

the PRACTICAL FARMER

AUTUMN 2019



IN THIS ISSUE:

Growing Kids on
Vegetable Farms

Speaking Up for Soil
Health

Using Science and
On-Farm Research to
Investigate Cover Crops





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Barn swallows enjoy the sunshine as they perch on the boundary fence around Maury and Mary Wills' organic apple orchard near Adel. The Wills hosted a PFI field day exploring organic apple orcharding on Aug. 24.



ON THE COVER:
Ernie Hall coaxes the pullets into their training pasture at Forktail Farm near Avoca. See the full story on pages 8-10.



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.

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PFI Farmers' Enduring Curiosity is Leading Change

I have the opportunity to talk daily with many of you – farmers raising all kinds of enterprises, with various farming practices. You, farmers, are the most hard-working and dedicated people I have had the privilege to meet. The passion and work ethic needed to make a living off the land is immense. Keeping livestock comfortable and safe around the clock all year, toiling over fruit and vegetable fields to provide us with fresh produce, harvesting small grains in July – we all know farming requires an enormous amount of hard work and dedication.

However, farmers have been elevated to flawless prestige in the media. It is deemed improper in some settings to question farmers' practices. Some farmers themselves report they don't feel comfortable questioning the status quo, thus don't feel they have permission to explore changes to their operations. This inability to talk about pros and cons of farming, from our environment to our communities to our economy, is unhealthy.

But if we want to advance toward a more resilient farming system, honest conversations about farming impacts are vital. Practical Farmers offers a welcoming environment where constructive conversations are abundant, as farmers and non-farmers explore ways to improve Iowa farms. PFI members are openly talking about the good and the bad of their operations, along with what they want to improve moving forward. Lifetime member and board member Nathan Anderson recently testified to the House agriculture subcommittee in Washington, D.C. about the importance of soil health.

He said, in his comments, "I was once asked the question: 'Ten years after you die, why will it matter that Nathan Anderson farmed that land? Who will know, and who will care?' I'm still considering that question and have formulated this response: Each one of us who is fortunate enough to farm, own or manage land leaves our own imprint on it. That imprint can be negative, neutral or positive, and can last for generations. Just as we can see the soil-based evidence of manure applications, tillage, fencelines and



Nathan Anderson, a lifetime member and board member from Aurelia, poses with Executive Director Sally Worley during a break at a recent PFI board meeting.

travel paths that were made decades ago, farmers decades from now will see our imprint on the land. For the future of food security, rural communities and family farms, that imprint must be positive and enduring." Read more about Nathan's comments on page 11.

We should appreciate and acknowledge farmers for their dedication and hard work. But this shouldn't stem the flow of conversations about our food and farm systems. Farmers and eaters who are curious increase our understanding of the good and bad impacts of the food and farm system, and help shape these systems for a more resilient future. Because agricultural issues are complex, solutions are as well. But honest, constructive dialogue will move us forward. How can we have more of these conversations to support Nathan, and your farming communities, in creating a positive and enduring imprint?

• **Engage in conversations about farming with a wider audience.** Let's increase the net of people aware of and interested in Iowa agriculture. It is our biggest industry, and all Iowans should be farm-literate.

• **Don't point fingers, particularly at individual farmers.** Placing blame will cause people to become defensive, closing the conversation. Ask questions. Talk about your experiences. Dialogue about issues and potential solutions.

• **Keep an open mind.** None of us has all the answers. To think we do impedes progress. You don't have to agree with people, but at least hear them. Try to listen without spending the entire time they're talking preparing to rebuke what they are saying.

When people ask what a common denominator is among our diverse membership, I say they are all curious. You – the curious farmers – are truly leading change. Thanks for engaging in continuous dialogue about how you can be better farmers. It is helping us build a better future.

Sally Worley

Graze More Instead of Owning More

Unique grazing businesses benefit beginning farmers and the land

Odds are you've probably heard of or seen goats grazing in your local county park to eat down poison ivy and other unwanted plant species. This practice, referred to as prescribed grazing, is increasingly prevalent in Iowa and beyond – in both rural and urban areas.

The approach of moving a herd of livestock to different parcels of land to graze or browse comes in many different, unique forms. Along with prescribed or targeted grazing, contract grazing (also called custom grazing) is a way of operating a grazing enterprise without needing to own land, and in some cases, without owning the livestock.

These grazing arrangements offer a range of benefits, such as invasive species control without chemicals, the ability to keep vegetation "mowed" down without the need for fuel and less physical labor needed to manage a parcel of land. But they also offer some less obvious benefits, including access to land – particularly for beginning farmers; social engagement; and the suite of soil health benefits that comes with integrating livestock on the landscape.

Land Access Leads to New Business

Adam Ledvina, owner of two businesses – Blue Collar Goatscaping and Iowa Kiko Goats – in Tama, defines his prescribed grazing service as a native land restoration business. Initiated in 2016, with the help of PFI's Savings Incentive Program, Adam started his business to provide a brush management service that's morphed into a prairie reclamation service – Adam's goats were turned into Iowa Natural Heritage Foundation's Razor Prairie in Jasper County in June 2019. "My favorite part about using the goats for conservation is seeing the difference they can make on a landscape without chemicals and machinery," Adam says. "They make what could be a labor-intensive and exhausting job fun for everyone involved."

Adam's "goatscaping" business has been a springboard for other enterprises. "I keep getting jobs because people see the difference goats make," explains Adam, who now has access to 100 acres of land to custom graze. "That's enough buffer to acquire more breeding stock and expand my herd." He has now doubled the number of does in his herd and is thus able to produce more wethers for meat. Increased land access has helped him build his other business, Iowa Kiko Goats, selling goats as breeding stock and meat – either directly off the farm or at sale barns. Adam says the combination of income streams "provides the potential for a full-time paycheck."

No-Risk Ranching

Greg Judy, a well-known grazer, authored a book titled "No Risk Ranching: Custom Grazing on Leased Land" detailing how he got started farming by leasing idle land to graze with other people's cattle. He learned that with minimal overhead, no interest payments, no depreciation, no property taxes and no risk of livestock or land prices dropping, his capital was freed to grow his business. Greg



"My favorite part about using goats for conservation is seeing the difference they can make on a landscape without chemicals and machinery." – ADAM LEDVINA

lives by a quote from the late Allan Nation: "Your goal should be to make a living from the land, not to own it all."

Beginning cattle farmers Kayla Koether and Landon Corlett, of Decorah, plan to follow the same low-risk principles. They're working towards making use of marginal land, degraded pastures and overgrown prairies to contract-graze cattle on. "You can drive around on country roads and see underutilized pastures and grasslands that could benefit from grazing and generate income for the landowner," Kayla says. The best-suited sites would have an



Above: Kayla Koether and Landon Corlett aspire to custom graze cattle on marginal land, such as degraded pastures and overgrown prairies. Landon gained experience working as a farm-hand mob-grazing cattle, pictured here. **Opposite (Top):** Adam Ledvina moves his herd of Kiko goats to a new browsing site. **(Bottom):** Adam Ledvina's Kiko goats make quick work of clearing invasive species such as honeysuckle, multiflora rose and poison ivy as seen on the right.

“Contract grazing would help us diversify our sources of income, pay for our grazing labor and provide cash flow to help us slowly grow our herd of cattle over time. Then we wouldn’t have to stock our operation by buying cattle outright.” – KAYLA KOETHER

existing perimeter fence, but Kayla and Landon plan to use one-strand electric wire to subdivide pastures and graze intensively.

“Contract grazing would help us diversify our sources of income, pay for our grazing labor and provide cash flow to help us slowly grow our herd of cattle over time. Then we won’t have to stock our operation by buying cattle outright,” Kayla says. “We’ll also slowly grow a direct-marketing outlet alongside our grazing enterprise.”

Contract Graze Cover Crops

Cover crops can serve as a bridge to integrating livestock on Iowa’s landscape. “There’s an awful lot of corn and bean ground that isn’t cover cropped and doesn’t have livestock on it, and that’s a waste,” says Wade Dooley of Albion. Adding cover crops to this ground could present prime opportunities for row crop farmers and graziers to enter into contract grazing agreements, in the process helping graziers extend their grazing season, increase land access and potentially employ another family member on the farm without having to expand crop acres.

“Row crop farmers who work with livestock farmers to run cows on their cover crops in the off-season would be double-dipping on their cash rent and yield,” Wade says. “They’d also be improving their soil quality at the same time, and they’d be able to take advantage of cost-share opportunities through the state and federal government.” He adds that an agreement would need to be amenable to everyone involved, and would likely vary from farm to farm. “Fencing, water access and checking cows regularly are all necessary. It’s totally doable and there’s really no good reason not to do it.”

Social Engagement

There’s another benefit to grazing under unique circumstances: People love to see happy animals at work. Adam says he’s been hired to bring his herd to city parks, which increases visibility and awareness of this eco-friendly practice and brings enjoyment to viewers. “People love goats and the cutesy, fun stuff,” Adam says. “So sometimes prescribed grazing serves as a publicity stunt for businesses hosting events.”

Farmers who graze cover crops along frequently traveled roads say it gets local people talking. Since cover crops provide a vibrant splash of green to the contrasting landscape, people’s curiosity is sparked, providing a way to engage with the community. Educational and informational signs that can be seen from the roadway help. It’s also important to display electric fence warning signs when grazing livestock in public areas.

Another novel approach is a practice called solar grazing, where sheep graze under solar panels on solar farms. Their size and behavior make sheep the best-suited for controlling vegetation under solar panels, while offsetting the cost of herbicides or mowing. Solar farms are already fenced in, so the combination provides a winning scenario for producing clean energy. This dual-purpose practice can augment the value of “farming the sun.” Some solar companies are also using sheep as a marketing tool – even installing “lamb cams” for the public’s viewing pleasure.

The underlying component to success in these approaches is customer (landowner) satisfaction. “You can’t overgraze and you need to keep animals fenced in,” Adam cautions. “If you don’t, anyone involved in custom grazing business will get a bad rap. Then people will go back to chemicals and machinery, and that’s what we’re trying to get away from.” When put into practice with proper management, grazing enterprises can provide access to land in ecologically positive and socially engaging ways. ■

GROWING KIDS ON VEGETABLE FARMS

BY LIZ KOLBE



Above: Young Jane Kaiser rides on her father Travis' back while he works in the vegetable field. **Opposite: (Left)** Jane Kaiser rides on her mother Lindsay's back. **(Right)** Weston Kaiser "helps" with onion harvest at Kaiser Farm, near Waverly.

Humans have been cultivating vegetables while raising children since the dawn of agriculture. But at a time when child-rearing has become less visible to young mothers-to-be – and vegetable farming is nearly as mysterious – starting on both adventures at the same time provides plenty of challenges. For two PFI families, however, the combination is also building a fulfilling life.

Weston and Jane – Kaiser Farm

Lindsay and Travis Kaiser own and operate Kaiser Farm, a diverse, certified organic vegetable farm on a corner of Travis' family's third-generation dairy farm near Waverly. Lindsay and Travis moved to the farm in 2013 while Lindsay was working full-time as the assistant produce manager at Hy-Vee. Travis was, and remains, the dairy's primary milker and herdsman (in 2017, he and Lindsay bought half the dairy,

while his brother, Russell, bought the other half). For 2½ years, Lindsay worked full-time off the farm and was the primary vegetable farmer, doing markets on her two days off from Hy-Vee.

When they decided to have children, they knew they wanted to have them in the winter. "We definitely planned having kids around the vegetable season, and were fortunate it worked out," Lindsay says. "I can't imagine having a baby in the middle of the season – that would be the end of the season." Their son, Weston, was born in December 2015, and daughter Jane followed on the last day of February 2018.

Though both were "winter babies," the experience for Lindsay as a pregnant woman, mother and farmer was very different for each. "It was easier, baby-wise, with Weston, because I had all winter to raise the baby. By the time I was able to be in the field, he could sit up and was more aware, and other people could watch him more easily." The first season after the baby,

the Kaisers were ready with their support system, hiring two part-time employees to help with the vegetables and having Travis' mom come over every morning, all summer, to watch the baby. Lindsay was still doing the CSA with two drop sites, and sometimes would bring Weston along, with varied success. Toward the fall, when he was about nine months old, Weston began spending time in a stroller in the barn with Travis. "We've gone through at least half a dozen thrift store strollers," Lindsay says. "They just get so dirty on the farm." They would cover the carrier with insect netting, which has an elastic bottom to fit over carriers, strollers or pack-and-plays.

Though having Weston in December was beneficial for spring work, it meant being very pregnant during the height of the previous growing season. "I felt like I was 10 months pregnant when I was picking pumpkins. That isn't even possible, but it felt that way," Lindsay recalls. Like many first-time mothers, Lindsay was unprepared for the number of required check-ups and doctor

visits, which were stressful and, for her, the physical toll of pregnancy on her body. She was also surprised by the fatigue, heat intolerance and forgetfulness. "Once we had the baby, the support system made things easier," Lindsay says. "But I would recommend to other women: Don't wait until the baby arrives to gather your support network. You will need it while you're pregnant."

