the practical FARMER



WINTER 2021/2022

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Boone, Iowa.

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WHAT WE DO

Practical Farmers of Iowa was founded in 1985 as an organization for farmers. We use farmer-led investigation and information sharing to help farmers practice an agriculture that benefits both the land and people.

OUR MISSION

Practical Farmers of Iowa's mission is equipping farmers to build resilient farms and communities.

OUR VISION

An Iowa with healthy soil, healthy food, clean air, clean water, resilient farms and vibrant communities.

OUR VALUES

Welcoming everyone

Farmers leading the exchange of experience and knowledge

Curiosity, creativity, collaboration and community

Resilient farms now and for future generations

Stewardship of land and resources

THE PRACTICAL FARMER

the Practical Farmer is published quarterly as a benefit of membership to help keep farmers and friends of farmers in touch with one another through informative articles on relevant farming topics, current on-farm research, upcoming events and other news of interest.

Magazine Editor: Tamsyn Jones

Back issues are available upon request. Unless otherwise noted, articles may be reprinted or adapted if credit is given. Clippings and notice are appreciated.



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Spreading the Word About Practical Farming

here are so many talented people within PFI's membership, including gifted authors. Since last December, at least three members have published books, a fourth has a book in production that will come out next spring – and I'm sure other members published books over the past year that I haven't yet learned about.

In October 2021, Beth Hoffman of Lovilia, Iowa, published "Bet the Farm." Levi Lyle of Keota, Iowa, published two books in 2021: "So God Made a Farmer: A Retrospective on The Living Words of Paul Harvey by an Organic Farmer," released in September, and "Ice Sage: Living and Loving the Land," published in November. And in spring 2022, Angela Tedesco of Johnston, Iowa, will publish "Finding Turtle Farm: My Twenty-Acre Adventure in Community Supported Agriculture."

Prior to coming to lowa to farm, Beth was a professor, as well as a journalist who reported on food and farming. In "Bet the Farm," she shares the realities she and her husband, John Hogeland, have faced in their beginning years as farmers. She describes fundamental difficulties – including family dynamics, economics of farming and lack of sufficient infrastructure for regional food and farm systems – and explores ways to create a more judicious farm landscape in lowa.

"So God Made a Farmer" is on my winter to-be-read list. Tom Wahl, of Red Fern Farm, says of the book: "Levi exposes the fundamental flaws in our system of modern, industrialized agriculture and lays out a regenerative vision for the future of agriculture." "Ice Sage" is a book of poetry that ponders pathways of land stewardship.

I was lucky enough to get a sneak peek of "Finding Turtle Farm." Angela, a CSA pioneer in Iowa, conveys her journey from graduate school to a second career as an organic farmer. She shares information, wit and stories that capture why farming is about so much more than growing food. And she illustrates the importance of being connected to your food and the farmers who grow it.

Angela includes an excerpt from PFI's 2002 annual report in her book that clarifies why "Practical" is part of PFI's name. I laughed when I read this because it's a question I get a lot. Angela writes:

It's so obvious, so provocative, but so curious: why are we the practical farmers of Iowa? Why not the innovative, or sustainable, or holistic farmers of Iowa? Or as was recently proposed: the romantic farmers of Iowa. And who has not been asked: is there such a thing as an impractical farmer of Iowa?

Consider: A farming system that requires a tractor so large and complicated a farmer can't fix it, a globalized food system that doesn't benefit farmers, a state that feeds the world but not itself.

Perhaps they are the greatest dangers of our time: vision without practicality – efficiency without common sense.



Sally Worley (left) and Beth Hoffman at an October 2021 reading of Beth's recently published book, "Bet the Farm," held at Beaverdale Books in Beaverdale, Iowa.

Imagine drawing on the wisdom of farmers and the needs of the land when we: design farming systems, create new food supply chains, consider new farm policies. Perhaps being practical means: remembering the land when we are in the laboratory, remembering the consumer when we are in the field, remembering the farmer when we are in the grocery store.

Each of these PFI member-authors draw on the wisdom of farmers and the needs of the land as they spell out how we practically build resilient farms.

I am excited to hear from and talk with many of you savvy members at our conference, "Facing the Horizon," Jan. 21-22 in Ames. This conference will reverberate with practical ideas that inspire, energize and transform – and, as always, are farmer-led. See **pages 10-11** for more details.

I hope to see you there so we can work together to create healthier food, farms and communities.

Sally Worley

A Gift for Growing Small Grains

As one farmer's tenure ends, he helps another farmer begin

Pat Murken has been farming with his family near Story City, Iowa, for over 50 years. For nearly 30 of those years, he grew oats, and he largely credits his success to one piece of equipment – a cultipacker. Now he is gifting that same piece of equipment to a beginning farmer, Emery Davis, who is looking to add small grains back on the farm for the first time in over 30 years.

Modernizing a Piece of Machinery

hroughout Pat's years farming, he has implemented practices like cover crops, buffer strips and small grains, and he credits his aunt, Donna, with supporting him. "She was my inspiration," he says. "She told me to be brave when doing something different." In the early 1990s, with Donna's encouragement, Pat decided to add oats to the family farm. He marketed the grain for seed and sold the straw as certified weed-free mulch. "When we added the grain and straw together, the oats had a higher per acre profit than corn," Pat says. The oats became a staple of the farming operation.

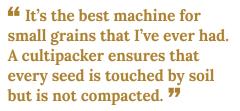
Ten years into oat production, Pat decided to use a cultipacker after seeding the oats in

the spring. These are heavy, rolling implements with several ridged wheels that crush small clumps of dirt, remove air pockets and press down small stones. A tractor pulls the cultipacker before or after seeding, gently firming the seedbed and helping ensure all seeds are in good contact with the soil.

After he started using the cultipacker, Pat says he noticed his oat yields nearly doubled. "It's the best machine for small grains that I've ever had," he says. "A cultipacker ensures that every seed is touched by soil but is not compacted." For smaller-seeded plants like oats, this is an important field condition that increases germination rates, and can even boost how many plants eventually emerge.

While modern versions exist, Pat's cultipacker has a history. "My grandfather purchased the cultipacker from an auction in 1913, and it was originally pulled by six horses," Pat says. "I bought the machine from my grandfather in the 1960s at a sale for \$120. No one else wanted it at the time. Everyone wanted to haul it to the scrapyard."

But owning an older piece of equipment was no problem for Pat, who works for John Deere and enjoys retrofitting machinery. For



- PAT MURKEN

instance, his cultipacker was built before the advent of modern metal bearings, which help the wheels rotate on the shaft. So Pat's bearings are made from wood, which he cuts himself out of oak. Since they have to be replaced every few years, Pat has created a template that lets him make new bearings easily.

Because the machine itself is heavy, to ensure it creates a firm seedbed, Pat fashioned a counterbalance out of an old hog trough to keep the cultipacker upright when being moved or stored. He also updated the chassis, added hydraulics and installed regular wheels to easily transport the cultipacker to and from storage to the field. For Pat, who is retiring from farming and no longer growing small grains, the cultipacker has been a labor of love. As he transitions out, he wants to ensure someone new to farming can use the equipment and be as successful growing small grains as he was.

Starting With Small Grains

After Emery Davis graduated in college in 2013, he pursued a career in conservation, first working as a biologist for Pheasants Forever and now as a soil health coordinator in Linn County, Iowa, where he helps farmers implement practices like no-till, cover crops and edge-of-field practices. In 2021, he had the opportunity to rent ground on his

(Left): A view of an oak wood wheel bearing on Pat Murken's cultipacker, which was built before the advent of modern metal bearings. Pat created a template that lets him easily cut new bearings when they need replaced every few years. (Right): The ridged wheels of the cultipacker help ensure good seed-to-soil contact. (Opposite) Pat Murken, of Story City, Iowa, explains to Emery Davis, of Crawfordville, Iowa, how to use the cultipacker.





family's farm near Crawfordsville, Iowa, for the first time. The family has already applied practices like no-till, cover crops and filter strips on their land, but Emery was curious to further extend their corn-soybean rotation. "We haven't had small grains on the farm since I've been around," Emery says. "I see a lot of value in small grains to diversify the rotation."

As Emery began to think about incorporating small grains into the family's farm, he had questions about how to make things work. Learning about PFI from close friends, he began tapping into the network of farmers, attending field days and learning from others. "As a beginning farmer, I've been blown away by the generosity of my family to let me be more involved in the farming operation and the patience of other farmers answering all my questions," he says.

Making a Connection

As luck would have it, Pat was looking to gift his cultipacker to a beginning farmer at the

⁴⁴ We haven't had small grains on the farm since I've been around. I see a lot of value in small grains to diversify the rotation. ⁷⁷

- EMERY DAVIS

same time Emery was ready to take the plunge into growing small grains, and they were able to connect through PFI's network. The two spoke on the phone at first, talking for an hour-and-a-half about markets, production and profit. "It was just a really positive conversation," Pat says. They next met on a sunny day in September 2021 on Pat's farm. Emery not only received the cultipacker and its origin story from Pat, but also lessons on how best to use it. The hand-off was perfectly timed for Emery, who seeded cereal rye a few weeks later to grow for cover crop seed.

Looking ahead, Emery would love to see a third of the family's farm in small grains. As

demand for cover crop seed continues to grow, he sees potential in the market. Plus, he says he likes the benefits of planting a cool-season crop, which grows over the winter and is harvested in July. "A small grain followed by an early-planted cover crop should have big soil health and crop rotation benefits," Emery says. "I'm excited to try it out myself."

Pat will always credit oats with making his farm profitable for so many years, and he's thrilled to gift a piece of his farm to the next generation. "It's so refreshing to have such a young, enthusiastic gentleman take the machine," he says.

For Emery, this will be the first piece of farm equipment he owns. For Pat, it's a lasting part of his legacy.

Growing Up in PFI

Grace German was born into the PFI network and its culture of curiosity

Grace German, daughter of long-time members Tom and Kristi German, grew up as the fourth generation on Thankful Harvest farm, a certified organic crop and livestock farm in Holstein, Iowa. The Germans raise 100% grass-fed beef and lamb; pork; free-range chicken and turkey; and free-range, soy-free eggs, focusing on rotational grazing to help steward the land and provide high-quality products.

hile growing up on a farm in Iowa may not be unique, growing up on a PFI farm is. Tom and Kristi German are among PFI's first members. Joining in July 1985, the same year Practical Farmers was founded, they were part of the earliest cohort of farmers to form the fledging organization. Grace was born in 1998 into the PFI network and grew up witnessing the power of curiosity and collaborative thinking. These values infused her childhood, and buttressed her when she moved off the farm to begin charting her own sustainable agriculture and local foods journey.

Setting the Foundation

Today, Grace is the marketing coordinator of a dairy farm in Illinois that's dedicated to marketing locally – but she credits her farm upbringing, and her father's influence and example, with imparting the values she holds today. "I learned every life lesson from my dad on the back of a four-wheeler moving cows," Grace says. "Everything about life, from how to treat animals and people, to caring for the livestock and the land." Grace says those lessons were reinforced by observing what her father devoted his time and attention to. One of those things was Practical Farmers of Iowa, especially field days and the annual conference.

Her parents' commitment to PFI meant Grace spent a lot of time in PFI company – and she says some of her oldest and fondest childhood memories are of Practical Farmers of lowa events. "I remember attending the annual conference as a little kid. We would run around and sit in the back of the sessions and color," Grace says. "PFI members felt like family and the adults would let us kids run around knowing we would always find friends to be with."

