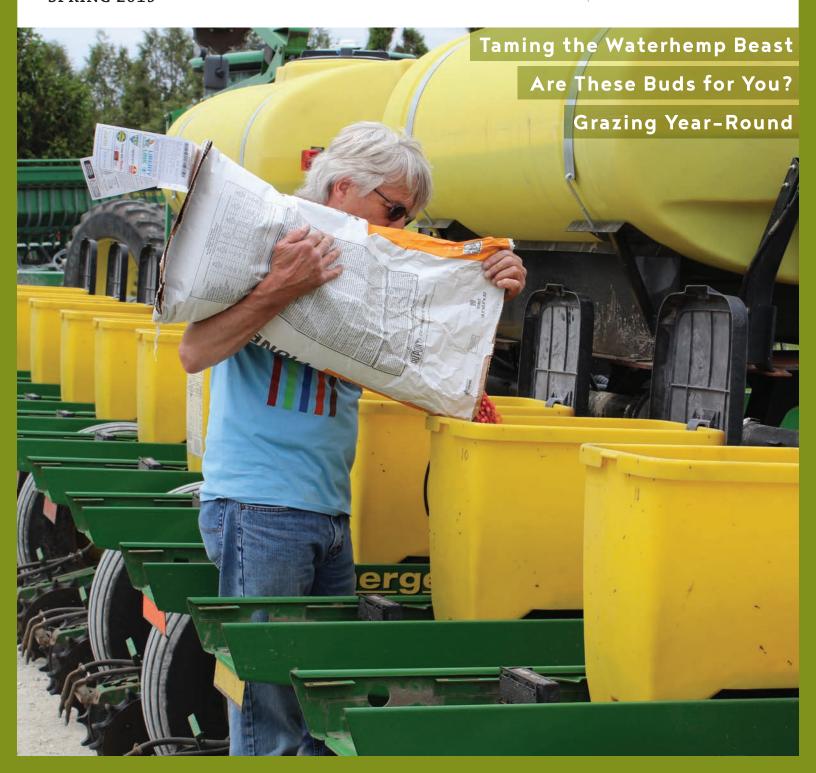
the PRACTICAL FARMER



SPRING 2019







CONTENTS

FEATURES

6 LIVESTOCK

Grazing Year-Round

Farmers are incorporating annual forages into crop rotations to complement perennial pastures.

9 INFOGRAPHIC

The Importance of the Cow

PFI co-founder Dick Thompson believed cows were a vital link on the farm. This graphic highlights why.

10 FARM TRANSFER

The Beginnings of a Farm Transfer

Shared values help connect beginning farmers John and Halee Wepking with Paul Bickford, who was searching for farmers to transition his operation to.

13 BEGINNING FARMERS

SIP Class of 2020

Meet the newest class of participants in PFI's Savings Incentive Program.

14 FIELD CROPS

Interseeding Cover Crops in Extra-Wide Corn Rows

Farmers are using on-farm research to experiment with different cover crop options before corn.

16 HORTICULTURE

Are These Buds for You?

Interest in tree crops (and beverages) has drawn new members to recent PFI events.

18 COVER CROPS

Taming the Waterhemp Beast

Cover crops can provide effective control against Iowa's most challenging superweed.

22 ANNUAL CONFERENCE PHOTO HIGHLIGHTS

26 SUSTAINABLE AG ACHIEVEMENT AWARD

Honored for Sustainability Efforts

Long-time PFI members Doug Alert and Margaret Smith have been using on-farm research for many years to guide their farming decisions, and freely sharing their knowledge with others.

28 POLICY

Commissioners Bring Local Conservation Issues to Iowa's Capitol

PFI members represented their soil and water conservation districts and met with legislators.

DEPARTMENTS

5 EXECUTIVE DIRECTOR NOTE

30 MEMBER BOOK REVIEW

"Wildly Successful Farming: Sustainability and the New Agricultural Land Ethic" – Gary Gadbury

31 PFI NEWS

- Labor4Learning jobs
- Beginning farmer survey
- Join our team
- FindAFarmer gets a makeover
- Meet our newest staff members
- Subscribe to our new cover crop e-newsletter
- New multimedia offerings

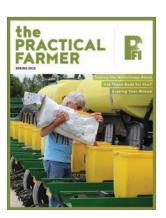
34 WELCOME NEW MEMBERS

35 CALENDAR

April – June

36 THE FINAL WORD

38 JOIN PFI



ON THE COVER:

Dick Sloan loads his planter in preparation for planting corn on his farm near Rowley on May 17, 2018.



WHAT WE DO

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

OUR MISSION

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

OUR VISION

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

OUR VALUES

Welcoming everyone

Farmers leading the exchange of experience and knowledge

Curiosity, creativity, collaboration and community Resilient farms now and for future generations Stewardship of land and resources

THE PRACTICAL FARMER

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

Magazine Editor: Tamsyn Jones

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





BOARD MEMBERS & STAFF

We love to hear from you! Please feel free to contact your board members or staff. General info and staff connections: (515) 232-5661. Staff email addresses: @practicalfarmers.org.

DISTRICT 1 (NORTHWEST)

Nathan Anderson - Secretary

400 Locust St., P.O. Box 14 Aurelia, IA 51005 (515) 708-5199 n8andv@gmail.com

DISTRICT 2 (NORTH CENTRAL)

Wendy Johnson - President

2038 March Ave Charles City, IA 50616 (562) 852-7044 207wendy@gmail.com

DISTRICT 3 (NORTHEAST)

Ann Franzenburg - Vice-President

6925 19th Ave. Van Horne IA 52346 (319) 640-0262 eafran@netins.net

DISTRICT 4 (SOUTHWEST)

Mark Peterson

2311 N Ave. Stanton, IA 51573 (712) 370-4004 markpete@myfmtc.com

DISTRICT 5 (SOUTHEAST)

Gayle Olson

2272 140th St. Winfield, IA 52659 (319) 931-1351 olsongayle@gmail.com

AT-LARGE FARMERS

Jack Boyer

1031 Hwy T55 Reinbeck, IA 50669 (319) 345-2265 iboverfarms@gmail.com

Vic Madsen

2186 Goldfinch Ave. Audubon, IA 50025 (712) 254-3057 vcmadsen@iowatelecom.net

Mark Ouee

1951 Delta Ave. West Branch, IA 52358 (319) 530-3782 farm@scattergood.org

David Rosmann

1809 N Willow St. Avoca, IA 51521 (612) 219-7396 davidrosmann@hotmail.com

Julie Wheelock

3381 230th St Sac City, IA 50583 (712) 830-2402 juliebwheelock@gmail.com

AT-LARGE FRIENDS **OF FARMERS**

Lisa Schulte Moore

728 Brookridge Ave. Ames, IA 50010 (515) 294-7339 lschulte@iastate.edu

Kurt Van Hulzen - Treasurer

2397 Wadsley Ave. Sac City, IA 50583 kurtvh@ncn.net

PFI STAFF

Sierra Becker

Sustainable Agriculture Assistant (sierra@)

Samantha Beckman

Office Support (samantha@)

Debra Boekholder

Membership & Events Assistant (debra@)

Alisha Bower

Strategic Initiatives Manager (alisha@)

Maggie Cannon

Membership Manager (maggie@)

Sarah Carlson

Strategic Initiatives Director (sarah@)

Steve Carlson Next Generation Coordinator (steve@)

Celize Christy

Swine & Poultry Coordinator (celize@) **Henry Corbin**

Multimedia Assistant (henry@)

Meghan Filbert

Livestock Program Manager (meghan@)

Laura Frescoln

Associate Director (laura@)

Stefan Gailans

Research & Field Crops Director (stefan@)

Jace Hadish

Media Assistant (jace@)

Suzi Howk

Finance & Benefits Director (suzi@)

Tamsyn Jones

Outreach & Publications Coordinator (tamsyn@)

Liz Kolbe

Horticulture & Habitat Programs Manager (liz@)

Shannon Kooima

Strategic Initiatives Assistant (shannon@)

Sarah Krumm

Graphic Design & Multimedia Coordinator (sarah_k@)

Hayley Nelson

Research Assistant (hayley@)

Nick Ohde

Communications & Marketing Director (nick@)

Greg Padget

Next Generation Director (greg@)

Jorgen Rose

Habitat & Farm Transfer Coordinator (jorgen@)

Chastity Schonhorst

Bookkeeper (chastity@)

Jason Tetrick

Digital Media Coordinator (jason@)

Sally Worley

Executive Director (sally@)

CO-FOUNDERS

Sharon Thompson Larry Kallem Boone, IA 1417 Indiana Ave.

Ames, IA 50014 The late Dick Thompson (515) 337-1272 Boone, IA

Practical Farmers of Iowa

1615 Golden Aspen Dr. Ames, IA 50010 (515) 232-5661

CONTACT US

practicalfarmers.org facebook.com/practicalfarmers twitter.com/practicalfarmer youtube.com/pfivideos linkedin.com/company/practical-farmers-of-iowa

Inspiration From PFI Leaders

would love to bottle the energy, warmth and inspiration present at our annual conference, to bring out on a day when I am feeling tired or lonely. The camaraderie that exists in this group is so prevalent at this meeting. "Cultivating Connections" was a fitting description for this time to get together, support each other and learn. Words spoken during this year's Sustainable Agriculture Achievement Award presentation aptly embody Practical Farmers and this annual gathering.

Mark Quee, who farms near West Branch and serves on our board of directors, presented the award to this year's recipients, Doug Alert and Margaret Smith, long-time members who farm near Hampton. "In some ways, I can trace my involvement in Practical Farmers back to Margaret's hospitality," Mark said. "When I was a new member and still trying to find where I fit in this organization, it was daunting to show up at a big event like this. Early on, when so many faces were unfamiliar, I was always seen by Margaret. She acknowledged my presence, made me feel welcome and invited me into this vibrant community. I hope we can all follow her example."



Doug Alert and Margaret Smith pose with the 2019 Sustainable Agriculture Achievement Award after the award ceremony on Jan. 18, held during Practical Farmers' 2019 annual conference.

"You have an option to spend your time in many different ways and groups. Why PFI? The first thing about PFI members is their **curiosity**. Inquiring minds want to know. So many questions, you just can't keep us from asking questions. The curiosity quotient here is amazingly high.

"The second factor of PFI members is their **humility**. We note that how we're farming isn't perfect, and we aren't afraid to admit it. We know we can do better. This doesn't mean we aren't proud of what we do, but humility tempers pride and makes us more sympathetic, real people.

"I love the **cheerful spirit** among PFI members. We always leave a gathering with some renewed spirit, an enthusiasm to go out and try to do it another year.

"The powerful sense of **community** is one of the main objectives and you achieve it wonderfully. Most members here are integral and active members of their own geographic community. They're also members of the greater ag community and PFI specifically.

"The last characteristic of PFI members is a strong sense of **spirituality**. We are

not of the same organized faith community, and it doesn't matter. I think we come from perspectives on faith that embody and look at the aspects of faith that encompass love of land and love of community."

These are only excerpts from Doug and Margaret's powerful and moving acceptance speeches. You can watch the entire award presentation on our website. You can also find photos of some of this year's conference highlights on pages 22-25 of this magazine.

I will echo Margaret's closing words in closing here: "Thank you for the combination of these characteristics that make you, you! Thanks for your curiosity, humility, cheerful spirit, sense of community and spiritual perspectives!"

Humbled to be part of this group,

Sally Worley

In PFI style, Doug and Margaret talked about what Practical Farmers of Iowa has meant to them, rather than what they have done for PFI. You can learn about Doug and Margaret's many contributions on pages 26-27 of this magazine.

Doug said: "When researching some esoteric agricultural detail, you are the first people I query. Google is second. When hatching one of my wild ideas, you are the people I use as a sounding board. When turning these ideas into research trials to verify my theory, you are the people who help me see the right question is being asked. Most importantly, when an idea fails miserably, you are the people I commiserate with. The value of community you have provided Margaret, whom I met at a PFI field day, and me is beyond my ability to adequately put into words."

Margaret talked about the physical connections she and Doug have made through the PFI network as well, including buying heifers from Practical Farmers co-founder Dick Thompson, breeding ewes from Torray Wilson, sheep netting from Walt Ebert, breeding gilts from Randy Hilleman, laying hens and boxes from Connie Tjelmland – and just last year, a rooster from Paul Willis. She also encapsulated the important combination of attributes that make Practical Farmers a unique and meaningful group:



hink of winter and summer annuals as links in your forage chain. These forages can be used to diversify crop rotations and provide a foundation for integrating livestock into your crop fields – while putting gain on animals at a time when perennial pastures need rest.

Diversifying Rotations

"My main purpose [for planting annuals] is to find a way to do what I love, which is livestock farming," says Luke Wilson, who farms near Prairie City in Jasper County. "My goal is to bring grazing into my family's row crop rotation." To do this, Luke incorporates a full year of annual forages every third or fifth year into his family's corn and soybean rotation. Luke, who is active in lowa Forage and Grasslands Council, hosted a bus tour in November 2018 as part of the IFGC conference. Attendees watched cattle grazing stockpiled oats and turnips.

