to develop a community-based food initiative in the Upper Minnesota River Valley, the Land Stewardship Project and our allies have been doing "asset mapping" in order to determine what resources are already available in terms of direct-marketing farmers, processing facilities, transportation, and retail outlets. It's become clear that in order to create what food system analyst Ken Meter calls a "community food web," connections need to be made between these various assets. For example, we need to figure out how to efficiently haul all that meat or produce from all those local farms to the grocery stores, schools, restaurants, early care facilities, and individual eaters who want that food. That's why LSP has been following up asset mapping sessions with meetings where farmers can connect with other links in the food chain.

One of the people who's been doing this work is Scott DeMuth, a food systems organizer for LSP who lives in Granite Falls, a town of around 2,700 people that sits on the Minnesota River in the western part of the state.

Recently, DeMuth talked to the *Land Stewardship Letter* about what the community asset mapping project revealed, and some of the ripple effects, economic as well as social, that can occur in a community when it focuses on building a food system not based on exporting raw commodities. He also shared how, as a resident of the area, building a thriving food and farm system resonates with him on a personal level. Below is an excerpt of that conversation. To listen to an LSP *Ear to the Ground* podcast interview with DeMuth, see landstewardshipproject.org/podcast/ear-to-the-ground-347-bite-by-bite.

LSL: Scott, tell me a little bit about community food asset mapping.

DeMuth: "When we started this food systems work, a lot of what we had been hearing from folks was that there isn't a local foods movement here. But we kept hearing about things that used to exist, or that might be here; this person might have some equipment, or that person might have a mill.

"Meanwhile, I'm in this very privileged position to be able to hear from people we do listening sessions with about all the exciting things that they individually are doing around local foods, and I'm hearing about all these different opportunities. And so the asset map itself was like the end product. But what really came out of it was bringing people together in these different communities to have some of those conversations.

"So what are the cool things that people are doing in terms of local foods? Where are the farms that they're buying food from? What equipment do they know about? Where are the buildings that are empty and not being utilized in the communities?

"We were using the answers to these questions to literally just create a map. We draw a map on the wall, and people are putting Post-it notes up to kind of identify these assets. Through that, we're trying to create and facilitate connections between people and trying to get some ideas going. "Overall, connecting people, ideas, and infrastructure has been a key component of LSP's early food system meetings."

LSL: It's like two ships passing in the night. There's all these great things going on, but folks aren't communicating.

DeMuth: "You see where the opportunity is. For us, the nice thing about it too is at the food asset mapping sessions we got to hear about some history and about things that

used to be there. And we also had a couple sessions where we had producers and people who were looking to buy local food sitting at the same table, and they were able to con-

nect. It wasn't anything grand in terms of infrastructure, but we were just making those kinds of connections that build community.

"I think the part that is most replicable is that it doesn't really take much in terms of experts to host something like this. What you really need, though, are the people and getting the people to the table."

LSL: What are the next steps, and are there one or two things that you're seeing that make you think okay, if we could get this mechanism in motion, this would really help

"It's these kind of things that attract people to a community and make them want to put down roots."

• • •

price-wise and that could be marketed via Farm to School.

"We also have done food forums where we do producer and buyer matchmaking. We'd like to do more of that and get more institutional or wholesale buyers in our region to attend these forums. We want to identify more farmers that are growing certain products in the region, and then match them up with these buyers."

Bite, see page 25...

...Bite, from page 24

LSL: *Transporting food from the farm to the fork seems to be a huge barrier.*

DeMuth: "Transportation is one thing that is a really big log jam right now. I could see that being something someone's going to need to figure out. Prairie Five Community Action, for example, is a nonprofit that's doing a ton of transportation in our region, just moving people around as part of its work to support rural residents. And they also are doing meal deliveries with refrigerated trucks, so they've got some sense of what transportation in this region looks like. We are hoping to just be able to learn from them a little bit about their experiences and what they've learned about coordinated transportation."

LSL: Creating such an infrastructure must also spawn other benefits for the community as well.

DeMuth: "You know, when I talk about rural economic development, from my perspective you look at things like putting the culture back in agriculture, right? And part of that is about local foods and local food traditions that exist. And then it's also the arts and music piece.

"I mean, Granite Falls is a really good example of a community that has invested a ton in local arts, and what you've seen as a result of that is a pretty vibrant downtown compared to a lot of other communities of similar size.

"This is a population of 2,700 people, and you have a brew pub, you have two different art buildings. We have a local barber shop, and we have a really awesome bakery owned by a local farm family. I don't know if any one of those would be able to succeed as well as they do without each other.

"It's these kind of things that attract people to a community and make them want to put down roots." LSL: I know you live just outside of Granite Falls, and you have deep connections to the community. Is this kind of fun to think about planting the seeds of what a future food system could look like in this area?

DeMuth: "Absolutely. I spend most of my days working with producers and organizing meetings with producers, which is pretty fun. They are great groups of people to be in meetings with, oftentimes with really good food when we do potlucks. It's awesome to see the intersections of community and our food all coming together in one spot. Just the vibrancy that brings into a community is pretty amazing.

"You know, there's definitely long days but I feel privileged to be able to do this work, for sure. I live out here, so I'm hopefully going to be directly benefiting from the fruits and vegetables of my labor. It's definitely in my self-interest to grow this kind of work. But it's also for my kids too. My kids are going to be in the school dis-

trict out here and when they're being served meals it would be amazing to have a significant portion of that coming from producers that I'm working with, versus coming from who knows where and who knows what's in it. That's gotta start somewhere.

"We're talking really big pieces here, but we're also just trying to start with, 'Hey, let's do one vegetable or one dish, and let's just start from there.' Because I think that's really where these systems get built is



Asset maps like this one help farmers, buyers, and other links in the food chain figure out what kind of infrastructure already exists for developing community-based food webs, as well as what holes need to be filled. (*LSP Photo*)

through baby steps. My kid a year ago was taking baby steps, and now he's running faster than I am. So it doesn't take a long time, either."

Scott DeMuth can be contacted at sdemuth@landstewardshipproject.org or 612-767-9487. For more on LSP's Community-Based Food Systems work, see landstewardshipproject.org/community-food.

LSP Awarded USDA Grant to Build Community-Led Food Systems

The Land Stewardship Project has been awarded a \$305,000 Local Food Promotion Program (LFPP) grant by the USDA to support building a resilient and community-led local food system in west-central Minnesota.