She has no doubt her young mind was absorbing an important appreciation for the farmers around her and their collective goal to better the landscape. As she grew older, Grace began to pick her own sessions to attend and think more critically about what farm enterprises she wanted to play a part in. She also observed how farmers in PFI's network interacted and approached finding solutions to farming challenges. "Watching a bunch of farmers sit at a table or stand in a field and collaborate and problem-solve, and seeing ideas about how to make things better come out of those conversations – that is a great strength," says Grace of the PFI network. She also watched her dad call on his PFI farmer network to troubleshoot issues and celebrate successes.

This experience of community, of being there for one another in adversity and joy, modeled how collaboration and creativity are necessary for resilient farms, communities and agriculture. Grace credits PFI events with showing her the possibilities that exist for agriculture and local food systems, and with helping guide the direction of her education and career.

Charting the Course

Influenced by PFI and her own farm upbringing, she decided to study animal science in college. In May 2021, she received her bachelor's degree from Iowa State University. "Growing up on a certified organic, diversified crop and livestock operation showed me that agriculture can be sustainable," Grace says, "and I'm passionate about how livestock play a part in that narrative."

Her undergraduate studies included a deep dive into sustainable agriculture, specifically beef production. For her honors program



⁴⁴ Watching a bunch of farmers sit at a table or stand in a field and collaborate and problem-solve, and seeing ideas about how to make things better come out of those conversations – that is a great strength.

- GRACE GERMAN, on the value of PFI's knowledge-sharing ethos



(Opposite): Cows graze at Thankful Harvest farm near Holstein, Iowa. (Above): Grace German (back left) poses with her siblings Daniel and Morgan, parents Tom and Kristi and their dog, Sage.

research, Grace studied the role of beef cattle in regenerative agriculture. Partnering with Mark Rasmussen, who served as director of the Leopold Center for Sustainable Agriculture at ISU until his retirement in July 2021, she studied how cattle can serve as catalysts for biodiversity. Her published research draws on multiple scientific journals, explaining the common threads that cattle allow us to preserve pasture while still producing food, improving the soil and helping plants take more carbon into the soil.

The idea for the project was inspired by her own farm experience growing up. "Watching cattle raised from birth to finishing, and seeing that meat sold directly to consumers, I could see how cattle were a benefit to our farm and I wanted to help change the narrative and show cattle in a positive light," Grace says.

Interning with ISU Extension and Outreach as a communications team member for the Small Farms Team also strengthened her passion for local food. In this role, she shared the experiences of local growers in niche markets and worked to equip fruit and vegetable growers with the knowledge needed to sell wholesale or retail to schools, grocers, restaurants and institutions. "The team at Extension helped me see a different side of the local foods movement and how we can work together to connect pieces and overcome the challenges of local foods systems."

In 2016, inspired by local flavors and relationships, Grace started her own business, Grace's Pies, where she used her baking skills to offer pies, jams, rolls, coffeecakes, breads and seasonal holiday offerings to the Holstein and Ida Grove communities. She continued this business through college, focusing on her holiday offerings during breaks and selling a variety of goods throughout summer 2020. Grace sold baked goods directly to consumers at local farmers markets and through individual orders.

"One of my favorite things is using in-season, locally grown fruits and ingredients and turning them into products that connect people to their local foods," Grace says. The business helped unite her interests in local food and community, and deepened her passion for selling food directly to consumers in a way that links food and agriculture.

Working With Local Foods

Today, Grace works as the marketing coordinator for Rolling Lawns Farm, a 111-year-old family dairy in Greeneville, Illinois, that focuses on local sales within a 75-mile radius. The farm's owners prioritize sharing agriculture with local consumers, including bringing people to the farm to meet the cows the milk comes from. In her role, Grace focuses on marketing the farm's products to wholesale and retail customers, sharing the farm with visitors through tours and social media, helping with new product launches and pitching in with the odds and ends that can come with running a small business.

"Supporting local foods and the communities surrounding them is engrained in who I am," she says. "This job is the culmination of my family farm, PFI involvement and undergraduate experiences. I get to see a thriving local foods system that I've heard so many farmers dream of achieving."

Local food models that inspire consumers and bring agriculture front and center for the public are increasingly possible. Grace recounts how a customer recently visited the farm and told her it was an inspiration. She says, "I want everyone, everywhere who visits a local food hub to feel that way about the products and place."

FACING THE VORIZON

Practical Farmers of Iowa Annual Conference January 21–22, 2022 | Ames, IA

It's where the earth meets the sky. Where the soil shows the workings of time. Where the reality of the present meets the possibility of the future. The horizon beckons us to uncharted waters, echoes the limits of our perspective while reassuring us that a new day awaits. It's where our knowledge and experience find the edges beyond which we tip into the unknown.

Some horizons offer us beauty and the peace of life's rhythms, as the sun rises in the morning and illuminates what is familiar; as seeds grow and set fruit and our children age into adults with graying hair. But other horizons require more, and can give more. By intentionally facing these horizons, we find new connections and inspiration, spark new ideas and see old challenges as approachable opportunities. By facing our horizons, we can expand them.

It has been said that those who keep their eyes on the horizon will find the right path. At the 2022 annual conference, we are "Facing the Horizon" together, seeking new knowledge, broader understanding and unexpected ways to improve our farms and communities.

ONLINE REGISTRATION IS OPEN!

Register today at practicalfarmers.org/annual-conference

61 sessions featuring topics for field crops, livestock and horticulture production and management, habitat and farmland conservation, land transfer, beginning farmer, marketing and more. Full session and speaker details are available at practicalfarmers.org/annual-conference.

We are committed to making "Facing the Horizon" affordable for all to attend. In addition to keeping our conference registration rates low, conference discounts are given to all registrants with current PFI memberships. For attendees with Lifetime Memberships (\$1,000) or Farm/ Household Memberships (\$60/year), up to 10 family members or farm employees can attend with a single ticket. People make the PFI annual conference a rich knowledge-sharing event, and we believe everyone on the farm contributes to a farm's success now, and in the future.

THINGS TO LOOK FORWARD TO:

KEYNOTE ADDRESS

Friday, January 21 5:45 p.m.

- Reuniting in person with old friends, and making new ones
- Conference meals and snacks sourced from PFI members and local businesses
- A silent auction of PFI experiences
- PFI Faces and an old-fashioned community message board
- A return of PFI storytelling
- A Friday evening keynote by Laura Jackson
- 61 farmer-led sessions, including general sessions, roundtables and lightning talks
- 56 of our sessions approved for certified crop advisor CEU credits





THE PAST, PRESENT & FUTURE IOWA LANDSCAPE: STUDYING THE HORIZON

Laura Jackson Director of the Tallgrass Prairie Center at University of Northern Iowa

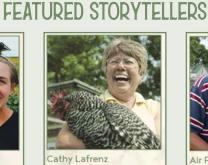
STORYTELLING

Saturday, January 22 | 1:30-2:30 p.m.





Maja & Carmen Black





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Farming for the By Rebecca Clay Curiosity, continuous improvement and a focus on community define FILTER Forme

In 2001, when Seth Smith was a junior studying ag systems technology at Iowa State University, he purchased a farm neighboring his family's land in Nemaha, lowa. It was the early 2000s, and the agricultural economy was in a rut, with corn below \$2 per bushel and soybeans below \$4 per bushel.

he first year Seth raised a crop on the farm, he lost money. It was the first crop he'd raised on his own, and Seth knew that if he was going be financially viable while farming alongside his father, he would need to alter some practices on the conventional grain and cattle-finishing farm.

"Dad let me know that nothing was going to be given to me," Seth says. "I needed to make my own way."

Around the same time Seth returned to northwest Iowa, Etta Simpson had moved to the area from Delaware for her career as a U.S. Department of Agriculture meat inspector in Storm Lake, Iowa. She purchased an acreage located a couple of miles from Seth's house.

Etta's dog wandered off one summer day and wound up at Seth's farmstead. He called the number on the dog's tag and left a

message. A few hours later, Etta came to retrieve the dog and the two hit it off.

Seth and Etta got married in 2008 and have four children: Skylar (12), Lane (9), Levi (7) and Tilly (3). The family, along with Seth's father, Lynn, his grandfather, Bill, and three full-time employees, operates SFI Inc. and Coon River Farms Inc. - named after the Raccoon River that runs adjacent to much of their land.

In the last 20 years, Seth and Etta have collaborated with Lynn to make changes to the farm to increase profitability and expand the operation while reducing labor demands. Today, the diversified farm has grown to consist of a 2,400-head-capacity beef-finishing feedlot; a 280-head cow-calf herd; organic corn, soybeans, oats and alfalfa in a five-year rotation; conventional corn silage with cover crops; and reclaimed pasture. In addition to farming, the Smiths own and operate Coon River Gate Company, which builds and sells portable cattle gates.



Clockwise from top left: Aerial view of the Smith farm; Seth and daughter Tilly; the Smith family; cows grazing in the pasture; feeding cattle.

"I realized that you have to think hard, not just work hard." – Seth Smith

Adding Organic Row Crops to Boost Farm Revenue

The path to this diversified operation has its roots in Seth's first year farming on his recently purchased farm. After losing money raising conventional corn and soybeans that year, Seth looked for a more profitable enterprise.

"My only off-farm job growing up was on another farm – Dave Nees' farm, which was organic. I had done some cutting and baling hay," Seth says. "After that first year of losing money, I remember thinking, 'organic prices are really high!' So I talked to Dave a bit."

Seth began the transition to organic production on a 160-acre field next to the family's feedlot. A 50-acre portion of the field had been in alfalfa, so he applied manure and plowed the alfalfa under to plant corn the following year. The corn crop yielded well, and with organic corn prices over double the conventional corn prices, he found organic cropping to be profitable.

Seth notes that raising organic row crops is significantly more labor-intensive than conventional row crops. "You spend a lot of time controlling weeds," Seth says.

Seeking ways to reduce that labor, for the last 20 years Seth and Lynn have been experimenting with more time-saving organic weed control methods. They were early adopters of a sub-inchaccuracy GPS system that enables higher speeds while time weeding and harrowing. Seth also built a custom weed flamer. The machine uses propane to throw a flame on weeds, damaging the cell structure, either killing the weed or reducing growth.

The last few years, they have been experimenting with rollercrimping cereal rye in organic soybeans. Crimping the rye flattens it into a dense mulch, which physically suppresses weeds and eliminates the need for in-season cultivation. "Long-term, we'd like to have all of our soybeans in no-till, organic," Seth says.

The Smiths' continuous innovation is a quality that makes the family a respected leader among organic farmers and conventional farmers alike.

Past Labor Limitations Spur Other Changes

Growing up, Seth recalls observing a neighbor whom Seth describes as "one of the hardest workers I know." The neighbor put in long hours and was expanding the operation to try to eke out an additional profit, but eventually decided to sell the farm and work an off-farm job. Seeing the neighbor work long hours without making much money prompted Seth to look at his own work hours, and whether they were generating revenue or saving costs.

"I realized that you have to think hard, not just work hard," Seth explains. "When I had just come back home to start farming, there were three of us – my dad, the hired hand and me – all working seemingly endless hours, spinning our wheels constantly."