Luke's acres are located on marginal, sloping ground near Lake Red Rock, where he has witnessed a positive response from planting diverse annual forages and integrating livestock. The annuals are grazed by heifers or cow-calf pairs, which are purchased or home-raised and developed on forage with

Luke supplies 40 units of nitrogen at planting, then again in June and August. "In June, nitrogen helps feed brassicas and rye after the oats have shut down, since they consumed the majority of initial nitrogen applied at planting," Luke says. "The most important nitrogen application is in August when the nights start cooling off. This helps boost forage production in the fall, but also helps root systems develop to improve durability and winter survivability." He has applied nitrogen in many forms – commercial, ammonia sulfate, urea, biosolids and chicken litter.

Mitigating the Summer Slump

For Mark Yoder, of Leon, planting summer annuals is a way to provide his cow-calf pairs with forage during the "summer slump" - when cool-season perennial pasture growth slows during hot weather. Last year, he planted 48 acres of summer annuals – instead of soybeans – on May 31. The annuals were no-tilled into a field that had previously been growing a cereal rye and wheat cover crop. Mark's 23-way mix from Green Cover Seed cost \$33 per acre - which he learned was more than he needed. "Twenty-three species is way too many," Mark says. "If we would have had fewer species, the sorghum and millet would have been thicker, especially for the second grazing in September."



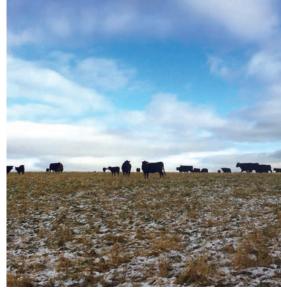
a total mixed ration. Cattle are then sold as bred heifers weighing 1,150 to 1,300 pounds through the Knoxville Regional Livestock Market. His preferred mix of forage annuals consists of Green Spirit Italian ryegrass, forage oats and brassicas. The brassicas are hybrid varieties that put on less bulb and more leaf, and provide multiple grazings. The mix is no-till drilled in late March or April at a rate of 25 pounds per acre, and costs \$1.40 per pound totaling \$35 per acre in seed costs.

The oats come on first, ready to graze 60 days after planting. Then the Italian ryegrass fills in, providing high-quality grazing throughout the late spring and fall. The brassicas supply the majority of forage production during the summer. After dining on oat stubble, Luke's herd continues to graze on ryegrass and brassicas until October or November. Italian ryegrass winter-kills much of the time. With adequate snow cover, however, it will come up in the spring, providing another grazing or harvest opportunity before termination prior to corn planting.

Due to complementary growing patterns, annuals are ready to graze when perennials need rest, and vice versa. Annuals help fill in forage gaps in grazing systems. Mark's cattle grazed perennial pastures from June 2018 until late July, then were turned into the annuals. "When other people were running out of pasture, we had cows in the field eating forage that was 8 feet tall," Mark says. This fresh forage allowed his drought-afflicted pastures to rest at a critical time – and the Yoders were also able to make an extra cutting of hay from the rested pasture. This strategy also lets farmers stockpile perennials, such as fescue, for winter grazing.

Fifty pounds of nitrogen and 20 pounds of sulfur were spread on the annuals on June 29, but Mark wishes he would have applied it earlier to boost grazing potential. Sixty cowcalf pairs got a total of 45 grazing days out of this mix, grazing from July 20 to Aug. 19 and then again from Sept. 19 until Oct. 4. No supplemental feed was needed during these grazing periods. The 48 acres of annuals

(Continued on page $8 \rightarrow$)







Above: (Top): Luke Wilson's cattle strip-graze stockpiled oats and turnips on Nov. 26, 2018. (Middle): Mark Yoder discussed research he conducted on grazing annuals during PFI's 2018 Cooperators' Meeting in December. (Bottom): Luke's mix of ryegrass, oats and brassicas.

Opposite: Cow-calf pairs graze forage annuals at Mark Yoder's farm on Sept. 29, 2018.



Luke Wilson uses single-strand wires to divide his annual forages into strips his cattle can rotationally graze. The wire can be seen in the bottom-right corner.

were split into 10 paddocks with single-strand electric fence. Mark spent 15 minutes every three days rotating the herd to the next paddock. A fenced-in alley allowed cattle to access water from a nearby pond.

Strip-Graze if Possible

Grazing experts recommend strip-grazing to best use annuals. "Annuals will bounce back and grow rapidly if you're diligent about strip-grazing," Luke says. It comes down to time and water; it's labor-intensive and might not be economical for everyone. Also, livestock must have water access from each strip, which can become an issue. Luke has different gates opening into a timber pasture where water is located, and cattle can always get back to that watering point.

Every couple of weeks, Luke rotates his herd from annuals to perennials and back again. "[In 2018] I was shorter on time, so I grazed cattle on 50 acres of annuals for two weeks, then rotated them with three perennial paddocks," he says. "I know when I let them continuously graze for a week or longer I am giving up some production." Luke doesn't recommend turning cattle out on annuals for months at a time because this can damage plants by selective grazing.

Winter Annuals

Thinking ahead to the fall, a sequence of winter annual small-grain species can be seeded to provide forage over winter and early spring. According to "My main purpose [for planting annuals] is to find a way to do what I love, which is livestock farming. My goal is to bring grazing into my family's row crop rotation."

- LUKE WILSON

Dr. Anibal Pordomingo, an animal scientist from Argentina who led a workshop for PFI last fall, the potential for animal growth on winter annuals exceeds any other forage resource during that time period, and can provide gains of 1.8 pounds per day in finishing steers. This gain is less costly than if feeding hay or silage. Cereal rye, barley, wheat, triticale and annual ryegrass are all viable winter forage options.

Mellow Soil

One of the benefits Luke sees to diversifying corn and bean rotations with forage annuals is the improved texture of the soil. "The next spring, we have the most mellow soil, and are able to no-till corn right into it. It works out so beautifully – the soil is stable from root mass but you can also pick it up and it will crumble in your hand. That's what we strive for and it doesn't take machinery to get it, just plants and livestock."

Luke has been able to find a way to keep doing what he enjoys while breaking the mold in lowa. "It's easy to feel as though you have to raise corn or soybeans, but there are so many forage species you can use and if you already have livestock, you're going to find a way to be successful while thinking outside the box." With the use of annual forages, it's exciting to envision a forage chain that provides seasonlong grazing opportunities — while diversifying the landscape and benefitting the soil.



AS ENVISIONED BY DICK THOMPSON, CO-FOUNDER OF PRACTICAL FARMERS OF IOWA

When the cow leaves, the rotation changes to all row crops with no need for oats or hay. There's less ground cover and soil erosion increases. There are no chores for the children. Input costs increase and income decreases. More farmers must seek off-farm work, yet there are more acres to farm and fewer farmers remaining. The loss of the cow weakens the family and downgrades the community.



The Beginnings of a Farm Transfer

Shared values unite a landowner and beginning farming family

John and Halee Wepking are part of a trend we're seeing in our network at Practical Farmers of Iowa: people between the ages of 30 and 49 looking for a rural place to not only plant roots and raise a family, but to do so through farming. The number-one barrier for these aspiring farmers? Access to farmland.

John and Halee met working in the kitchen of Prune, a restaurant in New York City's East Village. As their relationship developed, it was clear they didn't want to stay in New York City. John grew up in southwest Wisconsin near Lancaster, where his family had been farming for 100 years. One day he said to Halee that his dream was to take over the family farm. They moved back to Lancaster in 2014.

Land in the Family

John's dad and his dad's siblings co-owned the family farm. The siblings put together a legal partnership in the early '80s when they bought the farm from John's grandpa. "There wasn't enough attention paid to management versus ownership and how decisions would be made," John says. "After a time, there was really no operator. The farm has been in semi-operation disrepair since." John's dad had wanted to take over farm operations, but his siblings weren't interested. "When you have a situation where there's one heir who wants to farm

and others don't, the farmer views the farm as a farm, and the non-farming heirs view the farm as an asset."

John and Halee moved back to farm, but ended up working part-time on the farm and running a restaurant in Lancaster. "The partnership had already been strained by the time we showed up," Halee said. "We tried to push them to figure out if they were serious about passing the farm onto us." John and Halee were expecting their first child with no forward direction in sight. They didn't want to work full-time jobs and farm on the side, Halee says, especially not knowing if they had a future on that piece of land. "We didn't want to raise our kid in a restaurant," she says. "We wanted to raise our kid on a farm." The situation led Halee to search for organic farms on Madison's Craigslist site, where she found a post by Paul Bickford.

Paul's Land

Paul Bickford grew up on his father's dairy farm in the Driftless Region of Wisconsin. He went to college not thinking he would ever become a farmer. Then his father made a deal with him. "If I came back, we would set up a partnership, expand the operation and work together," Paul says. The farm Paul grew up on was being surrounded by development. Paul and his dad invested in an additional farm near Ridgeway, Wisconsin, when Paul was 25.

His dad owned his home farm debt-free, and mortgaged it to purchase the additional farm. On the new land, Paul and his father built one of the first modern dairy confinements in 1978. "It wasn't working very well," Paul says. "Around 1992, we looked at each other and thought, 'This thing's gotta go." Paul transitioned the farm to rotational grazing and started a pasture-based dairy. "Dad thought I was nuts and wanted me to buy him out," Paul says. At that point, his father's home farm was about four times the value of the farm he and his dad jointly owned. They decided Paul would inherit the co-owned farm and his father's farm would be split among Paul's siblings. "It was an unequal but equal basis, and I was okay with it," Paul says. "He was helping me along, and my brothers and sisters got his valuable real estate."

In 2011, after electrical issues caused by stray voltage on the farm, Paul sold his cows, quit dairy and transitioned his 900-acre farm to

organic grain production. Soon after, an unfortunate fire gutted the farm buildings. Paul was around the age his dad was when he brought Paul into the operation as a successor, and Paul started to think about the next generation. Paul does have a son, Levi, who loves to work on the farm but does not want the management responsibility that comes with the current size and scope of operations. Without an automatic successor, Paul started looking for someone by posting an ad on Craigslist.

"I have all this experience, and I started thinking, what am I going to do with it? I wanted to be able to share it and let John and Halee use some of my experience that I paid dearly to learn." - PAUL BICKFORD

Matchmaking Via Craigslist

"I had nothing to lose by trying," Paul says. "During my career, I hired for those with experience, and they had none. I hired farm-raised, and they were not. Now I was hiring for nice and trainable."

"Paul's listing said he had a wealth of knowledge that he wanted to pass on to the next generation, and that a partnership could be possible," Halee says. "The values he articulated really lit a spark in me and I wrote him back immediately." John and Halee met with Paul within a few days. As they were driving around Paul's farm, Halee recalls a conversation they had. "Paul said, 'If you come to work with me, I expect you to tell me what I'm doing wrong and bring new ideas.' He has held up to that. He has gone through many different transitions on his own farm. He is an amazingly flexible, open and experienced farmer."

Paul, Halee and John started to work together in 2015. For John, the first month was especially challenging: He was using a tractor that was twice as big as anything he'd used before, and spent the first month cultivating soybeans. "Luckily, Paul was too busy cleaning up fire damage to see how many soybeans I killed," John says. That fall, John was able to convince Paul to plant 40 acres of winter wheat, which wasn't in Paul's planned rotation. "Paul has respected our ideas and wanted us to bring them to the table," John says. "He's



John Wepking, holding his son Henry, stands with Paul Bickford on the farmland Paul plans to transfer to John and his wife, Halee.

really started to buy into raising food-grade small grains. From the beginning we've worked together on a lot of things. We were farm hands working for a wage, but in terms of relationship we were very much partners."

Meadowlark Organics

The Wepkings named the new joint venture Meadowlark Organics. Its mission statement reads: "We are farmers committed to cultivating a regenerative ecosystem by growing real food, improving the health and resilience of our soils, protecting the safety of our water, and investing in the vitality of our rural community." John says that the mission statement, though simple, has been important to ensure clarity as they make farm decisions. "When you're involved in a non-family farm enterprise that's shifting, it is important to articulate goals," he says. "Our mission statement is pretty straightforward, but to have something to rely on when you're making decisions is really valuable."

The farm sits on a ridge in the Driftless Region, a location that is both wind-swept and well-drained. "This opens up possibilities for food-grade small grains," John says. While the Wepkings grow corn and soybeans, they hope to reduce those acres over time "because they are hard on our slopes." Meanwhile, they are increasing production of food-grade grains. John and Halee are contracting with a local miller to mill grain into flour, and they plan to build a farmer-owned flour mill in the future.

