

2019

# CULTIVATING *Connections*

JANUARY 17-19

PRACTICAL FARMERS OF IOWA  
ANNUAL CONFERENCE



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# CULTIVATING *Connections*

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As farmers, we *connect* with our communities to sell our products and find the tools we need to raise our crops and livestock. We *nurture* our soil to encourage mycorrhizal filaments that connect plants and fungi, thus improving water and nutrient uptake. We find solace in friends who *support* us and *empathize* when things are tough. We *create* habitat that provides food and homes for wildlife. Connections at scales both large and small shape us and the world around us.

Sometimes it feels like our world is losing these vital connections, that we are quick to seek out differences among our friends and neighbors. At Practical Farmers of Iowa, we cultivate a different ethos. We *welcome* everyone, and strive to *build* a community where we highlight what we have in common; where we *listen respectfully* to each other and learn from our differences.

At Practical Farmers' 2019 annual conference, *Cultivating Connections*, you'll have a chance to *reconnect* with old friends, cultivate new relationships and *learn* from a community that believes in *sharing* knowledge to benefit everyone. This year's conference will focus on how to cultivate connections that nurture a purposeful path. Learn how to cultivate a healthy soil that will *improve* productivity and increase ecosystem services. Look to your past to make strides toward your vision for your farmland legacy. Hear how to *engage* with your community to spur rural economic development. *Renew* your inspiration, and make vital connections that can help you on your path to building resilient farms and communities.



# 2019 CONFERENCE SCHEDULE

## Thursday, JANUARY 17

Noon - 1 p.m.	Short course registration
1 - 6:30 p.m.	Short courses

## Friday, JANUARY 18

8 - 11:30 a.m.	Short courses continue
11 a.m.	Conference registration opens Exhibit Hall opens
12:30 p.m.	Silent Auction opens
12:30 - 2 p.m.	Session I Friday Workshops
2 - 3 p.m.	Networking break in Exhibit Hall Support our sponsors!
3 - 4:30 p.m.	Session II Friday Workshops
4:45 p.m.	Practical Farmers Update
5:15 p.m.	Sustainable Agriculture Achievement Award Presentation
5:30 - 6:30 p.m.	Keynote Address
7 - 11 p.m.	PFI Potluck, CPMI Event Center 2321 North Loop Dr., Ames

## Saturday, JANUARY 19

7:30 - 8:30 a.m.	Registration and Breakfast
7:30 a.m.	Exhibit Hall opens
8:30 - 9:40 a.m.	Session I Saturday Workshops
10 - 11:10 a.m.	Session II Saturday Workshops
11:30 a.m. - 12:30 p.m.	Lunch
1 - 2:10 p.m.	Session III Saturday Workshops
2:30 - 3:40 p.m.	Session IV Saturday Workshops
4 - 5:10 p.m.	Session V Saturday Workshops

## You're Invited

4:45 P.M. FRIDAY

### Practical Farmers' YEAR IN REVIEW

Practical Farmers' mission is to equip farmers to build resilient farms and communities. Join us for our annual meeting as we review how our mission guided our work for 2018 and how it will influence our work in 2019. Board elections will also take place; please come and vote!

7 P.M. FRIDAY

### POTLUCK

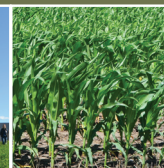
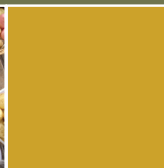
This is a conference favorite! Meet old friends and new! Practical Farmers will provide a main dish, water and tableware. Please come with a dish to share. Potluck Food Host: Donna Prizgintas

*You may drop food off at Scheman when you arrive for the conference, and we will transport it for you! We can keep food hot or cold.*

7:30 A.M. SATURDAY

### BREAKFAST

Join us early at Scheman for a free breakfast and networking.



### Wanted: SILENT AUCTION DONATIONS

Please consider donating quality gifts to this long-standing tradition at the conference. Examples of popular silent auction gifts include books, seeds or plant stock, gift baskets and handmade items. Proceeds provide Practical Farmers with funds to achieve our farmer-led mission.

### CERTIFIED CROP ADVISORS


Many of the sessions qualify for CEUs. See session descriptions for more details.





KEYNOTE ADDRESS | FRIDAY 5:30 P.M.

# SOIL REDEMPTION SONG

*Embracing the Mycelium to Grow Healthier Crops*



Rousing every grower to think deeper begins with an appreciation for how soil organisms help plants grow. The cooperative relationship between mycorrhizal fungi and the roots of plants is an essential connection underlying crop health. A synergy between fungi and plant roots efficiently delivers nutrients in balanced form from the surrounding soil to plant tissues, reducing the need for fertilizer. Fungi stimulate systemic resistance within roots, boosting “green” immune function and helping keep disease at bay. Expansive fungal mycelia bring resiliency to ecosystems by helping build soil aggregates that provide habitat for organisms to cycle carbon through the system. Yet, for the longest time, we have ignored the basic processes of soil biology and instead disturbed ecosystems at our own peril.



The time has come to change that, and fast! Seeing crop communities through the lens of a common mycorrhizal network will prove fundamental for regenerative farmers everywhere. Effective stewardship of the land involves keeping the organic matter flowing, as it's only through actively recirculating carbon that we honor the profound intelligence inherent in natural systems. This means growing healthy crops with minimal soil disturbance, cover cropping, grazing pastures rationally and managing forests with respect for the generations to come. Tomorrow can be redeemed by honoring this fundamental earth pact between photosynthesizing plants and symbiotic fungi.



In this keynote, Michael Phillips will take you on a deep dive into the microscopic communities beneath our feet and our crops. He will talk about the fungal network as a pathway to bringing resilience to ecosystems. Michael Phillips' latest book, “Mycorrhizal Planet: How Fungi and Plants Work Together to Create Dynamic Soils,” explores the science of symbiotic fungi and sets the stage for practical applications across the landscape.

**MICHAEL PHILLIPS** and his wife, Nancy, own and operate Heartsong Farm Healing Herbs and Lost Nation Orchard in New Hampshire. Michael is renowned for helping people grow healthy fruit using herbal protocols. The “community orchard movement” he helped found at [GrowOrganicApples.com](http://GrowOrganicApples.com) provides a full immersion into the holistic approach to orcharding. Michael is the author of “The Apple Grower and The Holistic Orchard,” which recently received Garden Book of the Year honors from the American Horticultural Society. Michael and Nancy co-wrote “The Herbalist’s Way” to explore the many paths whereby herbalists find their niche.





# PRE-CONFERENCE

## *Short Courses*

### SILVOPASTURE

- What is Silvopasture?
- Converting Woodlands and Pasture to Silvopasture
- Grazing Management and Animal Welfare
- Eating Trees: Tree Fodder for Livestock

Silvopasture is the intentional combination of trees, livestock and forages as a multilayered system where each benefits from its relationship to the others, with multiple yields harvested from the same piece of land. In this short course, professionals in this emerging field will share their knowledge and experience with the science and art of silvopasture with cattle, sheep and goats.

### ORCHARDING

- Orchard and Packhouse Design
- Hard Cider Production and Management
- Understory Management
- Spray Program

During this short course, commercial apple orchardists from around the Midwest will gather to discuss their experiences, challenges and ideas for their orchards. Presentations from growers will cover topics from orchard design and packhouses, to disease and pest management, to understory care for young trees. The course will also include a session on hard cider production, complete with a tasting of hard ciders from several orchards and cideries. If you're serious about apples, this course is for you!

# SILVOPASTURE

THURSDAY 1 - 6:30 P.M. CCA's: 4.5 CEU credits approved

FRIDAY 8 - 11:30 A.M. CCA's: 3 CEU credits approved



## What is Silvopasture?

Steve will walk us through the concepts of silvopasture, highlighting the benefits, challenges and priorities of this practice. We'll discuss planning, design and goal-setting, then explore economics and marketing.