Preparing for Jane's arrival in February 2018, Lindsay knew she needed to make a change. "With two kids, I knew I could not reliably run a CSA with just the two of us working the farm. I could expand to hire additional labor, or I could focus on a single market and raising two kids." That year, Lindsay and Travis dropped the CSA and instead grew crops for just the Cedar Falls farmers market – notably peas, cherry tomatoes, greens and garlic. They altered their row spacing to accommodate their Farmall A, which made it possible for Travis to quickly cultivate the 3 acres, while Lindsay did the planting, harvesting, seeding and hand-weeding. An extra car seat in the car of Travis' dad let Weston run farm errands with his grandpa much of the time, and Travis' mom helped out with Jane many mornings. Lindsay's mom would also come from Iowa City on Saturdays to watch the two children while Lindsay worked the farmers market.

In spite of the challenges, having children while working on the farm also came with some unique benefits. Field work kept

"... I would recommend to other women:

Don't wait until the baby arrives to gather

your support network. You will need it while

you're pregnant." - LINDSAY KAISER

Lindsay physically fit during her pregnancies. She had access to healthy, organic food. And the seasonality of the vegetable farm afforded her a sort of maternity leave. In hindsight, Lindsay realizes that running the CSA when Weston was a baby was hard on everyone. Aware of this, she and Travis have made changes to the business that work well with their family – and for their customers. And, more CSA customers and friends are having babies, so Lindsay's network of parents in Waverly is growing. Though she doesn't often post photos of her children to social media, she does sometimes browse the posts in the "Farming with Babies and Kids" Facebook group for affirmation that they're doing okay.

Ernie, Lenora and Walden – Forktail Farm

While Lindsay and Travis were planting the first seeds of their vegetable farm in Waverly, Amber Mohr and Jeremy Hall were doing the same, across the state in Avoca. In 2013, they moved to a farm with their children, Ernie, Lenora and Walden. At the time, Ernie

was 6, Lenora was 3 and Walden was 6 months. The family timed their move based on when they had enough capital – but Amber and Jeremy did manage to have Walden while Amber was still working as a curator for an art museum in Lincoln, and thus still on her employer's health insurance. Jeremy, who does freelance editing for academic journals, has worked from home since Ernie was born and was the primary caregiver until the move to the farm, where the couple could share more of the child-rearing duties. Amber set up the vegetable production and marketing, while Jeremy took over chores for the layers and broilers while continuing to do up to 16 hours of editing per day (he says he functions fine on four hours of sleep).

Starting a farm with three young children meant starting small and having realistic expectations for both the farm and the children's ever-changing role. For Amber, this often meant – and still means – changing her expectations to match the current reality. "My first year, I grew a lot of green beans because I had a good market for them," she says. "But with small kids interrupting my harvest seven times per plant, it was impossible to keep my place in the field, harvest efficiently and get a good product to the cooler." She found the same issues for delicate greens, like salad mix. "I couldn't get them cut and cooled quickly

(Continued on page 10 →)





Above (Left): Len Hall before the 2019 market premiere of her flower business, Len's Stems. **(Right)** For the Hall siblings, at least half their outdoor time finds them all together on this swing.

enough," she recalls. "I learned I needed to grow sturdier things so I could leave the field to get someone on the potty." The only easy-to-manage child the first year was Walden, who Amber says was afraid of grass and would stay on a blanket by the garden.

As the children grew, Amber and Jeremy had to be very clear about priorities: that the farm work is important, and that many things around the farm are not for play. Early on, pieces of equipment would be missing, like a removeable broom handle that had become a play bo staff. Amber and Jeremy started using a simple reminder – "tool or toy?" – to help the children recall what objects were fair game to play with. "The kids are really pretty good now about being safe on the farm," Amber says. "But when other kids are on the farm, I learn over and over what becomes play things that I didn't even think about."

Amber notes that one perk of being a produce farmer is that you can change your crops every year. "Quick-growing crops wear on me and the kids," she says. "I grow a lot more herbs than I expected to, which I sell to restaurants. I also focus on longer-season crops and cut-and-come-again crops. If it's something I broadcast-seed, I'll get what I can and then till in the rest." Finding the right markets for crops she can manage, and maximizing her profit in the time she has, is

"I grow a lot more herbs than I expected to, which I sell to restaurants. I also focus on longer-season crops and cut-and-come-again crops. - AMBER MOHR

essential, too. "Having kids is hard on your body, and being with kids all day can drain your energy. I can make \$40 on basil in 10 minutes, or I can work an hour for \$10 of lettuce."

These days, the Mohr-Hall household has found its stride and relies on routines and good behavior to keep everyone happy. Ernie, now 12, loves helping with animal chores. Lenora, 9, helps harvest vegetables and manages some small areas of flowers that she sells through her enterprise, "Len's Stems." Amber knows there are times of the day that won't be productive, but she plans her work accordingly. During the summer, the children get up when the 6:30 a.m. hall light is turned on and play together until around 10:30 a.m. From then until 1:30 p.m., Amber is with the children – preparing a snack, then lunch, then getting them settled for the mandatory quiet time in the afternoon. From 2-4 p.m., Walden, 6, naps while the older children independently read, do art projects or build Dungeons and

Dragons campaigns. This is Amber and Jeremy's best time for focused work, until dinner prep starts around 4 p.m. After dinner, the house is again pretty quiet, with Walden in bed, the older children reading and the adults finishing up the day.

Though the Kaisers and Mohr-Halls live across the state from each other with children of different ages, there are commonalities in their experiences. Both attend public library programs at least once a week and rely on their small-town communities for weekly excursions to the playground, for ice cream – and for Amber's older children, to learn a multitude of skills working at the farmers market. Both sets of children spend a lot of time outside, and each has an affinity for different parts of the farm. In Waverly, Weston knows all the names of the implements, while Jane is drawn to the animals, only subdued to napping by a lullaby from the clucking hens. Amber's children have plans to build a separate house for their parents to move into someday, when their aging bodies are ready to limit their harvest to the newly planted apples, cherries, gooseberries and honeyberries. Ernie is an eager machinist and livestock worker. Lenora enjoys the harvest, and Walden, so far, specializes in tart and sour plants like rhubarb and green tomatoes. ■

Speaking Up for Soil Health

Preparing for testimony to U.S. House subcommittee was a community effort

On June 25, board member Nathan Anderson, of Aurelia, testified on behalf of PFI to the House Agriculture Conservation and Forestry Subcommittee about the importance of soil health.

Nathan talked about how using soil health principles lets him and his family reach their farm's mission of "honoring God, their family and their community by caring for their resources and building a resilient and enduring farm and family."

One morning late in June, I received a call from Sarah Carlson asking if I'd like to go to Washington D.C. to testify before the House Agriculture Conservation and Forestry Subcommittee. "It's next week and I'm sure you're busy," she said, "but I think you'd be great." I told her I'd better check with my wife, Sarah, and my Dad, Randy, to see if it would work. I was absolutely interested, but very hesitant to take time away from the farm in late June after a challenging spring season. I was also reluctant to take time away from family, and unsure about what I had to contribute to the busy world of Washington D.C. When passing along the details to Dad that included a couple of lines about needing him to do chores, he simply said, "Well, you'd better go." I'd love to say that was the hard part of the trip, but it wasn't!

The next few days were a whirlwind of preparation. The process was a tremendous example of PFI's values and of the PFI community. An incredible number of people were involved in the process, and I'm so thankful for each one (and sorry if they don't get a specific mention here). A multi-page written testimony was prepared – with weighty contributions from PFI staff. The testimony was edited by Devin and Stefani of Unilever and Alyssa Charney of the National Sustainable Agriculture Coalition. Then it was edited again, revised, reviewed by the PFI board and PFI Policy Committee, and submitted.

Next, a five-minute oral testimony was drafted, based on the written version. The



Nathan Anderson stands next to Rep. Abigail Spanberger, chairwoman of the House Agriculture Conservation and Forestry Subcommittee.

first draft of this was tossed out and written again, and Tina Bakehouse, a PFI lifetime member from Hastings, revised an outline of it. Then the testimony was edited some more and I was timed and coached by my wife, Sarah, after which the remarks were shortened to meet the time limit and further revised.

"The process was a tremendous example of PFI's values and of the PFI community It was truly humbling to represent an organization and community of people that I respect and admire so deeply." - NATHAN ANDERSON

My testimony, and the hearing overall, went well. I felt the five of us who testified – myself and four others – complemented each other's testimonies. The highlight for me was being able to represent Practical Farmers of Iowa on the topic that ranks highest in importance on survey responses from the PFI membership. I was encouraged by the broad interest the subcommittee members showed in soil health practices used by so many in the PFI network. I was also blown away by the caliber of questions I received – I rarely get questions like that from people who aren't actively farming. Since the hearing, I've also been encouraged by the follow-up I've

received from others in D.C. who weren't at the hearing: The topic of soil health has the attention of many.

I want to share the closing statement from my testimony, because the sentiments are ones I think often:

"I was once asked the question: 'Ten years after you die, why will it matter that Nathan Anderson farmed that land? Who will know and who will care?' I'm still considering that question and have formulated this response: Each one of us who is fortunate enough to farm, own or manage land leaves our own imprint on it. That imprint can be negative, neutral or positive, and can last for generations.

"Just as we can see the soil-based evidence of manure applications, tillage, fence lines and travel paths that were made decades ago, farmers decades from now will see our imprint on the land.

"For the future of food security, rural communities and family farms, that imprint must be positive and enduring. The broad application of basic soil health principles is capable of having the necessary impact."

Some of you may have an answer already to the question I was asked – and if so, I'd love for you to share. Personally, I often get caught up in the day-to-day tasks on the farm and don't make the time to think deeper about big ideas and broad questions. This hearing gave me a chance to crystallize and articulate some of my thoughts.

It was truly humbling to represent an organization and community of people that I respect and admire so deeply. I am very appreciative of the dozens of you who made our trip and my testimony possible, the hundreds of you whom I have learned from and the thousands of you who value soil health and PFI's mission to build resilient farms and communities. ■

Learn More

➔ Watch Nathan's full testimony at bit.ly/nathan-anderson-testimony.

Re-Growing the Small-Grains Economy

Engaging farmers and companies to get more small grains on the landscape

Adding small-grains species like oats, wheat, rye or barley to a crop rotation is an effective way to biologically control weeds, grow a bigger or more diverse cover crop that can offset feed or fertilizer costs and spread labor throughout the year. Once common on farms across the Corn Belt, the acres planted to these crops fell sharply over the decades – and with it, the infrastructure and markets farmers once relied on.

Today, the absence of obvious markets makes it hard for even the most forward-thinking farmer to incorporate small grains as an enterprise. Practical Farmers of Iowa's board of directors and farmer membership observed these challenges and tasked PFI with generating more market opportunity for small grains in Iowa and the Corn Belt.

From 2016 to 2019, supported by Conservation Innovation Grants through USDA's Natural Resources Conservation Service, we have worked to this end. Our strategy has been twofold: build farmers' capacity for growing greater quantities of high-quality small grains while connecting with key market players. We started by developing marketing pilot projects with food and beverage companies that use small grains in their products, guided by the premise that as farmers produced more

food-grade small grains, the companies would find it logistically feasible to purchase more of these crops from farmers in Iowa and the Corn Belt.

Educating Farmers and Offsetting Costs

On the farmer side, we worked to address two other key barriers to growing small grains: lack of knowledge and cost. We launched a small grains peer network and offered a suite of educational programming. In 2017, we debuted a cost-share program for farmers in Iowa, Minnesota and Wisconsin who expanded their two-year corn-soybean rotation by adding a small-grains crop followed by a leguminous cover crop over a year of production.

Farmers used the funds to grow barley, oats, rye, triticale and wheat, and used the

program's flexibility to take different approaches to their cover crops. Some frost-seeded clover or drilled alfalfa with the growing small-grain; others waited until after small-grain harvest and seeded a diverse mix that included grasses, brassicas and legumes. In total, 69 farmers planted 3,650 acres of small grains, supported by cost-share funds over three growing seasons (2017-2019).

Initially, some farmers were motivated to plant small grains for weed management and agronomic benefits. "I had waterhemp problems that motivated me to plant oats," says Wayne Brunzman, a 2018 cost-share participant who farms near Dyersville in northeast Iowa. "Then with two cuttings, one to harvest oats in July and another cutting later that summer for hay, I could get ahead of the weeds."

Wayne also found that the oat fields were some of his most profitable acres in 2018. His expenses were relatively low – only \$201 per acre, primarily seed costs and field passes. And thanks to multiple revenue streams from his diversified rotation – oat grain sold to Grain Millers; oat straw; and hay from his cover crop, which he sold to neighboring dairies – Wayne's revenue was nearly \$724 per acre that year. His oat and cover crop fields alone netted nearly \$523 per acre.