Values Guide the Transition

Paul, Halee and John focus on four key values as they transition the farm:

- **Mentorship:** "I have all this experience and I started thinking, what am I going to do with it?" Paul says. "I want to be able to share it and let John and Halee use some of my experience that I paid dearly to learn."
- **Trust:** "Paul trusts we're not going to leave," Halee says, "and we trust that he'll continue to support us."
- Commitment: "Right now we're committing more and adding more value than the actual paycheck we're earning, and so a lot of compensation is based on non-monetary things," John says. "The house part was really critical in terms of commitment." He and Halee have also committed to having Paul's son, Levi, as a long-term employee. "He's really valuable and employable on the farm, and for Paul to have the commitment that Levi will continue to have a job on this land when he's gone is really important."
- **Shared vision:** John and Halee came from a culinary background. In farming, Halee says they want to "grow food for people, not just for animals" a vision Paul has embraced. He and the Wepkings have different views on how fast to achieve that vision, but they are all in agreement about where they want to end up. "I tend to be a little faster and motivated to get

(Continued on page $12 \rightarrow$)



John and Halee Wepking with son Henry and daughter Lyda in a field on Meadowlark Organics.

"We are committed to showing that you don't have to have an off-farm job, that you can make your farm strong enough so it can support you financially."

- HALEE WEPKING

to the endpoint than John and Halee," Paul says. "They're more conservative because it's going to be their debt. I want to get down their road and be the powerhouse regional flour king."

The Transition

The farm is set up as an S corporation, so there are shares. The farm will be transferred to John and Halee through a combination of gifting, earning and purchasing stock in the corporation over time.

Instead of a real estate transaction, there will be stock ownership transfer. "Halee and I are building equity," John says. "We have our own grass-fed beef enterprise on the farm, and [a Farm Services Agency] microloan for breeding cattle. We're working toward purchasing the 82-acre farmstead where we live on the farm." The \$625,000, 82-acre farmstead is financed by a 5 percent down payment from John and Halee, 45 percent through FSA and half through a land contract with Paul.

"Our commitment is that we'll basically provide a pension for Paul for the rest of his life through stock purchase and proceeds from the land contract," John says. "What we're doing is a committed relationship, not just a transaction. We're involved in conversations about long-term care and provisions for his children. The stock transfer realistically wouldn't be accomplished within Paul's lifetime, so there's remainder stock that will probably be transferred through Paul's estate. We'll make provisions so the farm is sheltered from long-term care needs should Paul need anything like that."

"There are innumerable benefits as a beginning farmer to coming onto a farm that's already living, breathing and working, as opposed to starting from scratch."

- JOHN WEPKING

John says the arrangement has many benefits, especially considering their financial position when they first started looking to farm. "We would have no shot to be farming on this scale with basically zero equity we came in with."

Paul says the financing sitation with Meadowlark Organics is similar to what he experienced when farming with his father. "In my relationship with my dad, he would borrow money and I would pay it back. That's what we're doing here. I'm highly leveraged, and we're

judicious about how we borrow money." Paul, John and Halee work on ideas together, and Paul has helped build capital. "They needed a house," Paul explains. "It was an old, run-down home, but Halee's dad is a carpenter and John's dad is a plumber. I borrowed money to fix up the house, but it's a good investment. If our partnership falls apart, I'll still have a really nice house." Paul also borrowed \$275,000 to help pay for equipment to bolster the small-grains business. "We bought a lot of used equipment and bins," he says, "and did a lot of farm labor."

Reflections From a Farm in Transition

For Paul, part of facilitating a successful farm transfer has been creating space for John and Halee to take initiave, learn from mistakes and contribute their own ideas. "If you hire on somebody and think they're going to be a partner, give them some responsibility in some areas where they can trip up and fail," Paul says. "You can't just hire somebody and continue to do the same thing over and over. Young people want to make their own way. Plus, they have some knowledge base and some creative ideas. The worst case here, I'm not going to lose money or equity on this business. The best case, it's going to flourish."

For John and Halee, ongoing innovation is key. Some decisions about the direction of the farm have been rooted in the need to find a viable way to provide for both Paul in his retirement and their own family. Looking for value-added opportunities has been one solution. "When we look at the farm, we see all of these opportunities: sugar maples, sorghum for pressing into syrup, honey and there's land that could be farmed for vegetables," Halee says. "This is all part of the long-term vision to create a flexible, adaptable, resilient farm. Right now we are just trying to get rooted and make what we're doing successful and we can go from there – but we're committed to showing that you don't have to have an off-farm job, that you can make your farm strong enough so it can support you financially."

"We see such value in taking an existing operation and helping that operation evolve," John adds. "It gives real peace of mind to the retiring generation, and there are innumerable benefits as a beginning farmer to coming onto a farm that's already living, breathing and working as opposed to starting from scratch."

You can hear more about Paul's and the Wepkings' experience in the video recording of their conference session on our website. If you have farm transfer plans or goals you are willing to share to help others along their paths, please contact Sally Worley.

The Savings Incentive Program Class of 2020

Meet the farmers and learn about their hopes for SIP



Parker Beard Decorah

Parker hopes to learn how to focus money and energy into making wise decisions for the farm and his family.



Beuline Bucumi Des Moines Beuline is excited for the opportunity to learn from other farmers through SIP, and to get help pursuing

her family's dream of sustaining

themselves off their farm.



Eric Jensen & Courtney Roberts Tripoli

Eric and Courtney see the program as a source of support as they work to meet their goals of growing their farm in a sustainable and viable way, preserving the land and saving money to help them expand.



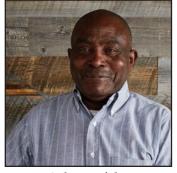
Carly McAndrews and Bryant Mann Ames and Mechanicsville

Carly and Bryant are eager to further develop their business plan before starting their farm together. They are also motivated by the significant financial incentive, to help towards necessary farm investments.



Jog Rai West Des Moines

Jog wants to learn the business needs of running a small farm so he and his family can make their vision a reality.



Cubwa Rajabu West Des Moines

Cubwa hopes to save money to purchase equipment so his family can expand their farm and add livestock.



Steve and Crystal Riggins Maxwell

The Riggins want to be part of SIP to create a support system of knowledgeable individuals who can give them the guidance and confidence they need to help achieve their goals.



Carolyn Scherf Morse

Carolyn hopes SIP can help her team develop business skills and knowledge they can use to help the farm grow its CSA and increase production.



Molly Schintler Mechanicsville

Molly wants to participate in SIP to expand her business knowledge, network with other farmers and save money to build a successful farm.



Andrew and Marissa Waldo Cascade

Andrew and Marissa applied for SIP to get help developing a strong business plan, and they're excited to have the guidance and experience of a mentor.



View detailed profiles of Savings Incentive Program Class of 2020 members at:

practicalfarmers.org/programs/beginningfarmers/savings-incentive-program

Interseeding Cover Crops in Extra-Wide Corn Rows

Farmer-led research explores accommodating cover crops

Cover crops help farmers reduce soil erosion and nutrient loss. The most common and versatile cover crop – cereal rye – is planted near corn and soybean harvest time and overwinters until it's terminated, either mechanically or chemically, near planting time the next spring. But is this our only cover crop option in Iowa?

In this follow-up to the "Grow Your Own Nitrogen" article, from our winter 2018 magazine, learn how on-farm research, spurred by the creativity of PFI members, is exploring other options and approaches.

ver the past three years, farmers have been experimenting with planting different species of cover crops – such as cowpeas and other legumes - earlier in the season. Using a technique called interseeding, the farmers are planting the covers in the spring, a month after corn is planted when it's 6 to 8 inches tall. Many farmers plant their corn in 30-inch rows, and farmers trying this approach have found that the cover crops cannot consistently survive the summer because the corn, once grown, fully shadows the soil surface. In response, the participating farmers are now testing wide-row, 60-inch corn in on-farm strip trials in hopes of finding a way to make cover crops work for the duration of the corn growing season.

Interseeding into these extra-wide rows lets sunlight reach the surface between the rows. The result is that cover crops like cowpeas or other leguminous cover crops can not only survive, they can thrive, bestowing the benefits of a diverse cover crop mix throughout the growing season. Since legumes capture nitrogen and store it in the soil, legume cover crops can reduce the need to purchase nitrogen in subsequent years. Ideally, farmers would plant a legume cover crop in the fall to store even more nitrogen, but there aren't many winter-hardy options. Typically, interseeded cover crop mixes include some kind of warm-season legume like cowpeas. But a mix could include buckwheat or annual ryegrass, depending on the goals of the farmer.

Beyond the benefits to soil and water quality, interseeded cover crops add much-needed plant diversity and potential economic diversity to an operation. Cattle producers, for instance, can graze their cattle during the fall on cover crops that have been interseeded into corn. When baled up with cornstalks, the cover crops can add a valuable nutritional supplement to the diets of feedlot cattle: the green material is high in protein and results in a more balanced ration. Cattle producers can then save on stored feed costs, one of their largest annual operating expenses.



"If I could plant 10 to 20 acres [of legume cover crops] and harvest the corn, and the cows had the cover crops for grazing, that would add roughly two weeks of them being out of my hair." - FRED ABELS

Yield loss is a common concern when farmers think about interseeding cover crops into a corn crop. But a 2014 study by South Dakota State University, published in the journal "Crop Management," showed no yield loss when interseeding cover crops at the V5 corn growth stage. According to the researchers, the key to avoiding yield loss is heavily dependent on when the cover crop is interseeded. They found that if cover

crops are planted too early – before the V4 growth stage – the corn plant could suffer a yield loss. When planted between the V4 and V6 growth stages, however, interseeded cover crops do not negatively affect yield.

Weeds can also contribute to yield loss. Once the cover crops are interseeded, farmers no longer have a full toolbox of herbicides at their disposal because the chemicals can also terminate the interseeded crop along with the weeds. Again, the key is timing when the last application occurs and what type of chemical program is used.

Testing on the Farm

To see whether these practices worked in the field, PFI members Fred Abels, Jack Boyer, Brian and Heather Kessel with the assistance of Jim Johnson, and Chris Teachout planted randomized and replicated strips of corn in 30- and 60-inch-wide rows. To ensure consistency across both treatments, the farmers planted the same number of seeds per acre in either row-width. The farmers seeded a mix of cover crops – for this trial, cowpeas, buckwheat and annual ryegrass – into the inter-rows within one month of planting corn.

Jack, who farms near Reinbeck in east-central lowa, says he's finding that most cover crop species can survive in the wider row spacing. "They get so much more light," he says about cover crops in the 60-inch row spacing. "In the 30-inch spacing, you have the same struggle when corn gets 12, 13 – this year, 15 feet tall. It's just so dark down there, not much can survive in a 30-inch row."

Both Jack and the Kessels, who farm near Lamoni in south-central lowa, saw no difference in corn yield between the two row widths. They also observed three to 11 times as much cover crop growth where the corn was planted in 60-inch row-widths. "You also have a lot more opportunity to build soil health and biomass for grazing," Jack says of his results. "Here's a prime opportunity for planting different species, and to work on soil health a little more by having some more diversity in there."

Fred Abels, who farms near Holland in east-central lowa, and Chris Teachout, who farms





Top Left: On the left, strips of corn are planted in 30-inch-wide rows at Jack Boyer's farm on June 27, 2018, while 60-inch-wide rows are on the right side. In between the rows, cowpeas seeded 20 days earlier are visible. **Top Right:** Cowpeas grow between 60-inch-wide corn rows at Fred Abels' farm on Sept. 13, 2018.

near Shenandoah in southwest Iowa, saw their corn yield results come out in favor of 30-inch rows. Fred experienced a 70-bushelper-acre yield hit from planting in 60-inchwide rows. He didn't think he applied a high enough herbicide rate before the mix was sown, giving the weeds a head start over the interseeded mix. Despite the results of his on-farm trial, Fred still sees potential in interseeding in 60-inch rows. "I think things just need to get ironed out," he says. Fred also ran his cattle in the areas this fall where he had interseeded cover crops, but didn't keep track well enough to know how much forage they were getting. The fall grazing opportunities and prospect of reduced labor after a long farming season is one aspect of the research with 60-inch rows he's really excited about, and it's what got him interested in participating in the first place. "If I could plant 10 to 20 acres and harvest the corn, and the cows had the cover crops for grazing, that would add roughly two weeks of them being out of my hair," Fred says.

While he doesn't have cattle, Jack sees a golden opportunity for those who do. He also suspects the nitrogen contributed from the interseeded cover crop will help the succeeding cash crops. On his farm, the cowpeas seeded between the 60-inch corn rows contained 100 pounds of nitrogen per acre in their aboveground growth. Future on-farm research could explore how the extra legume cover crop growth resulting from wide-row corn affects the next crop in



"Here is a prime opportunity for planting different species, and to work on soil health a little more by having some more diversity in there."

- JACK BOYER

the rotation. Jack knows there's always room for improvement, but he was encouraged by his results. "I may try another small plot to evaluate weed control strategies," he says. All the farmers involved in the study see promise in the practice of interseeding into wide-row corn – but they agree the approach needs some refining before wider adoption can be justified.

Learn More

Read more about this project at **practicalfarmers.org/research**.

Farmers in PFI Cooperators' Program conduct on-farm research on a wide variety of topics.

In 2018:

54 farmers conducted





77 research projects

on questions related to field crops, horticulture and livestock production – including wide-row corn and interseeding cover crops.