**STEVE GABRIEL** is an ecologist, forest farmer and agroforestry extension specialist for the Cornell Small Farms Program. He co-owns Wellspring Forest Farm & School with his wife, Elizabeth. Steve co-authored "Farming the Woods" in 2014, and authored "Silvopasture" in 2018.

## Converting Woodlands and Pasture to Silvopasture

Keefe will cover both the conversion of woodland to silvopasture and the process of bringing trees into existing pasture. In this session, we'll discuss interseeding perennial forages into thinned forests, using native forages, tree protection strategies and the challenges of savanna restoration. Keefe will present data collected on Wisconsin farms.



**KEEFE KEELEY** is co-executive director of the Savanna Institute, an organization working to advance agroforestry in the Midwest. His own research focus is silvopasture. Keefe also co-edited "The Driftless Reader," an anthology of the region.

## Grazing Management and Animal Welfare

This presentation will explore livestock behavior and managing grazing in silvopasture systems. Diane will discuss design considerations for balancing animal welfare and environmental impacts. We'll also talk about shade access and improved welfare that may lead to increased production.



**DIANE MAYERFELD** is the sustainable agriculture coordinator for University of Wisconsin-Extension. She has a master's degree in forestry and environmental studies, and is researching silvopasture in Wisconsin. Diane worked for Iowa State University on integrated pest management and local foods.

## Eating Trees: Tree Fodder for Livestock

Tree fodders offer one of the most promising aspects of silvopasture. Learn about appropriate tree species and management techniques to increase productivity and produce multiple yields.



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# ORCHARDING

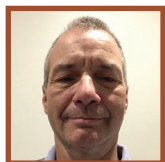
THURSDAY 1 – 6:30 P.M. CCAs: 4.5 CEU credits approved

FRIDAY 8 – 11:30 A.M. CCAs: 3 CEU credits approved



## Orchard Design

Whether starting from scratch or expanding an existing orchard, many factors influence orchard design – and it's important to get it right the first time.



**MIKE MALIK** owns Long Lane Orchard near Iowa City. He has planted 14,000 cider variety apple trees on 15 acres and is expecting his first harvest in 2019. Mike is currently building a juicing facility to process the apples, and plans to ferment the juice into hard cider.

**STEVE LOUIS** is the owner of Oakwood Fruit Farm in Richland Center, Wisconsin. He is the past president of Wisconsin Apple Growers Association, and holds a degree in horticulture from UW-Madison. Spanning 200 acres, the orchard has over 20 apple varieties on a mix of semi-dwarf and dwarf rootstocks.

## Hard Cider Production and Management

Three different Iowa hard cider producers will share an overview of how they approach hard cider production, from apple varieties and orchard management to blending. A panel discussion and hard cider tasting will follow.

**PAUL RASCH** and **SARA GOERING** took ownership of Wilson's Orchard north of Iowa City in 2009. Wilson's Orchard was established in 1980 and operates as a U-pick with over 120 varieties to choose from. Paul began crafting hard cider in September 2015 and produces seven styles of hard cider that can be found across the state.



**BENJI DEAL** is part of Deal's Orchard, which first began planting apple trees in 1917 and continues to operate as a family farm today. The Deal family grows 25 varieties of apples plus a range of other fruits and vegetables, and produces value-added apple products. As part of the fourth generation, Benji Deal began producing hard cider in 2011; it can now be found in stores throughout the Des Moines area.



**DEIRDRE BIRMINGHAM** and her husband, John Biondi, launched The Cider Farm in southwest Wisconsin in 2003. With a focus on European cider and brandy traditions, they've hand-grafted the unique apple varieties found in their orchard and manage them organically. Their ciders and brandies can be found across Wisconsin and Illinois.

## Packhouse Design

A late-summer orchard fire destroyed Oakwood Fruit Farm's 2010 season. A silver lining, however, was that the time off allowed Steve to travel to other orchards during apple harvest, observing their practices and gathering ideas for the re-build of his packing facility. During this session, Steve will share what he learned, what they built and what improvements could still be made.

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## Understory Management

While we're watching the trees, how are the plants and processes on and below the ground affecting our orchard's success? Steve will share his experience managing the understory and fertility of mature and newly planted orchards. Michael, an expert in holistic orcharding and the soil food web, will share his on-farm practices, which may provide new ideas easily integrated to more conventional orchards.

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## Spray Program

Iowa apple growers have to manage a wide variety of pests and diseases in order to minimize damages and maximize harvests. Implementing an effective spray program takes planning and careful monitoring throughout the year. Hear from experienced growers about the management plan and tools they use to ensure a good harvest.

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## FRIDAY SESSION 1

12:30 - 2 P.M.



## Building a Meat Cooperative From the Ground Up

Grass Roots Farmers' Cooperative supports pasture-based livestock farms committed to regenerative farming practices. The co-op connects member farms with markets and provides support with animal purchasing, processing, aggregation, distribution and marketing. Hear Cody explain his journey in building this cooperative; he'll discuss business structure, banding together to produce volume and hiring professionals to add value to the business.



**CODY HOPKINS** brings 12 years of experience developing and growing pasture-to-plate meat enterprises. He is the CEO of Grass Roots Farmers' Cooperative, a farmer-owned processing and marketing cooperative based in Arkansas. Cody operates Falling Sky Farm, raising broilers, turkeys, hogs and grass-fed beef.

## Vegetable Seed-Saving as a Business Enterprise

CCAs: 1.5 CEU credits approved

Beth and Nathan's seed-saving passion led them through Seed Savers Exchange, Sativa Biodynamic Seed (Switzerland), Bingenheim Biodynamic Seed (Germany) and Turtle Tree Biodynamic Seed – which they founded in New York state. During this session, they will discuss what plant-family characteristics should be considered; why population size and isolation are necessary to maintain true-to-type open-pollinated varieties; and how seed-growing can complement CSA, market or processing enterprises.

**BETH AND NATHAN CORYMB** own Meadowlark Hearth Biodynamic Seed Initiative ([www.meadowlarkhearth.org](http://www.meadowlarkhearth.org)) near Scottsbluff, Nebraska. The land is certified organic and Demeter Certified Biodynamic. The Corymbs raise vegetable seed, and operate a year-round vegetable CSA, and a micro grass-fed and grass-finished dairy on 500 acres.

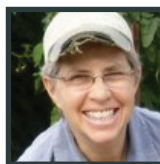
## Conduct and Neighborliness in Markets and Product Innovation

CCAs: 1.5 CEU credits approved

In an increasingly congested and connected local foods market, where is the line between smart business and stealing business? How do we build allies instead of competition across the street at farmers markets? Join farmers Jan Libbey, Jill Beebout, Tom Ruggieri and Rebecca Graff as they discuss successes and challenges in living these questions, and how both beginning and experienced farmers can approach these questions for their own businesses.



**JILL BEEBOUT** runs Blue Gate Farm, near Chariton, with her husband, Sean Skeeahan. They steward 40 acres of family land raising Certified Naturally Grown produce, laying hens, honey, hay and alpacas, marketing through CSA and the Downtown Farmers' Market in Des Moines.



**JAN LIBBEY** operates One Step at a Time Gardens near Kanawha with her husband, Tim Landgraf. 2018 was their 23rd season raising vegetables and pastured poultry. In addition to CSA, Jan and Tim sell wholesale through North Iowa Fresh and Wheatfield Cooperative in Ames.

**REBECCA GRAFF** and **TOM RUGGIERI** operate Fair Share Farm in Kearney, Missouri. Since 2003, they have fed the soil, and the people, through their 150-member CSA. Recently, they've reduced their CSA to 100 members, distributing every other week, to focus on value-added products – including a fermented foods business.

## Regenerating Degraded Soils With Cover Crops and Livestock

CCAs: 1.5 CEU credits approved

Also offered during Session 1 on Saturday.

A diversity of crops and livestock is what helps keep the biology in the soil alive and rejuvenated. Come hear from Kansas farmers Darin and Nancy Williams as they share how they have successfully integrated long-term crop rotations, cover crops and grazing livestock. Learn about their regenerative ag principles, like grazing cover crops, and how they've come to conclude that soil organic matter is the key to profitability.