In 2002, the Smiths began composting feedlot manure and corn stalk bedding as a way to save time. Composting requires some additional upfront labor, but the process reduces the manure's moisture content and total tonnage and means the Smiths spend less time hauling manure. "We didn't even know of the other benefits of compost at the time," Seth says.

They also paved what had been dirt feedlots, reducing the number of hours spent doing "dirt work" in the lots and the quantity of dirt in the manure. Beyond saving time, Seth reports the feedlot cattle perform better on concrete.

Reducing daily labor demands has enabled the Smiths to increase the number of acres they farm and the amount of beef they produce.

In his part of rural Iowa, Seth says reducing labor doesn't just save money, it's a necessity. "When you're in a human desert like Sac County, it is really hard to find people to work. We'll post ads in multiple places and have just a couple people apply."

Tracking the financial success of those changes is where Etta comes in. As the farm's record-keeper, a task she manages in addition to her off-farm job as a meat inspector, she keeps track of the expenses and revenue from all the family's enterprises, which the Smiths use to make decisions. Though Etta downplays her role – "I just feed the kids and make sure they go to church," she jokingly says – Seth says her work managing finances from the farm's many enterprises and experiments is especially important.

"When it's time to make a decision on the farm, Etta knows the exact costs and revenue of different processes," Seth says. "It is easy to get caught up in the daily work and not see the bigger picture. Etta's records keep us thinking about the future."

Ridge–Till, Research Bring the Smiths to PFI

The family's ongoing willingness to experiment with new practices has a long history – and has linked the Smiths with PFI for two generations. In the 1980s, Lynn joined PFI around the time PFI co-founder Dick Thompson was pioneering ridge-till. A ridge-tiller himself, Lynn joined to learn more from Dick and other members.

The Smiths' involvement in PFI was sparked again when Seth struck up a conversation with PFI member Paul Mugge, an organic farmer from Sutherland, Iowa, at the Iowa Organic Association conference.

"Paul was talking about all the organic trials that PFI members were doing on-farm," Seth says. "I figured I might as well join to see the research and weed out ideas that someone else has already trialed on their farm."

Since joining PFI, Seth has been conducting trials on the grazing value of cover crops through the Cooperators' Program. He values the accountability that comes with participating in the program. "I've been doing informal trials and some record-keeping on my farm for as long as I can remember, but I don't always do the best job of doing anything with those records," he says. "Having someone to answer to made keeping detailed records a priority."

Researching the Value of Grazing Cover Crops

About 15 years ago, Lynn and Seth observed some spring wind erosion on corn silage ground that unsettled them. The following autumn, they seeded oats with a fertilizer spreader and used a rotary hoe to incorporate the seed.

"It rained and rained that fall, and the oats got probably 18 inches tall," Seth says. "I remember thinking, 'Man, we should put something out there to eat those!' We didn't have cows at that point." Cows came to Coon River Farms the following year. Now, the Smiths interseed annual rye, turnips, rapeseed, vetch, cowpeas and clover into 38-inch corn, or they drill cereal rye after silage harvest.

Curious to quantify more precisely the forage value of cover crops on the farm, Seth has been keeping grazing records since 2019 as part of an on-farm research project through PFI.

"We're starting to see better soil health, better water holding capacity and healthier plants. I'm attributing that to soil health of the no-till and cover crops with cows in the picture."

- Seth Smith

Seth kept records on grazing bulls and cow-calf pairs, and he found that he saved \$84 per acre, or \$3.13 per animal unit per day, by grazing both sets of cattle on cover crops instead of feeding hay. Analyzing Seth's data, PFI's livestock programs manager, Meghan Filbert, calculated that the Smiths saved \$31,550 in hay expenses by grazing the cereal rye cover crop.

Full details of his findings are summarized in the research report "Economic and Soil Health Impact of Grazing Cover Crops in Cow-Calf Operations," available on PFI's website.

Reflecting on the results, Seth says, "We can grow cow feed [cover crops] a heck of a lot cheaper than we can chop silage or buy hay. Now our winter feed is the cheapest point of feed in the year." Beyond the forage value, Seth adds that grazing cover crops can reduce labor and is contributing to healthier soil and plants.

"A lot of years, we can go three months without hauling any feed while the cows are in a field," he says. "We're starting to see better soil health, better water holding capacity and healthier plants. I'm attributing that to soil health of the no-till and cover crops with cows in the picture."

Raising Cattle Runs in the Family

Something Seth did not change upon returning to the farm is finishing beef cattle – the family has been doing so for over 70 years. "We had the facilities, and we had the know-how. So expanding that was an easy way for me to join the operation versus starting something from scratch," Seth says. "Plus, I have several generations of expertise to call on."

The Smiths own their cattle, but Sac County has a high concentration of farmers who raise cattle, poultry and pigs on contract – an arrangement where those farmers agree to raise livestock owned by someone else. Seth says that when his father got started farming, contract feeding didn't exist. "You either owned the livestock, or you didn't have any. Now the bulk of livestock in this county is owned by someone else."

The Smiths have opted to maintain ownership of their cattle because they think it's more profitable than raising contracted livestock. But they've also found that the consolidated beef industry in the U.S. is vulnerable to disruption. Seth explains that the majority of cattle in the region are sold to meatpackers through pre-arranged production contracts, which commit farmers to sell their animals to the company they've contracted with when the animals reach a certain size or weight.

Meatpackers are likewise obliged to fulfill the terms of these contracts, even when a market or supply chain disturbance occurs. Rather than turning to independent, non-contracting livestock farmers to fill in during any supply gaps, the packing companies must work through their contract backlog. The fragility of the nation's meat supply chain was further revealed when meatpacking plants shut down in 2020 as COVID-19 cases surged in Iowa and nationally.

One way the Smiths are working around the constraints of a consolidated beef-packing industry is by direct-marketing their beef locally.



Left to right: The employees and family of Coon River Farms; steak from the farm; multispecies of cover crops.



Left to right: Etta and daughter Skylar; Lane Smith practices lassoing on the farm; Levi and Tilly Smith on the farm.

Direct Markets Build Community

Etta and Seth began direct-marketing some of their cattle in 2014. Today, if you pick up an issue of the local Storm Lake Times newspaper, you are likely to see an advertisement for Coon River Farms beef. The cattle are processed in the nearby towns of Holstein or Ruthven, which means jobs stay local.

"Direct-marketing is a small portion of where our cattle go, but we love it," Etta says. She adds, "It seems since COVID-19, people are more aware of our food system flaws. I believe more people find satisfaction in buying off the farm and using local lockers, keeping their dollars in the community."

Etta sees direct-marketing as a way to engage with people who are not as involved in agriculture, and for the community to become more aware about where their food comes from and how it's raised. " I believe more people find satisfaction in buying off the farm and using local lockers, keeping their dollars in the community."

- Etta Smith

"It connects people to their food. They get interested in how that animal was raised, all the way through how it was processed," she says. "They know they can drive by our place and see where their beef is being produced. It's also very rewarding as a producer to get that phone call from a customer saying they just ate the best steak of their life."

Skylar, Etta and Seth's eldest daughter, also runs a direct-market egg and broiler chicken business. In 2015, at age 6, she started her egg business, which she continues to run, and has had a broiler business since 2019. In 2021, she raised 150 broilers on pasture, moving them every couple of days.

The experience is teaching her about what's involved with managing and marketing such an enterprise – and how to find ways to improve it.

"Skylar has always been an entrepreneur and has paid her own way through every step of her business," Etta says. "She orders her own feed to be delivered to the bulk bin, and she writes the checks from her account for all expenses. She understands break-evens and how that determines what she charges for her products."

Reinvesting in Rural and the Next Generation

For the Smiths, supporting the local community isn't just part of their farm's economic strategy. It's equally about investing in the community's future vitality. Lynn recalls how, decades ago when he started farming, his rural neighborhood was filled with farmsteads. "When I first started farming, there were four families in a section," he says. 'Now, we're lucky if there is one family in a section."

Farms like the Smiths' are countering this trend, however. To help run Coon River Farms' diverse and labor-intensive enterprises, the family employs three people full-time in addition to Seth, Etta and Lynn. Those employees all live within 8 miles of the farm, which further benefits the local economy. "The guys that work for us are phenomenal," Seth says. "They can really run some of the operation on their own, which lets me think about the bigger picture and where the farm will be in 20, 30 years."

The Smith family is also committed to sharing agriculture with the local youth. Etta sees her children as ambassadors of agriculture who are helping to educate the next generation of consumers. "There are few farm kids that go to school with our kids," Etta says.

"Since our children are involved in the daily farming operation, they go to school and educate their peers just through conversations. I've found that even though kids and adults are more distant from the farm than ever, they are still very interested. They want to know about the lifestyle and what we do."

"It's important for our generation to engage with the next generation because we need more farmers," she adds. "Telling our story could inspire a young person in one way or another, and younger generations can learn from our mistakes and from our experience."



1) A drone lifts off to seed cover crops into standing corn during Lee Tesdell's Aug. 23 field day near Slater, Iowa. The drone was operated by Rantizo, and the field day was held in partnership with Polk Soil & Water Conservation District.

2) A rainfall simulator demonstrates the soil-holding benefits of cover crops during Lee Tesdell's field day.

3) Attendees gather around Kathy Dice to hear about chestnut production during Red Fern Farm's "Catching Up" event on Sept. 8 near Wapello, Iowa.

4) Amanda Severson keeps a hand on her son, Harbor, during their field day on Sept. 29 near Clarion, Iowa.

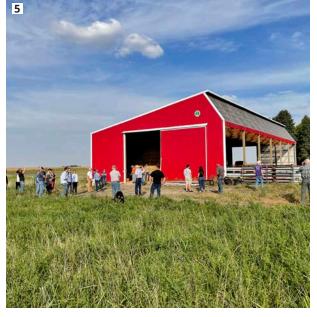
5) Knute Severson wraps up discussion on Grand View Beef's new building before leading the group out to the pasture and grass-finished cattle herd.

6) John Burger gives a moveable fence demo during his field day, "Partnering With a Neighboring Cattle Farmer to Graze Cover Crops," on Aug. 28 near Udell, Iowa.













1) Garlic cures in the high tunnel at The Cornucopia, operated by John and Janna Wesselius near Sioux Center, Iowa.

2) Nick Wallace talks about his meat marketing business prior to dinner during his field day on Oct. 22 near Keystone, Iowa.

3) After a windy and drizzly day, attendees at Nick Wallace's field day were greeted by a rainbow as they toured the pastures.

4) Guests peek inside John and Janna Wesselius' meticulously tended high tunnel during their "Catching Up" event on Aug. 11 near Sioux Center, Iowa.

5) John Wessellius leads "Catching Up" attendees through a high tunnel filled with trellised tomatoes.













4







1) Friends of Air Philavanh prepare Muscovy ducks, which were on the menu at Air's Sept. 28 field day near Milo, Iowa. Air, who is originally from Laos, also raises goats and vegetables.

2) Danelle Myer (green shirt) chats with a field day attendee at her store, One Farm Market, in downtown Logan, Iowa, on Sept. 24. Danelle's field day was titled "Going to Town: Opening a Local Foods Store for the Farm."

3) PFI staffer Lydia English (front) poses with field day host Air Philavanh (USA tee) and others at the field day Air hosted on his farm near Milo, Iowa, titled, "Building a Small, Diversified Farm from Scratch."