Knowledge from these projects helps equip farmers to:

- be more profitable
- be better environmental stewards
- make their farms and communities more resilient

To find research reports on topics you're interested in, visit practical farmers.org/research.

For each trial, research protocols guide the information-gathering process. Farmer-cooperators gather photos throughout the project and keep in contact with PFI for updates and questions.

Are These Buds for You?

Interest in tree crops (and beverages) draws new members to PFI events

Spring in Iowa. While most of Iowa's agricultural landscape is awaiting the emergence of newly planted seed for an annual flush of field crops (and vegetable crops!), the rare pockets of fruit and nut orchards are anticipating bud break, when flower buds break their winter dormancy to fruit another year. If attendance at PFI events is any indication, more farmers around the state will be watching for bud break in future years.

Commercial Apple Orchard Short Course

pples are lowa's largest contribution to a specialty crop market, but according to the 2012 Census of Agriculture (the most recent data available), the total sales account for just 0.10 percent of total U.S. sales. Though not a force in the commercial market, lowa's apple orchards are extremely important to their communities and provide a relatively large volume of fresh produce to local markets. The census revealed that 251 operators in Iowa produced apples on 904 acres of land with fruit-bearing trees. But the census contains a more interesting number: 348 lowa operators reported having 1,148 acres of apple trees. The difference between the two sets of values likely represents operators with apple trees that were recently established and not yet bearing fruit.

Over 60 of these apple orchardists gathered at the Commercial Apple Orcharding Short Course, a one-and-a-half-day workshop just prior to PFI's 2019 annual conference. Topics for the course included orchard design and planning, packhouse design, understory weed and fertility management, and production of hard cider (complete with a cider tasting).

Harð Ciðer

Mike Malik opened the course by sharing his financial information and installation process for 14,000 cider apple trees he planted in 2017 near lowa City. He plans to press and sell the juice for other cideries to ferment. As a very new grower, Mike highlighted the many mistakes he'd already made and how he had made changes to correct them, hoping the others in the room would avoid making the same ones.

Deirdre Birmingham, another first-generation orchardist and cider maker, blended her rich agricultural background and a passion for dry ciders to build The Cider Farm in southwest Wisconsin. For her expertise with tannic English and French cider apples, which are raised certified organic, she was affectionately dubbed "the maestro" by her fellow cider-makers at the short course. In 2003, none of the tannic apple varieties she sought were available

commercially in the U.S. Undeterred, Deirdre learned to graft, acquiring scionwood from private collections and the U.S. Germplasm Repository. In her presentation, Deirdre shared in-depth details about the quirks of these rare apple varieties, and lessons she and her husband have learned as they continue to build their knowledge of how to ferment and sell artisan hard cider.

Benji Deal, of Deal's Orchard in Jefferson, and Paul Rasch, of Wilson's Orchard near lowa City, both entered the hard cider market as a way to productively use more apples out of their own orchards. While Paul is experimenting with 5 acres of ciderspecific varieties, both orchards primarily use fresh-eating apple varieties. Attendees appreciated the tips and subtleties each shared about licensing, scaling up and how the cider business fits into each orchard's farm vision.

High-Density

Steve Louis is a fourth-generation orchardist, with 180 acres of apples at Oakwood Fruit Farm in Wisconsin. About 15 years ago, Steve began the shift away from semi-dwarf to high-density, eventually settling on 3-foot spacing between trees with 12-foot spacing between rows. Each year, Oakwood plants 10,000 to 12,000 trees, with the goal of replacing the entire orchard in 20 years (5 percent each year). Though Steve's orchard is much larger than any orchard in lowa, Steve's extensive knowledge and experience with rootstocks, varieties and management









Above: (Left) Tom Wahl, of Red Fern Farm in Wapello, Iowa. (Right): Deirdre Birmingham and her husband, John Biondi, of The Cider Farm in southwest Wisconsin. **Opposite:** (Left) Chestnuts starting to ripen at Red Fern Farm. (Right): Cider being bottled at Deal's Orchard, near Jefferson, Iowa.

catalyzed a rich conversation among the group. Even with all his experience, Steve emphasized that it's important to experiment and find what works in each farm's system, and that there isn't one right way.

In PFI's big-tent fashion, Steve Louis and Michael Phillips (the annual conference keynoter and renowned orcharding expert) co-presented on understory management for orchards. Their management systems are very different, but not irreconcilably so, and both were proud to be presenting with, and learning from, each other's experience. "We're thinking about how we've done things," Steve said. "We used to want the area under trees to be as bare as an asphalt parking lot. We've discovered that's not very healthy for the soil, and we're changing our ways." As Iowa's orchard landscape appears to be gaining ground, both he and Michael were optimistic that orchardists here would find their own nuanced way of building commercial orchards.

Chestnuts

Apples are not the only perennial tree crop available to lowa growers. While some may want to grow unique fruits like pears, cherries or persimmons, many new growers are interested in nuts. The nut crop leading the cluster is the Chinese chestnut. "This is a very profitable crop to grow," said Tom Wahl, who owns Red Fern Farm near Wapello with his wife, Kathy Dice. Tom and Kathy have grown virtually every species of fruit and nut crop that will grow in a southern lowa climate,

and they said nothing compares to chestnuts in terms of being easy to sell at a really high profit. In February, PFI partnered with Red Fern Farm to offer a full-day Beginning Chestnut Growers workshop that drew over 100 attendees. The event sold out, as did the to-capacity field class Tom and Kathy led on their farm in September 2018. The demand highlights the strong interest people have in learning about growing tree crops.

"On our mature trees, we're making around \$10,000 per acre on a crop we don't have to plant every year – or weed, cultivate, spray, prune or harvest. Or sort, refrigerate, bag or ship," Tom said. "All we have to do is get the grass mowed before the nuts start falling. Mow the grass and collect the money; the trees take care of themselves."

Tom and Kathy sell all the chestnuts they grow on their farm via U-pick. For those who wish to sell wholesale, they recommend going through the Prairie Grove Chestnut Growers, based in Columbus Junction and managed since 2013 by Roger Stone. Roger currently buys chestnuts from 62 growers in Iowa, Missouri and Illinois, and sells them to retail outlets and customers throughout the U.S. During the workshop, Roger shared clear, easy-to-follow do's and don'ts for harvesting and selling chestnuts to the cooperative. "Right now, the supply of chestnuts is the size of my thumb," Roger said. Holding out his arms wide, he continued, "and the demand is this big. We are in the embryo stage of this market. Last

year we sold 84,000 pounds of chestnuts. In five years, I think we'll be selling 200,000 pounds. In 10 years, close to half a million pounds. I don't have any doubt that I can sell that many chestnuts."

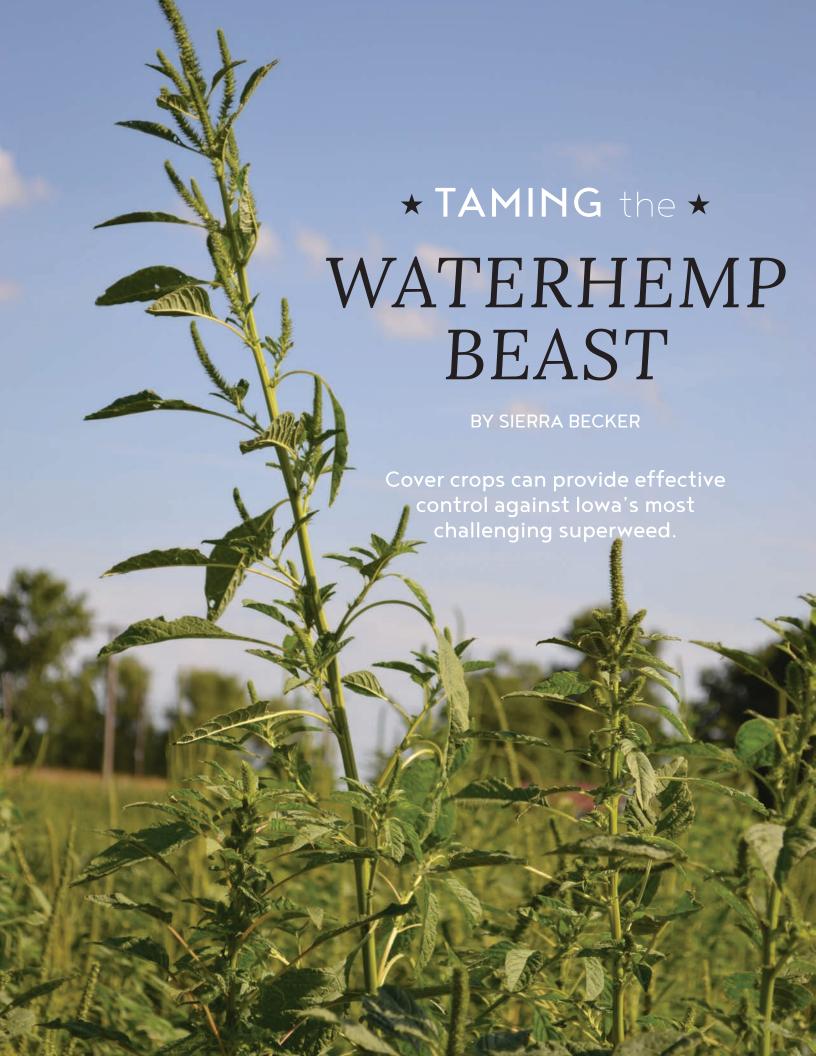
Roger thanked Tom and Kathy, and Mike Gold from the Center for Agroforestry at the University of Missouri, for starting growers in the right direction to raising high-quality chestnuts. "Twenty-five years from now, we're going to look back and see that the U.S. chestnut industry got started in southeast lowa."

"Most Americans don't realize how big chestnuts are, because we lost our native [American] chestnut about 100 years ago and there's no one left that remembers them," Tom said. "But for most of the rest of the world, chestnuts are a really big deal. Anyone who grew up in Europe or Asia grew up with chestnuts, and are really excited about them. Now they live here and want to buy them."

As interest in tree crops continues to grow, PFI plans to provide more farmer-led events and programming to better connect orchardists and nut growers in lowa.

Learn More

◆ Videos of the "Commercial Orchard Short Course" and "Chestnut Workshop" are available at **practicalfarmers.org/programs/ horticulture/orcharding.**



In the world of herbicide-resistant weeds, waterhemp is surpassed by none. Once little more than a nuisance to farmers, this native broadleaf rapidly gained superweed status during the 1990s and 2000s.

In just over 20 years, waterhemp has evolved resistance to six different herbicide groups – and in February, University of Illinois researchers reported the discovery of a small population of waterhemp in Illinois research plots with confirmed resistance to a seventh class, known as Group 15 herbicides. With the revelation, waterhemp gained the dubious distinction of becoming the first broadleaf weed in the world to show resistance to this chemical family.

While the degree of resistance varies from farm to farm, stacked resistance – where a weed is resistant to multiple herbicide groups – is increasingly common. Farmers all over the Midwest have been trying to confront the waterhemp challenge for years, but are struggling to gain the upper hand. While managing such a resilient weed is clearly not easy, understanding how waterhemp has managed to thrive in modern crop systems – as well as its weaknesses – can help farmers to better control this trying weed.

What Is Waterhemp?

Waterhemp is a species of amaranth that grows rapidly, produces many seeds and has proved to be highly adaptable to modern agricultural practices that rely on chemical weed control and reduced tillage. Its ability to rapidly evolve herbicide resistance means it has the potential to be highly detrimental to corn and soybean yields if not controlled. In soybeans, Purdue University Extension has found that 20 waterhemp plants per square foot can reduce yield by 44 percent. In corn, Purdue researchers have found that a heavy waterhemp infestation early in the season can reduce yields by 15 percent.

To minimize the economic impact of this potent weed, farmers have turned to a variety of expensive chemical cocktails. As waterhemp has developed resistance to new herbicide products, however, the chemical approach to control is becoming costlier, more complex and less effective. One tool to fight waterhemp that deserves a second look is cover crops.

Combat Weeds With Cover Crops

Cover crops have a multitude of benefits, including impressive weed control.



Above: Cereal rye forms a mulch layer that can effectively control aggressive, hard-to-manage weeds like waterhemp. **Opposite:** Waterhemp towers over a crop field. In just over 20 years, this Midwestern native has evolved resistance to several different herbicide groups. (*Photo courtesy of the United Soybean Board*)

According to Anita Dille, a Kansas State University agronomy professor who spoke at our annual conference in January, a layer of cover crops "will serve to smother and out-compete weeds for light, water and nutrients." Dennis McLaughlin, who farms near Cumming in Madison County, is using a rye cover crop on his farm and can attest to its effectiveness at controlling weeds.

In the era of herbicide-resistant weeds, cover crops represent a new way to manage problematic weeds like waterhemp.

"I can absolutely see a noticeable difference in my fields," he says. "It is fairly easy to see rye dominating the winter annuals, such as marestail and pennycress, in the field. Summer annuals are always harder to fight, but cover crops do make a difference."