**DARIN** and **NANCY WILLIAMS** farm 2,000 acres of diverse cash crops that consist of non-GMO soybeans, wheat, rye, barley, triticale, sunflowers and corn near Waverly, Kansas. They also raise grass-fed beef, sheep, chickens and turkeys. Integrating crops, cover crops and livestock is key to their success.

## Small Grains Disease Management for Maximum Return on Investment

CCAs: 1.5 CEU credits approved

Managing a small-grains crop for the quality demands of a food-grade or seed market can be a challenge in Iowa's humid climate. This session will cover diseases of concern, resources that can help predict and identify disease threats, and management options for small-grains crops such as wheat, oats and barley. This presentation will focus on weighing the return on investment of a fungicide application based on the end use of the grain.



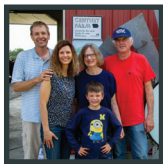
**DR. EMMANUEL BYAMUKAMA** is an assistant professor and plant pathology extension specialist in the Agronomy, Horticulture and Plant Science Department at South Dakota State University. He conducts research on the effectiveness, profitability and sustainability of fungicides for various crops.

## Panel: Fall Cover Crop Seeding Methods

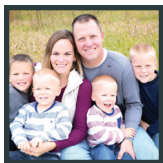
CCAs: 1.5 CEU credits approved

Taking cover crops to a larger scale means achieving solid stands planted affordably at a fast pace over 60 percent of Iowa. Learn from farmers Adam Nechanicky and Jon Bakehouse, who have over a decade of combined cover crop experience with multiple seeding methods including: a highboy, a Hiniker seeder, a Kinze

3600 Interplant, a Great Plains drill, a broadcast seeder, a spinner spreader and aerial application at various times during the growing season.



**JON BAKEHOUSE** and his wife Tina raise corn, soybeans, small grains, hay and a small cow-calf herd with Jon's parents as the fifth generation on their family's land in southwest Iowa. They have been using cover crops and conducting on-farm research for more than five years.



**ADAM NECHANICKY** farms with his family near Buckingham on land that has been in their family since 1902. They raise 760 acres of corn, seed corn, seed beans, hay and pasture – which Adam uses for the cow-calf herd he manages with his wife, Lindsey. He started using cover crops in 2013 and has tried multiple seeding methods since then.

## Profitable Meat Marketing: Part I

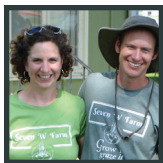
Strategic and specific marketing efforts can help you take full advantage of the market for local meat. In this workshop you will learn how to build sales projections based on the farm's income goals and market research, select a target market and develop a simple marketing plan to make your job easier.

**MATT LEROUX** is an agriculture marketing specialist for Cornell Cooperative Extension in New York, where he works with a diverse mix of produce and livestock farmers. Matt developed the Marketing Channel Assessment Tool, MeatSuite.com, two community meat lockers and the Cornell Meat Price & Yield Calculator.

## Economics of Organic Dairying

CCAs: 1.5 CEU credits approved

Join dairy specialist Dr. Larry Tranel and farmers Torray and Erin Wilson in a discussion of how to remain profitable with current markets. Larry will speak on the process of how to do (and how not to do) your farm financial analysis. We'll take a look at what is needed to do a financial analysis, benchmarks and efficiencies necessary to stay profitable. The Wilsons will share financial records and economics behind grass-based organic dairying.



**TORRAY and ERIN WILSON** are part of Seven W Farm, a 660-acre diversified, organic farm near Paullina. Each of the seven Wilsons is responsible for a different crop or livestock enterprise. Torray and Erin operate the grass-based dairy, selling milk to Organic Valley.



**DR. LARRY TRANEL** has been with ISU Extension and Outreach for 30 years, working with alternative dairy systems that focus on grazing, organic and low-cost parlors. Larry is known for his dairy farm financial management work, helping producers understand profitability to make better long-term decisions for their dairies.

## Identifying Disease in Vegetable Crops

CCAs: 1.5 CEU credits approved

Mildew, blotches, wilting, curling, discoloration – what is going on in our vegetable fields? Join Lina and Ajay for an interactive session that will include discussion of ways to manage vegetable crop diseases and identify herbicide injury. They will also discuss what we know, and don't know, about the role of nutrients in disease management.

**DR. AJAY NAIR** is an associate professor at ISU working on sustainable vegetable production. His lab focuses on developing strategies that enhance crop production, soil health and profitability in vegetable cropping systems in Iowa.



**DR. LINA RODRIGUEZ-SALAMANCA** is an extension plant pathologist and diagnostician with the ISU Plant and Insect Diagnostic Clinic. Her focus is diagnosis of diseases and disorders of ornamental and horticultural plants, crops and trees.

## FRIDAY SESSION 2

3 - 4:30 P.M.



## Profitable Meat Marketing: Part II

You are selling meat, but are you making money? Learn about the Cornell Meat Price & Yield Calculator. The calculator uses your farm's data to develop pricing for meat sold by the carcass or by the cut. It accounts for production, processing and marketing costs; lets you build in a profit; then lets you adjust the price of each cut until you reach your goal. We will learn the logic behind price-setting and see a demo of the pricing tool.



**MATT LEROUX** is an agriculture marketing specialist for Cornell Cooperative Extension in New York, where he works with a diverse mix of produce and livestock farmers. Matt developed the Marketing Channel Assessment Tool, MeatSuite.com, two community meat lockers and the Cornell Meat Price & Yield Calculator.

## Adding Value to Your Farm

Tom Ruggieri and Rebecca Graff of Fair Share Farm have created a sustainability plan to ensure the longevity of their farm operation. This plan covers the future of their CSA, including scaling it down over time. It also includes strategies to expand their value-added fermented food enterprise. This session will cover their sustainability plan and provide details on how they are expanding fermentation on their farm.



**REBECCA GRAFF and TOM RUGGIERI** operate Fair Share Farm in Kearney, Missouri. Since 2003, they have fed the soil, and the people, through their 150-member CSA. Recently, they've reduced their CSA to 100 members, distributing every other week, to focus on value-added products – including a fermented foods business.

## Managing a Farm With Diverse Crops and Markets

CCAs: 1.5 CEU credits approved

Stacked enterprises add diversity and resilience to a farm's bottom line. Juniper Hill Farms' production list spans conventional corn along with winter squash, organic wheat and spinach – plus a local vegetable and hay brokering and distribution business. Learn how all these crops and enterprises fit together. Scott will explain how the skills and implementation tools carry from one crop to others, and you will leave with some ideas for how to diversify your own farm's offerings.



**SCOTT THELLMAN** is president of Juniper Hill Farms, a first-generation farm in Douglas County, Kansas. The farm business consists of 65 acres of certified organic land and 1,100 acres of sustainably grown land, and produces 50 acres of organic and conventional vegetables. Other crops include hay, alfalfa, small grains and non-GMO row crops.

## Research Updates: Pesticides in Iowa's Air and Water

CCAs: 1.5 CEU credits approved

Herbicides and insecticides are commonly used in Iowa's agricultural fields, but little information is gathered about the presence of these chemicals in our air and water. Researchers from the University of Iowa College of Public Health and College of Engineering will share findings from their ongoing research on pesticide drift, herbicides in ambient air and neonicotinoids in surface and groundwater. Discussion will focus on how these chemicals may impact farmers and rural residents.



**DR. JENNA GIBBS** is the research coordinator for the Great Plains Center for Agricultural Health at the University of Iowa's College of Public Health, and has been researching pesticides for more than a decade. She got her Ph.D. at University of Washington while working on apple orchards. Jenna and her husband manage farmland near Kalona.



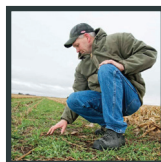
**DARRIN THOMPSON** is associate director of the Center for Health Effects of Environmental Contamination at the University of Iowa. He received his Master of Public Health from Loma Linda University, and is a Ph.D. candidate in occupational and environmental health at the University of Iowa.