"I had waterhemp problems that motivated me to plant oats. Then with two cuttings, one to harvest oats in July and another later that summer for hay, I could get ahead of the weeds."

- WAYNE BRUNSMAN

Engaging Companies to Create Market Pull

Besides the economic benefits, extended crop rotations reduce erosion rates by keeping soil covered for more of the year and eliminating some field passes. They also lower greenhouse gas emissions by reducing the amount of synthetic inputs required. Major food and beverage companies interested in supply chain sustainability are enthusiastic about these environmental benefits.



“Coming into this spring, the oats looked more profitable than soybeans, between the [oat] straw and our oat contract.” – A.J. BLAIR

In 2017 and 2018, PFI and Sustainable Food Labs, our grant partner, co-hosted over 50 representatives from major food and beverage companies to highlight the ecological benefits of extended rotations and emphasize the lack of markets for small grains in the Corn Belt. Through these gatherings, we made a critical connection with Oatly – a Swedish company that makes dairy replacement products from oats. In 2017, Oatly launched its products in the U.S. and was going to need a lot of oats. “We take the whole oat groat after it’s been de-hulled, then crack it a bit and add enzymes to form the base for our oat milk products,” says Sara Fletcher, communications and public relations lead with Oatly U.S.

In 2019, Oatly launched a pilot program to source some of its oat supply from growers in the Midwest. In this program, oats are sold and processed via the Grain Millers facility in St. Ansgar, Iowa. Why the Midwest? “It’s all about connections,” Sara says. “We’re friends with Grain Millers and then we got to know PFI and Sustainable Food Labs. We were running out of oats in Sweden, and from what we’ve learned the Midwest is one of the areas of the U.S. where oats can be grown the best.”

Oatly has structured the program so growers have a guaranteed market for three years with forward contracting at the market value of oats before oat planting; the program also provides a price floor. In addition, farmers have access to Practical Farmers cost-share funds at \$25 per acre to plant a cover crop following their oats.

Kellie and A.J. Blair, PFI lifetime members near Dayton, leapt at the opportunity to grow another crop on their farm and signed up to grow oats as part of this pilot program. “Coming into this spring, the oats looked more profitable than soybeans, between the [oat] straw and our oat contract,” A.J. says. The oats also integrate well with their livestock, Kellie says, which can eat oats that don’t meet food-grade specifications.

Another perk is how an oat crop can benefit their non-GMO seed bean production. “We can’t control waterhemp or ragweed in non-GMO beans with herbicide options very



Above: A.J. and Kellie Blair stand in one of their oat fields with their son, Wyatt, and daughter, Charlotte. **Opposite:** Denise and Wayne Brunsman stand on their farm near Dyersville.

easily,” A.J. says. “Oats give us more options with herbicides we can use in that year, and by breaking up weed cycles for those problem weeds.”

For Oatly and the Blairs, the arrangement is a win-win. Both gain access to new markets – the Blairs to one that supports further farm diversification and another income stream, and Oatly to a new supply region that can help the company expand. Oatly also gets to build personal relationships with farmers and has the satisfaction of knowing it’s supporting profitable farm businesses and environmental stewardship, values that are at the core of the company’s mission.

“Direct contact is better for everyone in the system,” Sara says. “We can talk directly to the farmer about varieties and specifications.” She adds that the environmental impact of oats is lower than some other non-dairy milks: “All [plant-based] milks have pluses and minuses for sustainability. Coconuts can’t grow in the U.S., so you have to deal with lots of transport, and almonds are water-intensive. Oats on the whole are pretty good.”

Oatly’s Midwestern pilot program will be expanding to accept more growers for 2020 oat harvest. If you’re interested in

participating, contact alisha@practicalfarmers.org.

Our Plans for the Future

Practical Farmers of Iowa members have a big vision for agriculture in the Midwest, including markets for a wider diversity of field crops. Steering something as big and complex as markets takes time, but we’re seeing feedback that we’re on the right track. However, as we’ve worked with farmers to sell their small grains over the past few years, we’ve realized that creating markets just for food-grade small grains is not enough to remove the risk of growing these crops.

What’s needed are robust alternative markets if the grain does not meet the high standards for human consumption. Because these grain qualities often depend on weather, there will always be quality characteristics farmers can’t control, and grain that doesn’t meet the standards to sell into food markets. Thus, over the next several years, we’ll be working more on developing secondary markets, like animal feed and cover crop seed, to complement our food-grade market development. ■

Farming for a Sustainable Future

Long-time PFI member Paul Mugge values research and stewardship on his farm

“Ecosystems are more than the sum of their parts. They are more than collections of species or genes; they are functioning, synergistic wholes, processes as well as parts, and many are in decline worldwide.”

– Paul Mugge, “The value of biodiversity,” the Practical Farmer, Spring 1998

Early Life

Paul Mugge grew up on a farm near Sutherland, Iowa, that his parents purchased when he was 1 year old. As a college student at Iowa State University, he chose the toughest curriculum he could find: aerospace engineering. “I wanted to prove that I could do it,” Paul says. But while getting his degree, he learned about agriculture. “I was fortunate to be in the honors program, which allowed me to set my own schedule,” Paul says. “My engineering advisor thought that I was nuts for adding agriculture classes.” Paul graduated with a degree in aerospace engineering in 1974, and moved to Seattle to work for the Boeing Company.

Karen Mugge grew up with an Army dad, so she regularly moved all over the world. When her dad retired, the family settled in Longview, Oregon, 50 miles north of Portland. Paul and Karen met at Boeing. They fell in love and got married. Not long after, Paul’s dad decided to retire from farming. “Coming back to the farm was always a possibility for me, but I wanted a challenge and to see the world,” Paul says. “I appreciated the experience of being in the Pacific Northwest.”

Karen and Paul returned to Iowa in 1976. “Let me tell you, that first year was something,” Karen says. She learned to drive the tractor and acclimated well to farm life. Until recently retiring, Karen also worked as a home health aide, and Paul worked as a math and science teacher.

PFI Involvement

Paul was part of a ridge-tiller club in northwest Iowa. PFI co-founder Dick

Thompson came up to talk to the club around 1988, about three years into PFI’s existence. Paul and some others from the ridge-till group joined Practical Farmers of Iowa on the spot. “Dick was a great presenter and talked about ridge-till on his farm,” Paul says. “But the impactful thing he talked about was doing on-farm research and all of the things he researched over the years. Research was sort of my thing. I thought I could do research, too, and that it would be kind of fun.”

Paul could indeed do research. In fact, he holds the record for most PFI research trials conducted by a cooperator. In 2013, he was one of the inaugural recipients of PFI’s Master Researcher Award, which recognizes the efforts of those who have conducted at least 20 on-farm trials with PFI. To date, Paul has participated in 65 trials. Paul has also shared knowledge with others at 22 field days he has hosted on his farm over the years.

“PFI gave me the confidence to become organic. Just to see other people doing it – and that it actually worked, that you could farm without herbicides or any anhydrous ammonia – and to have people you could contact if you have questions, is vital.” – PAUL MUGGE

Paul served on PFI’s board of directors from 1990 to 1998. He relishes being surrounded by people he holds in high esteem. “Dick Thompson was an idea person,” he says, “and Larry Kallem knew everything about everything.” Dick and Sharon Thompson, along with Larry Kallem, are PFI’s co-founders. “The giants of the industry, Ron Rosmann, Vic Madsen and Tom Frantzen, were all part of the board.”

Paul says notable accomplishments of the early days include research on ridge tillage and ridge tillage without herbicides. “We worked together a lot on ridge-till research, plus shared information on equipment and practices. That has really impacted my farm.

I still ridge-till today because of that.” Early PFI research cooperators also worked with Dr. Alfred Blackmer at ISU on the late-spring soil nitrate test that lets farmers more accurately gauge nitrogen needs. “Our research showed that, in most cases, you don’t need that much nitrogen,” Paul says. “Almost all of those early cooperators who experimented with ridge-till without herbicide went on to become organic farmers.”

Rick Exner, who worked for years as the farming systems coordinator for Iowa State University and served in a dual role as an early PFI employee, played a big role in the early research. “As farmers, we didn’t know how to set up scientific experiments that meant something. That was Rick’s thing,” Paul recalls. “He was the scientist in residence that kept us on track and helped us do it right so the results would be meaningful at the end of the day. He worked at it pretty hard, and we’re a tough group of people to get to comply.”

Transition to Organic

Paul has farmed organically for almost 20 years, and says the farm has seen significant changes since he took the helm. “This farm has gone through quite an evolution from the way my dad farmed – with moldboard plowing, herbicides and chemical fertilizers and the whole industrial agriculture approach – to completely organic.”

While Paul describes himself as a “lifelong environmentalist,” he credits his involvement with PFI – the support of other members, the ability to network with and learn from them – with encouraging his transition to organic. “PFI gave me the confidence to become organic,” he says. “Just to see other people doing it – and that it actually worked, that you could farm without herbicides or any anhydrous ammonia – and to have people you could contact if you have questions, is vital. That’s the same today. The ability to network with other people that are doing it – there’s some real value there.”



Paul and Karen Mugge have three children – Melissa, Charity and Taylor – and seven grandchildren. The family gathered for a recent family portrait.

Back row, from left: Paul and Karen's daughter, Melissa, holds her daughter Millie; daughter-in-law Sarah; daughter Charity with her husband, Joel, standing behind her; Karen Mugge, with son Taylor (husband of Sarah) behind her; and Lily, Charity's oldest daughter of four.

Front row, from left: granddaughter Elise (Charity's youngest); granddaughter Ava (Charity's second youngest); Paul Mugge, holding granddaughter Adelaide (Taylor and Sarah's daughter); and granddaughter Grace (Charity's second oldest) holding her cousin, Elijah (Taylor and Sarah's son).

Paul thinks Practical Farmers' member-led approach is important. He has attended many PFI field days, but a recent field day at Vic Madsen's farm stands out to him as one of the best. "Some PFI members asked to see cultivators on an organic farm, so PFI sought out a farm that could host," Paul explains. "This bottom-up kind of approach is why this field day really worked, I think. Weather was horrible – it rained 3 inches during the field day, so we didn't get to look at much of anything. But we had a great discussion for several hours."

Looking to the Future

Being involved in Practical Farmers of Iowa for 30 years, Paul has seen how much the organization has grown. While he misses the intimacy of the smaller PFI, he also knows the growth and broader focus are important. "In the early days, PFI was a small, intimate group of just a few of us that knew each other pretty well," Paul says. "At the annual meeting, basically cooperators would present their results and scientists

would come in and ask for farmers to participate in their projects. Now, it's a lot larger group, a much more diverse group. But it is obviously meeting a need."

He also sees an ongoing need for the work PFI is doing to connect and support farmers. "Agriculture in this state still isn't where it needs to be or should be. There's still a lot of work to do, and a lot of innovation to be done out there," he says. "Farmers are good at innovation, and there are a lot of things to be tested and experimented with to reduce our environmental footprint and make healthier food."

At the same time, Paul has hope for the future of Iowa's agriculture. He believes it's easier now than when he started farming to become more sustainable or move to organic farming. "There are a lot more people trying sustainable practices who are willing to share their knowledge, and there are a lot of resources." But he warns that people need to do their homework. "You

have to make use of all the stuff out there," Paul says. "The PFI model allows you to fine-tune things for your own situation. It allows you to research things that are applicable and appropriate for your farm."

Paul and his family have a long-term vision for the farm where profit is not the sole objective. A profile of the Mugges published in the winter 1996-97 issue of the Practical Farmer shows the continuity of this vision – one where profit and stewardship are mutually inclusive, supporting the farm into the future: "I want to end my farming career with the soil and its inhabitants healthier than when I began," Paul said in the article. "Implied in this vision, of course, is that I be profitable enough over the next 20 years that I am still the steward of my farm."

Twenty-two years later, the farm is still going strong and stewardship continues to flourish. ■



- 1** Everyone takes a break for a group photo while enjoying the beginning and aspiring farmer bus tour on July 2.
- 2** The crowd watches as Bart VerEllen demonstrates how he sets up fence for his flock of over 400 hair sheep, near Blakesburg.
- 3** Paul Rasch describes a specific type of apple he and his partner, Sara Goering, raise on their orchard near Solon.
- 4** Kamyar Enshayan, of University of Northern Iowa, leads the crowd through a field of cereal rye at Sam and Danielle Bennett's July 2 field day near Galva.
- 5** Sarah Nizzi (left), of Xerces Society, Joanna Hunter and Billy Sammons smile as they ride through Paul and Karen Mugges' field near Sutherland looking for insects on the prairie.
- 6** Roger Smith discusses chestnut production on Aug. 7 at his farm near Columbus Junction.