The new funding will be used to:

• Increase local farmer income through sales to local wholesale buyers, including schools and food access programs.

• Increase market access for producers by educating wholesale buyers and

connecting them with local producers.

- Increase local food access through local foods sales in schools, food access programs, and food businesses.
- Expand and strengthen private-public partnerships around local foods in west-central Minnesota by adding new partners to the Minnesota Valley Local Foods Network.

The project funded by the LFPP grant focuses on efforts in five counties in west-

central Minnesota: Chippewa, Big Stone, Swift, Lac qui Parle, and Yellow Medicine. In addition to farms and food businesses that grow, process, and sell food, LSP will build off the community foods work happening in the towns of Appleton, Granite Falls, Madison, and Montevideo. The initiative aims not only to meet the immediate needs of the local community, but to develop a model that could be a blueprint for similar rural areas.

For more information, contact Scott De-Muth at sdemuth@landstewardshipproject. org or 612-767-9487. □

FB Course Accepting Applications for 2025-2026

Beginning and prospective farmers are invited to apply to the Land Stewardship Project's Farm Beginnings course, a training program that focuses on the goal setting, marketing, and financial skills needed to establish a successful farm business. The next class will run from November 2025 through March 2026.

The deadline for applications is Sept. 1. The cost of the class is \$1,000 for up to two participants per farm. Early bird applications submitted by Aug. 1 will receive a \$100 discount if you are accepted into the class. Scholarships are available. For more details and to apply, see landstewardshipproject.org/ farm-beginnings-class.

Reach out with any specific questions by contacting Annelie Livingston-Anderson at annelie@ landstewardshipproject.org, 612-400-6350, or Whitney Terrill at wterrill@landstewardshipproject. org, 612-400-6346.

Is Farming for You?

By the way, if you're trying to figure out if farming is the right career path for you, take part in LSP's Farm Dreams Visioning Exercise at landstewardshipproject.org/farm-dreams-workshop.

Farm Beginnings Guiding Principles

The Land Stewardship Project is a member of the Farm Beginnings Collaborative, a coalition of community-based groups that offers the Farm Beginnings course in several states. The Farm Beginnings Collaborative adheres to the following principles for the course:

 \rightarrow Farmer-led: Class participants will hear from regional farmers about their farms and how they've implemented goal setting, marketing, and financial management practices.

→ Community Based: Because LSP is best able to provide resources and connections in this area, applicants from Minnesota, western Wisconsin, and northern Iowa will be given priority for our specific Farm Beginnings course. If you are located elsewhere, check out the Farm Beginnings Collaborative website at farmbeginningscollaborative.org to see if there is an organization near you offering Farm Beginnings.

→ Racial Equity: We acknowledge the historical and ongoing racial inequities and oppression in agriculture towards communities of color. We commit to furthering our own understanding of this issue and support farmers we interact with to do the same. We commit to using the power and influence we have across our organization to build more inclusive and equitable agricultural systems and implement changes that make it possible for more farmers of color to be successful.

 \rightarrow Focused on Sustainable Agriculture: All Farm Beginnings participants are encouraged to create a farm plan that is economically, socially, and ecologically sustainable.

Holistic Decision-Making Workshop in February

The Land Stewardship Project will be holding a workshop in February on values-based decision-making using Holistic Management. Led by farmer and Holistic Management practitioner Cree Bradley, this workshop will explore unique concepts around wealth and expenses. Participants will learn how to create the kind of dynamic plan that puts farmers in control of their financials throughout the year.

The two-day workshop will be held on Saturday, Feb. 15, in Maple Grove, Minn., and Monday, Feb. 17, online. The fee is a sliding scale of \$50 to \$100 per farm; scholarships are available. There's no charge for current LSP Farm Beginnings participants.

To register, see bit.ly/HolisticFinancialPlanning2025. For more information, contact LSP's Annelie Livingston-Anderson at annelie@landstewardshipproject.org.

Agrarian Class Act



Participants in the current Farm Beginnings course gathered for a class photo during their initial November session in Maple Grove, Minn. During the inaugural class, participants shared what they wanted to connect with each other about, and participated in values identification and holistic goal writing exercises. In addition, Farm Beginnings grad Jason Montgomery-Riess gave a presentation about values and decision making. (*Photo by Whitney Terrill*)

Seeking Farmers-Seeking Land Clearinghouse

A re 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 612-767-9885. Below are a few recent listings. For the latest listings, see **landstewardshipproject.org/farmland-clearinghouse**.

Farmland Available

• Kimberly Rockman has for sale 1.15 acres of farmland near *Luverne in southwestern Minnesota*. The land at one time was a sheep pasture, with the south boundary having the original fence. In the early 1980s, it was planted into an orchard; there are six apple trees remaining, each a different variety. There is also a 60 x 30 gothic greenhouse with a double poly covering. There is no housing. The price is \$30,000. Contact: Kimberly Rockman, 507-353-0041, kimberlyelizabeth@live.com.

◆ Pam Hartwell is seeking a farmer to rent 6 acres (1 tillable, 2 pasture, 3 forest) in **Dresbach in southeastern Minnesota** (near La Crosse, Wis., and Winona, Minn.). This farm was all woods 10 years ago; a 2-acre pasture has been reopened. There is fertile soil in a .5 acre spot where there had been pigs and goats and a big garden many years ago. There are outbuildings and equipment that could be shared, in addition to a lot of experience on the land. Hartwell would be willing to cost-share some investments into the land. Contact: Pam Hartwell, 507-458-2294, sustainablepam@gmail.com.

• Peg Furshong is seeking a farmer to buy 13 acres -2 tillable, 7 pastured, 2 forested, and 2 other - in **Renville County** *in western Minnesota*. The land has not been sprayed. There are various outbuildings. There are three fenced-in pastures (one native prairie that has never been tilled grazed only), water (two new outdoor water hydrants), a grove, fruit trees, grapes, and asparagus. There is a fenced-in garden area that is 150 x 75, along with a four-bedroom farmhouse. Contact: Peg Furshong, 320333-6132, hawkcreekprairiefarm@gmail.com.

Seeking Farmland

• Cody Chamberlain is seeking 1-5 pastured acres to rent in *Minnesota*. A barn/ structure for livestock and fencing would be helpful for raising a small number of hogs and lambs. Contact: Cody Chamberlain, 612-442-6429, cody@chamberlaingrain.com.