## Starting a Cover Crop Seed Business

This session will be a crash course in the basics of starting a cover crop seed business. Mac Ehrhardt of Albert Lea Seed will first discuss seed laws and intellectual property considerations, including licensing and plant variety protection. Dean Sponheim will share how he started a "one-stop shop" for cover crop seeding, including paperwork, contracting seed, equipment and logistics.



**MAC EHRHARDT** is president of Albert Lea Seed, located in southern Minnesota. Albert Lea Seed is a third-generation family business that sells organic and non-GMO seed throughout the Upper Midwest.

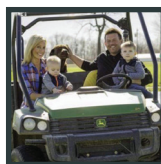


**DEAN SPONHEIM** is co-owner of Sponheim Seeds and Services, offering a "one-stop shop" for cover crop seed and seeding services since 2014. Dean contracts about 1,000 acres of rye and oat production, which he cleans and deploys to airplanes, drills or interseeders.

## What's Relay Intercropping and How Does It Pay?

CCAs: 1.5 CEU credits approved

What happens when you plant a soybean crop in between twin-row winter wheat? Why would a farmer seed pearl millet at the V3 growth stage into corn planted in 60-inch spacing? Northeast Indiana farmer Jason Mauck will share how-tos and his observations of better weed control, good yields, higher returns per acre and improved hog manure retention. Learn how Jason's return to his family farm after the death of his father started his journey into "constant-canopy" farming.



**JASON MAUCK** grows 3,100 acres of corn, soybeans and wheat and operates a wean-to-finish hog operation, finishing 25,000 hogs annually. He has tried relay intercropping for three years to solve weed and hog manure challenges posed by intensively growing plants year-round.

## Lessons Learned Over 30 Years at the Wisconsin Integrated Cropping Systems Trial

CCAs: 1.5 CEU credits approved

Established in 1989, the Wisconsin Integrated Cropping Systems Trial addresses tradeoffs and synergies in three cash-grain, three dairy forage and three native-grass cropping systems typical of the Upper Midwest. These systems vary in crop diversity and perennality, and range from continuous corn, to a three-crop organic rotation, to rotational grazing. Yield trends show benefits to crop rotation, while soil carbon has responded only to perennality.



**DR. RANDY JACKSON** is a grassland ecologist in the Department of Agronomy at UW-Madison. He and his students examine how composition and management of herbaceous ecosystems affect carbon and nutrient cycles that underpin critical ecosystem services.



## Using Finances to Make Farming Decisions

CCAs: 1.5 CEU credits approved

Now that you have collected all your receipts and tracked your income, what do you do with your records? In this workshop, Laura will help you understand how to use your financial statements to make sound business decisions. You'll find that using these records will aid you in deciding what you want to grow and sell the next year, what parts of your business to expand or scale back on, which farm investments to prioritize and if you are running an overall efficient operation.

**LAURA FRERICH** and husband, Adam Cullip, co-own and operate Loon Organics, a 40-acre certified organic vegetable farm in Hutchinson, Minnesota. At Loon Organics, they grow vegetables, herbs and flowers for a 225-household CSA, local retailers, restaurants and the Mill City Farmers Market. When she isn't farming, Laura enjoys exploring the outdoors with Adam and their two boys, Eli and William.

## Cattle Genetics and Linebreeding

Gene will share his knowledge of cattle selection practices and how he learned to linebreed. He will discuss linebreeding for traits that Dr. Jan Bonsma from South Africa taught him – and the profound effect these lessons have had on selection practices that go against mainstream thinking. After 36 years of linebreeding, Gene has developed cattle that grass finish, have excellent fertility and an inbreeding coefficient of 40 percent and above.



**GENE MEITLER** hails from Lucas, Kansas, and raises registered Hereford and Angus cattle. He started his cattle herd in 1972 and has been intensely linebreeding Hereford and Angus. Meitler Cattle Co. raises registered cattle and black-bodied, white-faced commercial cows crossed from the linebred herd.

**SATURDAY SESSION 1**  
8:30 - 9:40 A.M.



## Regenerating Degraded Soils With Cover Crops and Livestock

CCAs: 1 CEU credit approved

Also offered during Session 1 on Friday.

A diversity of crops and livestock is what helps keep the biology in the soil alive and rejuvenated. Come hear from Kansas farmers Darin and Nancy Williams as they share how they have successfully integrated long-term crop rotations, cover crops and grazing livestock. Learn about their regenerative ag principles, like grazing cover crops, and how they've come to conclude that soil organic matter is the key to profitability.

**DARIN** and **NANCY WILLIAMS** farm 2,000 acres of diverse cash crops that consist of non-GMO soybeans, wheat, rye, barley, triticale, sunflowers and corn near Waverly, Kansas. They also raise grass-fed beef, sheep, chickens and turkeys. Integrating crops, cover crops and livestock is key to their success.

## Q&A: Cattle Genetics and Linebreeding

Continue conversations on linebreeding principles and beef cattle genetics in general. Learn from Gene, who has a lifetime of experience in this industry.

**GENE MEITLER** hails from Lucas, Kansas, and raises registered Hereford and Angus cattle. He started his cattle herd in 1972 and has been intensely linebreeding Hereford and Angus. Meitler Cattle Co. raises registered cattle and black-bodied, white-faced commercial cows crossed from the linebred herd.

## Why IPM Matters: Finding a Balance Between Neonicotinoid Use and Beneficial Insects in Corn and Soybeans

CCAs: 1 CEU credit approved

Integrated pest management is an important strategy for determining if and when neonicotinoid seed treatments in corn and soybeans are warranted. Learn how IPM and insect scouting can help determine when neonicotinoids may be appropriate to use in these crops. You will also learn how adopting IPM supports beneficial insects and improved water quality in Iowa.



**THELMA HEIDEL-BAKER** is the conservation biocontrol specialist at Xerxes Society. Thelma provides technical support and expertise on developing best management practices for managing pests and conserving beneficial insects on farms.

## Enterprise Budgets for Vegetable Production

CCAs: 1 CEU credit approved

After starting, transplanting, watering, weeding, harvesting, washing, packing and working five hours at the farmers market, you've sold some tomatoes for \$3 per pound. Did you make any money? Emily and Scott have both done extensive enterprise budgets for the crops on their farms. In this session, they'll share their enterprise budgets and the processes they used – in the field and on the computer – to find their bottom lines (and improve them!).

**SCOTT THELLMAN** is president of Juniper Hill Farms, a first-generation farm in Douglas County, Kansas. The farm business consists of 65 acres of certified organic land and 1,100 acres of sustainably grown land, and produces 50 acres of organic and conventional vegetables. Other crops include hay, alfalfa, small grains and non-GMO row crops.



**EMILY FAGAN** farms at Humble Hands Harvest in Decorah with her cousin, Hannah Breckbill. The 2-acre organic vegetable farm sells to local restaurants, farmers markets and through a CSA. Emily is also a participant in PFT's Savings Incentive Program.

## Updates From PFI's Horticulture Program

What does PFI have for fruit and vegetable farmers? Or flower farmers, orchardists, nut growers or any other specialty crop? During this session, Liz will give an update on the horticulture program at Practical Farmers of Iowa. Topics will include farmer-led research (including the Whole Farm Financial Report), recent and upcoming workshops and events, and insights into how PFI horticulture programming is shaped. Conversation, ideas and questions are welcome!



**LIZ KOLBE** is the horticulture and habitat programs manager at Practical Farmers of Iowa. She facilitates the horticulture research in the Cooperators' Program, steers and implements programming for fruit and vegetable growers and assists with programming related to on-farm habitat.

## Cover Crops for Weed Control in Field Crops

CCAs: 1 CEU credit approved

Weed suppression is one of the benefits of including cover crops in your crop rotation sequence. Knowing when your weeds of concern emerge, and how they grow, helps inform when cover crops should be seeded and growing, and what crop species should be selected. Field experiments from across Kansas show that we can reduce weed density and weed size using cover crops as a substitute for one or more weed control practices.