1) Wayne Wangsness shows off the flame-weeder he uses to help control weeds on his organic crop farm near Decorah.

2) Margaret Smith discusses hybrid rye at Wayne Brunsmann's June 18 field day near Dyersville.

3) A curious (but laid-back) bull lingers near field day guests in a pasture on Samuel Maibach's farm near Bloomfield.

4) Guests discuss barley during Loran Steinlage's June 13 field day near West Union that explored relay intercropping and markets for small grains like malting barley.

5) James Wilson flashes a smile to the camera as he enjoys an Iowa summer day at the second of two field days Paul Mugge hosted – this one on organic crop production – on July 17 near Sutherland.

6) RABGRAI cyclists gather around the PFI table at Howell's Greenhouse and Pumpkin Patch on July 23 near Cumming to sample some fresh Iowa blueberries, grape tomatoes and beef jerky.





1



2



3



6



4

1) A farm dog watches the gloomy skies at Ron Mardesen's June 14 field day near Elliott.

2) Guests hike up a hill at John Rock and Aaron Nelson's June 19 field day exploring grazing native perennials, near Peterson.

3) Jim Palmer Sr. (left) and Henry Corbin, PFI multimedia assistant, chat about an old Allis Chalmers tractor at Caite and Jim Palmer's June 30 field day near Castalia.

4) A couple of curious goats check out the commotion at Beany Bode and Joanne Roepke Bode's June 21 field day near Algona.

5) Guests at Terry Ward's June 4 field day near La Porte City look at a rye stalk and chat about harvesting ryeilage for cattle feed.

6) An Iowa State University veterinary student watches as Tom Cory, his son James and daughter Lorinda get hands-on practice performing a fecal egg count during the June 5 livestock parasite workshop in Ames.



5

1) Brian Corkill discusses planter setup for planting corn green into a living cover crop during the field day he hosted June 6 on his farm in Kewanee, Illinois.

2) Left to right: Jared, Bruce and Connie Carney pose for a family portrait after the agroforestry field day they hosted on Aug. 3 near Maxwell.

3) A mother pig and her piglets forage on Ron Mardesen's farm near Elliott. Ron raises pigs for Niman Ranch in a pasture-based farrow-to-finish system.

4) Jodi Williamson looks at the hydroponic tomato system during Mike Salama's June 20 field day in Boone.

5) Fields are prepped and sprouting at Rhizosphere Farm, near Missouri Valley, on June 4. Owners Terra and Matthew Hall hosted a field day exploring heirloom tomatoes and their young food forest.

6) A cat meows a welcome to guests who arrive at Pete Kerns and Natasha Hegmann's July 17 field day near Elkport.

7) Terry Gleaves (right) and a staff member from Iowa Cattlemen's Association grill meat to serve guests at Bob Zimmerman's June 18 field day near Lewis.



USING SCIENCE & ON-FARM RESEARCH TO INVESTIGATE COVER CROPS

BY STEFAN GAILANS

In recent years, trials in Practical Farmers of Iowa's Cooperators' Program have been dominated by cover crops: over the past three years, 131 of all 233 on-farm research trials – or nearly 60% – have involved cover crops. Thanks to this interest, and the efforts of the cooperating farmers conducting the research, evidence continues to mount about the benefits of cover crops and the management practices that can lead to success.

To ensure sound evidence, participating farmers follow principles of rigorous experimental design when conducting experiments on their farms. Treatments are chosen to address specific questions and objectives, and are then applied to randomized and replicated strips across a farm field to account for any variation within the field. The strips are at least as wide as one combine pass and run the length of the field. Such trials mimic plot experiments conducted by university scientists.

Do cover crops affect crop yields?

In 2008, PFI partnered with Iowa Learning Farms to recruit 12 farmers for a long-term study testing the effect of a cereal rye cover crop on corn and soybean yields. At that time, the benefits of using cover crops to prevent soil and nutrient loss from fields were well-established in the academic literature. The presence of roots during the fall, winter and spring holds soil in place and soaks up extra nutrients left over from cash crop production. But less was known about how corn and soybeans would respond to cover crops. Many people – farmers and researchers alike – viewed any plant growing in the spring before corn or soybeans were planted as a weed that would reduce yields. Ten years ago, this was the major concern on a lot of farmers' minds (and it's still probably on many farmers' minds today).

To investigate this concern, the farmers participating in the study agreed to establish replicated strips in which they either seeded a cereal rye cover crop in the fall or left the soil bare (no cover crop). The following spring, the farmers terminated the cover crop in the strips and planted corn or soybeans in the entire field. Come harvest time, we compared grain yields from the cover crop strips and bare strips.

Over 10 years, the cereal rye cover crop has had no effect on corn yields across 32 of the total 39 individual on-farm trials that involved corn in this study. While the cover crop did reduce corn yields in some cases, most of those instances occurred in the first two years of the study. The farmers who experienced yield drag blamed the reduced yields on challenges associated with terminating their cover crop and planting corn into cover crop residue. In other words, the farmers were trying something new and ran into a few hurdles.

After a few years of experience, the participating farmers have overcome these challenges. They now more vigilantly monitor temperatures in the spring to ensure herbicide efficacy when spraying the cover crop, and carefully adjust planter settings to ensure proper seeding depth and closure of the trench as the corn seed is placed into the soil. "The difference in our knowledge about cover crops between the time we started and now is huge," says George Schaefer, one of the farmers

involved in the study. As the farmers gained more experience over the course of the study, they virtually eliminated any harmful effects of the cover crop on corn.

In soybeans, the story is similar – but with a bit of a twist. Over 10 years, the cereal rye cover crop has had no effect on soybean yields across 20 of 29 trials. Unlike with corn, however, three farms saw improved soybean yield from the cover crop in the first three years of the experiment. In fact, the cover crop has boosted soybean yields eight times over the course of the study, and we found that those yield increases became more frequent as the study progressed. This has led many to suggest that the learning curve for growing soybeans after a cereal rye cover crop is much less steep than for corn.

Most importantly, this long-term study has produced results similar to recent experiments by researchers at Iowa State University and Michigan State University that found cereal rye cover crops do not negatively affect corn and soybean yields. Both farmers and researchers agree that the key to avoiding negative effects lies with proper management.

(Continued on page 22 →)

Right: George Schaefer stands in his cover crop field near Kalona while speaking to a crowd during a PFI field day he hosted in 2015.

IN IOWA



*THE
DIFFERENCE
IN OUR
KNOWLEDGE
ABOUT
COVER
CROPS
BETWEEN
THE TIME
WE STARTED
AND NOW IS
HUGE.*



- George Schaefer





Clockwise from left: Rob Stout speaks to a group of people about cover crops. Dave Bangert (left) stands next to and Rob Stout. An aerial view of Rob Stout's on-farm research showing strips of cover crops next to no-cover strips (NRCS/SWCS photo by Lynn Betts). Soybeans with cover crop mulch from one of Jack Boyer's trials show how a cover crop can aid weed suppression. Tim Sieren at his farm near Keota.

(← Continued from page 20)

What is “proper management” when cover crops are involved?

With the results of these studies in mind, the focus of PFI on-farm research has evolved to investigate practices that lead to consistent cover crop success. For instance, more recent studies have explored when to terminate a cereal rye cover crop relative to planting corn or soybeans, as well as when and how much nitrogen fertilizer to apply to corn following a cover crop. These are practical management decisions a farmer has control over, and their effects on crop production can easily be tested with on-farm strip trials.

When should cover crops be terminated?

As a general rule of thumb, cereal rye cover crops are terminated 10 to 14 days before planting cash crops to avoid competition between the cover crop and cash crop for soil moisture and nutrients. Following this advice, farmers wishing to plant corn in mid- to late April would thus have to kill the cover crop in early April, when the cereal rye might only be 6 or 7 inches tall. But those who've used cover crops for a few years have found that the bigger the cover crop, the greater the benefits to weed control and water quality.

There are two ways to get more cover crop growth: You can either hope for above-normal temperatures in March, or let the cover crop grow longer into April or May. Because a farmer has more control over the latter, PFI cooperators set up on-farm research trials to test

whether they could push the recommendations for terminating cover crops. The trials compared strips where the cover crop was terminated 14 days before planting corn or soybeans with strips where the cover crop was terminated within one or two days of planting corn or soybeans, a practice known as planting green. In these experiments, the target corn or soybean planting date was not altered; the farmers planted between mid-April and early May when they normally would, and delayed their cover crop termination date.

Between 2016 and 2018, Dick Sloan, Tim Sieren and Arlyn Kauffman collectively conducted five on-farm experiments that tested this concept with corn. Across the farms, waiting to kill the cover crop until close to corn planting time nearly triples cover crop growth compared with when it was terminated 14 days earlier – but corn yields decreased by 14 bushels per acre, on average. “It’s the carbon penalty of cover crops to corn,” Tim says. The extra cover crop growth each farmer saw came at the expense of reduced corn yields.

Results from similar studies by researchers at North Carolina State University and Iowa State University also report reduced corn yields when narrowing the gap between cover crop termination and corn planting. The authors suggest the yield drops may stem from cereal rye tying up nitrogen and making it unavailable to corn, coupled with increased disease pressure on corn seedlings. Combined with the PFI research, it appears that following the rule of thumb to terminate a cover crop 10 to 14 days before planting is sound advice for corn following a cover crop.

But what about soybeans? Findings from Jack Boyer and Jeremy Gustafson in 2015 and 2016 suggest a different story. Both planted soybeans into a newly terminated cover crop that produced as much as 7,000 pounds of growth per acre. But their soybeans yielded the same as those following a cover crop that had been killed two weeks prior. Across the four trials, Jack’s and Jeremy’s soybeans yielded an average of 63 bushels per acre, regardless of cover crop termination date. “The most interesting part of the trial,” Jack says, “was the improved weed control.”

It turns out the heftier cover crop growth achieved by delaying termination until soybean planting served as a mulch that reduced weed pressure. In two of the four trials, this mulch let Jack and Jeremy eliminate one weed management pass through the field. Both said the money they saved as a result more than paid for the cost of the cover crop. Based on these results, it seems soybeans are more flexible than corn about when cover crops can be terminated. This leeway also gives farmers a possible way to save money on weed control – and thus to find the “cash in cover crops.”

If you opt to try planting soybeans “green,” it’s important to know the practice can result in a lot of cover crop growth – the cereal rye might be 6 or 7 feet tall. In a 2017 trial, Jack found it helpful to roll down the tall cover crop residue after terminating with an herbicide and a few days after seeding soybeans in 30-inch rows with a planter. In strips where he did not roll after terminating and seeding, much of the cover crop residue was still standing by the fall, which led to challenges harvesting the soybeans. His yields also dropped by 13 bushels per acre compared to where he rolled the cover crop down. Neither were issues, however, where Jack seeded soybeans in 10-inch rows with a drill. The drill effectively laid the cover crop down during soybean seeding, and it stayed down for the rest of the summer through harvest. Rolling the cover crop also proved unnecessary: Yields were no different where Jack did not roll, and his cost of production was also lower.

Do I need more nitrogen for corn after a cover crop?

Because corn is considered a heavy feeder when it comes to nitrogen – and because cover crops take up residual soil nitrogen – some farmers wonder if corn needs more fertilizer after a cereal rye cover crop. Results from eight on-farm trials between 2010 and 2017 seem to dispute this idea. Across these trials, Rob Stout, Tim Smith, Jeremy Gustafson and Dick Sloan seeded a cereal rye cover crop in the fall, which they terminated two weeks before planting corn the next spring. They then compared their typical nitrogen fertilizer rate with a rate they increased by 30 to 50 pounds per acre when sidedressing in June. In seven of the eight trials, the higher nitrogen rate had no effect on corn yields. The results suggest there’s no need to apply extra nitrogen fertilizer beyond your typical rate when you follow the recommendation to terminate your cover crop at least 10 days prior to planting corn.

Anecdotally, farmers are reporting success with splitting their typical nitrogen rate into two installments: the first, at least 30 pounds of nitrogen per acre, at the time of corn planting, with the rest applied when sidedressing in June. This, along with waiting 10 to 14 days to plant corn after terminating the cover crop, may help to overcome the early-season soil nitrogen depletion caused by the cover crop.

So what have we learned?

Research by farmers in PFI’s Cooperators’ Program has led to several major findings. One of the most significant is that cover crops, for the most part, don’t reduce corn and soybean yields – if they are properly managed.

Management is key. For corn, this means terminating the cover crop roughly two weeks before planting corn and sticking with your typical nitrogen fertilizer rate. Soybeans, however, are a bit more forgiving than corn. Proper management can involve planting soybeans shortly before or shortly after terminating a cover crop (planting green). Waiting longer to kill the cover crop in soybeans doesn’t affect yields and can benefit weed management.