• Cameran Bailey is seeking an acre of land to rent or buy in *Minnesota*. Bailey is interested in planting and managing perennial plants to support habitat and sell products (herbs, seeds, cuttings, fruit, berries, roots). A small shed would be nice but not necessary. No housing is needed. Contact: Cameran Bailey, 760-712-8859, cameran.b@gmail. com.

◆ Kara Wetel is seeking 8 acres (6 tillable, 1 forest, 1 pasture) in *Minnesota*. Wetel is interested in a barn or shed to house equipment. Water access, electricity, and entrance/ access to land would be preferable; no house is needed. Contact: Kara Wetel, 612-404-4500, kara@kddlaw.net.

◆ Yao Sun is seeking to rent 2 acres of farmland to grow vegetables *near the Twin Cities*; ideally no longer than two hours' drive from the University of Minnesota. No house is needed. Contact: Yao Sun, 507-407-0264, yao.sun.17@gmail.com.

◆ Samuel Varney is seeking 2 acres of certified organic farmland to rent in *Wisconsin*. He is seeking to rent in late 2025 to plant a crop of garlic; the garlic would be harvested in the fall of 2026. A shed of some kind would be nice, but not completely necessary. Varney doesn't need housing. Contact: Samuel Varney, 608-219-5376, samvrny@gmail.com.

◆ Dan Grantier is seeking 30-50 acres (open to larger as well) in *Xcel Energy territory* for a combined use of agrivoltaics and an incubator farm for emerging farmers. No house is needed. Contact: Dan Grantier, 509-304-4658, grantier.dan@gmail.com.

• Derek Ellis is seeking to rent forest and pasture acres in *Minnesota*. He doesn't need a house but would prefer outbuildings, if possible. Contact: Derek Ellis, 612-666-3811, dereklellis62@gmail.com.

Michelle Sopa is seeking to buy 10 acres of land in *Wisconsin*. A combination of forested, pastured, and tillable acres is preferred. She would be interested in a house, fencing, and a water feature. Contact: Michelle Sopa, msopa@shorewest.com.

• Erin Anderson is looking for 1 acre of certified organic farmland in *Minnesota*. Anderson is looking to put a yurt on the land in exchange for work, trade, or rent. Anderson would also be interested in buying land where a yurt could be placed. Contact: Erin Anderson, 952-465-2200, andersonerinelizabeth@gmail.com.

Seeking Farmer

◆ Joe Fischer is seeking a farmer to help him convert 150+ acres from conventional ag to a regenerative, grass-based system near the *east-central Missouri town of Washington*. Fischer is open to various plans that include ruminants, pigs, and/or chickens (layers or meat). No housing is available. Fischer lives on the farm, so there will be flexibility to have most weekends off. Contact: Joe Fischer, fischer.joe@gmail.com.

'Land Access: Are You Ready?' Workshop Feb. 1

New or aspiring farmers are invited to participate in a Land Stewardship Project-Farmland Access Hub "Land Access: Are You Ready?" workshop on Saturday, Feb. 1, in Inver Grove Heights, Minn. This workshop will provide strategies, tools, and participatory activities to get you started on your land access journey. Resource people will be on-hand to provide guidance on such topics as navigators, financing options, and assessing soils. To register and for details, see bit.ly/ready2025 or contact LSP's Karen Stettler at stettler@landstewardshipproject. org, 612-767-9885.

LSP has tools available to help beginning farmers, as well as retiring farmers and non-operating landowners, navigate the transition of land and other agricultural resources to the next generation. For details on publications, workshops, tax credits, and other resources, see landstewardshipproject.org/land-transition-tools, or contact Stettler.

Farm Beginnings

Farm Beginnings Profile Youth Movement

From Tilling an Old Soccer Field to Helping Teens Kick-off Better Communities

By Brian DeVore

hen it comes to youth programs centered around gardening and farming, a common mantra is, "We're teaching kids about where their food comes from." Sounds laudable, but to Marcos Giossi, such a feel-good goal is too limiting when it comes to exposing young people to the realities of the farm and food system that dominates.

"There's not this imaginary happy place where all our food is coming from, you know?" says Giossi on a wintery Friday afternoon while sitting in the East Saint Paul, Minn., offices of an organization called Urban Roots. "The food system is really big and complicated and oftentimes a really unjust thing. It's part of my responsibility working with these young people and engaging them with the food system to recognize the ways that it's so deeply broken."

He's in the right place to do that.

Urban Roots (urban-

rootsmn.org) is a nonprofit enrichment and empowerment program that works with Saint Paul public high school students. It has programs centered around cooking with fresh, healthy food, as well as habitat restoration and market gardening. Giossi, who's worked there for six years, believes ardently in not only helping young people learn about the negative side of our dominant farm and food system, but also helping them see the positive things that can propagate when they get involved in something as basic as raising a garden and selling its production in the local neighborhood.

Striking such a balance requires the ability to, at times, step back and guide the young gardeners through a decision-making process that questions whether a path you are on is effective, or whether it's just being done out of force of habit. Giossi picked up the skills required to do the kind of goal setting that's based on such distinctions while enrolled in the Land Stewardship Project's Farm Beginnings course. Now, as the manager of the Urban Roots market garden program, he feels he's better equipped to show high schoolers not just where their food comes from, but also where it *could* come from.

"I'm still rosy eyed and I think we can win," says the 28-year-old with a laugh. "I think we can build a better world here."



"Some useful, practical skills were combined with prioritizing things like, how is this a meaningful way to spend my time?" says Marcos Giossi of the Farm Beginnings class. (*Photo courtesy of USDA*)

Kicking Dirt

Giossi started his journey toward building a better farm and food world when he was the same age as many of the young people he works with today. As a high school student, he gained experience on an urban farm in South Minneapolis through Urban Ventures, a nonprofit that works to give low-income youth an opportunity to attend college. The roughly quarter-acre vegetable plot on the Midtown Greenway was part of a soccer field, and Giossi has not-so-fond memories of digging up mesh that was left over from when the sod had originally been put down for the playing surface.

"At an early age, I saw the great and beautiful things and all of the terrible things about trying to start an urban farm," he recalls.

On the positive side, Giossi saw firsthand

that a surprising amount of food can be raised on a city lot. On the other hand, besides learning how much we abuse our soil, Giossi was exposed to how city regulations and zoning are not amenable to urban agriculture. Even when vegetable production is allowed on a plot in the city, it's often seen by officials as a temporary placeholder until some sort of "best use" can be put in place like a parking lot or a soccer field. That was Giossi's first brush with how institutional decision-making can have a big impact on a community's access to fresh, healthy foods.