4) An orange tabby finds a good spot to perch and survey the field at Spring Lake Organic Farm near Red Oak, Iowa.

5) Air leads attendees on a tour of his diverse, 11-acre crop and livestock farm near Milo, Iowa.







1) Ajay Nair (left) and Jon Yagla (right) sample peppers at the Scattergood Friends School Farm field day on Sept. 15 near West Branch, Iowa. This eventhosted by Scattergood farm manager Mark Quee, was held in partnership with ISU Extension & Outreach.

2) Ajay Nair chats with Carmen Black while attendees mingle along a patch of sunflowers at Scattergood Friends School Farm.

3) Dean Henry leads a tour of the Berry Patch Farm, near Nevada, lowa, from his tractor seat on Aug. 17. The "Catching Up" event focused on commercial-scale berry production.

4) Attendees of Jenny Horner's "Catching Up" event at Spring Lake Organic Farm pose for a picture on the deck. This event was held bilingually in Spanish and English.

5) Twins! Father-and-son team David Rosmann (left) and Ron Rosmann (right) show off their "Get Along, But Don't Go Along" PFI T-shirts after their Sept. 29 "Catching Up" event near Harlan, Iowa.

6) ISU plant pathologist Allison Robertson gives a brief talk on disease management in cover crops during a field day near Correctionville, Iowa, on Aug. 21, hosted by neighbors Nathan Anderson, Roger and John Wilcox and Shane Susie. The group of farmer-hosts discussed their goals for cover crops and ran seeding demonstrations.







Square One

By Celize Christy

Securing access to land is crucial for farm viability, yet is also the largest barrier aspiring and beginning farmers face.



The seeds of farming and living off the land were planted in DaQuay Campbell's mind from a young age. Growing up in Cedar Rapids, Iowa, he recalls hearing his grandmother Rosie's stories of being raised with her siblings on an Arkansas farm.

"They would talk about their life on the farm. That lifestyle seemed to be an important thing to them, and something they would think of fondly," DaQuay says. "The farm was always this mythical place I would hear about growing up. So land ownership has always, in a way, been a dream of mine."

Today, DaQuay is completing his first year raising pastured pigs at Black Oak Acres, the farm he started near Mechanicsville, Iowa. In the two years since he started pursuing farming, he has made significant strides towards his farming aspirations – and the on-farm life his grandmother described.

From IT to Farming

Before embarking on his farm journey, DaQuay had an information technology job helping doctors and nurses resolve medical machinery and equipment issues. The job paid better than any he'd had before, but he didn't enjoy it. "I really hated the job," DaQuay says. "I would constantly leave work upset and go home not wanting to talk to anyone, especially after being on the phone most of the day fixing other people's problems."

As the oldest of five children in a household experiencing poverty, the responsibility of providing for his younger siblings often fell to him. As he got older, started a family and had to shoulder more responsibility as a young father of four children all under the age of 10, DaQuay says that bringing money home became his main focus and priority. "As a young adult, my thoughts were set on how can I make the most amount of money to escape my current lifestyle and have something that is my own."

During the winter of 2019, DaQuay began to think of alternatives to his work-life balance. Originally, he was looking for ways to minimize the costs of feeding himself and his family, and he thought homesteading and starting a small farm business could help with that goal. But he realized farming was also a possible solution to his unhappiness at work. Farming in a self-sustaining way, however, required obtaining farming skills and accessing land.

"I was Googling farm training programs in Iowa and came across the Labor4Learning program, which is how I first became aware of PFI," DaQuay says. "While I was on PFI's website, I saw that there was an upcoming beginning farmer retreat that December. I knew I needed to get myself in front of people who have land to try and navigate potential opportunities."

He decided to attend the retreat, and by chance, happened to sit across from Molly Schintler, who runs Echollective Farm & CSA with her farm partner, Derek Roller. It was a serendipitous encounter because DaQuay had seen an advertisement on PFI's website for a position at Echollective through Labor4Learning that really interested him, and he had been thinking of applying. The two started chatting and DaQuay explained his background, interests and aspirations. "As I was giving her my spiel, she lights up and says, 'you have to meet Derek," DaQuay says. "Three months later, I was out there working on the farm as their Labor4Learning trainee."

Learning at Echollective

Beginning farmers routinely use PFI resources and programs to receive the support needed to start their farm journey. Labor4Learning, which offers paid on-the-job training with our experienced farmer members, is one of PFI's main beginning farmer programs.

DaQuay started working at Echollective in April 2020 and his farm responsibilities ranged widely. He helped put up a greenhouse, mulched garlic, prepared vegetable beds and helped pack, market and deliver veggies to the farm's CSA customers, among other tasks. Echollective is mainly a diversified vegetable operation, but DaQuay also had a chance to gain experience working with livestock, his main passion – particularly pastured pigs.

Derek and Molly had been interested in having chickens on the farm but, prioritizing their other farm enterprises, didn't have the

time to raise them. DaQuay saw an opportunity to gain experience raising livestock on a larger scale. During his time at Echollective, he took on the challenge of raising 120 laying hens and adding the eggs to the farm's CSA share.

"There had been talk of wanting to have chickens on the farm, but there just wasn't enough time for anyone to manage them," DaQuay says. "Starting with chickens was beneficial for me because I was really intimidated by pigs, due to their destructive power."

"Now after raising chickens and meeting other pig farmers, I know more about some of the ways to raise pigs with proper management. As someone with no prior experience raising livestock, being able to experiment with the laying hens on the farm allowed me to figure out if livestock was a doable fit for me."

After working as a Labor4Learning trainee, DaQuay returned to Echollective for the 2021 season as a farm assistant. In exchange for two whole hogs, Molly and Derek offered DaQuay access to 1 acre of the farm for seven months to raise a small herd of 14 Hereford-Hampshire pigs. With that land access arrangement in place, DaQuay launched his farm business, Black Oak Acres, using regenerative practices such as rotational grazing and overseeding to encourage soil and animal health.



"The farm was always this mythical place I would hear about growing up. So land ownership has always, in a way, been a dream of mine."

DaQuay Campbell

Opposite page: DaQuay Campbell smiling and standing amongst his Hereford-Hampshire pastured pigs at Black Oak Acres, presently based at Echollective Farm & CSA near Mechanicsville, Iowa.

This page, top: DaQuay attending the beginning farmer retreat in December 2019.

This page, bottom: Ken, Ollie, Dorothy, Derek and DaQuay all smiling as they harvest garlic in the 90-plus-degree heat at Echollective Farm & CSA in summer 2021. Photo courtesy of Echollective Farm & CSA.



Navigating Land Access

DaQuay's interest in livestock stems from a general love for animals, formative encounters during hunting forays and his experience of food insecurity at home. DaQuay knew first-hand what it was like to not have much to eat at home. "Part of my interest in raising livestock comes from me wanting to have a rich, sustainable food source for myself and my family," DaQuay says.

After participating in the Labor4Learning program in 2020 and raising pigs on his own in 2021, DaQuay feels that farming is now a legitimate dream. Connecting with PFI helped him gain more clarity about what's involved with starting a farm – for instance, that he won't be able to farm full-time right away. "The reality is that in order for me to become a farmer and make a living off the land, I'll need to work an off-farm job and access additional capital while also searching for the right land opportunity," DaQuay says.

In 2019, PFI conducted a beginning and aspiring farmer survey, which offered deeper insights about who these farmers are and the obstacles they face. From those surveyed, three main obstacles emerged: access to land, business development and start-up costs. Half of respondents said they will not inherit or purchase family land, and 60% will need to rent or purchase farmland to start or grow their farm businesses.

For many beginning farmers, access to land is tenuous or completely out of reach – and for aspiring and beginning Black, Indigenous, Latino and other farmers of color, the hurdles to land access can be even steeper. Those seeking land need to figure out how to pay for it, which can involve navigating complex systems, knowing about programs or groups that can help, understanding how to convince banks to lend them money or even having the right personal connections.

"As difficult as farming is, it is 1,000 times more difficult for someone who has no cultural context or connection to farming," DaQuay says. "For someone like me who has no direct access to land or resources, I feel like I do not have the privilege to be a farmer. At times, I feel like I don't belong. Farming is what I want to do, but it has been a challenge to figure out the right way to get started."

Land seekers need to know how to craft a business plan that reflects their unique vision and farm goals – and usually need to have a strong plan before they can access money for land. Then, once they've secured land to farm, they often need to pay for needed farm structures, machinery and other infrastructure to build a profitable and lasting business.

"Growing up, we are sold this idea that we all started at square one in life, and I don't believe that is true," DaQuay says. "I would say I started in the negatives. When I started farming I began to ask myself: How can I both provide a living for myself and my family that doesn't consume my soul, but feeds it instead?"

Creating Something Bigger Than the Struggle

Through PFI's beginning farmer programs, DaQuay has also found a vital source of support during a journey he says has felt especially arduous. "I haven't really talked about just how hard it has been to be a dad, a worker and a farmer who's learning all at the same time, and to be in a world that is completely foreign to me – it is a culture shock."

Before working at Echollective, DaQuay says he had never seen garlic in its natural form, and never eaten a radish or kale. "I would never have had the opportunity to even come this far without PFI, without the Labor4Learning program or without Derek and Molly. Being able to work at Echollective was an extremely crucial part of me being able to start my own farm journey." He encourages those aspiring to farm to be flexible and patient, and to realize there will be hard days where doubts will seem especially heavy.

"On one particular day where I just wanted to quit everything, Derek shared something with me saying, 'Now you have the experience and you have to cash in on that knowledge.' Be receptive and forgiving with yourself because mistakes are going to be made," DaQuay says. "Be flexible in your vision and understand that things might not shake out exactly how you thought they would in your head. But that doesn't mean that they can't shake out in the end."

Despite the difficulties, DaQuay feels empowered having been able to expose his four children – Adrian, 9, Anna, 7, Aliza, 3 and Aurelia, 2 – to farming. "I want to instill in them the understanding that they can make a difference," he says, "that they can create something that is undeniably positive and bigger than the struggle." ■

Left: DaQuay's Hereford-Hampshire pastured pigs. **Right:** DaQuay with his daughters Aliza and Aurelia.



"For someone like me who has no direct access to land or resources, I feel like I do not have the privilege to be a farmer. At times, I feel like I don't belong. Farming is what I want to do, but it has been a challenge to figure out the right way to get started."

DaQuay Campbell



TESTING THE MERITS OF LOW-TILL

Two eastern lowa farms wondered if reduced tillage could solve several production challenges

By Jacqueline Venner Senske

At Humble Hands Harvest farm near Decorah, Iowa, cousin farmers Emily Fagan and Hannah Breckbill have noticed changes the last few springs.

et field conditions have extended late into the spring, leaving Emily and Hannah to choose from poor options: delay planting, setting back their whole production timeline and ultimately delaying income, or wade through the mud to plant in wet soil and risk long-term effects from the resulting soil compaction.

Near Grinnell, Iowa, Jordan Scheibel of Middle Way Farm has also experienced frustrations related to soil moisture. A few years ago, he noticed that the equipment he was using to prepare his vegetable beds had created a compaction layer roughly 6 inches below the surface of his heavy clay soils. "That's right where the bottom of the tiller blade goes," he says.