Some of these findings are verified by related university research. Other university research on cover crops over the years has shown reduced soil erosion, nutrient loss and soil compaction, as well as improved soil structure. Future studies will build on these findings. One experiment will explore the effect of delaying cover crop termination until well after the soybean planting date to reap more cover crop growth and more consistent weed control. Another will test creative ways to increase cover crop diversity beyond cereal rye.

These findings would not be possible without curious farmers driven to find solutions that can better their operations and their broader impact. “I like to figure out what works on my farm,” says Tim Sieren about why he conducts on-farm research. “It wasn’t until I got involved with Practical Farmers that someone could analyze things and put numbers to what I was trying with cover crops.”

These findings would also not be possible without a commitment to improving. While Rob Stout, one of the participants in the long-term cover crop study, was presenting about the study at PFI’s annual Cooperators’ Meeting in December 2018, he was asked why he participated and why he uses cover crops on his farm. He simply and firmly responded: “Because it’s the right thing to do.” ■

Conserving Through Collaboration

Lee Tesdell works closely with his farm tenants to protect soil, water and wildlife

Lee Tesdell is proud of his farm's long history and heritage. Purchased in 1884 by his great-grandfather, he is the fourth generation to steward Tesdell Century Farm, near Slater. As a non-farming landowner, Lee is also outspoken about the need for farmland owners to collaborate with their farming tenants on conservation.

Together with his tenants, Charles and Mike Helland – who raise row crops on 60 of the farm's 80 acres – Lee has modeled what positive collaboration can do to improve soil, water and wildlife habitat in Iowa. In addition to using terraces, no-till, cover crops and limited or no tillage in the fall, he has also established a bio reactor, a riparian buffer, a saturated buffer and prairie strips on his farmland.

This commitment to managing his land with long-term sustainability in mind led to Lee's selection by Practical Farmers' board of directors as the 2019 recipient of PFI's Farmland Owner Legacy Award, which was presented at a ceremony and field day near Slater on July 10 that was attended by nearly 90 farmers, landowners, students, families and others interested in learning about conservation on working farms.

The Farmland Owner Legacy Award is granted annually by Practical Farmers of Iowa to landowners who use their land to help the next generation get started, advance land stewardship and promote long-term sustainability of farm businesses, environmental quality and rural communities. The point of the award is to highlight the important role non-operator farmland owners can play in the future success of sustainable agriculture.

Landowner-Tenant Partnership

Lee credits the ability to conserve resources – soil, water, nutrients, habitat, energy and more – to partnerships. "This work on my farm wouldn't be a reality if I didn't have a neighbor like Mike," Lee says. The Helland family has been farming Lee's land for nearly 40 years. Nick Helland, Mike's son who also

farms Lee's land, says that one of the biggest advantages to farming Lee's ground has been the ability to experiment with new conservation practices.

"We call it the Tesdell research farm," Nick says. "We've had a chance to use this as a playground to see what works." The Hellands have been able to show the results of using no-till and cover crops on Lee's farm to other landowners they rent from – which Nick says has helped convince those landowners to do conservation practices on their farms.

"We're trying to show other landowners and tenants in the area that we can work together," Lee says. "It's not just a matter of me getting a check in December."

"Some of the things Lee does on his farm don't provide any benefit to him. They truly benefit other people, and I think that's a great message about responsibility as a farmland owner, and your responsibility to your community as a whole." – ADAM KIEL

Lee is also a firm believer in the need for landowners to share the cost of conservation practices with their tenants. He and Mike split the bill on cover crop seed 50-50. Lee says he doesn't get involved in crop production decisions, but thinks they have a joint responsibility when it comes to conservation. "It's important for us to work together on paying the bills, too," Lee says. "I think we owe it to future generations to do a little better job on soil health and water quality."

Landowner-Agency Partnership

Over the years, Lee has also worked with numerous organizations on his land stewardship goals, most of whom had representatives at the field day he hosted after the award ceremony.

Todd Hammen of Iowa Energy Alternatives discussed the photovoltaic solar arrays Lee

has installed on the farm to conserve energy. Thomas Fawcett of Heartland Co-op talked about the use of precision agriculture, and the potential use of drones, on the farm. Lisa Schulte Moore and Tim Youngquist, both from Iowa State University, discussed their work with Lee to get prairie strips established on the farm.

And Adam Kiel of the Iowa Soybean Association talked about Lee's collaboration with ISA to install a saturated buffer. This type of buffer is similar to a regular riparian buffer, but uses underground pipes to channel water from the tile lines of crop fields into the buffer, holding it there for a time before entering a stream.

Riparian buffers usually include a mix of grass, shrubs and trees, and they offer numerous conservation benefits. Besides providing habitat for a variety of wildlife species, shade from the trees also helps cool the water, improving the habitat for aquatic species like fish and invertebrates. If properly designed, the buffers can also filter sediment and nutrients from water flowing off the surface of crop fields.

But most water entering streams comes through subsurface drainage tiles, bypassing the buffer completely. That's where the saturated buffer comes in. Instead of dumping water directly into the stream, saturated buffers spread out the tile flow along the length of a buffer, where soil microbes and plant roots take up excess nutrients like nitrate. "It's a super efficient practice, very cost-effective," Adam says. "Some of the things Lee does on his farm don't provide any benefit to him. They truly benefit other people, and I think that's a great message about responsibility as a farmland owner, and your responsibility to your community as a whole."

Conserving Farmland for the Future

Lee works as a professor of English at Minnesota State University in Mankato, Minnesota, where he teaches courses on technical communication – his partner, Cindy Hemingway, lives on the farm in Slater, and he comes back every weekend. But he says



Lee Tesdell (center) with his sons Omar (left) and Ramsey after the award presentation and field day on July 10. Omar and Ramsey are both involved with the farm and discuss management plans with Lee.

he developed an interest in the outdoors at an early age. He participated in 4-H, enjoyed learning about agriculture and “had a sense it was important to know where your food comes from.” As he learned more about the environment and how food is produced, Lee became convinced that more needed to be done to conserve the land.

“If we’re going to be able to sustain a reasonable kind of food production system into the future, we’re really going to have to change our practices,” Lee says. “And that probably means less row crops and more small grains and other kinds of crops. I think all those things are important to a sustainable agriculture future.”

While doing his part to protect the landscape is important to him, his family is first in mind when he thinks about the future. His sons, Omar and Ramsey, are both involved with the farm and attended the field day with their families. “I like the idea of leaving it [the farm] in better condition than when we started out, for future generations,” Lee says. “My sons and my grandchildren, I hope, will continue conservation work here.”

“We are thinking about ways we can keep this momentum going,” Omar says. “If we can get more plant cover, more vegetative cover on the landscape over a longer period

of time, it will show great returns both environmentally and economically.” As they look to the future, Omar says they’re thinking about raising Kernza, a perennial grain crop developed over the past few decades at the Land Institute that has seen more market growth in recent years. “General Mills and some of the large food companies are investing in it now,” he says.

Lee adds: “I think it’s important to do what we can while we’re here. And hopefully we’re being a good example in the neighborhood. Mike and I talk about that quite a bit, and Mike always says ‘our neighbors are watching’ – so we hope we’re having a good effect.”

Open to New Ideas

Preventing soil erosion is one of Lee’s top conservation priorities. A few years ago, he had a farm advisor calculate the cost of erosion on his farm and how different farming practices can help.

“If you put a dollar figure to 1 inch of topsoil that you’re either losing or not losing, you’re talking some serious money after a while,” Lee says. “People who are crunching numbers could see pretty quickly that both no-till and cover crops will actually save you a lot of money.”

“It’s important for landowners and tenants to work together, to respect the land together and to have a good working relationship.”

- LEE TESDELL

Lee had been interested in edge-of-field or semi-permanent conservation practices and infrastructure for a long time, but it was Mike who first suggested cover crops. Mike and Charles had been doing no-till for nearly 20 years, and were interested in giving cover crops a shot. They started out with tillage radishes, about 10 years ago. “We didn’t get a good result, but it was kind of interesting,” Lee says. He started splitting the cost of planting cover crops with the Hellands, and they also started using more mixes that contain cereal rye – which has continued to show good results.

For Lee, cover crops address several of his conservation priorities. They keep the ground covered when corn and soybeans aren’t growing, suck nitrate out of the soil that could otherwise end up in streams and lakes and add more biomass to the soil, improving soil health. And though it’s not relevant on his farm, Lee also likes that cover crops can be a good source of cattle forage for livestock farmers.

“If you want to start somewhere on your farm with conservation, start with cover crops,” he says, “because we get some really good benefits for cover crops, for really not a big cost.”

Lee’s advice for other landowners? Learn about the things you care about on your land. “Educate yourself, look at the research,” he says. “Iowa State University, Practical Farmers of Iowa, Joel Gruver over at Western Illinois, people at Minnesota and others are doing good research on conservation.”

After learning some of the specifics, he says it just takes respect and dialogue. “Meet with your operator and see what you can come up with,” Lee says. “It’s important for landowners and tenants to work together, to respect the land together and to have a good working relationship.” ■

A Focus on Community

Turkey River Farm has built direct markets around rural Clayton County customers

Natasha Hegmann has found a happy balance with where the farmers market fits in her direct-marketing plan. As an introvert, she values the solitary time she spends working at Turkey River Farm, the diversified produce, hog and agroforestry farm she runs with her husband, Pete Kerns, near Elkport.

But as a beginning farmer passionate about serving her rural community, she also loves the weekly opportunity to meet and interact with her customers at the Guttenberg Farmers Market, about 18 miles away.

“I love it because it’s a small-town farmers market on the banks of the Mississippi River in a grassy park,” Natasha says. “And at this park, we know the names of most of our customers, and they have come to know us well, even though we’ve only been farming four years.”

Community-Focused Marketing

For Natasha and Pete, community outreach is central to their farm’s mission, and their vision of sustaining people in their rural county with healthy food. It also deeply influences their marketing strategy, which has been built on starting small, marketing locally and emphasizing community relationships.

Natasha and Pete farm on 5 acres they rent from the Communia Corporation, an Iowa-based non-profit that runs the Deep Mountain Retreat Center on 280 acres near Elkport, where they also serve as caretakers for the retreat, managing the guest house and maintaining trails and woods on the property. In addition to the farmers market, the couple operates a 40-member CSA that offers some unique options. A farmers market share lets subscribers select items they want from the weekly Guttenberg Farmers Market. The regular CSA share offers home delivery throughout the county or pickup at the farm. Natasha and Pete also offer a fall CSA share and a donation share option, where people can pay for a full CSA share that goes to the food bank each week. This season, they started a fund people can contribute to that subsidizes CSA shares for public education and healthcare employees.

“Pete and I both have a background in farm-to-school,” Natasha says. “My mom works in healthcare, and Pete and I are very passionate about rural healthcare access. So this is the direction we pivoted to a little bit

this year. We’re excited about getting fresh food to our community in different ways.”

Natasha and Pete have also built direct markets around their other enterprises, which include pastured pigs, maple syrup and oyster and shiitake mushrooms – and their community outreach feeds into and reinforces these marketing efforts. They rotationally graze about 30 heritage-breed feeder-to-finish pigs – a mix of Idaho Pasture Pigs, Tamworth-Berkshire and Hereford – which they market as whole and

“We were preparing to start this farm, do direct marketing and move to a place where we didn’t know anybody. Farmers markets ended up being huge for building relationships in Elkport.”

– NATASHA HEGMANN

half hogs or 35-pound sampler packs. They sell their maple syrup, about 20-25 gallons a season, primarily to farmers market customers, though CSA members can add it onto their shares. Mushrooms are marketed in a similar manner. The couple also donates food to the local food bank; volunteers at the Central Community School garden; and invites the public to their farm for a range of educational events, from field days and school field trips to weekend maple syrup retreats that give participants hands-on experience with syrup production.

This spring, Natasha and Pete embarked on a new endeavor: a cooking class collaboration with the owner of By the Spoonful, a specialty grocery store in McGregor. The first class was

called “Eat Like a Veggie Farmer,” and focused on meal planning and some simple and inexpensive ways people can incorporate more fresh vegetables into their diets. In a version of the program tailored to local gyms, called “Squats and Squash,” Natasha and Pete share information about their CSA, farmers market options and adding fresh foods into their whole-body plan.

“We don’t want to be a farm that’s in isolation from our community,” Natasha says. “We want to be rooted and connected to the community. We want to be involved, contributing our time and talents where they can benefit the community.”

Cultivating Local Customers

This community-focused approach has proved successful so far. In just four years, they’ve expanded their CSA from 11 to 40 customers, increased production to 5 acres from their initial one-eighth acre and forged close ties with their community while fulfilling their values. But Natasha admits they had to recalibrate some of their initial expectations – notably, how vital farmers markets would prove to be in establishing community ties.

“We were preparing to start this farm, do direct marketing and move to a place where we didn’t know anybody,” Natasha says. “Farmers markets ended up being huge for building relationships in Elkport.”