**DR. ANITA DILLE** is a professor of weed ecology at Kansas State University. Her research explores the biology of key weed species in Kansas and their interaction with crops and management practices in agricultural fields. This knowledge can help develop improved weed management practices.

## The Beginnings of a Farm Transition

When Paul Bickford decided it was time to slow down and retire, he knew he wanted to find someone to continue his farming operation. After placing a Craigslist ad, he was connected to John and Halee Wepking. Together, they have started the process of transitioning the farm. They will share the steps they took at the beginning of this process to start what they hope will be a successful transition.

**PAUL BICKFORD** owns and operates Bickford Organics in Ridgeway, Wisconsin, where he has farmed since the late 1970s. On this 900-acre operation, Paul has often been on the leading edge of farming innovation. About seven years ago, Paul sold his dairy herd and converted his entire farm to organic grain production.

**JOHN and HALEE WEPKING** operated a farm-to-table breakfast and lunch cafe while working on John's family's 200-acre farm. In 2015, they moved to Ridgeway, Wisconsin, to work for Paul Bickford. Since moving there, they have been working with Paul on a transition plan to continue his farming operation.

## Cultivating the Landscape With Biodynamics

Beholding our landscape and the flow of communities of beings through our farms can inspire business decisions and enliven the Midwest. How do our vegetable plants show their true ability to sustain us through the challenges of our times? Nathan and Beth have been members of 10 intentional farming communities. In developing a new community, they are planting seeds for the future – for “the middle of the turtle’s back.”

**BETH and NATHAN CORYMB** own Meadowlark Hearth Biodynamic Seed Initiative ([www.meadowlarkhearth.org](http://www.meadowlarkhearth.org)) near Scottsbluff, Nebraska. The land is certified organic and Demeter Certified Biodynamic. The Corymbes raise vegetable seed, and operate a year-round vegetable CSA, and a micro grass-fed and grass-finished dairy on 500 acres.

## SATURDAY SESSION 2 10 – 11:10 A.M.



## Nuts and Bolts of Pastured Poultry Production

CCAs: 1 CEU credit approved

Cody will share his experience with pastured poultry production at Falling Sky Farm near Leslie, Arkansas. He'll discuss a range of topics, including infrastructure design and raising poultry in a mobile Prairie Schooner; managing multiple batches of chickens and turkeys; and processing (custom, state and federal).

**CODY HOPKINS** brings 12 years of experience developing and growing pasture-to-plate meat enterprises. He is the CEO of Grass Roots Farmers' Cooperative, a farmer-owned processing and marketing cooperative based in Arkansas. Cody operates Falling Sky Farm, raising broilers, turkeys, hogs and grass-fed beef.

## Eggplant Production

CCAs: 1 CEU credit approved

Eggplant. The elusive nightshade sister is often overshadowed by boisterous tomatoes and peppers. When are they ready to harvest? How can you maximize your yield per plant? Join Ajay, Rebecca and Tom for an in-depth discussion of eggplant production as they share the details of their growing methods, favorite varieties and pest pressures.



**DR. AJAY NAIR** is an associate professor at ISU working on sustainable vegetable production. His lab focuses on developing strategies that enhance crop production, soil health and profitability in vegetable cropping systems in Iowa.

**REBECCA GRAFF and TOM RUGGIERI** operate Fair Share Farm in Kearney, Missouri. Since 2003, they have fed the soil, and the people, through their 150-member CSA. Recently, they've reduced their CSA to 100 members, distributing every other week, to focus on value-added products – including a fermented foods business.

## Installing Prairie Habitat: Starting With Seedlings

During this session, Sarah and Jon will discuss how to grow and integrate native plant seedlings, including seed collection and sourcing, plant selection, seedling propagation, habitat placement and weed control. Sarah will also discuss benefits of on-farm habitat for insects and other wildlife. Jon will provide additional insight on site design and long-term management from his extensive experience reconstructing prairies in Iowa.



**SARAH FOLTZ JORDAN** works as the Xerces Society pollinator conservation specialist for the Great Lakes Region. Based in Minnesota, Sarah also farms organic fruits and vegetables, and is an avid mushroom and plant forager.



**JON JUDSON** operates Diversity Farms near Dedham, where he raises local-ecotype prairie seed, native plants and grass-fed beef. With landowners, Jon custom-installs prairie and consults on remnant restoration. As the owner of two prairie remnants, he is active in the Iowa Prairie Network.

## Organic Equipment and Weed Control for Beginners

CCAs: 1 CEU credit approved

When moving from conventional to organic row crops, you must have an effective weed management plan. You should consider historical pest problems, soil management, crop rotation, machinery, markets, weather, and time and labor. Eric and Scott will share how they have adjusted weed control strategies based on weed pressure, and share the practices that have worked for them.



**ERIC MADSEN** grew up on his family's farm near Audubon. The Madsen family members are working toward fully transitioning their corn, soybeans, oats and hay to organic production. In addition, they raise farrow-to-finish hogs, broilers and beef cattle.



**SCOTT AUSBORN** and his family live in Ida Grove, where Scott recently converted part of the 600-acre family farm to organic. The family grows corn, soybeans, oats and alfalfa. Scott is also employed with Blue River Organic Seed as a sales manager, and serves on the board of Iowa Organic Association.

## No-Till, Manure and Cover Crops on a Dairy and Grain Farm in the Challenging Farm Economy

CCAs: 1 CEU credit approved

Dan Meyer says the biggest challenge to overcome in order to make no-till and cover crops successful isn't mastering the management; it's ignoring those who tell you it won't work. In this session, he will discuss several soil and crop benefits resulting from adopting no-till, diversified crop rotations and cover crops. Dan will cover planter setup, spray timing, manure application timing, frost-seeding, cover crop mixes and how to accomplish this without breaking the budget.



**DAN MEYER** and his family run a 200-cow dairy in eastern Wisconsin. They also raise corn, soybeans, small grains, hay and their own cover crop seed. They are 100 percent no-till, and use cover crops like cereal rye, red clover, peas, wheat, turnips, sunflowers, rapeseed and oats whenever possible.

## Managing Seasonal Employees on a Vegetable Farm

CCAs: 1 CEU credit approved

Operating a vegetable farm often takes more labor than the farmer can provide. Seasonal employees can help solve this labor shortage – but they also add cost and complexity to the operation. Efficiently managing employees requires organization, time, development of farm systems and excellent communication and people skills. Laura will share how she and her husband manage Loon Organics' seasonal workers and handful of work-share volunteers. They will also give tips on hiring, interviewing and employee retention.



**LAURA FRERICHS** and husband, Adam Cullip, co-own and operate Loon Organics, a 40-acre certified organic vegetable farm in Hutchinson, Minnesota. Loon Organics grows vegetables, herbs and flowers for a 225-household CSA, local retailers, restaurants and the Mill City Farmers Market. When she isn't farming, Laura enjoys exploring the outdoors with Adam and their two boys, Eli and William.

## We All Live in a Watershed

Water quality issues in the news have prompted farmers, landowners and community members to think about the impact of their land management beyond property and county lines. The first of many watershed management authorities (WMA) was formed in Iowa in 2012 to help coordinate efforts among counties, cities and soil and water conservation districts for local watershed-based planning. Jim Erb will talk about how WMAs operate, and Kayla Bergman will showcase local efforts from Squaw Creek.

**JIM ERB** serves as president of Watershed Management Authorities of Iowa, an organization created as a resource for the latest news and research, funding opportunities and curriculum in watershed restoration. He is also a member of the Upper Cedar WMA and the Cedar River Watershed Coalition.



**KAYLA BERGMAN** is the watersheds and waterways program coordinator at Prairie Rivers of Iowa. She coordinates efforts in the Squaw Creek Watershed to implement conservation practices that improve soil health and water quality, as well as educate citizens about these and other watershed topics.