Consequently, water was unable to fully infiltrate the soil. He witnessed the results during one extreme rain event, when he says the soil quickly saturated, forcing the rain to run across the surface and sweeping soil away with it. These disconcerting observations, and the practical challenges to their farms, independently led both sets of farmers to consider experimenting with low-till methods of production.

"Up until [2020], I was a rototiller-based farm – I'd never done anything no-till," Jordan says. "That was how we did all of our bed prep. In 2018, we had 7 inches of rain across two nights on top of ground that was already saturated, and the water simply filled up the soil and started to flow across the field.

"We're on top of a hill, so there wasn't flooding from somewhere else. I watched how the water just had to flow across the surface. It couldn't penetrate down, and I realized how much compaction I had in the field. That started to really turn me toward thinking about if I could get rid of the rototiller, or rototill less."

Jordan, Emily and Hannah have each been inspired by the success of Singing Frogs Farm, an exclusively no-till vegetable operation in Sonoma County, California, run by no-till advocates Paul and Elizabeth Kaiser. In addition to raising beautiful, bounteous crops, Singing Frogs Farm is also highly profitable – and the Kaisers say they have seen significant increases in organic matter, soil microbial life and ecological diversity as a result of their practices. "The story of our experiments with no-till starts with the spring of 2019, when I watched a webinar from Singing Frogs Farm about their no-till technique," Hannah says. "It was super exciting to me because we'd been struggling with really wet springs when it would be basically impossible to get the tractor into the fields. Even though other conditions were right, we wouldn't be able to till to get our planting done. So we were looking for ways to build resilience and be able to plant, even if it was consistently raining."

Benefits and Types of Low-Till Systems

Soil quality is critical on vegetable farms, which often feature intense growing systems with beds turning over multiple crops per season and high-value crops that are directly affected by soil moisture and nutrient availability. No-till and low-till production methods, when correctly used, can suppress weeds and improve soil structure.

Low-till, along with its companion practices and terms – no-till, reduced tillage, conservation tillage, strip-till and ridge-till – are conceptualized and practiced differently by farmers around the country (and the world). For the Kaisers, as outlined on their farm website, nearly every aspect of farm management hinges on the three basic principles of soil management: disturb the soil as little as possible; keep a diversity of living plants in the ground as often as possible; and keep the soil covered and protected as often as possible.

In annual cropping systems, most low-till methods will still include some soil disturbance. But farmers tend to till a smaller area less frequently and only at very shallow depths (1-2 inches). Two of the most popular methods include low-till in permanent bed systems and strip-till.

In the low-till system, production beds are never, or very infrequently, tilled and permanent walkways are built between the beds. Initially, weeds are suppressed by a mulch of the farmer's choosing. Over time, weed pressure is reduced because new weed seeds are not produced or brought to the surface. Mulches can be any protective covering that's spread or left on the ground.



Clockwise from left: Emily Spangler, who works at Humble Hands Harvest in Decorah, Iowa; Jon Yagla, of The Millet Seed in Iowa City, Iowa; and. Jordan Scheibel, of Middle Way Farm near Grinnell, Iowa.

In the strip-till system, the farmer shallowly and narrowly cultivates (4 inches wide, 1-2 inches deep) to create a strip of prepared seedbed for direct seeding or transplanting. The rest of the field remains covered by the residue of a previously terminated cover crop. In many vegetable systems, cover crops are killed by rolling, roller-crimping, scything or mowing, or with herbicides. Some farmers are experimenting with living cover crops between rows, such as low-growing clover species.

Doing Research for Farm-Specific Answers

In 2019, to investigate the potential of no-till vegetable production on their farms, Emily, Hannah and Jordan together applied for and received a two-year grant through the U.S. Department of Agriculture's Sustainable Agriculture Research & Education (SARE) program.

For the project, which included the 2020 and 2021 growing seasons, each farm tested different soil treatments to assess impacts on soil quality, management practices and crop health. At Middle Way Farm, Jordan tested three treatments: rototilling with regular amendments, compost-only application and a combination of rototilling and compost. The Humble Hands Harvest team compared rototilling and compost treatments.

Realizing other farmers could benefit from what they learned through the project, Practical Farmers of Iowa partnered with both farms, as well as researchers at the University of Wisconsin-Madison and other PFI members, to offer a four-part "Reduced Tillage Vegetable Production Web Series" in August 2021.

The first two episodes featured University of Wisconsin-Madison researchers Rue Genger and Clare Strader, and Dylan Bruce of Wisconsin-based Circadian Organics. All three have been exploring no-till methods with farmers in a statewide community of practice for the last several years and shared findings from research and ongoing projects. Closer to home, Iowa City, Iowa-based farmer Jon Yagla of The Millet Seed, featured in the third episode of the web series, has been growing vegetables for about 30 CSA shares on less than a fifth of an acre for the last six seasons almost entirely without tillage. Jon dresses his beds with shredded leaf mulch from the city when he seeds new crops, and strives to disturb the soil as little as possible. For Jon, a no-till approach maximizes production on his small, intensively farmed ground in a manageable, pleasant way that he feels discourages weeds, conserves moisture and builds soil structure.

"I think the no-till is helping," Jon says. "We have really high organic matter in the soil here, so it holds moisture for longer, and the leaf mulch makes great habitat for worms, which improve the soil too."

Nuanced No-Till Experiences

The farmers at Humble Hands Harvest and Middle Way Farm have each had different experiences with their forays into reduced tillage, which they shared in the fourth and final episode of the web series. Emily and Hannah found the practice immediately addressed their initial concern: They were able to get into the field earlier in the season to plant. They did find their no-till beds were more labor-intensive. But Emily says part of the reason in 2020 might be because their zucchini crop, one of three crop types tested in their research that year (they're still analyzing 2021 data), grew significantly better in the no-till plot.

"The yield from the no-till bed was double that of the tilled bed," Emily says. "The plants were just huge and beautiful and gorgeous, and the harvest window was very long for the no-till planting. The zucchinis in the tilled planting were tiny and got overgrown with grass very quickly.

"Our labor [in the no-till plot] was triple, which is interesting, but is tempered by noting that we spent a lot of time harvesting that and didn't ever harvest the tilled bed."



Some of that labor demand was also due to more time spent weeding by hand, along with performing careful bed preparation during turnover between crops and applying compost. In the end, Emily and Hannah have decided that the benefits outweigh the challenges of a no-till system.

Jordan's reduced tillage experience so far has been mixed. His approach has always focused on reducing tillage, rather than eliminating it. He has found his most successful system involved tilling, which ultimately stimulates the seed bank prior to using no-till methods. Upon reflection, Jordan sees the most benefit from tillage followed by reduced-till methods continued over a longer period.

"I'm kind of a fan of tilling first before using no-till," he says. "You aerate the soil and put in all the long-term amendments before you stop tilling. No-till beds preserve the soil structure. "If I put my hand in a no-till bed, I can feel the pore spaces that have been created by the soil not being disturbed. If you keep that up for a year or more, the benefits start to accrue. I think the hardest part of no-till is just starting out." "I'm getting the sense that the establishing phase of no-till is very different from the settled-in phase," she says. While no-till doesn't solve all the problems a vegetable farmer faces, it has become a critical piece of the puzzle.

"There is no panacea," Jordan says. "But no-till has had some benefits and it is an important technique in the toolbox of options."

Hannah and Emily, by contrast, plan to convert their entire vegetable production area to no-till, in combination with tools like fall and summer cover crops, silage tarps to kill weeds and cover crops, and copious applications of compost for fertility as well as weed control.

"We have been trying to focus on the qualitative things about the differences in the two systems, and we definitely feel better about doing the no-till stuff," Emily says. "It's hard work hauling compost around, but seeing gorgeous cabbages – and every plant is happier to have that much compost on it – it just feels really nice.

"And knowing that we're not totally disrupting our soil structure every time we're planting something feels really good to us." \blacksquare



Vegetables grow in low-till fields at Humble Hands Harvest, operated by Hannah Breckbill and Emily Fagan near Decorah, Iowa.

Learn More

Emily agrees.

- practicalfarmers.org/reduced-tillage-vegetable-production-web-series
- Singing Frogs Farm singingfrogsfarm.com
- SARE project link: projects.sare.org/project-reports/fnc20-1249



CALL FOR ON-FARM RESEARCH COOPERATORS!

CORN FARMERS: Come put soil health and nitrogen fertilizer to the test

Recent research suggests that biologically healthy soils need less fertilizer. If you've been working to improve your soil health, we think you can reduce nitrogen to corn without sacrificing yield.

- **Who can participate?** We're looking for corn farmers in Iowa. Eligible fields will have at least a five-year history of soil health practices (cover crops, diverse rotations, integrated grazing, reduced tillage, etc.).
- **What's involved?** For the 2022 crop-year, you will reduce your typical N-fertilizer application to corn rate by 50 lb N/ac in a replicated strip trial. (For instance, if your typical rate is 170 lb N/ac, the reduced rate will be 120 lb N/ac.)

The research setup: You'll plant 8 treatment strips that are about 2 acres each. Four strips (~8 acres) will receive the typical rate, and four strips (~8 acres) will receive the reduced rate.

Total trial footprint: ~16 acres

| TYPICAL | REDUCED | REDUCED | TYPICAL | REDUCED | TYPICAL | TYPICAL | REDUCED |
|---------|---------|---------|---------|---------|---------|---------|---------|
| REP 1 | | REP 2 | | REP 3 | | REP 4 | |

Why participate?

- You'll receive a \$1,000 stipend for completing the trial.
- You'll learn more about fertilizer use in corn on your farm.
- You will contribute vital data to a broader effort by PFI and partners to gauge risk associated with reducing N fertilizer.

Why is this important?

If we can reduce our reliance on N fertilizer...

- We can improve water quality.
- We can improve agriculture's carbon footprint.
- We can improve our farms' bottom lines.

Do you want to put your soil health to the test? Do you want to join a community of curious and creative farmers who take a scientific approach to improving their farms? Contact PFI's research director, Stefan Gailans, at **stefan@practicalfarmers.org**.

Review of: "Transforming Psychological Worldviews to Confront Climate Change"

"Transforming Psychological Worldviews to Confront Climate Change: A Clearer Vision, a Different Path," by F. Stephan Mayer, is a comprehensive analysis of the foundations of psychology that shape our worldview.

Mayer presents empirical data on Earth's changing climate, as well as primary academic publications, to lay a scientific case for a land ethic worldview movement. The many ways to embrace transition to a land ethic worldview are exemplified in the book. Mayer uses examples from various points on the spectrum of personal identification with a land ethic worldview. No matter how a person identifies with this new worldview, through cooperation, interconnectedness and intention, they can catalyze change small or big.

If we are to ask citizens to transition to an alternative worldview, constructs of social psychology, along with the empirical data on the science of climate change, need to be clearly articulated. Mayer uses the story of Aldo Leopold's transition from a young man who blindly exploited nature to a person with a conservation-minded ethic as an example of positive evolution toward change. Referencing the barriers to interpreting climate change as an imminent threat, Mayer eloquently provides a deep dive into the roots that form a culture of "mistrust," "a general atmosphere of uncertainty," "selective exposure," "denial" and finally, "psychological distancing."

Upon realizing the thoroughness and density of content to Mayer's case, I needed to set the book down and take a step back to think about the best perspective from which to read this book. I chose to wear my "farmer hat" and wondered, in the context of the potential creation of voluntary carbon markets in agriculture, will Mayer's book shed light on the current lack of clarity? To this question, unfortunately, Mayer provides no answers.