Natasha and Pete met in Montana while serving in FoodCorps. They knew early on that they wanted to start a farm together focused on their mutual interest in food and social justice – and the Midwest made sense. Natasha grew up in Iowa, while Pete, originally from the Chicago area, had potential access to family land in southern Illinois. The couple started exploring land access options while still in Montana. They looked at farms in Wisconsin and considered Pete’s family land in Illinois. Ultimately, the opportunity to rent land from the Communia Corporation led them to choose Iowa. “We did not do a thorough investigation of the market for vegetables and pork in Clayton County before we moved here,” Natasha explains.



“Choosing Iowa was just the path of least resistance to land access – and was a place where we felt supported, and felt we could build markets.”

In 2015, still in Montana, they formally incorporated Turkey River Farm LLC in Iowa and began planning their farm in earnest. During that summer, Natasha was working for a farmer friend, Marguerite Jodry, near Bridger, Montana. Marguerite raised vegetables, and was “a big farmers market farm,” Natasha says, selling at three markets a week. In between helping on the farm and staffing the intense weekly schedule of farmers markets, Natasha worked on the details of Turkey River Farm’s vegetable production and CSA – both of which she manages, while Pete manages the hog enterprise.

Natasha knew she wanted to focus mainly on a CSA. She had worked for PFI member Laura Krouse, of Abbe Hills Farm near Mount Vernon, for five growing seasons and loved the varied nature of the work, and that customer relationships are so central. But working at Marguerite’s farm had left her feeling weary of the hustle and emotional energy needed for selling at farmers markets.

“When I was planning, I was pretty burnt out on farmers markets,” Natasha says. “I was willing to have some part of our business be farmers market-related, but at that point, I was focused on wanting to make a CSA work and not focus on farmers markets at all.”

“It’s really important to have patience with relationships, if direct marketing is what you’re trying to do. It takes people time to become comfortable with new people, ideas and products – and it takes multiple exposures.” - NATASHA HEGMANN

Knowing they lacked local connections in Clayton County, Natasha and Pete had already planned to market their CSA the first season to a small group of customers in Iowa City, where Natasha’s mother and grandmother live and where she’d graduated high school and still had several contacts. She’d built farmers markets into her business plan – but only expected to attend a few markets their first season.

“I think in our business plan I wrote that we’ll go to three farmers markets total in the first year, because I didn’t anticipate having much more extra produce than that,” Natasha says. “But we ended up going to every Saturday farmers market and trying out a Friday farmers market as well. We attended markets in Marquette, Guttenberg, Elkader and Edgewood. Going to those markets was really critical to building relationships and laying the foundation to moving our CSA here.”

Their second season, Natasha and Pete had cultivated some CSA customers locally and were able to scale back their Iowa City presence. By their third season, in 2018, they had filled their now-expanded CSA slots with local county customers and were able to eliminate the Iowa City location.

Building Trust

For Natasha, seeing the unexpected role farmers markets would play in their fledgling CSA underscored a key lesson: establishing trust takes time. Being mindful of this is valuable for any relationship in life, Natasha says, but she notes it’s especially important for beginning farmers to bear in mind.

“It’s really important to have patience with relationships, if direct-marketing is what you’re trying to do,” Natasha says. “It takes people time to become comfortable with new people, ideas and products – and it takes multiple exposures. That’s one thing I learned in FoodCorps about kids. They need to see a new food or vegetable several times before they become comfortable with it.

“With vegetables and a CSA, you’re asking a customer to put a lot of trust in you – and money in your operation. You’re asking them to make a commitment, and also deal with weird vegetables sometimes. That’s kind of a big ask, and we really had to establish trust with customers that we knew what we were doing and could bring a consistent supply of beautiful, fresh vegetables to market every week.”

Since getting their CSA established in Clayton County and growing their customer base to a comfortable level, Natasha and Pete decided to scale back their farmers market presence to just the one weekly event in Guttenberg. But both agree it still plays an important role in their direct-marketing efforts – and as part of their broader commitment to having a strong community presence. “The farmers market, the CSA drops and pickups and the other things we do – they’re by no means the bulk of our work, so they balance naturally,” Natasha says.

“Even though I’m an introvert, since 90 percent of worktime is alone or us together, I have enough social energy built up for my customers. It’s also very rewarding to feel the farm come alive with people and kids when we do special events. Looking back now, thinking about how we didn’t have any community connections at all and how it’s not been that long, I now feel incredibly grounded in this community.” ■

Measuring Conservation on the Farm

PFI members share why and how they monitor on-farm conservation efforts

Most farmers are no strangers to monitoring the agronomics of the farm. But what about measuring the impacts of conservation? Recent years have seen an influx of tools and aides designed to help farmers monitor the effects of their conservation actions, but questions still remain about why, when and how to measure the impacts of on-farm conservation.

Why Measure Conservation?

There are many benefits to measuring and evaluating the effects of on-farm conservation. First and foremost is the fact that many producers simply want to know what's happening on their farms. "Some people might say 'stay out of my field,'" explains PFI lifetime member A.J. Blair. "But I take a different approach: If it's a focus or a concern, then I should know my own data before someone else does and be proactive rather than reactive."

A.J. says the family has always been conservation-minded, and that trying new things in their production systems slowly led to increased conservation (and more conservation monitoring), largely due to the family's long-term partnership with Iowa Soybean Association. "It started with agronomic trials with ISA's On-Farm Network, and then they approached us to

start doing some water monitoring," A.J. says. For the Blairs, it was an easy next step that helps them identify what's happening on the farm – and perhaps more importantly, what's leaving their land.

Mary Damm, who owns land near McGregor, has a similar motivation. A botanist and plant ecologist by training, Mary is keen to know what's happening on her land, either as a

"If it's a focus or a concern, then I should know my own data before someone else does and be proactive rather than reactive." – A.J. BLAIR

result of or despite her tenants' grazing activities. From soil health and water infiltration to plant diversity and wildlife usage, Mary seeks to understand how the ecology of her farm is affected by grazing on the farm. "It's a learning process trying to figure out what was working and what wasn't working," Mary says. "And changing timing and methods to figure out what benefited the prairie and the birds the most."

Torrey Wilson and his family take a similar approach. The Wilsons operate a diversified crop and livestock farm near Paullina, and Torrey says monitoring and evaluation are key components of their Holistic Management decision-making framework.

Torrey likens the process to driving a car on a long trip. First you have to set a destination and check the car to make sure everything is working. Then as you start driving, you constantly make adjustments based on information gathered from your surroundings. Is the road bumpy? What is traffic like? Do you need to speed up or slow down? Do you need to take a detour?

"When you're driving a car, you don't consciously monitor for all that information," Torrey explains. "Just like when we farm, we're constantly taking in information and scanning for problems." But like a new driver, the ability to process and evaluate this information is a skill and habit learned over time, and that learning curve can be steep.

Challenges and Solutions

Gathering information on the farm is a first step – but knowing what to do with it and understanding how to evaluate the results of any monitoring efforts pose an entirely new set of challenges. For example, Mary Damm says she has struggled with interpreting and applying the results of soil tests taken on her farm. "I was very interested in soil health on my farm, so we did several Haney tests at different locations," Mary says. "But it was frustrating, because even though I've studied soils, I had a difficult time interpreting the results."



“One of our biggest challenges is having the self-discipline to stop working in the business and start working on the business.”

- TORRAY WILSON

Mary eventually concluded that her problem was due to a common monitoring challenge: a lack of baseline information. Without a baseline for comparison, it can be hard to interpret the data gathered as part of a conservation monitoring program. To address this lack of context, Mary has started testing more and different parts of her farm – including areas she and her farm manager know were never plowed. These remnant areas may provide a baseline against which samples from her pastures and reconstructed prairies can be compared.

A.J. Blair and his family are also in the process of collecting baseline data. A.J. notes that as their efforts mature, they are getting better at collecting only the data that's relevant to the questions they want to answer. This is another challenge for any monitoring program: Simply collecting data is relatively straightforward, but having the right data in a useful form is much more difficult. “Collection is good, but we can collect so much stuff that a lot of it can become unusable,” A.J. says. “We really have to think about what things we can control and whether or not collecting data on things we can't control is worth it.”

Monitoring also takes time and resources in a profession where time and resources are at a premium. Torray says that monitoring and evaluating all aspects of the farm, including conservation efforts, must be habitual or it's likely to get skipped in favor of more pressing tasks. “One of our biggest challenges is having the self-discipline to stop working *in* the business and start working *on* the business,” Torray says. “It's hard to get off the hamster wheel and take a step back, and that's where the framework of Holistic Management helps us.”

You Don't Have to Do It Alone

Torray, A.J. and Mary all have different operations and priorities for their farms, including different conservation goals. But they share a common attribute: They're not alone in their monitoring efforts. “To have a



Above: Torray and Erin Wilson with their four children, from left to right: Audrey, Lewis, James and Nora.

Opposite (Left): Mary Damm holds up a prairie plant. A male bobolink sits on a fence post on Mary's farm near McGregor. A.J. Blair shares results of the family's on-farm research and water quality monitoring during a PFI field day they hosted in 2018.

“The surveys really provided validation and hard evidence that we had been doing good work. To me, that we have a working farm and such tremendous bird diversity, is remarkable.” - MARY DAMM

successful trial, you have to be able to set things up correctly,” A.J. says. “That's where Iowa Soybean Association and Practical Farmers have really helped us.”

On the Blairs' farm, the water quality monitoring they're doing with Iowa Soybean Association is completely hands-off. ISA staff pick up samples from the farm and send them to a water lab for analysis. A.J. then gets a report once or twice a year that includes the results at a field scale, as well as aggregate statewide data. The process is quick, efficient and confidential.

For Mary, the expertise of her farm manager – an experienced local farmer and rancher with his own deep-rooted passion for ecology and wildlife – has proven invaluable. Mary has also worked with some local professors to do surveys of wildlife, particularly birds, on her farm. The results have both surprised and energized her. “The surveys really provided validation and hard evidence that we had been doing good work,” Mary says. “To me, that we have a working farm and such tremendous bird diversity is remarkable.”

Often, the best support comes from friends and family. “We meet once a week with the

family,” Torray says. “Without family structure, we don't have a very stable business structure, and without a strong business it's impossible to develop and implement more conservation, let alone more monitoring.” He adds that the family also sits down monthly with a neighboring family. “It helps to have someone hold you accountable. It can be really powerful, and ensures that we're not just sticking our heads in the sand.”

The Bottom Line

Monitoring conservation actions and practices can be difficult and time-consuming, but it can also be rewarding and even critical to meeting farm goals. “We also shoot for continual improvement,” A.J. says, “and that in itself makes the farming a bit more fun.” A.J. notes that even though it can be a struggle to get everything done, just starting every year knowing they're going to be doing something different makes the process exciting.

“If I had to give one piece of advice, it would be to not be afraid to try new things,” A.J. says. “Do it on a scale that's not going to make or break you, then monitor it to see what the results are and go from there.” ■

Enlisting Professionals in Farm Transfer

For the Wangsness family, seeking advice from bankers, lawyers, tax pros and other experts was the next step in the process.

Many farm families looking to transfer the farm to the next generation know they need to enlist the services of professionals, but are unsure where to begin.

Wayne and Cheryl Wangsness, who farm near Decorah, have been in the process of transferring their farm to their son, Ryan, for over a decade. They communicate often and openly about the process. But Wayne says that having knowledgeable professionals involved in the process is also necessary. "You need a good accountant, you need a good banker and you need a good lawyer, at a minimum," he says.

The Wangsnesses raise organic corn, soybeans, small grains, hay and layer chickens south of Decorah. Wayne's family has farmed in the area since the 1860s, and he's lived on the current farm since 1944. The farming spirit carried on to Ryan. "I can never remember not knowing I wanted to farm," Ryan says. When he was in high school, discussions about how he would farm began to get more deliberate and the family started having conversations about how they would make it happen. "We just always knew it was going to work," Ryan says. "We worked together to set a goal, and then worked our way towards it."

After attending college, Ryan came back to farm full-time with his dad. Wayne says those few years helped validate that transitioning to Ryan would work. "I didn't want to expand or go into debt too much to start something that he was going to walk away from," Wayne says. He adds that Ryan felt the same way – and those years made it clear Ryan was serious about farming. "Those were thin years and he stuck with it."

At that point, the family began attending workshops on farm transfer. Wayne says attending workshops held by different groups was helpful – each offered a differing perspective. The family also started working with various professionals on the plan for bringing Ryan on board.

Advice From Professionals

Carl Johnson of Vermazen Tax Service, an accounting firm in northeast Iowa, was one of those people. The company does a lot of farm accounting – tax returns, payroll, bookkeeping – primarily for farms that have a net worth in the \$1 million to \$10 million range. The company is also part of the Iowa Farm Business Association and offers farm business management services. The hardest part about the farm transfer process for many families is talking openly about their vision for the farm. "If they haven't talked about what their goals are or what their plans are, the time with us is the icebreaker," Carl says. "So we talk about it. Sometimes farmers aren't ready to change anything or do anything. They just need someone to bounce things off."