Dennis isn't just using the rye cover crop for weed control, but as an integral part of restoring the health of his soils – something he sees as foundational to crop health and coping with agronomic challenges like weeds. "Weed control is not my primary reason for adopting cover crops," he says.

"Having said that, weed control has also evolved into a rather critical issue and dilemma. The evolution of resistant biotypes has gotten the attention of farmers and researchers alike." Dennis sees healthy soil and the complex biological networks within it as key to weed control beyond herbicides. "There are symbiotic relationships in healthy soils that we are only beginning to understand and make good use of with regard to protecting plants from pests, including weeds."

Winter annual weeds germinate in the fall and winter and then take off early in the spring. Overwintering cover crops also germinate in the fall and winter and have a similar life cycle, which is why they are so effective at smothering these winter annuals. Summer annuals like waterhemp, by contrast, germinate around June and grow through the height of summer. By this time, most farmers have already terminated their cover crop – but they can still take advantage of the resulting biomass to control summer annuals. As Dennis has found, the trick is to manage cover crops so they can suppress weeds both while they're growing and after they have been terminated and start

(Continued on page $20 \rightarrow$)

breaking down. When thinking of planting a cover crop, it's important to know the goals for your land and what you want to accomplish with the cover crop. In the case of waterhemp, the goal is weed control. That means choosing a cover that can produce a lot of biomass in June to choke out waterhemp germination and early growth.

Cereal rye meets these criteria, and is a lowrisk and popular cover crop for lowa. "Rye is kind of the king of cover crops," Dennis says. "It's out there [in lowa] everywhere, and for good reason. It overwinters really well and provides what the soil needs." Because rye also provides the most spring biomass of the cover crop options, it has the best shot at controlling summer annual weeds. As a bonus, it can live through the winter and pull double-duty helping to suppress winter annuals too.

Management Tips to Increase Weed Suppression

The next step is actually getting the cover crop planted. There are pros and cons to both aerial seeding and drilling, so the approach you choose depends on what's available and which works best for you and your land. Drilling the cover produces a more even stand, while aerial seeding can leave gaps in coverage that opportunistic weeds can exploit. On the flip side, however, farmers can aerial-seed into standing corn and soybeans, while they have to wait to drill until after harvest. The ability to get rye

planted sooner gives rye more of a growing window in the fall, and leads to more biomass production in the spring. Dennis prefers aerial application for this reason. "I'm able to get the cover in earlier, which provides more root growth and biomass in the spring," he says. Both options have merits and can provide a good stand to last you through the spring – and more importantly, into the summer.

"There are symbiotic relationships in healthy soils that we are only beginning to understand and make good use of with regard to protecting plants from pests, including weeds." - DENNIS MCLAUGHLIN

In the spring when it's time to kill the cereal rye, farmers conducting research through PFI's Cooperators' Program have found that waiting to terminate results in the most biomass – and biomass is the key to suppressing summer annual weeds like waterhemp. With corn, there's less leeway, since the general recommendation is to terminate the cover crop 10-14 days before planting. Soybeans are more forgiving, however: You can kill the cereal rye before or shortly after planting soybeans with no yield risk. This flexibility allows for a

longer growth period and can make a big difference when controlling weeds.

Jack Boyer, who farms near Reinbeck in Grundy County, can vouch for the benefits of waiting to terminate his rye. For the past few years, he has conducted research on his farm looking at different cover crop termination dates ahead of soybeans. In 2015, Jack waited until the day after seeding soybeans (May 19 that year) to terminate his rye. He found no yield drop - and he got nearly 8,000 pounds of dry matter per acre in those research strips. While he was pleased with these results, the research yielded an unexpected discovery. "The most interesting part of the trial was the improved control of waterhemp in the cover crop areas versus the no-cover areas," Jack says.

The quantity of biomass Jack saw that year is more than enough to suppress any type of weed, according to PFI member Andrea Basche, an agronomy professor at University of Nebraska Lincoln. Andrea recently completed a study that looked at the amount of biomass growth needed for weed control in a continuous corn system. She found that just 3,300-3,600 pounds of rye biomass per acre reduced both weed density and weed biomass by more than 90 percent. The cover crops in her study were planted from mid-September to mid-October and were terminated with herbicides in mid-April. In 2017, Andrea conducted a meta-analysis looking at the impacts of continuous living cover on soil hydrology. In the published research, she observed: "Across the Corn Belt, experiments show that cover crops are generally more effective at reducing weed biomass compared to weed density. This suggests that cover crops may be more beneficial from the standpoint of controlling the size of weeds, and therefore the efficacy of an herbicide program."

Combining cover crops and herbicides can be an effective strategy against aggressive weeds like waterhemp. When using herbicides, many farmers start with a pre-emergent, soil-residual herbicide. These herbicides remain active in the soil for an extended time and are able to act on weeds that may germinate after application. This is especially important when fighting summer annuals in a field with heavy cover crop biomass. With soil-residual herbicides, the chemistry remains effective against the targeted weeds at the soil level instead of getting caught up on the cover crop biomass. When planning to terminate their cover crop later, many farmers opt to







Above: (Left): Cereal rye forms a flat, thick layer of biomass on PFI member Mark Peterson's farm near Stanton. This cover crop mulch can help to effectively smother weeds. (Right): Dennis McLaughlin at his home hear Cumming, lowa, which is on the McLaughlin family's original farmland from the 1850s. **Opposite:** A soybean field infested with waterhemp can significantly reduce soybean yields. (*Photo courtesy of the United Soybean Board*)

mix their pre-emergent with the herbicide they've chosen to kill their cover crop, applying both at the same time.

Dennis cautions that it's important to do you research if you plan to add a preemergent herbicide. "Products like atrazine and Sharpen can have a neutralizing effect on glyphosate," he says, citing research by the late Mike Plummer, who worked as an agronomist with University of Illinois Extension and conducted extensive cover crop research. "Crop oil concentrate or too much UAN can burn the rye before it has a chance to translocate properly."

An effective post-emergent herbicide can also help to manage waterhemp and other challenging weeds. To minimize the risk of encouraging herbicide-resistant weeds, weed experts recommend following best practices such as varying your mode of action from year to year when selecting herbicides. Some farmers also opt to avoid herbicides completely when terminating their cover crop. A roller-crimper, for instance, effectively breaks the stalks to kill the cover crop and lays it flat on the ground. To learn more, read the 2017 PFI research report "Rolling Cover Crops and Soybean"

Row-Width." Scott Shriver, of Jefferson, participated in this research, which explored soybean planting dates compared to the date of a roller-crimped cover crop.

Other Tools Used

In the era of herbicide-resistant weeds, cover crops represent a new way to manage problematic weeds like waterhemp. But other techniques – like increasing the cash crop seeding rate and planting narrower rows – can be used along with cover crops to provide even better weed suppression. "My wide 38-inch rows don't help matters," Dennis says, referring to weed control. Decreasing row width reduces the amount of land and nutrients weeds have to grow, creating an effective weed management tool. Similarly, a higher cash crop seeding rate creates a thicker stand that leaves less room for weeds to take hold.

Over time, these simple practices can make a big impact in the fight against waterhemp. They can also be used to suppress other problematic weeds, such as Palmer amaranth, a more aggressive relative of waterhemp that was first confirmed in lowa in 2013 and is now believed to be present in all 99 counties. Although still less prevalent

in the Midwest than waterhemp, Palmer amaranth is bigger and more competitive than waterhemp, and has the potential to significantly affect crop yields.

The best way to manage any weed is to understand what it is and where it's coming from. Patience and active weed monitoring are also key. "Changing weed pressure takes time," Dennis says. "I still add a preemerge to the burndown and then see what happens. I, too, am looking for something other than Group 14 or Group 15 herbicides to rely on." In the meantime, Dennis is working toward his goal of using cover crops as part of his weed control strategy while improving the health of his soil.

Since the challenge of managing herbicideresistant weeds will only increase, reducing a weed's ability to survive by planting cover crops and coupling that with other techniques can offer a multifacted approach to confronting this complex problem. This strategy can not only help break the cycle of resistance, it can give you more control over a reality that's here to stay.

» Photos: 2019 ANNUAL CONFERENCE

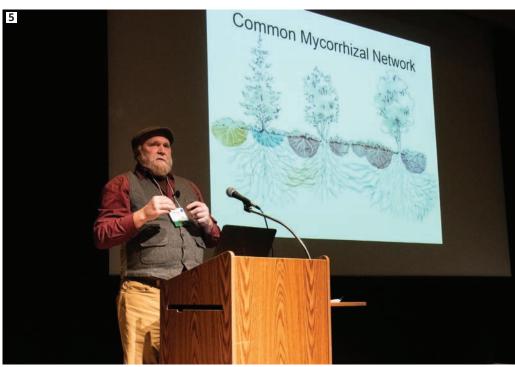
- **1)** From left to right: Rae Powers, Sarah Nizzi, Thelma Heidel-Baker and Sarah Foltz Jordan show their Xerces Society pride at their sponsor booth.
- **2)** Paul Willis enjoys a hearty meal featuring food from PFI members, as well as time to network with other conference attendees during lunch on Saturday.
- **3)** Matt Leroux, an agricultural marketing specialist with Cornell Cooperative Extension, speaks to a packed room about profitable meat marketing.
- **4)** Rebecca Graff, of Fair Share Farm in Kearney, MO, speaks about adding value to your farm during the session she co-hosted with her partner, Tom Ruggieri.
- **5)** Michael Phillips talks about the relationship between mycorrhizal fungi and plant roots in his keynote address entitled "Soil Redemption Song."
- **6)** An attendee has a chance to ask Michael Phillips a question during the keynote follow-up Q&A session Michael led on Saturday.
- **7)** Tim Knutson and Paul Durrenberger converse and chuckle during lunch on Saturday.
- **8**) Steffen Mirsky of Seed Savers Exchange in Decorah passes out seed packets and handshakes to attendees who stop by Seed Savers' sponsor booth.



























- 1) From left to right: PFI lifetime member Laura Jackson, Iowa State University agronomist Laura Merrick and PFI member Laura Krouse pose for a photo of the "three Lauras" during lunch on Saturday.
- **2)** Lifetime members Jeff (left) and Gayle (right) Olson move through the Saturday lunch buffet line.
- **3)** Regina Frahm, vice-president of the American Wool Council and owner of Jasper's Edge Farm and Esther Purl Fibers in Newton, demonstrates how to hand-spin wool into yarn at the lowa Sheep Industry Association's sponsor booth.
- **4)** Breakfast on Saturday offered conference attendees another chance to network with one another in a relaxed setting.
- **5)** Guests browse through silent auction items.







- **1)** Marcie and Dale Raasch watch and learn from Scott Thellman and Emily Fagan's presentation on "Enterprise Budgets for Vegetable Production."
- **2)** A young boy listens intently to Michael Phillips. PFI's conference is noted for being family-friendly.
- **3)** Ty Gustafson of Story City Locker (left) explains how to serve a whole roasted pig to PFI staff members Greg Padget, Jace Hadish, Jason Tetrick and Henry Corbin during the PFI potluck on Friday evening.
- **4)** Nadia Alber and her daughter get ready to eat a delicious lunch on Saturday.
- **5)** Lifetime member Tina Bakehouse shares her community revitalization goals during the interactive "Cultivating Community" session led by Chris Deal and Amber Mohr.
- **6)** Terry Troxel displays her enticing and colorful plate of food to the camera at the Friday night potluck.









Honored for Sustainability Efforts

Long-time PFI members Doug Alert and Margaret Smith received Practical Farmers' 2019 Sustainable Agriculture Achievement Award

Doug Alert and Margaret Smith, of Hampton, were the recipients of PFI's 2019 Sustainable Agriculture Achievement Award. This long-running award has been granted each year since 1990 to a person or couple that has shown exemplary commitment to sustainable agriculture, generously shared their knowledge with others and been influential in efforts to foster vibrant communities, diverse farms and healthy food. The award ceremony took place on Friday, Jan. 18, during PFI's 2019 annual conference.

oug and Margaret are long-time PFI members who operate Ash Grove Farm, a diversified, certified organic crop and livestock operation that includes organic feed corn and soybeans; organic seed soybeans, rye, hairy vetch and oats; and organic food-grade corn, soybeans and oats. They have used cover crops for years, and run a cow herd, marketing the calves through conventional markets. They also keep a fruit and vegetable garden, laying hens and bees for their family use. The couple officially started transitioning the farm to organic in 1994, the year they married. But Doug had been experimenting with a more diverse crop rotation for years, as well as looking for ways to reduce pesticides and other inputs. Margaret, who works as a forage agronomist for Albert Lea Seed, and for many years worked with Iowa State University Extension, brought her agronomic expertise and livestock experience to the operation. Both shared a belief in the need to steward the soil and the land.

"When I relocated [the farm] in 1991, I was laying the groundwork for a longer-term, more diverse rotation," Doug says. "For six years prior to that, I had been playing with it a bit, but was not able to have the flexibility to do what I wanted on that particular rented land. When I relocated, I had more opportunity to experiment."