The U.S. Congress passed the Growing Climate Solutions Act in June 2021, which creates a framework for developing voluntary carbon markets in agriculture. Mayer's book, published in 2019, is well-timed to shed light on the history and socio-psychological characteristics humans must contend with if we are to take the action needed to avert a planetary climate crisis. Mayer takes a hard look at examples of our collective tendency to act in haste when presented with a range of choices.

By page 100, about halfway through the book, the evidence supporting an evolutionary predisposition to seek shortsighted outcomes begins to feel intellectually heavy. This is a book that would be good if I were a researcher looking for a source of literature on the social psychology of decision-making as it relates to changing one's worldview about climate change.

The next question I asked myself as I read was as follows: Is there hope the pursuit of selfish interests we all wrestle with can be consciously widened to be inclusive of those who are from another country, continent, race, ethnicity or demographic? For a time, I



thought Mayer left this question unanswered. However, he surprised me in the second half of the book when he discussed how to move from an outlook of separateness to interconnectedness. Mayer points out the purpose of diving deeply into the science of psychology – "it enables us to measure aspects of our world and critique our worldviews." In this capacity, he writes, "science can help us see more clearly, chart a different course of action and remap our relationship to the natural world"

Mayer desires for us to see connections between ourselves and nature, as well as ourselves and others. Suggestions on how one might begin the process towards a new lifestyle are well represented in the final chapter. Mayer believes that, through a series of small, intentional actions by many people, we can set a path where human systems and natural systems work in harmony with one another to create a better promise for our future.

I give this book a thumbs-up for its breadth on a topic that changes daily. If there is one constant our species must recognize if we are to change our behaviors, it's that we must understand both the psychology and history of our human nature to make better decisions in the future. This will ensure our best chance of getting things right in our next and biggest challenge.

Levi Lyle and his family farm near Keota, Iowa, raising organic corn and soybeans, as well as aronia berries, tart cherries and various other fruits. Levi's Indigenous Fruit Enterprises (LIFE) seeks to facilitate the profitability and sustainability of small farms. Previously an organic inspector, Levi now consults farmers transitioning to certified organic production. He is also a podcaster and author of two books, available at www.levilyle.com. Levi will be one of six farmers performing during the storytelling session at PFI's 2022 annual conference.

Share the Harvest: *Give a Gift of Grain*

Gifting grain directly to Practical

Farmers (rather than selling the grain and making a gift from the proceeds) supports our work to equip farmers to build resilient farms and communities, and also provides you with more significant tax savings.

Contributing grain lets you avoid selling the commodity as income, while the production costs may still be deductible. Reducing taxable income may provide advantages, such as minimizing or eliminating your self-employment tax and reducing your adjusted gross income.

Plus, gifting grain is easy. Ann Cromwell, who dated a gift of grain to PFI last year, says, "I donated grain in 2020 to about 10 charities including my church."

The process is simple: Notify your grain dealer of PFI's address and the amount of grain you are gifting. With the reduced amount of charitable giving now deductible in federal and state tax laws, this is an easy way to donate and still reduce taxes.

For more information about donating a gift of grain, please contact Sally Worley at sally@practicalfarmers.org or visit practicalfarmers.org/gifts-of-grain

Thanks for your consideration!



Sale of "Hotz for Otz" T-Shirts Will Benefit PFI



Fans of PFI and ISU sports can show their support for both with a new shirt by Raygun, a Des Moines-based design, printing and clothing store, and Wide Right Natty Lite, a blog focused on Iowa State University athletics.

The two teamed up to create a T-shirt supporting new ISU men's basketball coach T.J. Otzelberger. Wide Right Natty Lite will offer a portion of the proceeds from the sale of this shirt to PFI. To purchase the shirt, visit raygunsite.com/collections/t-shirts-1/ products/hotz-for-otz. ■

PFI Thanks Lisa Schulte Moore and Welcomes Matt Liebman to the Board of Directors

Lisa Schulte Moore, a professor in the Department of Natural Resource Ecology and Management and associate director of the Bioeconomy Institute at Iowa State University, stepped down from her second term as a non-farmer PFI board director. This is for an exciting reason: Lisa was named a recipient of a MacArthur Fellowship. This prestigious award identifies scientists, artists, entrepreneurs and others who have demonstrated exceptional creativity and who show promise for important future advances. Lisa is the first ISU faculty member to receive a MacArthur Fellowship.

Congratulations, Lisa, and thanks so much for your excellent service!

When someone steps down from the board mid-term, per PFI's bylaws, the board of



Congratulations, Lisa, and thanks so much for your excellent service!

directors appoints someone to replace them for the rest of the term. The board invited Matt Liebman to serve as Lisa's predecessor, and he has accepted! Matt, like Lisa, is a lifetime member of PFI and, through the end of this year, has served as faculty at Iowa State as a professor in the department of agronomy and as the Henry A. Wallace Endowed Chair for Sustainable Agriculture. His research and outreach has focused on ways to improved environmental quality and agricultural productivity while reducing dependence on agrichemicals and fossil fuels. Matt retires from ISU December 31, 2021. We are excited to have Matt on the PFI board!

Additionally, Jon Bakehouse, who is in his first year as a PFI director, has stepped in to be treasurer, a role that Lisa filled during her service.

PFI Welcomes New Green Iowa AmeriCorps Members, Lia and Ryan, for 2021-2022

Lia Carrillo



Lia Carrillo joined Practical Farmers of Iowa in October as a Green Iowa AmeriCorps member. During her service term, which runs from 2021-2022, she is mainly collaborating with PFI's habitat and policy coordinator, Jorgen Rose.

Lia is currently pursuing an associate degree in biology at Des Moines Area Community College, after

which she plans to pursue a bachelor's degree in biology at Iowa State University in hopes of becoming a conservation biologist. Lia is from Bucks County in southeastern Pennsylvania. From 2015-2020, she lived in Houston, Texas, where she spent most of her time coaching Xcel Silver gymnastics at Biron Youth Sports Center. Lia and her boyfriend, Andrew, moved to Iowa in October 2020 so Andrew could start his new job as a regional engineer for Ducks Unlimited.

Lia and Andrew have a passion for waterfowl hunting and fishing as well as enjoying time outdoors with their three dogs. They have a pure-bred black Labrador retriever named Grace (their hunting dog), a black Lab-greyhound mix named Gem and a collie mix named Sienna.

Even though the winters in Iowa can be rough and nothing like Texas, they have still enjoyed their time so far and are excited to continue exploring what Iowa has to offer. ■

Ryan Hansen

Ryan joined Practical Farmers of lowa in September as a Green Iowa AmeriCorp member. He is primarily working with the communications team editing videos, laying out magazine design, and assisting with other marketing and promotional materials.



Ryan was raised in Iowa City, Iowa,

graduated from the University of Northern Iowa with a degree in interactive digital studies and currently lives in Ames, Iowa, with his dog Oliver. Having lived at all three state schools, Ryan finds it difficult to know who to support, but he loves to yell all the same.

Some other passions of his include video and board games, cooking shows, spending time with friends, reading and singing. ■

We're Hiring an Information Systems Manager

We are currently accepting applications for a full-time information systems manager, based in our Ames, Iowa, office, to support our operations department. This person will work with organizational leadership to plan, manage and support information systems and processes.

PFI uses constituent relationship management software, an accounting system, survey platforms, database tools and various other applications to support daily operations and key organizational processes. The information systems manager will be responsible for the effective functioning of these systems, and will support PFI by:

• Understanding the business processes and data needs of all departments and building the information and application ecosystem at PFI in a way that best meets the organization's operational and reporting requirements

- Developing standard operating procedures and protocols in collaboration with leadership and departments
- Holding trainings for staff on how to use available information systems to support their work
- Creating and implementing customer service processes that help staff effectively use PFI information systems
- Managing vendors PFI works with to support, administer and maintain technology and information systems

Learn more at practicalfarmers.org/ employment and apply by Friday, Jan. 21. ■



Listen to Habitat Podcast Episodes

This autumn, we released six new episodes of our podcast, "On Farm," that explore a range of conservation practices and habitat restoration efforts farmers are engaged in, as well as things landowners can do to create wildlife habitat and why PFI is working on habitat issues. Find the podcast on Apple Podcasts, Spotify, Stitcher or wherever you get your podcasts. ■

Welcome, New Members!

DISTRICT 1 - NORTHWEST

- Donald Getting Sanborn
- David Hermstad Webb
- Dale Kerkhoff Templeton
- Chris Ludwig Breda
- Scott Matthias Hornick
- Alan Pudenz Odebolt
- Carrie Radloff Sioux City
- Riley Riediger Hinton
- Bob Rosener Vail
- Steve Stoermer Dickens
- Patrick Wiederin Carroll
- Shane and Jan Wiese Holstein
- Luke Zalaznik Peterson

DISTRICT 2 - NORTH-CENTRAL

- Michael and Rochelle Barrigan Charles City
- Nicole Bennett-Tuel Scranton
- David Calderwood Traer
- Bridget Chambers Webster City
- Dennis Clapper Rhodes
- Trent Clapper Rhodes
- Chris Colvin Ames
- Dan Davis Boone
- Brooklyn Denger Ames
- Martha Dorow Osage
- Rebecca Dostal Traer
- Ryan Duffy Marshalltown
- Troy Feldman Greene
- Ben Fisher Boone
- Kathy Getting Williams
- Justin Hanson Roland
- Eric Henry Nevada
- Howard Holz Grand Junction
- Craig Hupfeld Liscomb
- Ned Johnson Rippey
- Hilary Kollasch Whittemore
- Doug Korte Laurel
- John Launstein Holland
- Dale Launstein Holland
- Roger Nelson Humboldt
- Steve Owen Maxwell
- Rachel Perry Ames
- Hannah Scates-Kettler State Center

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- Brian Schmitt Nevada
- Bob Schuler Zearing
- Brad Staley Hampton
- Carly Strauser Ames
- Mitch Stream Churdan
- Kayonna Topp Ames
- Mike Tow Gilman
- Mike Will Paton