"You need a good accountant, you need a good banker and you need a good lawyer, at a minimum."

– WAYNE WANGSNESS

When farmers come in to do their taxes, they get the conversation started. "We might discuss five or six things and give them another five or six things to discuss as a family," Carl says. Vermazen Tax Service doesn't draft legal documents, but the company shares some options with clients – such as ways other people have structured similar estate plans, so they can be better prepared when talking to an attorney. "An attorney is very important, but most people are afraid to go in and have to make a decision," Carl says. "Farmers like to think about things for years, and if they're not sure, they're reluctant to make a quick decision."

Wayne says that, in his experience, lawyers excel at identifying potential problem areas. "They tend to ask things like 'have you talked about this? What are you going to do about that?'" he says. "Clarifying our relationships with each other and each person's responsibilities – those things are not to be taken lightly. Those are the things

that can easily get to be a problem that people fight over."

Kate Kohorst is a lawyer who practices in Harlan, in southwest Iowa. She counsels families to start planning for the future of the farm as soon as the next generation joins the operation. She also believes it's important to communicate your intentions for an estate during your lifetime. "I used to not think that," Kate says. "I used to think 'well, they'll find out when the person dies.'" After working with many families, however, Kate's perspective changed. "They may be unhappy, but it's better to be unhappy when they're alive and can deal with it."

Because lawyers can be expensive, Kate says to be mindful of that cost when planning. You want to expedite the process and keep it as inexpensive as possible. "The more information you can give to the person that's working with you, the better," she says. Before meeting with a lawyer, gather a list of assets, along with addresses and phone numbers for beneficiaries, and share any challenging situations or family members you're worried about it. "We keep it confidential," Kate says. "So the more we know, the better." She adds that people should feel comfortable with their plan: "If it doesn't pass the sleep test, it's not a good estate plan."

Owning a Piece of the Farm

A big piece of advice the Wangsnesses received from Vermazen was for Ryan to own a specific part of the operation. "I think the key was that I started my own farm," Ryan says. "It wasn't really that I was taking over Dad's after he retired. I had mine and he had his and we tried our own things. So then you're kind of growing that way, instead of taking over what was already there."

When it came time to expand to bring Ryan on board, Wayne wanted to make sure it was in an area where quality would come through, or where buyers associated quality with Ryan's farm. That lesson – learned during the farm crisis of the 1980s – is one Wayne hopes to pass down to Ryan, and other farmers as well. "If you have something that isn't special, people don't care where they buy it," he says. "As a result,



Ryan Wangsness (left) stands with his son and daughter next to his parents, Cheryl and Wayne Wangsness.

“If they haven’t talked about what their goals are or what their plans are, the time with us is the icebreaker. So we talk about it. Sometimes farmers aren’t ready to change anything do anything. They just need someone to bounce things off.” - CARL JOHNSON

they buy from the seller that will sell at the lowest price.” In this spirit of this advice, Wayne and Ryan considered many options. Wayne admits they even considered adding ostriches to the operation. Eventually, they settled on raising eggs for Organic Valley because it made practical sense and was something Ryan was interested in. Ryan also says the company has a stable program for eggs, and he likes the steady income. “We were doing organic crops and we wanted a way to add value to them,” Ryan says. “With egg layers and dairy, you get a check every two weeks.” In contrast, he says farmers raising beef cattle get paid every 1.5 years, or annually with row crops.

The Wangesses’ banker was also important when it came to planning for the new enterprise. In addition to advising on what capital they needed, Wayne says their banker helped identify risks associated with the new enterprise and how to cover those risks through insurance. “If Ryan would have died, I’d have been left with a mess, because

it was his deal,” Wayne says. “I didn’t really want to do chickens myself.”

Ryan’s Farm Service Agency loan officer was another crucial resource. His loan officer helped guide him through good record-keeping practices and the process of making good decisions. FSA farm operating loans and FSA guaranteed farm loans can also help buoy beginning farmers. “I don’t think I would have been able to do it without FSA,” Ryan says. His advice for working with them? Be prepared. “Have a really good plan, have your numbers figured out on what you’re expecting – either records or planned financials.”

Looking back, Wayne says the easy part of farm transfer was bringing Ryan on board, because it was just a matter of figuring out how to generate more income. The next step was writing their will, a task that was less straightforward and more emotional. “We all had a little reluctance to do it,” he says. “If I’d have died at 50, it would have never happened. As time went on, it

“I don’t think I’d have been able to do it without FSA.” - RYAN WANGSNESS

became obvious that there needed to be something done.”

Start Planning Early – and Stick With It

Carl has seen many families go through the farm transfer process, and says the Wangsnesses are a good example of how to do it right. “Anyone in farming with those types of questions would really benefit from taking the Wangsnesses out to dinner and picking their minds about it,” Carl says. “They communicate well and they don’t have ulterior motives.”

Starting the process can be difficult, even for families that agree on farm transfer plans, talk regularly and generally get along well. Wayne and Cheryl have four children: in addition to Ryan, they have two daughters and another son who is disabled and can’t participate in the farm. Ensuring continuity of the farm is first and foremost for Wayne and Cheryl, and this has influenced their farm estate planning. They want to provide for their two daughters while fairly recognizing the work Ryan has put into the farm. “We’re trying to be helpful to our daughters, but it seems unreasonable that they should be anywhere near one-third, because the net worth of Cheryl and I would be considerably less if we would have quit operating 20 years ago,” Wayne says, referring to when Ryan joined the operation. Wayne says his daughters have successful careers, and their spouses also work – a fact that eased the task of figuring out how to fairly split the estate. “It’s not a case where they need every last dollar.”

Ryan adds that his siblings have been supportive throughout the process. “They figure whatever Mom and Dad think is fine,” he says. “The farm is Mom and Dad’s, so Mom and Dad get to decide what they want to do with it.” Wayne cautions that deciding on a farm transfer plan didn’t happen overnight. “The conversations took place over a long period of time as the girls came to visit, and as we went to visit them,” he says. He also recognizes that estate planning is always a work in progress. “Times change, circumstances change,” Wayne says. “I hope we can revisit it without any conflict.” ■

Review of: “Marketing Organic Grain: A Farmer's Guide”

John Bobbe's book “Marketing Organic Grain” has come to be a favorite of mine. Not only has this book been an enjoyable read for me, it also serves as a handy reference for organic grain farmers, whether you are a seasoned organic farmer or someone who is considering making the switch to organic grain farming.

With slightly fewer than 100 pages, you can easily read it in its entirety in one sitting. As a long-time organic farmer, I have yet to come across a book that contains as much practical and useful information as this book provides for the organic grain farmer. The book is filled with solid “nuts and bolts” kind of information that every organic farmer will need to address before taking the plunge into certified organic grain production.

Toward the end of the introductory chapter, John states that a good friend of his likens coming to organic agriculture from the conventional non-organic world to “crossing the river.” John made this crossing in 2001 and has never looked back. Since then, he has been helping other farmers make that crossing to the organic shore, where expensive and dangerous chemicals are replaced by sustainably priced crops and livestock products. Within this concise book, John guides his readers in making that “crossing” as well.

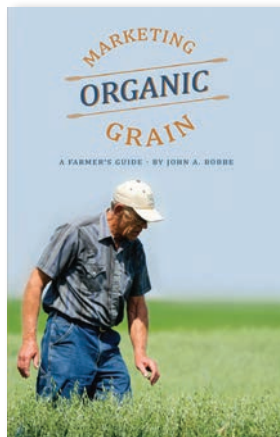
John leads off by sharing his view that organic is the future of American agriculture. He notes that in recent years, food company executives have echoed the idea that there is no other trend when it comes to food production. I found the chapter titled “Organic Grain Farming from Planning to Paycheck” to be succinctly written with a chronological checklist of steps to consider as you plan, produce and market your grains. The key point to keep in mind is that as a certified organic grower, you will need to submit an organic system plan each year that will be followed up with an on-farm inspection during the growing season.

The end of chapter three includes a list of the more common grains typically sold by organic farmers, as well as descriptions of those grains and details about marketing them. Within the “Contracting Basics” chapter, John lays out seven rules for organic farmers to be aware of when marketing their grains. His take-away point in this chapter is in reference to an advertisement he once noticed that stated: “In business you get what you negotiate, not what you deserve.”

Midway into the book, John devotes a brief chapter to the importance of organic standards as put forth by the Organic Foods Production Act of 1990. Another chapter titled “What's Your Story?” highlights eight farmers from various locations across the Midwest who share a belief or mindset that resonates with them. I took delight with Charlie Johnson's comment. Charlie, along with his family, operates a certified organic grain farm in eastern South



Dakota that also includes a 200-head rotationally grazed cow-calf herd. Charlie comments, “To be organic is to be pro-people, pro-environment, pro-consumer and pro-community. When you purchase organic, you are also purchasing all those virtues and all those values.”



Towards the end of the book, you will notice that John wholeheartedly supports marketing your organic grains through a farmer cooperative, a style of marketing commonly referred to as a “marketing-agency-in-common.” John goes on to share some of his experiences during his last 18 years while serving as the first executive director of OFARM (Organic Farmers' Agency for Relationship Marketing). OFARM serves as an umbrella organization that oversees the marketing efforts of three organic farmer grain co-ops covering 19 states across the Midwest and beyond.

In his concluding chapter, John spells out his vision for rural America. He envisions a place for everyone at the table – farmers along with their families, the industries that support them and consumers who share in a wholesome vision of what we desire our communities, farms and families to be in the future. In his final statement, John shares that “crossing the river” from conventional to organic farming has taken him a lifetime. While it has been difficult at times, he says the journey has been more than worth it. ■

Dave Campbell and his family operate Lily Lake Organic Farm, a 224-acre certified organic farm near Maple Park, Illinois. Their crop rotation encompasses corn, soybeans, wheat, hay, oats and cover crops. Dave is a sixth-generation farmer who farms near the place where his father's family homesteaded during the 1840s.

Learn More

➔ “Marketing Organic Grain” can be purchased directly through John Bobbe by contacting him at johnbobbe@gmail.com.

PFI Receives \$936,000 for Water Quality from EPA

Grant will fund work on water quality, habitat and environmental education

Practical Farmers of Iowa has received a \$935,788 grant from the U.S. Environmental Protection Agency that will fund work to improve water quality, habitat and environmental education.

PFI's project – "Roots for Water Quality: A Farmer-to-Farmer Model for a Sustainable Mississippi Basin" – was one of three Iowa-based projects to receive funding through EPA's Farmer to Farmer Cooperative Agreement. A ceremony honoring the Iowa recipients took place on Aug. 14 during the Iowa State Fair.

During the three-year course of the project, Practical Farmers will:

- work with farmers to accelerate adoption of cover crops

- double the number of farmers capable of acting as "cover crop champions" by offering training so these farmers can educate and mentor other farmers
- lower barriers to implementing cover crops
- contribute to a 5% improvement in water quality on sites with cover crops

"Practical Farmers of Iowa is ready to increase the use of cover crops in Iowa to tackle our water quality issues," says Sarah Carlson, PFI's strategic initiatives director.

"Through farmer-to-farmer learning, PFI has proven that cover crops are an essential tool



Alisha Bower (center-left), PFI's strategic initiatives manager, and Sarah Carlson, PFI strategic initiatives director, pose with staff from the U.S. Environmental Protection Agency, other Iowa-based grant recipients and Iowa Secretary of Agriculture Mike Naig (green shirt) during a ceremony at the Iowa State Fair.

of the agronomic toolbox to manage weeds and reduce soil erosion, while improving water quality in a corn and soybean rotation." ■

Rebecca Clay Joins PFI Staff

Rebecca Clay is the newest addition to the Practical Farmers of Iowa team. In July 2019, she joined the staff as a strategic initiatives assistant and will support the strategic initiatives team by consulting farmers on cover crops, collecting and managing data from on-farm trials and quantifying the sustainability of various cropping systems. She looks forward to continuing to learn from the farmers with whom she works.



Guatemala and, closer to home, Iowa and Nebraska. She has assisted several research projects ranging in topics from soil science to rural sociology.

Rebecca is returning to Ames after spending two years working with smallholder farmers in the foothills of the Himalayas in Nepal. As a

Peace Corps volunteer, she worked with community members to diversify diets through production of nutrient-dense foods such as fruits, nuts, mushrooms and vegetables. She also worked to diversify field cropping systems with cover crops and under-used grains.