After studying biology and botany in college, he spent a year in Bolivia working in agriculture and habitat restoration. It was through that experience that Giossi saw how farming and the natural environment could be blended in a way that both food production and the land benefits. That philosophy dovetails with the mission of Urban Roots.

"We're exploring that ethic of, 'What does it look like to be good stewards of the

world around us and of our communities?' "he says.

The nonprofit has vegetable plots and an orchard in the flyover area of the Saint Paul Downtown Airport, as well as gardens in various spots around the eastern side of the city. The program works with a cohort of around 80 high school students during the summer and around half that number the rest of the year. The youth come from a variety of backgrounds — some face issues of food insecurity and live in neighborhoods that lack access to consistent sources of fresh, healthy food.

hings arcos After working at Urban Roots for a few years, Giossi felt, despite his extensive background in production agriculture, that he needed to learn skills that relate to agricultural financial management and goal setting.

So, in 2022 he enrolled in the Farm Beginnings course (*see page 26*). Through the class, LSP introduces students to holistic business planning, a system that provides a big-picture view of farm management by putting the land, finances, community, and the farmer's quality of life on the same level of importance. Giossi says he particularly appreciated the goal setting and planning skills he learned in the course.

"I loved the focus of the Farm Beginnings class on centering the decisions you make and the structures that you build on a farm around what your values and your core goals are, and expanding that to the whole human behind those goals and values," he says. "Some useful, practical skills were

Youth, see page 29...

...Youth, from page 28

combined with prioritizing things like, how is this a meaningful way to spend my time?"

In fact, such skills in prioritizing came in handy after Giossi finished the course and Urban Roots was facing a decision as to whether to continue its Community Supported Agriculture (CSA) program, which allowed eaters to buy shares in the produce operation ahead of the growing season. Urban Roots had been doing the CSA for several years, and it had become the driver of how the farm was operated — from what was grown to how food was marketed and delivered.

But Giossi says his Farm Beginnings training gave him the skills to reassess the difference between doing something out of daily habit, and management practices that help reach overall goals. One thing he's aware of is that as a nonprofit working with young people, Urban Roots' goals might differ from a market gardener who is focused on trying to make a living from their production.

"When we sort of stepped back and thought about, okay, what are our main goals with this urban farm, it was trying to get food back into the community, trying to take good care of the land, and trying to take good care of ourselves and empower youth in the process," recalls Giossi.

It turned out having two marketing deadlines — one for the CSA delivery in the middle of the week and another for a farmers' market and neighborhood farmstands at the end of the week — was stressful and cut into time that could have been spent on programming and educational activities for the high schoolers. Plus, the young people enjoyed selling produce face-to-face.

"They get really excited about showing off things that they grew and sharing what they've learned about preparing those foods," says Giossi. "There's nothing like connecting with other people over food."

So, Urban Roots dropped the CSA and now focuses on marketing through farmers' markets, as well as via neighborhood farm-

• • •

"I think we can build a better world here."

– Marcos Giossi

stands and food distribution sites in East Saint Paul. Surprisingly, the farm's former CSA members were supportive of the shift. They wanted to support the farm, and were willing to do that by seeking out its produce via farmers' markets and market stands.

Building Life Skills

Part of the community building Urban Roots is involved in centers around helping youth see how institutions — from city councils to legislatures — impact their lives. Just as the food system's realities aren't always positive, decisions made at various levels of society can also have negative impacts. As the old saying goes, if you don't have a seat at the table, you're likely to be what's for supper.

For example, at one point young people involved with Urban Roots realized they knew little about the governance of an institution that's integral to their lives: school. Who makes up the school board? How are decisions made? How do people impacted by those decisions get heard?

When the Saint Paul School Board was up for election recently, some of the Urban Roots students organized an informational session with the candidates and invited their peers to take part. It was a good chance for the students to see not only how decisionmaking is done on the institutional level, but how they can have an influence — whether

> it be in the garden or the conference room — in ways that create a positive future.

> Giossi and other staff at Urban Roots are under no illusions that every teen who works in the

market garden will go on to be a farmer. But good decision-making and goal setting skills are needed beyond the vegetable plot and greenhouse.

"Because no matter what you do," says the young farmer, "you're going to be on this Earth and you're going to be part of a community."

Give it a Listen

On LSP's Ear to the Ground podcast episode 334, Marcos Giossi talks about using a valuesbased decision-making model to build future farmers — and future citizens: landstewardshipproject. org/podcast/ear-to-the-ground-334-youth-movement.

LSP Winter Farm Transition Course

re you a farmland owner or retiring farmer looking to transition ownership or rent your farmland in ways that reflect your values?

The Land Stewardship Project is hosting an online holistic Farm Transition Planning Course designed to help you act on your conservation and social values. Seven sessions will bring professionals, farmers, and LSP staff together to dig into values and goals, as well as communication, generational, financial, legal, and long-term care considerations.

The sessions build on each other and it is important to plan on attending all of them. The sessions will include participatory activities and there will be work participants are encouraged to complete outside of the online course time. The topics, dates, and times for the online course are:

- ◆ Jan 28: Goal Setting for Life & Land
- Feb. 4: Values and Why Farm Transition Planning is Needed
- Feb. 11: Financial Considerations
- Feb. 18: Legal Considerations
- Feb. 25: Working with Next Generation Farmers
- March 4: Long-Term Care Considerations
- March 18: Resources and Planning, Next Steps and Presentations

To register, see bit.ly/FarmTransitions2025. More information is available by contacing LSP's Karen Stettler at stettler@ landstewardshipproject.org.

"As a landowner, you have the power to determine the legacy of your land — that decision is the most important decision you can make."

> retired southeastern Minnesota farmer Bill McMillin



Farms, Food, Fun & Friends

2024 LSP Gatherings Connect People with the Land & Each Other

and Stewardship Project members and allies had a trio of opportunities to get together and share food and fun activities on area farms in 2024. In June, a farm on the banks of the Root River in Wykoff, Minn., was the location for the "Boots & Roots: a Celebration of Land & People" event, which featured a potluck, square dancing, yard games, and a dunk tank where LSP's executive director, Scott Elkins, and LSP's policy director, Sean Carroll, good-naturedly served as "targets." The event was hosted by the DreamAcres land collective, which features an organic farm managed by Eva Barr and Todd Juzwiak, along with Liz Newberg and Jake Stacken. Along with producing food, DreamAcres

(dreamacresfarm.org) offers educational and cultural programs, and is home to the nonprofit Dreamery Rural Arts Initiative.