## Q&A With Michael Phillips

Keynote speaker Michael Phillips will start this session with a brief dive into additional mycorrhizal teachings that build off his Friday keynote. Practical application of the non-disturbance principle works best when growers understand fungal fundamentals. Most of the session will give attendees the chance to ask Michael follow-up questions about mycorrhizae and how they can create strong mycorrhizal communities in their soils.

**MICHAEL PHILLIPS'** book, *"Mycorrhizal Planet: How Fungi and Plants Work Together to Create Dynamic Soils,"* explores the science of symbiotic fungi and sets the stage for practical applications across the landscape. Michael and his wife, Nancy, own and operate Heartsong Farm Healing Herbs and Lost Nation Orchard in New Hampshire.

## Mushroom Production, Drying and Marketing

CCAs: 1 CEU credit approved

Cultivating shiitake outdoors on logs, and oyster mushrooms indoors, can be a fun and profitable addition to your CSA offerings and farm sales. Learn from Steve how to properly cultivate these mushrooms from inoculation to management to sales. He will also discuss marketing both fresh and dried mushrooms, and the potential for profitability at multiple scales.

**STEVE GABRIEL** is an ecologist, forest farmer and agroforestry extension specialist for the Cornell Small Farms Program. He co-owns Wellspring Forest Farm & School with his wife, Elizabeth. Steve co-authored *"Farming the Woods"* in 2014, and authored *"Silvopasture"* in 2018.

## SATURDAY SESSION 3

1 - 2:10 P.M.



## Grass-Fed Beef and the Value of Carbon Sequestration

CCAs: 1 CEU credit approved

What is the economic value of the carbon on your farm? This session will begin by discussing the carbon footprint of grass-fed beef and the management strategies that affect it. The session will culminate in a discussion of the economic value of sequestered carbon, and emerging opportunities for producers to profit from management practices that promote it.



**JASMINE DILLON** will start as an assistant professor in the Department of Animal Sciences at Colorado State University in 2019. Jasmine develops tools that quantify multiple aspects of the sustainability of agriculture and food systems.

## Economics of Niche Pork

Pigs used to be considered the mortgage-lifters on the farm. Learn what is needed to profit in niche pork production from Dr. Kurt Van Hulzen. We'll explore enterprise budgets based on real-world examples, discuss what scale is necessary to make a living and cover production benchmarks to meet economic goals.



**DR. KURT VAN HULZEN** is a veterinarian and swine specialist at Suidae Health and Production and Lake City Veterinary Clinic in northwest Iowa. He enjoys problem-solving aspects of swine production, and has previous experience with niche pork as a veterinarian consultant for Niman Ranch. He is also treasurer of Practical Farmers of Iowa's board of directors.

## Weed Management and Machinery for Vegetable Production

CCAs: 1 CEU credit approved

Though weed management at Juniper Hill Farms is far from perfect, the farmers there are improving their practices every year, and are open to sharing their journey with other farmers. During this session, Scott will discuss the farm's weed management systems and practices for organic and conventional vegetable crops; the machinery the farmers like (and don't like); and specific situations of weed management successes, failures and next steps.



**SCOTT THELLMAN** is president of Juniper Hill Farms, a first-generation farm in Douglas County, Kansas. The farm business consists of 65 acres of certified organic land and 1,100 acres of sustainably grown land, and produces 50 acres of organic and conventional vegetables. Other crops include hay, alfalfa, small grains and non-GMO row crops.

## Business and Balance at Miss Effie's Flowers and Garden Stuff

Over the last 16 years, Cathy has built a country oasis for her U-pick flower customers while also finding time to manage the farm store (mostly stocked with her own homemade goods and crafts) and host on-farm classes. During this session, Cathy will share her experiences, both successes and challenges, and provide guidance for those interested in running multiple on-farm enterprises.



**CATHY LAFRENZ** runs Miss Effie's Country Flowers and Garden Stuff near Donahue. Founded in 2002, Miss Effie's is a celebration of women on Iowa farms. Miss Effie's is Iowa's first U-pick flower farm, which also boasts a "summer kitchen" store and eggs from 20 different breeds of chickens.

## Interseeding to Increase Wildflower Diversity in CRP and Other Grasslands

Introducing additional wildflower seeds to dense stands of grasses can enhance the diversity of the planting and improve habitat for pollinators and other wildlife. In this session, we will discuss conditions that are appropriate for interseeding wildflower seeds, how to approach a project, examples of how the interseeding process can be accomplished and the importance of ongoing management to maintain wildflower diversity.



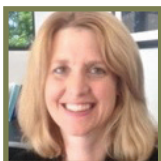
**RAE POWERS** is a farm bill pollinator conservation planner and NRCS partner biologist with Xerces Society. She is based in Lincoln, Nebraska, and works throughout Nebraska and South Dakota.



**SARAH NIZZI** is a farm bill pollinator conservation planner and NRCS partner biologist with Xerces Society. She is based in Newton, and currently covers Jasper, Marion and Warren counties. Sarah provides technical assistance to private landowners interested in pollinator habitat.

## Choosing Your Farm's Legal Structure

Choosing a legal structure for your business is a task that can feel overwhelming to a small farm or value-added business enterprise. Explore the different options to determine which structure might best fit your farming goals.



**KRISTINE TIDGREN** is an adjunct assistant professor in the Agricultural Education and Studies Department at ISU, and serves as director of ISU's Center for Agricultural Law and Taxation. Kristine's work focuses on studying and interpreting laws that affect the agricultural industry. She grew up on a farm in west-central Iowa.

## What's the Soil Missing? Integrated Crop Rotation and Livestock

CCAs: 1 CEU credit approved

Northern Illinois farmer Trent Sanderson will share practical advice on renovating and improving crop fields with red clover, winter wheat, strip-tilled corn and no-tilled soybeans with cover crops. Trent will also discuss grazing ruminant livestock on annuals and perennial pastures to leave the soil better, and share how he is reducing his dependence on inputs by farming differently.



**TRENT SANDERSON** raises corn, soybeans, wheat, clover, cover crops and a cow-calf herd in northern Illinois. He farms on his own and with his family, and sells cover crop seed and seeding services. At 29, he is focused on finding ways to control input costs and leave the land better.

## Managing Weed Control in an Organic Crop Rotation

CCAs: 1 CEU credit approved

Megan will share her family farm's experiences with weed management, from roller-crimping rye in the spring for beans to seeding non-vernalized rye in spring into beans – and more. She will cover her family farm's cultivation techniques, transitional plans and ways the family takes action to reduce weed pressures pre-plant, in-season and post-season. Megan will also share results from research trials she and her family have conducted on their organic ground.



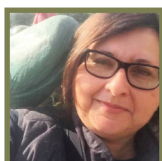
**MEGAN WALLENDAL** is part of Wallendal Farms, a third-generation, family-owned farm that grows irrigated vegetables and grain on 550 organic acres and 2,700 conventional acres in Wisconsin. The Wallendal family has a rich history of innovation, and family members pride themselves on their use of research and precision technology to promote a sustainable farming culture.

## SATURDAY SESSION 4 2:30 - 3:40 P.M.

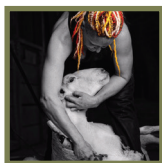


## Wool: Production, Shearing, Processing and Marketing

Wool production can be a profitable enterprise with certain niche markets. In this session, Regina will share herd management techniques and her knowledge of wool processing at mills throughout the Midwest. Emily will teach us how to prepare sheep for shearing, and we'll explore viable market options for wool products.



**REGINA FRAHM** is vice-president of the American Wool Council and coordinator of the Iowa Sheep and Wool Festival. She owns Jasper's Edge Farm and Esther Purl Fibers in Newton, where she's opening a mercantile store featuring local fibers and foods. Regina is an advocate of the American wool industry.



**EMILY CHAMELIN-HICKMAN** has been shearing sheep since 2001. Emily and her husband have shorn around the world, but spend most of their time in the mid-Atlantic and Midwest. Emily has experience handling sheep, skirting fleeces and sharing ideas with other shepherds.