Rebecca lives for sharing good food and drink with friends and family and exploring the landscape on her bicycle. She is looking forward to getting involved in the greater Ames community. ■

Rebecca hails from Le Mars, Iowa. She developed an interest in soil and the plants, people and societies it sustains while working in her family garden, visiting her uncles' cattle farm and reading about global food issues. She graduated from Iowa State University in 2016 with bachelor's degrees in agronomy and global resource systems, with a minor in Spanish. During her undergraduate studies, Rebecca was fortunate to travel to and work alongside farmers in Uganda, Ghana, Ecuador,

Sign Up for PFI's 2020 Small-Grains Cost-Share

Farmers in Illinois, Indiana, Iowa, Minnesota, Ohio and Wisconsin are invited to apply for cost-share on small grains that will be harvested in 2020 and followed by a legume-containing cover crop. Small grains include barley, oats, rye, triticale or wheat.

A legume cover crop could be under- or co-seeded clover or alfalfa, or a summer-planted cover that includes hairy vetch or field peas.

Practical Farmers of Iowa will pay \$25 per acre in cost-share on up to 100 acres per farmer for this combination of a main crop and cover crop on either conventional acres or those transitioning to organic. Certified organic acres are not eligible.

Acres are assigned on a first-come, first-serve basis. Reserve your acres on our small grains cost-share page at practicalfarmers.org/programs/small-grains-cost-share-programs. ■

Save the Date! ↘

BEGINNING FARMER RETREAT

DECEMBER 13-14 | AMES, IOWA

Beginning farmers: Mark your calendars for PFI's annual beginning farmer retreat! If you are starting a farm you should plan to attend this annual retreat. In addition to networking with other farmers, you will make progress on goal-setting and creating action plans for achieving them. Programming will be offered for both aspiring farmers and beginning farmers, with experts and peers facilitating the sessions and assisting with work time. Registration will open in October.

Find out more details at
practicalfarmers.org/beginning-farmer-retreat



Apply for the Next Round of SIP

Applications are now open for the Savings Incentive Program class of 2021! Getting a start in farming can be difficult, and sometimes you need a little guidance to keep you on track.

The Savings Incentive Program was created to help beginners establish viable, sustainable farm businesses. The program was structured with input from beginning farmers and direction from established farmers.

To be eligible, applicants must:

- Either be farming on their own now and have farmed for five or fewer years, or have some experience working for a farm business
- Reside in Iowa or farm in the state
- Be a member of Practical Farmers of Iowa

Applications are due by Friday, Oct. 11. ■

Get Ready for Fall Farminars

Autumn is now here, and that means it's almost the time for our fall farminar series to return. The first farminar of the season will take place on Tuesday, Nov. 12 at 7 p.m. Central time. These online events will happen live each Tuesday night from 7-8:30 p.m. through Dec. 17, and resume again in January.

Farminars are interactive, farmer-led online presentations that cover a range of row crop, livestock and horticulture issues. The series is free and easy to access. Tune in anywhere you have an internet connection, listen as a farmer or business expert presents over a slideshow and ask questions in real-time using a chatbox.

The full lineup of speakers and descriptions will be available on our website in October at practicalfarmers.org/farminars. To participate in a live farminar (or watch a recording), visit the same link and click the "Join In" button. ■

Manage Your PFI Account Online

As a PFI member or supporter, you are now able to manage your own account on our website. If you haven't yet created your online account, doing so will enable you to:

- Register or RSVP for events
- Join or renew your membership
- View your past donation and membership activities
- Donate
- Update your contact information

If you are a current or past PFI member – or have had any monetary transaction with us in the past several years – you already have an account and can now create a login to access it. You can set your login information and access your account anytime through the new "Login" button in the upper-right corner of our website.

Questions? Contact us at (515) 232-5661 or email Steve (steve@practicalfarmers.org) or Debra (debra@practicalfarmers.org). ■

Welcome, New Members!

DISTRICT 1 - NORTHWEST

- Robert Epling – Merville
- Erik Koenigs – Mapleton
- Neil and Elizabeth Peterson – Fonda
- John Rock – Peterson

DISTRICT 2 - NORTH CENTRAL

- Brad Alleman – Slater
- Daryl Doerder – Boone
- John Hanzlik – Charles City
- Jason Herrstrom – Boone
- Royal "Curly" Holz – Grand Junction
- Eric Jellum – Osage
- Tim Lund – Jewell
- William Mateer – Sheffield
- Steve Merfeld – Charles City
- Hadj Mokhtar Sahraoui – Ames
- Brad Ohrt – Reinbeck
- Colton Paul – Haverhill
- Wes Paul – Laurel
- Troy Seifert – Ames
- McKenzie White – Boone
- Clint Wobeter – Toldeo

DISTRICT 3 - NORTHEAST

- Kay Connelly – Cedar Falls
- Jeff Durden – Dubuque
- Andria McLaughlin – Fredericksburg
- Esther Ninos – Decorah

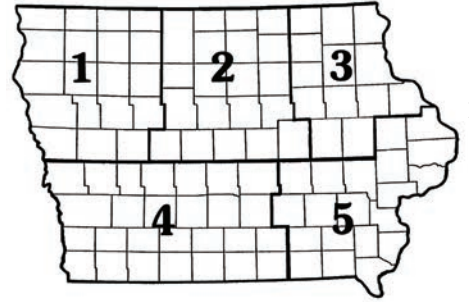
DISTRICT 4 - SOUTHWEST

- Caleb Baker – Clearfield

- Kevin Borts – Mingo
- Daniel Bowser – Ankeny
- Maxwell Covington – Corydon
- Becker Daran – Indianola
- Cody Davis – Essex
- Andy DeVries – Monroe
- Jill Duncan – Des Moines
- Connor Dunn – Norwalk
- John Gallagher – Cumming
- Michael Hobart – Des Moines
- David Jones – Thayer
- Troy Layton – Newton
- Dennis Miller – Ankeny
- Dawn Moser – Garden Grove
- Justin Petersen – Knoxville
- Bryan Reed – Albia
- Katie Rock – Des Moines
- Laurel Sellers and Radouane Ghomid – Council Bluffs
- Peter Smith – Atlantic
- Darrell Stamp – Walnut
- Corey Thorson – Pella
- Jerry Vander Wert – Pella
- Robert Vermeer – Pella
- David Willemsen – Pella
- Don Willemsen – Pella
- Russell Wright – Dunkerton
- Bob Zimmerman – Walnut

DISTRICT 5 - SOUTHEAST

- Wren Almitra – Iowa City
- Michael Beach – Fort Madison



Kirk

- Berry – Brooklyn
- BJ Boender – Oskaloosa
- Mark Boender – Oskaloosa
- Sara Bright – Oxford
- Joel Cornelius – Maquoketa
- Jacob Fynaardt – Eddyville
- Becky Jones – Davenport
- Jeff Kriegel – Hartwick
- Jim and Mary Pelzer – Tipton
- Mike Phillips – Montezuma
- Sherwin Plate – Rose Hill
- Randolph Potter – Preston
- William Schinkel – New Sharon
- Sharon Jensen Smith – West Branch
-

DISTRICT 6 - OUT OF STATE

- Nathan Aaberg – Grayslake, IL
- Jeff Jirik – Faribault, MN
- Seven Sundays, Brady Barnstable – Minneapolis, MN
- Greg Tople – Aberdeen, SD
- Audrey Woita – Omaha, NE



Debra Boekholder, PFI's membership and events assistant, welcomes guests to the social hosted by Helen Gunderson on Aug. 25 at her urban farm in Ames.

Practical Farmers Events

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

OCTOBER

OCT. 6: Extending the Vegetable Season in the Field and High Tunnel

Host: Laura Krouse | 3-5 p.m. | Mount Vernon, IA | RSVP for the meal by Oct. 2

OCT. 21: Farmland Summit

Red Wing, MN | To learn more, visit gotfarmland.org

NOVEMBER

NOV. 10: Urban Farming: Greens and Farm Store

Host: Jenny Quiner | 1-3 p.m. | Des Moines, IA | RSVP for the meal by Nov. 6

NOV. 12: Farminar: Topic TBA

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

NOV. 19: Farminar: Topic TBA

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

NOV. 26: Farminar: Topic TBA

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

DECEMBER

DEC. 3: Farminar: Topic TBA

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

DEC. 10: Farminar: Topic TBA

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

DEC. 13-14: Beginning Farmer Retreat

Ames, IA | Location TBA | Learn more at practicalfarmers.org/beginning-farmers-retreat

DEC. 17: Farminar: Topic TBA

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

Other Events

Note: Find more events online at practicalfarmers.org/calendar.

OCTOBER

OCT. 5: The Harvest Spoon Tour

10 a.m.-4 p.m. | Honey Creek, IA | Learn more at theharvestspoon.org

OCT. 10: Food + Art Conference: Growing Rural Businesses and Communities

8 a.m.-3:30 p.m. | Pender, NE | To learn more, visit cfra.org/events/FoodArtConference

OCT. 12: Midwestern Silvopasture - Green Pastures Farm

Hosts: Greg and Jan Judy | 10 a.m.-4 p.m. | Clark, MO | Learn more at savannainstitute.org/events.html

OCT. 13: Nuts and Bolts of Midwestern Pecan Production

1-5 p.m. | Clifton Hill, MO | Learn more at savannainstitute.org/events.html

OCT. 17: Managing Prairie Plantings With Controlled Burns

10 a.m.-12:30 p.m. | Dike, IA | Learn more at tallgrassprairiecenter.org/prairie-farms/events

OCT. 17-19: Women in Sustainable Agriculture Conference

St. Paul, MN | Learn more at mosesorganic.org/events/wisa-conference

OCT. 20: Hawkeye Buffalo Ranch and Chainsaw Workshop

1:30-6 p.m. | Fredericksburg, IA | Learn more at iowafreshfood.com/site/niff-calendar.html

OCT. 22-24: National Farm Viability Conference

Red Wing, MN | Learn more at farmviabilityconference.com



Jeff and Earl Hafner of Early Morning Harvest

NOVEMBER

NOV. 1: Field Day: Extend Your Season With Alternative Income

10 a.m.-2 p.m. | Matteson, IL | Learn more at estore.learnrowconnect.org/Workshops/#tag=All

NOV. 13-15: Pig Welfare Symposium

Minneapolis, MN | Learn more at pork.org/events/pig-welfare-symposium

NOV. 15: FARM HER Fall Grow Tour - Iowa

Ankeny, IA | Learn more at farmher.com/pages/events

NOV. 19: Prairie Strips Southeast Iowa Field Day

3-5:30 p.m. | Crawfordsville, IA | Learn more at prairiestrips.org

NOV. 19-20: Green Lands Blue Waters Conference

Minneapolis, MN | Learn more at greenlandsbluewaters.org/resources/conferences

NOV. 23: Early Morning Harvest Open House: Overcoming Potential Soil Imbalance With Tissue Testing and Foliar Feeding

10 a.m.-4:30 p.m. | Panora, IA | For questions, contact: info@earlymorningharvest.com

DECEMBER

DEC. 6: Farm4Profit 2019

8 a.m.-4 p.m. | Nevada, IA | Learn more at farm4profit.com

DEC. 6-7: Perennial Farm Gathering

Sinsinawa, WI | Learn more at savannainstitute.org/2019-perennial-farm-gathering.html

DEC. 10-12: Nebraska Power Farming Show

Lincoln, NE | Learn more at nebraskapowershow.com

DEC. 17-18: Conservation Tillage Conference

St. Cloud, MN | Learn more at extension.umn.edu/event/2019-conservation-tillage-conference

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: _____ Email 2: _____

* For Farm or Household membership, please list names of all persons included. For Organization membership, please list one or two contact persons.

JOIN OR RENEW

1. THIS ANNUAL MEMBERSHIP IS A:

- New Membership
- Renewal

2. I AM JOINING AT THE LEVEL OF:

- Student – \$20
 - Individual – \$50
 - Farm or Household – \$60
 - Organization – \$110
 - Lifetime Member* – \$1,000
- * See details at <http://bit.ly/PFI-lifetime>

3. I AM JOINING OR RENEWING AS:

- An Aspiring Farmer
- A Farmer or Grower
- Non-Farmer

4. HOW DID YOU HEAR ABOUT PFI?

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)!

- Cover Crops
- Field Crops
- General
- Horticulture
- Livestock
- Policy

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.

I 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 _____ year(s) = \$ _____

Additional Donation = \$ _____

TOTAL AMOUNT = \$ _____

- Check or money order is enclosed (Please make payable to "Practical Farmers of Iowa.")
- Credit card (Visa, MasterCard or Discover only)

Name on card _____ Number _____

Exp. Date _____ CVC# (3 digits) _____ Please automatically charge this credit card annually for membership





PRAIRIE STRIPS:

Field day attendees are surrounded by a lush stand of blooming oxeye sunflowers, also known as false sunflower, as they stand in one of Paul Mugge's prairie strips on July 17 listening to Lydia English, of the prairie strips project at Iowa State University, discuss how Paul Mugge is using prairie strips on his farm near Sutherland.



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Three Little Pigs

Pasture-raised pigs at Turkey River Farm greet field day guests during the field day farm owners Natasha Hegmann and Pete Kerns hosted on July 16 near Elkport.