In August, Scott and Dawn Lightly invited folks to their farm near Oakland, Minn., for a field tour, potluck, yard games and a chance to network around building soil health. The Lightlys are fifth-generation farmers and they use no-till and cover cropping to raise row crops. This is their first year raising sunflowers for a Twin Cities cereal company.

In September, roughly 60 members of LSP and COPAL (Communities Organizing Latine Power and Action) gathered at the crop and livestock farm of Ruth and Jon Jovaag near Austin, Minn. The evening featured presentations by COPAL members, apple cider pressing, a chance to watch honey being extracted from combs, and a tour of the Jovaag operation, which also involves Jon's parents, Lois and Arvid. The event was capped off with a meal featuring the Jovaags' pork that was served on the banks of the Cedar River.

COPAL (copalmn.org) is a member-based organization established in 2018 to improve the quality of life of Latine families. The Land Stewardship Project and its political education partner, Land Stewardship Action (*see page 11*), have collaborated with CO-PAL on various rural organizing initiatives.

To get the latest updates on LSP events, see landstewardshipproject.org/upcomingevents. Signing up for our monthly *LIVE-WIRE* e-letter is also a great way to stay informed: landstewardshipproject.org/ live-wire-sign-up. **D**

See page 34 for a report on LSP's Twin Cities Cookout & Potluck, which was held in July.



Jon Jovaag described his crop rotation to COPAL and LSP members during a tour of his family's farm. Besides crops, the Jovaags also raise hogs. (LSP Photo)



Scott Lightly provided a tour of his farm's sunflower field during an August LSP gathering. (*Photo by Kim Finnegan*)



DreamAcres, which hosted the "Boots & Roots" event, has an organic farm and hosts educational and cultural events. (*LSP Photo*)



"Boots and Roots" featured contra dancing led by the Crater City String Band and caller Robin Nelson. (LSP Photo)

Poetry Making Hay

The sun shines hazy, and the air has weight. It pushes down on me from all directions heavy and moist. Fog along low places, and no breeze at all. The smell of diesel, squeaky axle, and old fashioned square bales. One rooster pheasant cackles loud and dense. The music of work out here. Dust clouds stand in one spot, and baling twine wrapped tightly claws at gloves. I stack the bales shoulder high. I sweat like I was just rained on. But there is nothing stronger than honest work. The pure poetry of muscle and breath and dust redeems me. Released from the burden of thought and washed in life as a pilgrim not a tourist. It is difficult to be a tourist baling hay. Difficult to imagine the boundaries of strength. Earth gathered into sky. A field dotted with more bales like effigies on some remote island. Crows settle on a resting hay rake bringing with them evening. The hay mow gapping open and the elevator waiting, all doorways lead to dark; into the labyrinth of mind and body and the reality of night.

- Larry Gavin

Land Stewardship Project member Larry Gavin is the author of five books of poetry. He lives in Faribault, Minn.



Reviews

Soil & Spirit Cultivation & Kinship in the Web of Life

By Scott Chaskey 264 pages Milkweed Editions milkweed.org

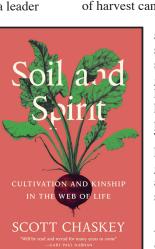
Reviewed by Dale Hadler

In Soil and Spirit: Cultivation and Kinship in the Web of Life, Scott Chaskey draws on his experience as a farmer, poet, educator, and global advocate for organic and regenerative agriculture to write a book of essays that encourages the reader to see soil not only as a living entity but as something that could be viewed with a spiritual presence.

Chaskey argues that as humans face climate disruption and the numerous other challenges of the modern world, it is "timely to revisit an ancient theme, an interspecies theme — our kinship with nature." Chaskey started his own kinship with the land on a small farm in Maine, the history of which he deftly traces from the time the Abenaki people stewarded the area to his own, present day, experience. He then takes the reader on a world tour of sorts, offering firsthand accounts of how people connect to the spirituality of the land in places such as Cornwall in the United Kingdom, as well as in rural Ireland. Chaskey, a leader

in the Community Supported Agriculture movement, also provides a dispatch from a conference in China dedicated to this farming model.

One of his most engaging essays describes his time with a group of Indigenous women at the Santa Clara Pueblo in New Mexico, where he helped harvest amaranth seeds. Various forms of this nutritious food have been cultivated by Indigenous people for 8,000 years. The Spanish conquistadores feared the pagan rituals that the Aztecs formed around



the crop, and burned amaranth fields while banning production. Groups such as Tewa Women United — a multicultural and multiracial organization located in the northern New Mexico pueblos — are dedicated to the spiritual connection to the land the crop represents, and are attempting to bring it back.

Chaskey's essay on this fascinating plant — it is not a grass or a classic cereal grain, and technically is classified as a "pseudocereal" — makes it clear that even a simple act of harvest can be a spiritual act.

"As we cup our hands around and over the flameshaped seed heads, they shatter, and a sea of pink and gold grains flows around our knees," writes Chaskey. "Perhaps we are at a threshold, the place of entrance to a dwelling. The dwelling is the soil we kneel upon as we thresh the grain, our common home; the amaranth is an entrance, our shared harvest."

LSP member Dale Hadler lives in Winona, Minn.

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The Devil's Element Phosphorus & a World Out of Balance

By Dan Egan 228 pages W. W. Norton & Company wwnorton.com

Reviewed by Angela Anderson

The Devil's Element: Phosphorus and a World out of Balance is truly a book for anyone concerned about the future of food production and how we balance it with environmental health. Clearly and superbly written by Dan Egan, an award-winning Wisconsin-based journalist, this book is gripping and entertaining. It provides an in-depth understanding of the life-giving role of phosphorus, and simultaneously its dangerously irresponsible overuse in our agricultural practices. This book makes it clear that our increasing reliance on chemical fertilizers and industrial-scale agriculture is threatening and poisoning another life-giving and -sustaining resource: water.