DISTRICT 3 - NORTHEAST

- Mark Bierschenk Shellsburg
- Josh and Kara Corcoran Sumner

3

• Justin Lang – Lovilia

• Sara Lira – Adel

• Michael Leinen – Portsmouth

• Dennis Machin – Kellogg

• Brandon McHugh – Dunlap

• Mary Ellen Miller – Corydon

• Phenihas Ndiho – Des Moines

• Rick Ohlinger - Portsmouth

• Melvin Poortinga – Reasnor

• Erin Porter – Bondurant

• Larry Pote - Coon Rapids

• Blake Reynolds – Indianola

• Wes Seuferer – Pleasantville

• Andy Sorsoleil – New Virginia

• Nathan Sunderman – Clarinda

• Breanna Sunderman – Villisca

• Naya Thomas – Des Moines

• Andrea Vaage - Des Moines

• Kevin Van Maanen – Sully

• Kirk Vanderlinden – Numa

• Robert White – Centerville

• Anthony White - Centerville

Julie Wisecup – Missouri Valley

DISTRICT 5 - SOUTHEAST

• Stacy Wistock - Lorimor

• Kristin Armstrong – Gibson

• Emma Barber – Springville

• Colette Brodersen – Coralville

• Ken Blomme – Ladora

• Wes Carney – Davenport

• Dirk Ver Steeg – Earlham

• Clint Vos – Newton

• Craig Weis – Earling

• Joel Vos – Sully

• Roger Van Vark – Otley

• Bill Tomlinson – Ankeny

• Fred Van Ee – Pella

• Des Moines Water Works, Jennifer Terry - Des

Timothy Sproul – Missouri Valley

• Chris Sobolik – Cumming

• Adam Stamp – Walnut

• Brian Stutzman – Leon

Moines

• Todd Rempe – Leighton

• Travis Rinner – Osceola

• Scott Rempe – Pella

• Renovat Ndabagiriye – Des Moines

• Kennady Lilly and MJ Noethe – Des Moines

- Dennis Haerther Atkins
- Hannah Hall Cedar Rapids
- Holly Hejlik Tripoli
- Aaron Kruckenberg Garrison
- Wally Mahr Dorchester
- Marissa Nicol Decorah
- Michael Pipho Dunkerton
- John Prasil Lisbon
- Tomie Sasaki-Hesselink Cedar Falls
- Kyle Schminke Shellsburg
- Matt Sebetak Ely
- Lester Sebetak Newhall
- Richard Sperfslage Winthrop
- Andy Sperfslage Winthrop
- Brad Steffens Ely
- Amos Troester Garnavillo
- Brian Voss Palo
- Bret Walker Waverly
- Seth Walker Waverly
- Robert Zauche Peosta
- Ethan Zierke Marquette

DISTRICT 4 - SOUTHWEST

- Farm Her, Marji Alaniz Grimes
- Jerry Baker Clearfield
- Adam Beschorner Wiota
- Lynn Bohn Des Moines
- Jason Buss Modale
- David Carlson Neola
- Martin Doud Dexter
- Dennis Drake Grimes
- Ellen and Jack Duysen Council Bluffs
- Amy Dykens Osceola
- Tim Ennis Waukee
- Hagen Fouch Pleasantville
- Gwen Friedow Kanawha
- Darwin Grow Bagley
- Amanda and Robert Hanisch Diagonal
- Adam Henderson Albia
- Justin Hopkins Promise City
- Mr and Mrs Hopkins Promise City
- Kristine Houseman Indianola
- Dan Hubler Columbia
- Nicholas Hunt Atlantic

• Levania Jelson – Bondurant

• Matt Johnson – Council Bluffs

Roslea Johnson – Des Moines

• Jerry Kenkel – Missouri Valley

• Lonn Kilworth – Exira

Mike Immel – Adair
Matthew Immel – Exira

Thank you to our membership team for all their hard work enrolling our new members!

• Rod Criswell – Malcom

- Tanya Dideriksen Oxford
- Michael Erenberger Solon
- Dan Erenberger Solon
- Justin Gesling and Holly Jones Crawfordsville
- Dianne Harms Monticello
- April Heki Clinton
- Dave Hollingsworth Packwood
- Lorie Jager Eddyville
- Dustin Johnson Clinton
- Clark Kendel Tipton
- Tony Kriegel Brooklyn
- Ted Kriegel Brooklyn
- Brian Kriegel Brooklyn
- Jeff Jon Kriegel Grinnell
- Stewart Mass Marengo
- Dave Maxwell Gibson
- Carrie McCloud Rose Hill
- Ryan Merck Wellman
- Arthur Millikin Hedrick
- Doug Mougin Tiffin
- Robert Oldham Eddyville
- Tom Parrott Burlington
- Lisa Petrie Iowa City
- Kyle Prevo Bloomfield
- Dan Schipper Brooklyn
- Shawn Sherwood Brooklyn
- Laura Shuler Letts
- Dale Sprank Bellevue
- John Van Heukelom Leighton
- Wiley VanOmmen Searsboro

DISTRICT 6 – OUT OF STATE

- Parker Arnold Loveland, CO
- Connie Bearden Orlando, FL
- Trent Brass Rockford, IL
- Ken Dau Sheridan, IL
- Sally Ferguson Coal Valley, IL
- Kim Sheese Aledo, IL
- Dale Longwell Genevam IN
- Matt Lorenz Romem IN
- Walt Stanley Rensselaer, IN
- Kurt Theurer Portland, IN
- Roger Wenning Greensburg, IN
- Leon Atwell Norton, KS
- Betsy and Larry Roadman Portland, ME
- Christian Roadman Portland, ME
- Nancy Klaphake Ann Arbor, MI
- John Tuckerman Blissfield, MI
- Caitlyn Bell Madelia, MN
- Denny Blowers Motley, MN
- Davis Bonk Appleton, MN
- Deanna Burke Osseo, MN
- Allen Deutz Marshall, MN
- Theron Gjersvik Alden, MN
- Tom Hammell Caledonia, MN

- Ronald Hornberg Winona, MN
- Michael Krause Lewiston, MN
- Dallas Liddle Bloomington, MN
- Jared Olson Minnetonka, MN
- Mitch Pederson Hendricks, MN
- Dylan Tuerk Owatonna, MN
- Karin Wentz Edina, MN
- John Cobb St Joseph, MO
- Mitchell Corbin Mound City, MO
- Chris Gallagher Maitland, MO
- Jason Hull Skidmore, MO
- Scott Meadows Mound City, MO
- Bill Metzger Mound City, MO
- Mike Rosenbohm Graham, MO
- Dylan Rosier Mound City, MO
- Steve Schmidt Maryville, MO
- Anthony Washburn King City, MO
- Mark Brabec Schuyler, NE
- Dallas Breitbarth Bancroft, NE
- Matt Breitbarth Pender, NE
- Monte Christensen Omaha, NE
- Billy Chromy Linwood, NE
- Brian Cumming Saint Edward, NE
- Gayle Duda Omaha, NE
- Seth Feala North Bend, NE
- Greg Fiala David City, NE
- Justin Fiala Ulysses, NE
- Jim Group Louisville, NE
- Darryl Hegemann Howells, NE
- RJ Hein David City, NE
- Steve Jacobson Omaha, NE
- Jarrod Knorr Ashland, NE
- Harold Kolb Ashlan, NE
- Mark Korth Randolph, NE
- Kyle Korth Wausa, NE
- Mark Kratochvil Clarkson, NE
- Todd Kreikemeier West Point, NE
- Bill Kropatsch Osceola, NE

Abram and

Jessica Frank

West Bend, IA

- Garet Kubie Blair, NE
- Wayland Magee Bennington, NE
- Trent Mastny Clarkson, NE
- Valerie Mathis Emerson, NE
- Mark Peterson Craig, NE
- Marilee Polacek Bruno, NE
 Grant Potadle Herman, NE

• Kurt Potadle – Herman, NE

• Ruth Ready - Scribner, NE

• Matt Rorie – Blair, NE

• Lee Vavrina – Abie, NE

• Brian Ehmer – Powell, OH

• Steve Snyder – Delta, OH

• Tyler Brost – Medford, WI

• John Engel - Pine River, WI

• Tim Hermann – Frederic, WI

• Steve Messner – Oakfield, WI

• Bruce Peterson – Malone, WI

• Patrick Sorge – Osseo, WI

• Cody Zimmer – Bay City, WI

Thank you

to our newest lifetime members!

Lifetime membership is open to anyone, and confers the same benefits as

regular membership – without any renewal notices! Learn more about this option at

practicalfarmers.org/lifetime-membership.

Jesse

Singerman

lowa City, IA

Neal and

Lucie Sawyer

• Steven Rooney – Chippewa Falls, WI

• Rodale Institute, Léa Vereecke – Madison, WI

Princeton, IA Mount Carroll, IL

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Justin

Rahn

• Matt Hintz – Amherst, WI

• Jerry Daniels - Juda, WI

• Luke Nussbaum – Shreve, OH

• Wallace Knock – Willow Lake, SD

• Steven McDaniel – Temple, TX

• Kent Olson – Mineral Wells, TX

• Joe Bragger – Independence, WI

Tiffin. OH

• Jacob Soll – Bancroft, NE

• Todd Swanson - Wahoo, NE

• Dan Theilen – Bennington, NE

• Seneca Conservation District, Beth Diesch -

• Douglas Jackson-Smith – Wooster, OH

• Daniel Schilling – New Middletown, OH

• Rodney Rohde – Emerson, NE

• Edward Rohde – Emerson, NE

"The Best Beef You Can Bite"

Lifetime member Neal Sawyer uses grazing to regenerate his soil and serve his community



he Sawyer family has farmed in lowa since the 1850s. Neal and Lucie Sawyer represent the fifth generation to uphold this tradition. Neal's grandfather bought the farm near the Mississippi River town of Princeton, Iowa, in 1948, officially establishing it in 1950. He eventually passed the farm to Neal's dad, Norman Sawyer, who decided in the late 1970s to begin Sawyer Beef, selling corn- and hay-fed beef to the community. Being near the Quad Cities region, which spans Iowa and Illinois, has posed a convenient and enthusiastic market for "the best beef you can bite," as the Sawyers describe their product.

Neal grew up with the cattle and crops, then ventured into the world. He went to college, joined the Peace Corps and later met Lucie, his future wife. In 2005, Neal and Lucie came back to Sawyer Beef and began transforming it into a formidable grass-fed beef operation. When he returned, Neal worked with his dad to make changes and connections, like growing a predominantly Angus cow herd. Neal learned of PFI in 2006 while visiting Lucie, who was finishing her graduate degree and shared classes with students in Iowa State University's sustainable agriculture graduate program. He attended PFI's annual conference that year and has been a member since.

It was in 2008 that Neal and his dad plunged into intensive rotational grazing. "To some degree, my dad had always done a little bit of rotational grazing," Neal says. "But it was two pastures back and forth all summer." The first 90 acres were split into 10-acre paddocks. After two years, Neal and Norman divided the remaining 300 acres into paddocks. As business grew, so did demand for grass-fed and grass-finished beef. The Sawyers proceeded in the same manner, first finishing two animals on grass, then six when that was a success. Neal estimates that in 2013, grass-fed beef made up about half of his total sales alongside corn-fed beef.

Neal moves his 100 cow-calf pairs as often as every 12 hours to ensure they always

have fresh forage available. He planned the cell size so it was large enough not to crowd the cattle, but small enough so they could consume or trample all the grasses in a given paddock. The trampled, mowed and fertilized grass develops a deeper root system, taller structure and definitive seed bank. Neal tracks the movements of the cattle to maximize this paddock rest period and let the grass rebound. In a typical summer, the paddocks are grazed three times each. Neals says the cycle promotes "healthy soils, grasses and cows that go on to produce delicious, nutrient-rich beef." He adds: "The system also ensures that a grass-fed Sawyer cow only ever ingests what it grazes." This is true even during the winter, when the cows graze the neighbor's cornstalks or hay baled from the fields.

Livestock herding and handling is a 365-day-a-year job. A typical day for Neal involves the regular chores, like feeding his corn-fed finishing cattle and moving the grass-fed cattle to fresh grass. This year, Neal is raising fewer corn-fed animals due to the high price of corn, leaving more time for cow rotation.

Neal decided that a PFI lifetime membership would be a meaningful tribute to his dad, who died in 2020. A few of Neal's friends sent in donations, which Neal combined with his own donation. The gift honors the five-generation Sawyer Farm legacy and shows his dedication to his community. "We were the first people to go no-till in Scott County," Neal says. "[Our community is] the reason we're doing natural beef, retail cuts and grass-fed beef. We both benefited from learning about other people."