Improving Through On-Farm Research

Experimentation has remained central to their farming philosophy. Doug and Margaret were early participants in PFI's on-farm research through the Cooperators'

Program, and they have continued to be strong proponents of on-farm research and its role in farm decision-making, conducting numerous projects on their farm over the years and sharing their knowledge with others at field days, in research reports and articles, at conferences and through many conversations with people who have sought their advice.

"When I look back at the integration of PFI and our lives, it's pretty staggering." - DOUG ALERT

In 2013, Doug and Margaret were among 11 farms to receive Practical Farmers of Iowa's inaugural Master Researcher Award, which seeks to honor those who have made a significant contribution to on-farm research. Their research projects have examined everything from ridge-tilling and nitrogen fertilizer rates to strip-intercropping and ways to add cover crops into cropping systems that include small-grains crops. "I think curiosity is really important to farm well, as is humility," Margaret says. "Acknowledging that how we're farming has flaws pushes us to ask how we are going to do it better."

This drive to continually examine the sustainability of their farm practices – and their willingness to share both their successes and failures – are key reasons why PFI board member Vic Madsen feels Doug and Margaret are deserving recipients of the Sustainable Agriculture Achievement Award.

"In true PFI style, Doug and Margaret have helped me and many other PFI members with encouragement and advice," says Vic, who runs an organic farm with his family near Audubon. "They are both walking encyclopedias – Margaret about agronomy and Doug about machinery – and more importantly, they are both very willing to share their experiences and any knowledge they have about farming."

Practical Decisions Guided by Principle

For both Doug and Margaret, the decision to operate an organic and increasingly diversified farm was partly philosophical, partly practical. Guided by a belief in stewarding the soil, Doug already had a longer-term crop rotation in place and had been working to reduce inputs when an opportunity presented itself for the couple to convert some acres to organic. "A local businessman who was exporting soybeans to Japan said he needed more product," Doug recalls. "He said you're just one step away from being able to certify organic on your land, so I said okay, I'll try it."

While the decision offered a way to access a new and potentially profitable niche market, the move was in also line with the couple's shared ethic of land stewardship. Margaret, who grew up on a diversified crop and livestock farm south of Des Moines, credits her father – who she says "was a strong advocate for soil conservation, and for appreciating the natural world around us" – with instilling in her a conservation ethos. Doug also acknowledges a family influence. His parents farmed until he was four years old before moving to an acreage near Mason City, where his mother, who continues to be an avid gardener, always had copies of the Rodale Institute's Organic Gardening and Farming magazine around the house.

However, he says the "ah-ha moment" when he fully grasped the link between soil health and a more diverse crop rotation wasn't until college, when he found a copy



"You can't maintain what you do on your farm with policy, rules or leases. You have to maintain it by impacting people who, you hope, share your values and want to farm – not necessarily in the same way – but with similar objectives and respect for the land." - MARGARET SMITH

of Rodale's New Farm Magazine in his dorm mate's trash can. He was so captivated by the articles, he went to ISU's Parks Library to see if he could find more.

"Lo and behold, they had every back issue," says Doug, who started farming on a small scale in middle school and had continued to farm part-time through college. "Needless to say, I missed supper that night."

"Dick Thompson's People"

PFI co-founders Dick and Sharon Thompson, of Boone – who practiced a sustainable, low-input approach to farming, guided by rigorous on-farm testing and research – were frequent contributors to the magazine. "What they were doing just made sense," Doug says. "The next September, I went to their field day. I was so sick I could hardly walk, but I went anyway, and I became friends with Dick and Sharon over the years." Margaret was likewise strongly influenced by the Thompsons and their, at the time, radical message of using on-farm research to help improve farm profitability, efficiency and stewardship. "I remember Dick coming to speak to our

agronomy club when I was an undergraduate at lowa State," Margaret says. "People were pretty skeptical of Dick, but I thought, 'what a cool guy, what a cool farm!'"

Doug and Margaret each started following the work of Dick and Sharon, and then participating in the fledgling organization the Thompsons had helped start to connect farmers seeking practical, sustainable solutions to their farming questions. Their best "Thompson" experience? "We met at one of Dick and Sharon's field days," they say. They credit the Thompsons – and the connections they made within the PFI community – for setting them on the path to where they are today.

"Practical Farmers of lowa has been instrumental in the development of our farm," Margaret says. "Since Doug started farming without an existing family farm operation, PFI was a critical part of our community that helped us explore our options. Transitioning to organic was done when others in PFI were doing so, too. We were not out here all alone."

"Wendell Berry was the keynote speaker for PFI's 10th-anniversary winter conference," Doug adds, referring to the renowned agrarian writer and philosopher. "He came because of his interaction with the Thompsons – and called PFI members 'Dick Thompson's people.' When I look back at the integration of our lives and PFI, it's pretty staggering."

The Future

As they look toward the future, Doug and Margaret see new challenges in the form of changing weather patterns that will require them to adjust some of their farming practices. They have also started to ponder the question of farm transition and the future of the farm once they are no longer farming the land. The couple have two grown sons, Robert and William, who aren't sure if they want to farm. Margaret also notes that the more they've learned over the vears, the more questions they have. "We're probably less certain now that what we're doing is sustainable than we were 20 years ago," she says. "I hope that's wisdom - to acknowledge our lack of certainty and to continue to seek answers."

Confronting these questions has reaffirmed their belief in the importance of sharing their knowledge with others.

"That is the Holy Grail of sustainability," Margaret says. "Because whatever you do in your lifetime, it doesn't take too long to undo if you rent your land to somebody who will vastly simplify the agroecosystem you have fostered. You can't maintain what you do on your farm with policy, rules or leases. You have to maintain it by impacting people who, you hope, share your values and want to farm – not necessarily in the same way – but with similar objectives and respect for the land."

Commissioners Bring Local Conservation Issues to Iowa's Capitol

PFI members represented their soil and water conservation districts and met with legislators

Each county's soil and water conservation district commissioners are elected to help guide conservation programs and conduct outreach within their districts.

n important component of this role is not only educating the residents of their district, but also the lawmakers who represent them on the state and federal levels. The nonprofit Conservation Districts of Iowa organizes an annual Partnership Day at the Iowa State Capitol Building to help facilitate this essential interaction.

Getting an Opportunity

In mid-January, soil and water conservation district commissioners from across Iowa descended on the state Capitol building for one of the more successful Partnership Days to date, and PFI members were well represented. Commissioners met with 27 legislators from both the Senate and House of Representatives throughout the day. Those attending were encouraged to contact their lawmakers ahead of time to let them know of their plans to visit and intent to meet. Occasionally, this results in a scheduled meeting. More often, however, these meetings are impromptu throughout the day.

On behalf of Boone County SWCD, fellow commissioner April Burch and I had three representatives to target. We visited the entrance to both the Senate and House of Representatives' chambers, and



submitted a written request that was delivered by a page to our legislator. We struck out in all three of our first attempts, and were told to leave a note or try back later. While perusing the educational displays set up in the rotunda, showcasing successful water quality projects and other conservation efforts from across the state, we found our representative for the 48th District, Rob Bacon, doing the same thing. It's helpful to know what your legislators look like! Rep. Bacon was happy to talk with us while strolling the rotunda.

Fred Abels, farmer and commissioner from Grundy County, has had similar experiences throughout the four years he's attended Partnership Day. "This year I got a chance to talk with our senator,

"This event gives us a chance to put a face in front of [lawmakers] and let them know there are boots on the ground out there." - FRED ABELS

Annette Sweeney, along with another commissioner, just out on the floor," Fred says. "The other commissioner and I are both doing conservation work, so we talked with her about that. It was pretty informal." Sharing a personal story, as Fred did, to illustrate a point and highlight how a program works on the ground is an important way to establish credibility.

Whether your meeting is scheduled or unplanned, your impression on lawmakers will be much more effective if you've done some research on them. Know whether they have an agricultural background, and what legislative committees they serve on. Henry County commissioner Jeff Olson attended this year with that in mind. "One of my officials is a farm boy and the other has a spouse who was a farm girl," Jeff says. "One of them retired and now we've got a new young man, who I was interested in meeting to introduce myself. He's got experience in the Capitol but does not have a connection to a farm, and I wanted to let him know I can help and be there if he needed an ear."

Why These Visits Are Important

The primary goal for meeting with our legislators face-to-face is to develop an on-going, personal relationship and to offer ourselves as a resource for them. As a fellow elected official, commissioners are viewed by legislators as experts on local conservation efforts.

Dennis Carney is vice president of Conservation Districts of Iowa, the non-profit focused on supporting commissioner education and development. "I feel like one of the main things CDI should be doing is to put policymakers in contact with the people who are administering the programs," he says. Dennis notes that some newly elected lawmakers may not realize what a resource their district's commissioners can be. "It's important to try and make them familiar with CDI, the other organizations there, the commissioners and how





Above: (Left): Jeff Olson stands near the steps of the lowa State Capitol Building holding his PFI "Don't Farm Naked" tote bag. Jeff traveled from Winfield, in southeastern lowa, to take part in Partnership Day. (**Right):** Fred Abels traveled to the state Capitol from Holland, in central lowa, to meet with his legislators and share conservation efforts in his district. **Opposite:** PFI staff member Steve Carlson (left) and fellow Boone County SWCD commissioner April Burch met with lowa Rep. Rob Bacon, their representative from lowa's 48th District.

"I feel like one of the main things [Conservation Districts of lowa] should be doing is to put policymakers in contact with the people who are administering the programs." - DENNIS CARNEY

the soil and water conservation district system works," he says. Jeff supports this effort: "I try to make the contact to show that we're elected officials right beside them, on the grassroots level."

Fred Abels also sees Partnership Day as an opportunity to balance the narrative that lawmakers are exposed to. "Meeting with our legislators is important to keep funding flowing for conservation," Fred says. "There are lobbyists there regularly who drive a lot of this – legislators are bombarded by them." Noting that large agricultural organizations have the funding to pay for professionals to further their interests, Fred says Partnership Day gives other voices a chance to be heard. "This event gives us a chance to put a face in front of [lawmakers] and let them know there are boots on the ground out there."

What We're Asking For

Commissioners know what conservation needs are unique to their districts and whether they have the funding for technical and financial assistance to address those issues. Framing these districtspecific needs to a direct funding request in the state budget helps to bring a local context to their decision.

Conservation Districts of Iowa provides commissioners with the budgetary details needed to make an informed request. For instance, the Soil Conservation Account was allocated \$3.8 million in FY19, but it would take funding at the \$8 million level to ensure district offices have adequate staff to deliver their programs and perform outreach to landowners. If funding for the Iowa Financial Incentive Program was increased from \$8.3 million to \$12.5 million, we could fund the current backlog of conservation practices.

To learn more about how to get involved with your local soil and water conservation district and what's involved, contact Steve Carlson at (515) 232-5661 or steve@practicalfarmers.org.

Review of: "Wildly Successful Farming: Sustainability and the New Agricultural Land Ethic"

FARMING

Sustainability and the New Agricultural Land Ethic

When I first picked up Brian DeVore's new book, "Wildly Successful Farming," I was pretty sure that "wildly successful" was not referring to any customary measure of success, like financial success or any other notion of "material success." And indeed, one only needs to read the first couple pages to be reminded of the quotation by Thoreau that "wildness is the preservation of the world."

In the subsequent chapters, the reader is taken on a tour of farms spanning Indiana, Wisconsin, Minnesota, North Dakota and Iowa to meet the farmers who are blurring the boundaries between what is considered wilderness and what is considered a domesticated landscape.

These "ecological agrarians" see success in multiple dimensions that balance economic and environmental concerns as indicated by certain questions that are stated or implied throughout the book. For example, what is the best use for a parcel of land? Crops, pasture for grazing, native prairie, a restored savanna, a wildlife habitat to serve

as a buffer between the farm and a nearby CAFO, or just a wildlife habitat for nesting birds? And why would the latter be important? It is clear that many of the farmers in the book and, for that matter, many people around the world, are fascinated with birds. They discover joy in their presence and feel a connection to something mysterious about our existence - something good, something wild yet reassuring. The presence of an unusual bird species breeding in a restored grassland led one farmer to feel that "things are working ecologically." (This sentiment resembles one in a book by the English naturalist Richard Mabey who, upon observing the return of the swifts each spring, knows that the "globe is still working.") What to do to maximize vield is a question that doesn't come up, though the author takes care to remind the reader that

economic concerns, making a living, are certainly an important part of the puzzle.

Brian DeVore also includes discussions about public programs that help support ecological initiatives on a farm, as well as support groups like Practical Farmers of lowa and the Conservation Cropping Systems Initiative in Indiana, which helped increase the acres of covercropped land in that state from 20,000 to over 1 million acres in 15 years. Another interesting discussion was about an initiative in North Dakota where a "frustrated conservationist," a "failed farmer" (certainly not a failure anymore) and a "humbled scientist" partnered with other farmers on the Burleigh County Soil Health Team to promote practices that "protect and regenerate soil as much as possible." And this initiative has spawned others across the Midwest and beyond.