Divided into three parts — "The Race for Phosphorus," "The Cost of Phosphorus," and "The Future of Phosphorus" — this book uses historic anecdotes, current science, on-the-scene reporting, and informed insight to convey the urgency of our current situation. Paraphrasing the author's words: We have broken a circle of life, turned it into a straight line, and that line is now approaching its end.

In part 1, the race for phosphorus — the "devil's element" — begins in the 17th century, in Henning Brandt's Hamburg labora-

Correction

The review of the book *Barons* that was published in the No. 1, 2024, *Land Stewardship Letter* stated that Ezra Taft Benson was President Harry Truman's secretary of agriculture and that he promoted the idea that farmers should "get big or get out." In fact, as several sharp-eyed readers pointed out, Benson was President Dwight Eisenhower's ag secretary. While Benson may have supported the "get big" philosophy, Earl Butz, ag secretary under presidents Richard Nixon and Gerald Ford, was better known for promoting the idea.

tory, with its discovery in human waste (in this instance, urine). The author goes on to compare the phosphorus of pre-agricultural times, when it existed naturally as part of the "circle of life," to its role as a commodity during the Industrial Revolution, World War II, and onward.

With the population boom of the Industrial Revolution, the need for increased food production grew exponentially (and has continued to do so in step with population growth). Increased demand resulted in increasingly extreme sourcing methods when it came to phosphorus as a source of plant fertility — from looting battlefields for bones, to scraping guano off remote islands. To this day, modern agriculture relies largely on fossilized feces and bones, or rock-based

phosphorus, for this type of fertilizer. Sources are waning quickly. What has taken the Earth eons to produce, we have used up in a couple centuries (in some instances, a few decades).

Egan also writes about the recently tapped phosphorus mines, the huge phosphorus rock deposits in places like the Western Sahara and Morocco, where an estimated 70% to 80% of the world's reserves are located and controlled by one company, which, in turn, is controlled by the king of Morocco. The

blood that's been spilt to acquire or maintain this monopoly is considerable. In 2019, these mines were scraping 250 million tons of phosphorus out of the ground annually an entirely unsustainable rate of extraction.

PHOSPHORUS AND A

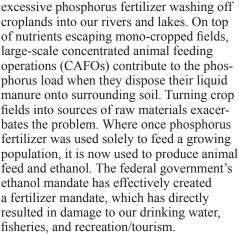
DAN EGAN

THE GREAT LAKE

SELLING AUTHOR OF

Part two begins with a phosphorus problem so easily fixed it is almost comical (almost!). In the 1950s, U.S. waterways began to foam. Soap suds from America's washing machines — full of a magical ingredient to make clothes clean and velvety soft — began flowing into rivers and lakes. Super-charged sodium tripolyphosphate was the culprit. Eutrophic lakes, already rich in nutrients, took the brunt of this onslaught, resulting in deadly algae blooms. Where there was life, phosphorus made more life than these aquatic systems could handle. Once the problem was identified, phosphorus was slowly removed from detergents, and up through the 1980s, rivers and lakes continued to recover. However, writes Egan, "While the Clean Water Act works brilliantly for any pollution one can send down a pipe, it left a yawning exemption for one specific industry - agriculture."

Today, the algae blooms are back and deadlier than ever, this time fueled by



What is happening on our coasts highlights the critical state of our watersheds. In

> 2019, triggered in part by climate change and a rapidly changing agricultural landscape, flooding in the northern part of the U.S. brought a first-of-its-kind outbreak of Microcystis to the Gulf of Mexico. By July 4th, 21 coastal beaches were closed for swimming due to toxic algae blooms fueled by nutrient overloads; marine life was decimated, and the area's fishing and tourism industries took massive financial hits. Our warm Southern waters - Florida's freshwater Lake Okeechobee, for example — are particularly susceptible to becoming toxic cesspools. As one

resident told Egan, "You don't have to be an environmentalist to see that [things are] wrong and [need] to be solved."

But it would appear the agricultural industry continues to enjoy cart blanche, even though changing our farming methods could play the single biggest role in solving the threat the devil's element poses to our watersheds. Can regulation and more improved farming practices — fine-tuned fertilization and vegetated barriers near water, as well as cover cropping, rotational grazing, and other methods that build soil health — save our public resources? Life began with phosphorus. We are now faced with the question: will life end with it?

In the final part of the book, the author presents hope for the future. He re-emphasizes that a balanced phosphorus exchange existed for billions of years before humans corrupted this natural cycle, and highlights again how, like water, phosphorus exists in a delicate balance and can be both a giver and destroyer of life. Still, it is estimated that up to 80% of agriculturally applied phosphorous is wasted. Phosphorus, like water,

Phosphorus, see page 33...

... Phosphorus, from page 32

is a limited resource. "All we have is all we have," Eagan writes. If we render it unusable, or waste it, we will run out, and poison ourselves in the process.

For hope, consider Asian cultures, which have used closed-loop waste treatment systems for thousands of years: carting their grains, vegetables, and animals into the cities and then hauling back to the countryside the waste those cities generate. This "night soil" is considered valuable fertilizer to this day. Urine is even easier to convert from waste to gold. What began in Hamburg when alchemist Henning Brandt conjured the first nuggets of elemental phosphorus

Dodge County, Incorporated Big Ag & the Undoing of Rural America

By Sonja Trom Eayrs 344 pages University of Nebraska Press nebraskapress.unl.edu

Reviewed by Brian DeVore

lenty has been written about the negative impacts that result when small and medium-sized, diversified farms are pushed out of a community by a corporate-controlled, industrialized form of agriculture. What sets Dodge County, Incorporated apart is that the author, Sonja Trom Eayrs, deftly weaves the big picture trends that have, for example, caused us to lose 70% of this country's hog farmers since 1990 with her own story: how her family's 760-acre farm in southeastern Minnesota's Dodge County - "...our slice of heaven," as she describes it - was, over the years, literally surrounded by a dozen concentrated animal feeding operations (CAFOs), resulting in a stench so powerful that at times it was difficult for the Trom family to do field work without being sickened. It's particularly troubling to read such descriptions after the author describes how her father, Lowell, created the "handmade" Trom operation piece-by-piece; with its good conservation practices and contributions to the community, it's the kind of farm we should be doing everything possible to support.

The book delivers on its subtitle: *Big Ag* and the Undoing of Rural America. Trom Eayrs is an attorney, and she convincingly makes the case that the takeover of communities like hers was no accident. It was a methodical, concerted effort on the part of Wall from human urine has come full circle. By 2029, "Hamburg will be coaxing from its own ashes a more sustainable food system and future," writes Eagan. Let's hope the rest of Western culture follows.