## Cauliflower Production

CCAs: 1 CEU credit approved

Cauliflower is a long-season crop, susceptible to heat and sun. Can we grow them well in Iowa? Join T.D., Rebecca and Tom for an in-depth discussion of cauliflower production. They will each share the details of how they have produced and stored cauliflower on their farms, their successes and ongoing challenges.



**T.D. HOLUB** owns and operates Garden Oasis Farm with his wife, Sarah, near Coggon. The 8-acre vegetable farm, with pastured poultry and eggs, markets through CSA, farmers market, grocery stores and restaurants.



**REBECCA GRAFF** and **TOM RUGGIERI** operate Fair Share Farm in Kearney, Missouri. Since 2003, they have fed the soil, and the people, through their 150-member CSA. Recently, they've reduced their CSA to 100 members, distributing every other week, to focus on value-added products – including a fermented foods business.

## Packhouse Design and Use

CCAs: 1 CEU credit approved

In the past year, Juniper Hill Farms has expanded from its original 10-by-10-foot CoolBot room and 12-by-4-foot wash room – perfect for a smaller farm – to a much needed 4,000-square-foot packhouse in what used to be a hay and equipment storage barn. The new packhouse features walk-in cold storage and freezers, wash lines and single-phase-to-three-phase inverters (all the good stuff!). Scott will discuss the design and function of both systems during this session.

**SCOTT THELLMAN** is president of Juniper Hill Farms, a first-generation farm in Douglas County, Kansas. The farm business consists of 65 acres of certified organic land and 1,100 acres of sustainably grown land, and produces 50 acres of organic and conventional vegetables. Other crops include hay, alfalfa, small grains and non-GMO row crops.

## Growing High-Yielding Hybrid Rye and Other Winter Small Grains

CCAs: 1 CEU credit approved

Interested in growing a winter small grain, but concerned about low yields? Then hybrid rye might be the crop for you. Learn about the agronomy of this winter small grain that yields around 100 bushels per acre on average, and how its management may differ from other winter small grains. The discussion will cover best practices for achieving quality and high yields in winter small grains generally, and in hybrid rye specifically.

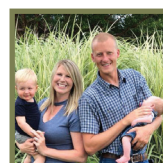


**DR. JOCHUM WIERSMA** is University of Minnesota Extension's small grains specialist at the Northwest Research and Outreach Center in Crookston, Minnesota. His research and extension efforts focus on improving small grains productivity and profitability.

## Panel: Planting Corn and Soybeans Following a Cover Crop

CCAs: 1 CEU credit approved

What disk-openers should I use? How much down pressure do I need? Should I use trash whippers? What about strip-till versus no-till? When and how are others terminating a cover crop? What if I'm organic and use tillage? These are among the many questions farmers ask when considering planting corn or soybeans following a cover crop. This panel session will address these concerns, as well as planting cash crops into living cover crops and more!



**TRENT SANDERSON** raises corn, soybeans, wheat, clover, cover crops and a cow-calf herd in northern Illinois. He farms on his own and with his family, and sells cover crop seed and seeding services. At 29, he is focused on finding ways to control input costs and leave the land better.



**BRENT LARSON** raises corn, soybeans and cover crops in north-central Iowa using no-till for soybeans and strip-till for corn. He plants into green cover crops, and is working to raise his own cover crop seed. Brent is also trying to work his fields into a three-year rotation to include a year of small grains.



**JACOB BOLSON** lives with his wife and four children on an acreage near Hubbard in Hardin County. In addition to working in the farm equipment business, Jacob works with his wife Lindsay's family on their diverse organic and conventional farm in Hardin and Wright counties.

## Encouraging Cover Crops on the Iowa Landscape

CCAs: 1 CEU credit approved

Major barriers to introducing cover crops as a conservation practice include the cost of implementation, yield drag and farmers' lack of knowledge. This presentation will share ongoing research at Iowa State University, and in collaboration with Practical Farmers of Iowa, to identify factors that contribute to yield drag. This data will be used to develop best management practices for including a cover crop in a corn-soybean production system for "hesitant" farmers.



**DR. ALISON ROBERTSON** is a professor and extension field pathologist in ISU's Department of Plant Pathology and Microbiology. Her research focuses on how crop production practices, like cover crops, affect the oomycete community in the soil that causes crop seedling disease.



## Leaving the Land Better: Measuring Your Impact

Many landowners have a goal to leave the land better than when they got it. Yet, how do you measure what impact you've made? Lisa Schulte Moore of ISU's Department of Natural Resource Ecology and Management will share a tool they've developed to help landowners balance agricultural production with environmental benefits. Landowner Lee Tesdell will share his use of the tool, and beginning farmer Kevin Dietzel will share thoughts about this issue on his farm.



**DR. LISA SCHULTE MOORE** is a professor in the Department of Natural Resource Ecology and Management at ISU, where she is a lead developer of the web-based educational game *People in Ecosystems / Watershed Integration (PEWI)*. The program helps people understand their reciprocal relationship with their environments.

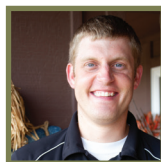


**LEE TESDELL** owns Tesdell Century Farm near Slater, where he works with his tenants to address soil conservation and water quality issues by using both edge-of-field and in-field practices. He uses PEWI as an assessment and planning tool for their conservation efforts.

**KEVIN DIETZEL** owns and operates Lost Lake Farm in Jewell with his wife, Ranae. In 2016, they launched their small grass-fed cow dairy that produces artisanal cheese. The farm includes 80 acres of pasture and hay, and the cattle are rotated through the pastures twice daily.

## Cultivating Community

Many rural Iowa communities are declining, but some continue to innovate and develop. This session will highlight community trends in rural Iowa. Amber Mohr, of Avoca, and Chris Deal, of Jefferson, will talk about how efforts in their communities are unfolding and succeeding. You will participate in a brainstorming session to generate revitalization ideas that you can take home to your community.



**CHRIS DEAL** farms with his family at Deal's Orchard, an apple orchard, cidery, tree farm and agritourism center near Jefferson. Chris is helping implement Greene County's Vision 2020, a bold economic development plan that is adding businesses and residents to communities in the county.



**AMBER MOHR** farms with her family at Fork Tail Farm, a vegetable, fruit and poultry farm near Avoca. Amber also serves as project director of Avoca Main Street, whose mission is to promote, preserve and enhance Avoca's downtown district as an economic, cultural and social center of the community.

## Mechanical Weed Control

CCAs: 1 CEU credit approved

Learn how timeliness, the right equipment and crop rotation are keys to successful mechanical weed control. Nelson will discuss the when and why of his sequence of field equipment passes, from seedbed prep to seeding, hoeing and tine weeding to cultivation. He'll also share why he prefers the tine weeder over a rotary hoe, and how tine weeding and mechanical cultivation can complement each other for effective weed control.



**NELSON SMITH** raises 300 acres of organic row crops and 150 acres of alfalfa near Brighton. Crop rotation includes soybeans, corn, oats, alfalfa with buckwheat and rye occasionally included in the rotation. The farm has been certified organic since 1997.

## SATURDAY SESSION 5

4 - 5:10 P.M.



## Grazing Cover Crops for Profit

CCAs: 1 CEU credit approved

Cover crops have value as livestock feed – but how much value? On-farm research shows that cover crops can offset the cost of winter feed and put money back into farmers' pockets. Meghan will share best management practices to maximize the economic value of cover crops, and introduce a decision-making tool developed by Practical Farmers of Iowa and Iowa State University to help analyze the forage value of cover crops.



**MEGHAN FILBERT** is PFI's livestock program manager. Her work focuses on grazing systems, specifically on integrating ruminant livestock into cropping systems. Meghan raises a flock of hair sheep on a vegetable farm near Ames for soil fertility, vegetation management and meat production.