The wildness discussed in the book is not only aboveground. Throughout the book are references to scientific research results and statistics about trends in land use and other topics. These add scientific validity to the farming and land use ideas highlighted in the book. In fact, the author includes a nice set of notes at the end for the

reader interested in further reading or research.

Each chapter stands on its own and the reader can pick and choose chapters – or, like I did, read cover to cover. The term "wildly" from the book's title is revisited in the final chapter, "Wildly Optimistic," though in this case it is synonymous with the concept of "uncontrollably." Despite the author's stated caveat that farms like those described in his book are the exception in agriculture rather than the rule, I could not help but feel wildly optimistic for a future when, while driving down country roads, one is never sure whether he or she is driving past a farm or a wilderness preserve, or maybe both. An interpretation I gained from the stories in the book is this: a primary measure of success for these farmers is intrinsic – a deep sense of fulfillment and belief that they are

doing the right things for their land and for future generations. I enjoyed Brian Devore's book and, on several winter mornings when it was still dark, with a cup of coffee, I looked forward to picking it up and reading about what is possible when individuals employ wisdom, their powers of observation and affection for their land when engaging the natural world and invite her to participate in their enterprise.

Gary Gadbury is professor emeritus and former head of the Department of Statistics at Kansas State University in Manhattan, Kansas. He and his wife, Carol, raise fruit, vegetables and chickens on their urban farm, and have worked to replace their grass with cover crops, forage plants, small grains like rye and buckwheat, and fruit trees.

Get Farm Experience Through Labor4Learning

Several jobs are open in Iowa offering paid farm training

Are you looking to get paid, on-the-job training with experienced farmers in lowa? Apply to one of several paid jobs now available through our Labor4Learning program. We created this program to help connect beginning farmers seeking employment with experienced PFI farmers who offer additional training in farm management and production skills.

These trainer farms are located across the state and represent a wide range of enterprises and production practices, including row crops, small grains, multiple species of livestock, fruits, vegetables and more. The farms also vary greatly in their production practices, including organic certification; employing diverse rotations and cover crops; greenhouse and



Jeff and Earl Hafner operate Early Morning Harvest and Hafner Inc. near Panora. They are among the 2019 trainer farms looking for a farm employee this season. They have a cow-calf enterprise, hogs, aquaponics, laying hens, organic small grains and row crops, an organic flour mill and a seed-cleaning enterprise.

hydroponic vegetable production; urban vegetable production and more.

Through Labor4Learning, you will be paid at least minimum wage and gain other benefits, including:

- learning farm business development from an experienced PFI farmer
- paid time off to attend a PFI event during the term of employment
- a discount to our annual conference
- opportunities to connect with other PFI trainees
- a free PFI membership

Several positions remain open, and farmers are hiring now. To see the list of job openings and how to apply, visit practicalfarmers.org/labor4learning. ■

Are You a Beginning or Aspiring Farmer? Please Take Our Survey!

PFI members continually rank beginning farmer support as one of the top priorities they think we should focus on. In order for us to provide effective programming, we need to hear from the beginning and aspiring farmers in our network.

What are your enterprises? Your barriers? How do you prefer to learn? What should we be doing to support your farm goals?

If you plan to farm in the future, or have been farming on your own for 10 years or less, please take 10-15 minutes to respond to our survey. Your feedback helps us understand your challenges and goals so we can offer programming to help you succeed. To take the survey, visit surveymonkey. com/r/PFI-2019-Beginning-Farmer.

Join Our Team - We're Hiring!

Strategic Initiatives Assistant

This person will support PFI's strategic initiatives team by collecting and entering farm production information into sustainability tools for innovative supplychain programs; coordinating on-farm monitoring and data collection for the strategic initiatives team; responding to farmer cover crop questions as they arise; attending cover crop and small grains events in lowa and the Midwest; and writing articles, blogs and other outreach on cover crops. **Application materials are due by April 8.** Visit practicalfarmers.org/get-involved/employment for full details.

Farmer Outreach Coordinator

Do you have journalism or communications experience that could help farmers tell their stories? The farmer outreach coordinator will work with farmers in a variety of ways to tell their stories, and create opportunities for them to do so at events and in the media. This person will also work with the communications team, writing articles and developing stories for videos, podcasts and other print and online outlets.

Application materials are due by May 15, and will be reviewed on a rolling basis. Visit practicalfarmers.org/get-involved/employment for full details.

FindAFarmer Gets a Makeover



Earlier this year, we launched our newly redesigned land-matching website, FindAFarmer.net, a free tool that aims to connect farmland owners with land seekers to preserve family farms.

Whether you're looking for farmland to lease or own, or you're a farmland owner hoping to find a new tenant or buyer, this website provides a comfortable place to connect. Landowners and land seekers from across North America can create a free account at FindAFarmer.net and mark their location or desired location on the map.

For questions about the site, contact Steve Carlson: steve@practicalfarmers.org or (515) 232-5661. ■



Meet Our Newest Staff Members

PFI growth fuels expansion of work and programs

Hayley Nelson - Research Assistant

I joined the Practical Farmers of lowa team as a research assistant in February. My role will increase the capacity of PFI's Cooperators' Program by coordinating on-farm research trials focused primarily on cover cropping.

I was raised on a cattle farm in western lowa and obtained my bachelor's degrees in global resource systems and environmental science at lowa State University in 2013. I remained in Ames to continue working in a plant pathology lab at ISU, where I loved directing field research trials and managing the lab as a research associate.

In 2016, I began my research in the same lab as a graduate research assistant studying organic management of insect and disease pests of muskmelon and acorn squash. I recently graduated from ISU with a Master of Science in plant pathology, and I am looking forward to investing my energy



in the mission of PFI and supporting Iowa growers.

Things that bring me great joy include: reading, crafting and creating art, deep thinking and introspection, learning about houseplants, maintaining closeness with family, amazing food, biking and singing.

Subscribe to Our New Cover Crop E-Newsletter!



Have you considered adding cover crops to your farm and wondered how to get started? Or are you looking to take cover crops to the next level and want to learn from farmers about how they are making it pay today?

Subscribe to our new email newsletter, "The Practical Cover Cropper," to receive timely information and updates on cover crop management, questions, research, events and more.

You'll receive cover crop content straight from farmers' observations and on-farm research trials, plus peer-reviewed scientific articles to help you best answer your most pressing cover crop questions. We will also share events and updates about cover crop happenings in lowa and beyond.

The first issue was sent in March, and the newsletter will come out once or twice a month, depending on what's timely and relevant.

To sign up, visit practicalfarmers.org/the-practical-cover-cropper-newsletter-sign-up, or contact Jason Tetrick at (515) 232-5661 or jason@practicalfarmers.org. ■

Watch for Field Day Guide!

The landscape is finally starting to thaw, and we are busy working to organize 2019 field days. Watch for the guide to reach your mailboxes by the end of May. Stay tuned for updates! ■

Jorgen Rose - Habitat and Farm Transfer Coordinator

I joined Practical Farmers of lowa in February 2019 as the habitat and farm transfer coordinator. In this role, I work with PFI staff, farmers, landowners and external partners to coordinate and execute farmerled events and research related to on-farm prairie, edge-of-field conservation practices and habitat management. I also work to build networks with farmland owners and organize regional events to strengthen and grow PFI's farm transfer program.

A native of Newton, I attended the University of Northern Iowa and Indiana University, receiving master's degrees in natural resources management and applied ecology. An avid outdoorsman, I grew up hunting, fishing and working summers on the family farm in Saskatchewan, Canada. Prior to joining PFI, I worked for the Indiana Department of Natural Resources as a fish and wildlife federal projects coordinator, and for the U.S. Fish and Wildlife Service as a landscape conservation specialist, working



with a wide array of conservation partners and stakeholders in both roles. When not out in the woods or in a field chasing game, I enjoy hiking, birdwatching, photography, reading and napping with my dogs.

New Multimedia Offerings

Two new series help share farmer knowledge on old topics with new interest

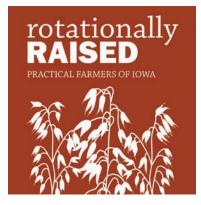
Rotationally Raised podcast focuses on small grains production

lowa was once a national leader in small grains production, especially oats, but many farm families haven't grown them for a generation. Over the past few years, more and more farmers have started seeing the benefits of diversifying their crop rotations and are trying to figure out how to bring small grains back to their farms.

Because they haven't been grown on many farms for such a long time, even the production basics can be challenging. At Practical Farmers of lowa, we've been trying to help with that process. To help bridge the knowledge gap, we've been creating a range of resources to arm farmers with the information they need. Our new podcast, "Rotationally Raised," continues this effort.

Starting with the first episode, "Small Grains: A Revival," you'll learn from other PFI members about small grains, from the benefits of adding diversity to your crop rotations to growing, harvesting and marketing the crops. The series includes 12 episodes, each of which runs for about 20 minutes.

Like everything else we do, this series is farmer-led. The podcast is a result of extensive interviews with PFI farmers – young and old, organic and conventional, and from every corner of the state. We also talked with a couple of scientists at lowa State University who are strong PFI supporters and focus their careers on diversified rotations and small grains research.



You can access the podcast on our website at practicalfarmers.org/podcast, or in your favorite podcasting program. You can also find a video version of this series on our YouTube channel at youtube. com/pfivideos. ■

New video series focuses on organic weed control in field crops

There was a time when all row crop farmers knew how to use mechanical cultivation as a method to control weeds. Prior to about 1950, crop rotation and mechanical cultivation were the only weed control methods. But since the advent of herbicides, and especially since the widespread adoption of herbicidetolerant crops in the 1990s, knowledge of how to control weeds mechanically has largely disappeared from younger generations of corn and soybean farmers.

Now, interest in mechanical cultivation is increasing. A new generation of farmers is interested in starting out by farming organically, or by transitioning their parents' conventional operation to organic.

Mechanical weed control is a fundamental part of organic row crop farming. But it's

not just on organic farms: herbicide-resistant weeds are a growing problem on farms across the country, and cultivation is one tool that can slow the development of resistance and eliminate resistant weeds from fields.

A forthcoming video series from PFI gathers knowledge from farmers who cultivate corn and soybeans, and aims to share that information with farmers looking to relearn this skill, start farming



Dean Schultes demonstrates mechanical cultivation on his farm near Dedham last June. Dean is one of the farmers featured in the new video series.

row crops organically – or simply wish to add a new method of weed control to their arsenal. Like our other work, you'll see a variety of perspectives and a variety of tools. Everyone has their own way of controlling weeds, and you'll see some of their strategies in this series.

The series be available to view on our website and on our YouTube channel, youtube.com/pfivideos, when it's released in early April.

Welcome, New Members!

DISTRICT 1 - NORTHWEST

- Joe Egertsen Laurens
- Jordan Ellis Graettinger
- Doug and Cindy Hubers Sioux Center
- Lindsay Millard Orange City
- John and Cindi Van Horn* Glidden
- Robert Van Houten Anthon

DISTRICT 2 - NORTH CENTRAL

- Dan Aalbers Hampton
- Bryan Bjorklund Ames
- Randy Brekke Ames
- Jason Buck State Center
- Jeff and Tricia Christiansen Hampton
- Ethan Crow Marshalltown
- Susan Davies Hampton
- David Fairchild and Clara Peterson
- Story City
- Alan Gaul Ames
- Jeff Hall Ames
- Clayton Harms Ackley
- Christa Hartsook Cambridge
- Michael Helland Huxley
- Mike Husak and Joe Husak Marshalltown
- Iowa State University Research Foundation/Committee for Agricultural Development, Dr. Dianah Ngonyama – Ames
- Sara, Cole, Grant and Dean
 Isaacson and Elizabeth Lawler –
 Madrid
- Gina and Gabe Jorgensen Hampton
- Stephen Kaus Shell Rock
- Rick Kimberley Maxwell
- Tyler Klingaman Reinbeck
- Paul Lengeling, John Lengeling and Mark Comp – Collins
- Nels Leo Jamaica
- Mike and Terry Lindaman Boone
- Connie Maxwell Windsor Heights
- Sandy McAntire Chelsea
- Marshall McDaniel Ames
- Larry and Lynne Pfantz State Center
- Jacqueline Pohl Gilbert
- Ben and Holly Robertson Reinbeck
- Paul Rottinghaus Charles City

- Doug Schwartzkopf West Bend
- Craig Stratton Collins
- Mark Thompson* Fort Dodge
- Rosie Wurpts Ogden

DISTRICT 3 - NORTHEAST

- James and April Bible Central City
- David and Susan Differding Winthrop
- Mike and Laura Keniston Alburnett
- Jesse Matt Castalia
- Adam Nechanicky Buckingham
- Rene and Nichole Valverde Denver