Neal looks forward to engaging even more with PFI's content in the future. He's most enjoyed the networking, farmer knowledgesharing and connections that make up PFI.

"I like hearing about new ideas and ways of thinking about how people are managing their farm and trying out things. That's certainly what I get from this community."

Practical Farmers Events —

Note: Times are in CST. Full details about all events are available at practicalfarmers.org/events.

JANUARY

JAN. 18: Farminar - High-Producing Organic No-Till

Host: Brett Israel | 7-8:30 p.m. | Online | To participate, visit practicalfarmers. org/farminars

JAN. 21–22: PFI Annual Conference, "Facing the Horizon"

Ames, IA | Learn more at practicalfarmers.org/2022-annual-conference

FEBRUARY

FEB. VARIOUS: Fruit, Vegetable & Flower Farmer Meet-Ups

TBD | Learn more at practical farmers.org/programs/fruit-vegetable-farmermeet-ups

FEB. 1: Farminar – On–Farm Research Explores Cover Crops, Manure, Nitrogen & Returns

Hosts: Woody Van Arkel & Cameron Ogilvie | 7–8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

FEB. 5: Small Grains Shared Learning Call

Noon | Online | Learn more at practicalfarmers.org/shared-learning-calls

FEB. 7: Beginning Farmer Summit

Cedar Rapids, IA | Learn more at practical farmers.org/beginning-farmerssummit

FEB. 8: Farminar – Mysteries Revealed! Organic Seed Production and How Growers Can Play a Part

Host: Adrienne Shelton | 7-8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

FEB. 11: Apple Orchard Workshop

Ames, IA | To learn more, visit practicalfarmers.org/events

FEB. 14: Field Crops Virtual Meet-Up

Online | To learn more, visit practicalfarmers.org/programs/field-cropfarmer-virtual-meet-ups

FEB. 15: Farminar – Organic Day–Neutral Strawberry Production in the Upper Midwest

Host: Aaron Wills | 7–8:30 p.m. | Online | To participate, visit practicalfarmers. org/farminars

FEB. 21: Field Crops Virtual Meet-Up

Online | To learn more, visit practicalfarmers.org/programs/field-cropfarmer-virtual-meet-ups

Other Events 🦳

Note: Times are in CST. Find more events at practicalfarmers.org/calendar.

JANUARY

JAN. 20–22: 30th GrassWorks Grazing Conference

Wisconsin Dells, WI | Learn more at grassworks.org/grazing-conference

FEBRUARY

FEB. 1-3: Iowa Ag Expo

9 a.m. | Des Moines, IA | Learn more at iowaeventscenter.com/events/detail/ iowa-ag-expo-1

FEB. 4–11: Organic Seed Growers Conference Online Learn more at seedalliance.org/conference

FEB. 22: Farminar – Prairie Strips & Conservation Programs

Hosts: Paul Mugge & Tim Youngquist | 7–8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

FEB. 24: "Livestock on the Land" Screening Decorah, IA | Learn more at practicalfarmers.org/livestock-on-the-land

FEB. 28: Field Crops Virtual Meet-Up

Online | To learn more, visit practical farmers.org/programs/field-cropfarmer-virtual-meet-ups

MARCH

MARCH VARIOUS: Fruit, Vegetable & Flower Farmer Meet-Ups TBD | Learn more at practicalfarmers.org/programs/fruit-vegetable-farmermeet-ups

MARCH 1: Small Grains Conference

Lincoln, NE | Learn more at practical farmers.org/small-grains-conference

MARCH 1: Farminar – Grass–Fed Beef Marketing at Grand View Beef *Host:* Amanda Severson | 7–8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

MARCH 7: Field Crops Virtual Meet-Up

Online | To learn more, visit practicalfarmers.org/programs/field-cropfarmer-virtual-meet-ups

MARCH 8: Farminar – Estate and Succession Planning *Host:* Beverly Jones | 7–8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

MARCH 14: Field Crops Virtual Meet-Up

Online | To learn more, visit practicalfarmers.org/programs/field-cropfarmer-virtual-meet-ups

MARCH 15: Farminar - (Presented in Spanish) Optimización de polinización y manejo de malezas bajo mesotuneles / Pollination & Weed Management Optimization Under Mesotunnels

Host: Sharon Badilla-Arias | 7-8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

MARCH 22: Farminar – Online Marketing for Pastured Products *Host:* Hannah Bernhardt | 7–8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

MARCH 29: Farminar – Working Lands Conservation Programs: Resources & Strategies for Success

Hosts: Kalee Olson & Kayla Bergman | 7-8:30 p.m. | Online | To participate, visit practicalfarmers.org/farminars

FEB. 9–10: Iowa Specialty Producers Conference

8-9 a.m. | Ankeny, IA | Learn more at iowaspecialtyproducers.com

FEB. 12 & 17–19: Ohio Ecological Food and Farm Association's 43rd Annual Conference, "Rooted and Rising"

This hybrid event will take place online on Feb. 12, and in-person Feb. 17-19 in Dayton, OH | Learn more at conference.oeffa.org

FEB. 12: Sustainable Farming Association Annual Conference St. Joseph, MN | Learn more at sfa-mn.org/conference

FEB. 24-26: MOSES Organic Farming Conference

La Crosse, WI | Learn more at mosesorganic.org/conference

MARCH

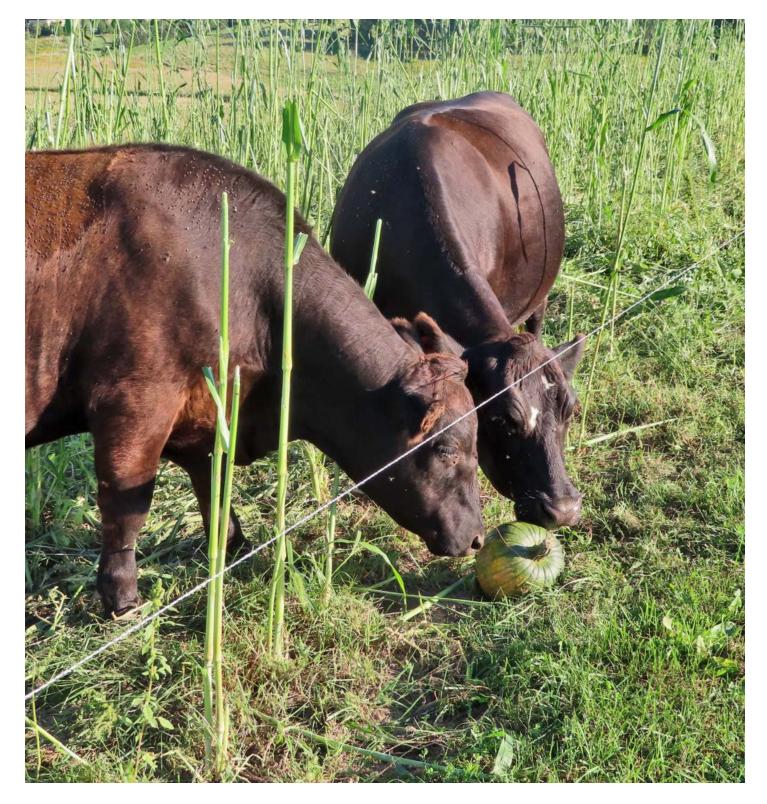
MARCH 8-9: The 9th Annual Midwest Soil Health Summit

Elk River, MN | Learn more at sfa-mn.org/midwest-soil-health-summit

GROW YOUR FARM WITH PRACTICAL FARMERS. JOIN OR RENEW TODAY!

Want to join or renew online? Visit *practicalfarmers.org/join-or-renew*.

| MEMBER INFORMATION | | | | | | | | |
|---|--|--|--|--|--|--|--|--|
| Contact Name(s)*: | | | | | | | | |
| Farm or Organization Name: | | | | | | | | |
| Address: | | | | | | | | |
| City: State: ZIP: | County: | | | | | | | |
| Phone 1: Phone 2: | | | | | | | | |
| Email 1: Ema | il 2: | | | | | | | |
| * For Farm or Household membership, please list names of all persons included. For Organization membership, you may list up to three contact persons | | | | | | | | |
| JOIN OR RENEW | | | | | | | | |
| 1. I AM JOINING OR RENEWING AS: | 3. PLEASE ADD MY FARM TO YOUR: | | | | | | | |
| Aspiring Farmer Friend of Farmer (non-farmer who does not | Local Foods Directory | | | | | | | |
| plan to farm) | PLEASE ADD MY ORGANIZATION TO YOUR: | | | | | | | |
| Farmland owner (non-operator) | Business Directory (Organization members only) | | | | | | | |
| 2. I AM JOINING AT THE LEVEL OF: | 4. HOW DID YOU HEAR ABOUT PFI? | | | | | | | |
| Access - \$25Organization - \$110 | | | | | | | | |
| □ Individual – \$50 □ Lifetime Member* – \$1,000 | | | | | | | | |
| Farm or Household – \$60 * See details at bit.ly/PFI-lifetime | | | | | | | | |
| EMAIL DISCUSSION GROUP SIGN-UP | | | | | | | | |
| When you join our email discussion groups, you can network, build community and exchange ideas from anywhere, at any time. Sign up for as many groups as you'd like (and be sure to include your email address above)! | | | | | | | | |
| Announcements Perspectives Field Crops | Horticulture Livestock | | | | | | | |
| SUSTAIN PRACTICAL FARMERS WITH AN ADDITIONAL DONATION | | | | | | | | |
| For the sake of the long-term health and vitality of Practical Farmers of Iowa, we ask you to consider making a donation above and beyond your membership fee. Practical Farmers of Iowa is a 501(c)3 organization. Your gift is tax deductible to the extent allowed by law. | | | | | | | | |
| l would like to make a one-time, tax-deductible donation to PFI in the amount of: | | | | | | | | |
| □ \$1,000 □ \$500 □ \$250 □ \$100 □ \$50 □ \$ | | | | | | | | |
| Or, make a recurring monthly or quarterly donation. This will be automatically charged to your credit card on the first day of each month or quarter. Yes, I would like to give \$ per month OR per quarter | | | | | | | | |
| PAYMENT | | | | | | | | |
| Membership Level | per year for $y = \hat{S}$ | | | | | | | |
| Additional Donation | = \$ | | | | | | | |
| | | | | | | | | |
| Check or money order is enclosed (Please make payable to "Practical Farmers of Iowa.") Credit card (Visa, MasterCard or Discover only) | | | | | | | | |
| Name on card Nu | mber | | | | | | | |
| Exp. Date CVC# (3 digits) Please automatically charge this credit card annually for membership | | | | | | | | |
| Office Use Only: Check # Check date Total amount Notes | | | | | | | | |



Cows investigate a pumpkin at Scattergood Friends School Farm near West Branch, Iowa. The school's farm manager, Mark Quee, hosted a Practical Farmers of Iowa field day on Sept. 15, in partnership with Iowa State University Extension & Outreach, highlighting on-farm research projects Scattergood is conducting with ISU and other collaborators.

PRACTICAL FARMERS of Iowa

1615 Golden Aspen Drive, Suite 101 Ames, IA 50010



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Drone Seeding

Attendees at Lee Tesdell's Aug. 23 PFI field day near Slater, Iowa, had a chance see a demonstration of cover crops being seeded with a Rantizo drone.