The solution to the present phosphorous problem may not be as simple as removing it from a single product type (like detergents), but it is not hopeless. With limitation, filtration, and time we could repurpose and eliminate today's phosphorus problem, too.

For inspiration from an old source, Eagan quotes Victor Hugo, the French author and politician, who, as early as 1862, pointed out the absurdity of importing petrified animal poop from the far reaches of the globe while local sources of phosphorus were being wasted. In *Les Misérables*, Hugo wrote: "... those heaps of excrement...are the meadow in flower...they are cattle...they are fragrant hay, golden wheat, they are bread on your table, they are warm blood in your veins, they are health, they are joy, they are life." \Box

Angela Anderson spent her 35-year career with the Minnesota Department of Natural Resources preserving and restoring the state's prairies, wetlands, and woodlands, and educating the public about these valuable spaces. In retirement, she actively stewards several scientific and natural areas in the Saint Croix River Valley.

Street, meatpackers, and commodity groups to foist one way of producing pork on the country, no matter the consequences. She pulls no punches, naming names throughout the book — from local township officials who appear to take "bribes" in the form of manure allotments in exchange for favorable zoning rulings, to groups like the American Farm Bureau Federation that claim to

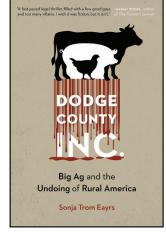
represent farmers, but who in fact are helping livestock integrators create mini-empires built on destruction of land, markets, and communities. Fortunately, Trom Eayrs' book is well-documented and citations, along with firsthand accounts, back up the darts she tosses at the industry.

At the core of this tragedy is the role the "corporate state," as Trom Eayrs calls it, plays in wrecking rural

communities. And it's all legal, with farmers who are raising the hogs themselves often victimized as much as their neighbors. Should we be surprised that a business model that is more beholding to shareholders than to the communities it's extracting resources from puts profits over people?

"Corporations, by law and definition, are antithetical to the values that the best versions of agricultural practice ideally embody," Trom Eayrs writes.

Such a model disconnects animals from the land, as well as neighbors from neighbors. The Trom family is not only exposed to air pollution, but to harassment in the form of a manure tanker driver nearly running the author and her husband off the road, trash dumped in the driveway, groundless



calls made to the sheriff, and bullet holes in a stop sign near where the Troms were doing field work. But I found the most troubling fallout from the Dodge County CAFO fight to be the subtle slights, like when Lowell is given the cold shoulder at the church that's played such a pivotal role in his family's community legacy. The author concedes that because she no longer lives in the communi-

ty, she can avoid such heartbreaking moments on a daily basis — but seeing her family exposed to it doesn't make it any easier.

But the author has not given up. Through her fight, she's connected with people, both within and outside the community, who aren't willing to accept the CAFO system as rural America's future. And she's seen firsthand what can result when people get organized. For example, a mega-dairy proposed in Dodge County was defeated thanks to a group of committed citizens who were working with Land Stewardship Project organizers in the early

2000s. Trom Eayrs also sees hope in the regenerative ag movement, which provides an alternative way for food to be raised on the land in ways that improve communities and keep neighbors connected.

In the end, the battle-hardened farm kid makes it clear that her family's fight has broadened her perspective.

She writes, "I first entered the CAFO wars for relatively narrow reasons: my family's farm was at risk, and my hometown was harmed by Big Ag's takeover. Recognizing the forced silence of many rural residents, standing on the sidelines was no longer an option."

Brian DeVore is the editor of the Land Stewardship Letter.



Membership Update

Why Do We Gather? Reflections on the Twin Cities Cookout & Potluck

LAND

STEWARDSHIP PROJECT

Elizabeth Makarewicz

n the traditional last Thursday of July, 175 Land Stewardship Project members and supporters gathered for the 2024 Twin Cities Cookout & Potluck in the yard of our Minneapolis office. As the lead organizer of the Cookout since 2018, I understand that the goal of this event is to bring people together to enjoy tasty food, live music, and quirky fundraising activities, as well as to hear about LSP's work and celebrate our accomplishments.

But after reading Priya Parker's *The Art* of *Gathering: How We Meet and Why It Matters*, I'm feeling challenged to get more specific. According to Parker, it isn't enough to gather because "this is the way we've always done things." In fact, for repeat events, honing our intention to gather is even more relevant to compelling guests to come and have a meaningful experience. This article is a retroactive attempt to sharpen our purpose in gathering.

To Mark the Passing of Time

Repeat events such as the Cookout give us the opportunity to reflect on the passing of time. At this year's event, a neighbor remarked to me how much she sees the gathering as an opportunity to witness the developmental changes of LSP children who tend to show up year-after-year. Cookout developmental phases include: 1) trying to

get your mom's attention while she coordinates the program by making silly faces, 2) heartbreak and tears over not winning a pie at the pie raffle, 3) running around with a pack of other children while avoiding adult supervision, and 4) stepping into a role of responsibility to receive and organize potluck dishes. We hope the familiar ritual of the Cookout will make an impression on these young guests as they become the next generation of farm and food system leaders.

To Reinforce Circles of Interconnection

Five or six years ago, a family who was living across the street from LSP's Minneapolis office stumbled upon the Cookout



Regular events like LSP's Twin Cities Cookout & Potluck help mark time and "reinforce circles of interconnection." (*LSP Photo*)

and decided to check it out. Over Tempeh Tantrum and Equal Exchange iced tea, they became acquainted with another family who had a son the same age as theirs. The two families bonded over their shared enthusiasm for small, local farms, and exchanged information. Now in addition to attending the Cookout each year, the two families join a small group of other parents with kids the same age as theirs for an annual

fall camping trip. The kids roam free in the woods while parents scheme about future farming endeavors, shared land dreams, and opportunities to learn and organize — all connections made stronger by an LSP gathering.

Strength for the Work Ahead

To quote Brandi Carlile, "You can dance in a hurricane, but only if you're standing



Good food is a key component of a community gathering that people return to year-after-year. (*LSP Photo*)

in the eye." Amidst the chaos of our daily existence, it's useful to pause, reflect, and enjoy each other's company. To organize and agitate for the food and farming systems we want and need, these gatherings foster epiphanies, stoke creativity, and increase solidarity among LSP members. Check out our web calendar — landstewardshipproject. org/upcoming-events — for more opportunities to gather! \Box

LSP member support specialist Elizabeth Makarewicz is already busy planning the 2025 Cookout & Potluck. She can be contacted at emakarewicz@ landstewardshipproject.org.