DISTRICT 4 - SOUTHWEST

- Paul Ammons Albia
- Michael Bauer Audubon
- · Cherie and Tom Bell Waukee
- Beuline Bucumi Des Moines
- Dave and Aleta Cochrane Adel
- John Curran Chariton
- Mike Delaney Windsor Heights
- Mike Dickinson Logan
- Jamie and Erlene Fopma Lynnville
- Matt Gumm Des Moines
- Phil Hackett Carson
- Dave Hamaker Kellerton
- Brock Hansen Baxter
- Katharine Harris Newton
- Darren and Becky Housberg Osceola
- Ron Jacks Waverly
- Bob Jackson Promise City
- Marie Kashindi Des Moines
- Pat Lynch Cumming
- Albert Mast Leon
- Curtis McClellan Guthrie Center
- Shawn Mckibbin Peru
- Rosanne Mead Des Moines
- Gordon and Niki Milligan Lucas
- Steven Mitchell Ankeny
- Kevin Novak Honey Creek
- Justin Pederson Des Moines
- Jeremy and Amber Prochnow Glenwood
- Jog Rai Des Moines
- Dave Rowen Norwalk
- ullet Kyle Schnell Newton
- \bullet Bruce and Jill Sheets Des Moines

- Steven Smith De Soto
- Colt Stephens Winterset
- Nathan Struve Woodward
- Bill Talsma Colfax
- Josiah Wearin and Karin Hofmann – Hastings
- Kay Welch Woodward
- Danielle and Don Wirth Woodward
- Danny Wittrock Hamlin
- Andrew Yoder Leon
- Morris Yoder Weldon
- Pamela Zaabel Kellogg

DISTRICT 5 - SOUTHEAST

- Doug Boender New Sharon
- Janice and Michael Brown Sigourney
- Giselle Bruskewitz Iowa City
- Mark Carlson Mount Pleasant
- Josh Caston Sperry
- Shawn Fitzpatrick Solon
- Michelle Franzen Oskaloosa
- Gary Fynaardt Searsboro
- Eric Fynaardt Searsboro
- Iowa Harm Reduction Coalition Sarah Ziegenhorn – Iowa City
- Edwin and Esther Johnson Tiffin
- Victor Kimberling –
 Mechanicsville
- Cliff Lafrenz Donahue
- Mark and Stephen Lovig Brooklyn
- George McCrory West Branch
- Thomas Nichols Eldon
- Glenda ONeil West Branch
- Gabriel Pope Williamsburg
- Carter and Aly Schulte Marengo
- John Shelton Iowa City
- Ron Shepard Fruitland
- Sustainable Iowa Land Trust-Suzan Erem – West Branch
- Joe and Dee Wagner Anamosa
- Steve Watts Danville
- Rochelle Wiedenhoeft Decorah

DISTRICT 6 - OUT OF STATE

- AgriSecure Keith Evans Lincoln, NE
- Rod Angeroth Stanton, NE
- Hans Bishop Atlanta, IL
- Nathan Brown Hillsboro, OH
- Eugene M. Butler Winnebago, MN



- Ryan Butzow Onarga, IL
- Charlie Costello Berkeley, CA
- Sharon Deeny Fort Collins, CO
- Lynn Eberhard Bellevue, OH
- Rick Gehrke Omro, WI
- Jim Hild Illiopolis, IL
- Ross Hilgendorf Doug Hilgendorf, Eric Nelson – Welcome, MN
- Lucas Jones Rushville, IL
- Angela King Winston-Salem, NC
- Robert Klemp Wheatfield, IN
- Aaron Klinski Caledonia, MN
- John Knorr Bennet, NE
- Fred Knott Laotto, IN
- Beverly S. Lepley Bellevue, OH
- Douglas Livingstone Omaha, NEChet Margraf McCutchenville,
- OH
- Alycia Meier Minneapolis, MNStacie Mix and Shawn Kilpek –
- Pine City, MN
 Dave and Holly Norton Bushnell,
- IL .
- Tom Parker Richmond, MO
- Tim Pierce Verona, WI
- Chris Richert Sleepy Eye, MN
 David and Catherine Schmidt –
- Wabasha, MN
- Jill Schutts Port Byron, IL
- Larry Smith Pinckneyville, IL
 Ken Stachowicz Neponset, IL
- Michael Strasburger West Lafayette, IN
- The Big Garden Cait Caughey –
- Omaha, NE
 Brad Thomas McComb, OH
- Trey Wilfley Downs, IL
- Kevin Wolz Madison, WI
- Gary Wyatt St. James, MN
 Terry and Lori Zimmerman Marinette, WI
- * Indicates lifetime member of Practical Farmers of Iowa

Upcoming Events: APRIL - JUNE

APRIL

APRIL 7: Farm Dreams Workshop | Land Stewardship Project | Minneapolis | 1-4 p.m.

Farm Dreams is a four-hour workshop designed to help people clarify what motivates them to farm, get their vision on paper, inventory their strengths and training needs, and get perspective from an experienced farmer. The cost is \$20 for Land Stewardship Project members and \$40 for non-members. Each registration fee covers up to two people per family or farm. To learn more, visit landstewardshipproject.org/events/item/1344

APRIL 10: Women Caring for the Land | Women, Food and Agriculture Network | Story City, IA | 8:30 a.m. – 3 p.m.

Women who own or manage farmland in Iowa are invited to participate in free discussions focused on soil health. The programs in this series are sponsored by county conservation offices, Prairie Rivers of Iowa and WFAN. Free lunch is provided. To learn more, find additional dates and register, visit: wfan.org/iowa-spring. For questions, contact Carol: carol@wfan.org or (641) 430-2540.

APRIL 10: Webinar: Integrating Crops and Livestock | Rodale Institute | 2-3 p.m.

In collaboration with Iowa State University, and with funding from the USDA Organic Research and Extension Initiative, Rodale Institute has been studying the most effective ways to integrate livestock and crops using regenerative organic methods. In a free, one-hour webinar, Dr. Andrew Smith, chief scientist at Rodale Institute, will present the results of the study, which looks specifically at grazing cattle on small grains followed by organic no-till corn or soybeans. Andrew will also address common barriers farmers face when trying to integrate livestock with crops and how to overcome those challenges. To learn more, visit: rodaleinstitute.org/events/integrating-crops-and-livestock

APRIL 11: "Map of My Kingdom" Play Performance | Practical Farmers of Iowa | Okoboji, IA | 7 p.m.

This free, hour-long play explores many of the thorny issues surrounding farmland transfer decisions. The play's sole character, Angela Martin, is a mediator in land transition disputes who shares stories of farmers and landowners she has worked with over the years. Some families struggled to resolve the sale or transfer of their land, dissolving relationships. Others found peacefully rational solutions that focused on keeping the land – and the family – together. Please RSVP by April 8. To learn more, visit: practicalfarmers.org/map-of-my-kingdom

APRIL 12: Farmland Legacy Letter Workshop | Practical Farmers of Iowa | Milford, IA | 11 a.m.

Join PFI at the Iowa Lakeside Laboratory – not far from the Okoboji "Map of My Kingdom" performance the night before – for this free workshop designed to help you start thinking about the future of your farmland. Participants will work on drafting a letter that captures practical and sensory details about their farmland, special memories of it and hopes for its future. Please RSVP by April 8. To learn more, visit: practicalfarmers.org/map-of-my-kingdom

APRIL 12 or 13: Apple Grafting School | Seed Savers Exchange | Decorah, IA

In this half-day workshop, learn how to graft and care for apple trees. Discuss apple histories, practice apple propagation and take home three grafted trees to begin your very own orchard. Stay after or come early for an orchard and tree care workshop from 12:15 – 1:15 p.m. on the day of your grafting session. This workshop is included in the registration cost and covers caring for young apple trees, pruning, training and general tree care. All sessions cover the same content. To learn more, visit: seedsavers.org/apple-grafting-school

APRIL 13: Wisconsin Prairie Chicken Festival | Wisconsin Rapids, WI

The third annual Wisconsin Prairie Chicken Festival features a chance to view greater prairie chickens on their booming grounds or take a guided grassland birding tour (both early-morning activities). Later in the morning, you can visit exhibitors and vendors, attend workshops and bid in a silent auction. At noon, enjoy a locally sourced luncheon for \$15 per person and hear keynote speaker Curt Meine, a nationally recognized Aldo Leopold scholar. Other speakers and events are planned. To learn more, visit: facebook.com/wisconsinprairiechickenfestival

MAY

MAY 1: Women Caring for the Land | Women, Food and Agriculture Network | Iowa City, IA | Noon-3 p.m.

Have you inherited farmland, or for other reasons are trying to manage farming alone or with children or siblings? Do you own more than 40 acres, with some in crops? If this describes you, we invite you to have a light meal with us to meet and talk with other women like you. There is a \$10 fee to help with venue and food costs. Because of the unique format, walk-ins are not permitted. To learn more, visit: wfan.org/wcl-urban. For questions, contact Carol: carol@wfan.org or (641) 430-2540.

May 22: Webinar: Impact of Farming Systems on Soil Health and Water Quality | Rodale Institute | 2-3 p.m.

In 2018, Rodale Institute began a six-year study on the effects of agricultural practices on watershed health and clean water. this new study looks at both conventional and organic systems and their comparative effects on soil health and water quality. Dr. Atanu Mukherjee will share updates on the research, which is funded by the William Penn Foundation. To learn more, visit: rodaleinstitute. org/events/farming-systems-on-soil-health-and-water-quality

MAY 28: Webinar: Monarch Conservation | Monarch Joint Venture | 1–2 p.m.

Learn why pollinator habitat makes sense on your land and ways to maximize the potential of working acres. To learn more, visit: monarchjointventure.org/news-events/events

JUNE

June 4: Cover Crop Field Day | Practical Farmers of Iowa | La Porte City, IA | 4-7 p.m.

Learn from Terry Ward about his diverse crop rotations that include cereal rye, which he harvests to use in several ways. He'll share his experience making ryelage, rye hay and rye straw. We'll hear from Terry's dairy farming neighbors, Josh and Dick Blough, who feed this ryelage to their dairy cattle. We'll start in the field to view some cover crops before moving indoors for further discussion and a meal. To learn more, visit: monarchjointventure.org/news-events/events

June 5-7: World Pork Expo | National Pork Producers Council | Des Moines, IA | 4-7 p.m.

The world's largest pork industry-specific trade show brings together pork producers and industry professionals from around the world for three days of education, innovation and networking. The expoincludes an expansive trade show, educational seminars, industry updates and more. To learn more, visit: worldpork.org

June 14-16: Iowa Sheep and Wool Festival | Iowa Sheep Industry Association | Ames, IA

The 15th annual Iowa Sheep and Wool Festival will feature a diverse collection of fleeces, roving, wool, silk, alpaca, exotic fibers, hand-spun yarns, handmade hardwood spinning wheels, handmade apparel and home decor and more. Apart from shopping, there will be wool art classes, sheep educational seminars, lamb cooking events, sheep shows, sheep shearing demonstrations, sheepdog training demonstrations, contests, a silent auction and many other activities. To learn more, visit: iowasheepandwoolfestival.com

For more events, visit practicalfarmers.org

A DRONE'S-EYE VIEW





LUSH SPRING PASTURE:

Torray Wilson, riding on the four-wheeler, releases the family's dairy herd onto fresh pasture at Seven W Farm near Paullina on May 31, 2018.

While crops are just starting to sprout in the Wilson family's adjacent field, the pasture is a lush buffet of vibrant green that nourishes the cows and helps them produce high-quality milk, which the Wilsons market through Organic Valley.

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

Want to join or renew online? Visit practical farmers.org/get-involved/join-or-renew.

MEMBER INFORMATION	
Contact Name(s)*:	
Farm or Organization Name:	
Address:	
City:	State: ZIP: County:
Phone 1:	Phone 2:
	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	
_	2. I AM JOINING AT THE LEVEL OF:
☐ New Membership	Student - \$20
☐ Renewal	☐ Individual – \$50 ☐ Lifetime Member* – \$1,000 * See details at http://bit.ly/PFI-lifetime
	Farm or Household – \$60 *See details at http://bit.ly/PF1-lifetime
3. I AM JOINING OR RENEWING AS:	4. HOW DID YOU HEAR ABOUT PFI?
An Aspiring Farmer	
A Farmer or Grower	
Non-Farmer	
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 Policy	
SUSTAIN PRACTICAL FARMERS WITH	AN ADDITIONAL DONATION
For the sake of the long-term health and vitality of Practical Farmers of lowa, 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-deductil	ble donation to PFI in the amount of:
\$1,000 \tag{500} \$550	\$100 \$50 \$
Or, make a recurring monthly or quarterly do	nation. 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	
Additional Donation	
☐ Check or money order is enclosed (Please make ☐ Credit card (Visa, MasterCard or Discover only)	e payable to "Practical Farmers of Iowa.")
Name on card	Number
	Please automatically charge this credit card annually for membership
Office Use Only: Check # Check date Total	al amountNotes



ABOVE: Sunrise breaks through the clouds as attendees walk through the cold winter air in Ames to get to the 2019 annual conference on Jan. 19.

BACK COVER: A conference attendee shows her PFI pride by wearing one of our new "Growing More Than Crops" T-shirts to the event.





PRACTICAL FARMERS OF IOWA

1615 Golden Aspen Drive, Suite 101 Ames, IA 50010