Get Current With

Sign up for the *LIVE-WIRE* e-letter to get monthly updates from the Land Stewardship Project sent straight to your inbox. Details are at landstewardshipproject. org/live-wire-sign-up. □

Planned Giving to LSP

The Land Stewardship Project's work for stewardship of the land begins with people. As a membership organization, LSP relies on the engagement, leadership, and support of its members to advance longterm care of the land, thriving family farms, and healthy rural communities.

Including LSP in your estate creates a lasting gift that will help keep the land and people together for years to come. Legacy gifts of land, bequests, stock shares, a donor-advised fund, individual retirement account (IRA) distributions, or other planned gifts have a direct impact on the work and provide a lasting tribute to your values. If you have questions about making a planned gift to LSP, contact Josh Journey-Heinz by calling 612-400-6347 or e-mailing jjourney-heinz@landstewardshipproject.org.



Membership Questions?

f you have questions about your Land Stewardship Project membership, contact 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.

New Address?

T as your address changed or do you anticipate moving in the next few months? Take a moment to update your address with LSP 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 so your data updates correctly.

Volunteer for LSP

t's a stone cold fact: the Land Stewardship Project literally could not fulfill its mission without 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.

To volunteer, fill out the form at landstewardshipproject.org/volunteer-for-lsp, or contact Clara Sanders at csanders@landstewardshipproject.org, 612-400-6340.

Factory Farm Podcast

How to Fight a Factory Farm is a four-part series about factory farms and the communities fighting them. The series describes how concentrated animal feeding operations took over the American agriculture system and what effect they've had on rural communities in the Midwest. It features farmers, advocates, and rural organizers who are fighting factory farms as part of the Campaign for Family Farms and the Environment (CFFE).

CFFE, which the Land Stewardship Project belongs to, works against the use of public dollars and public policy to support factory farms and the multinational meatpacking giants they serve, and builds public support for reforms to level the playing field for family farm livestock producers. Other CFFE (fightfactoryfarms.org) members include the Missouri Rural Crisis Center, Iowa Citizens for Community Improvement, Dakota Rural Action, Food & Water Watch, and the Institute for Agriculture and Trade Policy (IATP).

The podcast series was produced by IATP. It's available at iatp.org/fight-factoryfarm-podcast-series and on various podcast platforms. 🗖

In Memory & in Honor...

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

In Honor & Appreciation of LSP's Members & Staff

♦ Bonnie Haugen

In Honor of Dana Jackson

◆ Sue & Wendell Fletcher

In Honor of Doug Nopar

♦ Joyce Belgum & John Gabbert

In Honor of Brian DeVore

- Kriss Marion
- ♦ Laura Jackson
- Rod DeVore
- Dana Jackson

In Memory of Jean Morris Trumbauer

Susan Hastings

In Memory of Dennis Johnson

♦ Carole Johnson

In Honor of John & Mary Lindstrom

Kathleen Mary Kiemen

In Honor of Darrel Hacklander

◆ Lee Hacklander

In Memory of Jeff "Swampy" Thomsen

- ♦ Brian DeVore

In Memory of Wally Simpson & Don Simpson

Anonymous

To donate to LSP 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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Your timely renewal saves paper and reduces the expense of sending out renewal notices. To renew, use the envelope inside or visit landstewardshipproject.org/join.

Stewardship Calendar

 \rightarrow JAN. 14 - 2025 Session of the Minnesota Legislature Begins (see page 10) → JAN. 28 - LSP Small Grains Marketing Workshop, Albert Lea, Minn. (see page 21) → JAN. 28 - LSP Winter Farm Transition Workshop: Goal Setting for Life & Land (see page 29) \rightarrow FEB. 1 - LSP "Land Access: Are You Ready?" Workshop, Inver Grove Heights, Minn. (see page 27) → *FEB*. 4 — LSP Winter Farm Transition Workshop: Values & Why Farm Transition Planning is Needed (see page 29) \rightarrow FEB. 11 - LSP Winter Farm **Transition Workshop: Financial Considerations** (see page 29) → FEB. 15 & 17— LSP Workshop on Values-Based Decision-Making Using Holistic Management, Maple Grove, Minn. (*Feb. 15*), and online (*Feb. 17*) (see page 26) → FEB. 18 - LSP Winter Farm Transition Workshop: Legal Considerations (see page 29) \rightarrow FEB. 25 — LSP Winter Farm **Transition Workshop: Working with Next Generation Farmers** (see page 29) → MARCH 4 — LSP Winter Farm **Transition Workshop: Long Term Care Considerations** (see page 29) → MARCH 13 - 2025 LSP Family Farm Breakfast & Lobby Day at the Capitol, Saint Paul, Minn. (see page 11) → MARCH 18 - LSP Winter Farm **Transition Workshop: Resources &**

Planning, Next Steps & Presentations (see page 29)

 → SUMMER - On-Farm Field Day
 Season Begins (see landstewardshipproject. org/upcoming-events)
 → JULY 31 - LSP Twin Cities Cookout

Latest LSP Events: landstewardshipproject.org/ upcoming-events

& Potluck, 5:30 p.m.-9 p.m., Minneapolis, Minn. Contact: Elizabeth Makarewicz, emakarewicz@landstewardshipproject.org $\rightarrow AUG. 1$ — Early Bird Registration Deadline for 2025-2026 LSP Farm Beginnings Class (see page 26) $\rightarrow SEPT. 1$ — Final Registration Deadline for 2025-2026 LSP Farm Beginnings Class (see page 26) $\rightarrow NOVEMBER$ — First Session of 2025-2026 LSP Farm Beginnings Class Convenes (see page 26) $\rightarrow MARCH$ — Last Session of 2025-2026 LSP Farm Beginnings Class (see page 26)

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, caps, window decals, bandanas, tote bags, 8 x 10 metal barn signs, and the classic "Let's Stop Treating Our Soil Like Dirt" bumper stickers. Order any of these items today at landstewardshipproject. org/shop or by calling LSP at 612-722-6377.



Support LSP's Roots

The Land Stewardship Project's ability to bring about a new farm and food system is rooted in our membership. For details on supporting our work, see page 35.