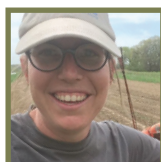
## Storage Onion Production

CCAs: 1 CEU credit approved

Onions can be a diverse storage crop that creates loyal customers. Onions can also be frustratingly weedy and susceptible to disease. Join Kate Edwards and Dan Fillius for an in-depth discussion of onion production, and hear how they produce and store onions on their farms.



**DAN FILLIUS** recently joined ISU Extension and Outreach as a produce safety specialist. He has been growing organic vegetables for 11 years, including stints managing the Michigan State University Student Organic Farm and 140 acres of vegetables at Featherstone Farm near Rushford, Minnesota.



**KATE EDWARDS** began Wild Woods Farm in 2010. On her farm near Iowa City, she raises vegetables for a 200-family CSA, delivering to Iowa City, Corakville and Solon.

## Shoot! Making Better Photos for Your Farm

Wish you could take better photos for your social media sites and farm marketing materials? Darcy has felt the same way about her own photos. She has learned from years of photojournalism that you don't take great photos; you make them. In this session, complete with plenty of visual inspiration, Darcy will offer field-tested tips guaranteed to make you a better photographer (even with a cell phone camera!).



**DARCY MAULSBY** is a storyteller and fifth-generation farmer who helps businesses grow and revitalize their rural communities, one story at a time. Darcy holds an MBA with an emphasis in marketing from Iowa State University. She founded Darcy Maulsby & Co. in 2002 after working in journalism and corporate marketing. She is the author of three non-fiction Iowa history books.

## Hiring Contract, H2A and Migrant Farm Labor

CCAs: 1 CEU credit approved

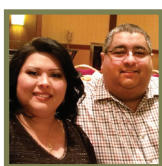
For many farms, migrant and seasonal farm workers are an essential labor force. During this session, Javier will share his experience with running a farm labor contract business. Eric will discuss the process of hiring and housing H2A workers on his farm. Melissa will provide an overview of the rules and regulations specific to Iowa. This session will be relevant for field crop, fruit, vegetable and livestock farmers.



**MELISSA GARCIA** is the state monitor advocate for Iowa. She works with a team across the state to supply migrant and seasonal farm workers with information about available employment, and with agricultural employers in all stages of the hiring process to fill their seasonal workforce needs.



**ERIC FRANZENBURG** runs Pheasant Run Farm with his wife, Ann, and son, Calvin. They raise corn and soybeans, medicinal herbs, cut flowers and vegetables near Van Horn.



**JAVIER NEVAREZ** and his wife, Noemi, run Javier Nevarez Farm Labor Contractor near Williamsburg. Since 2009, they have supplied contract labor to Monsanto, hiring a total of about 620 people throughout the year.

## Using Science and On-Farm Research to Investigate Cover Crops in Iowa

CCAs: 1 CEU credit approved

Since 2008, Practical Farmers of Iowa and its partners in the Iowa Cover Crop Working Group have conducted on-farm cover crop research across the state. Projects have addressed species selection, seeding methods, effects on cash crop yield and soil health indicators, and the economic value of cover crops. This session will recap what's been done and what is on the horizon for on-farm cover crop research.



**DR. STEFAN GAILANS** is the research and field crops director at Practical Farmers of Iowa. His primary duty is managing the Cooperators' Program – PFI's vehicle for conducting farmer-led research. Projects are often collaborations among farmers, partner organizations and university researchers.

## Landowners: Prioritizing Conservation on Rented Ground

Fifty-three percent of Iowa farmland is rented to non-owner operators. Conservation is just as important for the long-term viability of this land as it is for land owned by farmer-operators. Learn how two non-operator owners have made conservation a priority. Ruth and Maggie will discuss their farmland priorities; how these priorities are reflected in their leases; progress they have made to date; and future plans to further their goals.



**RUTH RABINOWITZ** lives in Santa Cruz, California, and manages her family's Iowa farmland. Ruth started managing her father's farms in 2013 with little land management knowledge or Iowa connections. Since then, Ruth has learned a lot, made good connections and has written her own farm and hunting leases that include conservation measures.



In 2012, **MAGGIE MCQUOWN** and her husband, Steve Turman, moved to her family's century farm near Red Oak, where she grew up. They have worked closely with their farm operators to incorporate conservation practices. Maggie and Steve were PFI's 2018 Farmland Owner Legacy Award recipients.

## Cultivating Civility

Recent studies show that Americans believe our culture is uncivil. In this session, you will learn the importance of establishing connections, how to rephrase attack statements and how to seek understanding and common ground. Civility will only expand when individuals commit to improving their own actions and words, and this session will teach applicable civility strategies.



**JEFF KLUEVER** is an assistant director of programs for The Robert D. and Billie Ray Center at Drake University. The center is committed to helping individuals, organizations and communities learn skills and strategies to help maintain civility, even during the most difficult conversations.

## Practical Tools for Dealing With the Stressors of Farming

In this workshop, Ted will empower you with the tools needed to improve your communication skills and understand how to work with anger. He will teach you how knowing yourself helps to identify aspects to improve or change.



**TED MATTHEWS** is a mental health practitioner with over 30 years of experience in counseling in rural areas. His focus for the past two decades has been farm mental health support.

# FRIDAY SESSIONS

## *At-A-Glance*

FRIDAY, JANUARY 18	
SESSION 1	SESSION 2
12:30 - 2:00 P.M.	3 - 4:30 P.M.
Building a Meat Cooperative From the Ground Up	Profitable Meat Marketing: Part II
Vegetable Seed-Saving as a Business Enterprise	Adding Value to Your Farm
Conduct and Neighborliness in Markets and Product Innovation	Managing a Farm With Diverse Crops and Markets
Regenerating Degraded Soils with Cover Crops and Livestock	Research Updates: Pesticides in Iowa's Air and Water
Small Grains Disease Management for Maximum Return on Investment	Starting a Cover Crop Seed Business
Panel: Fall Cover Crop Seeding Methods	What's Relay Intercropping and How Does It Pay?
Profitable Meat Marketing: Part I	Lessons Learned Over 30 Years at the Wisconsin Integrated Cropping Systems Trial
Economics of Organic Dairying	Using Finances to Make Farming Decisions
Identifying Disease in Vegetable Crops	Cattle Genetics and Linebreeding



# SATURDAY SESSIONS

## *At-A-Glance*

SATURDAY, JANUARY 19				
SESSION 1	SESSION 2	SESSION 3	SESSION 4	SESSION 5
8:30 - 9:40 A.M.	10 - 11:10 A.M.	1 - 2:10 P.M.	2:30 - 3:40 P.M.	4 - 5:10 P.M.
Regenerating Degraded Soils With Cover Crops and Livestock	Nuts and Bolts of Pastured Poultry Production	Grass-Fed Beef and the Value of Carbon Sequestration	Wool: Production, Shearing, Processing and Marketing	Grazing Cover Crops for Profit
Q&A: Cattle Genetics and Linebreeding	Eggplant Production	Economics of Niche Pork	Cauliflower Production	Storage Onion Production
Why IPM Matters: Finding a Balance Between Neonicotinoid Use and Beneficial Insects in Corn and Soybeans	Installing Prairie Habitat: Starting With Seedlings	Weed Management and Machinery for Vegetable Production	Packhouse Design and Use	Shoot! Making Better Photos for Your Farm
Enterprise Budgets for Vegetable Production	Organic Equipment and Weed Control for Beginners	Business and Balance at Miss Effie's Flowers and Garden Stuff	Growing High-Yielding Hybrid Rye and Other Winter Small Grains	Hiring Contract, H2A and Migrant Farm Labor
Updates From PFI's Horticulture Program	No-Till, Manure and Cover Crops on a Dairy and Grain Farm in the Challenging Farm Economy	Interseeding to Increase Wildflower Diversity in CRP and Other Grasslands	Panel: Planting Corn and Soybeans Following a Cover Crop	Using Science and On-Farm Research to Investigate Cover Crops in Iowa
Cover Crops for Weed Control in Field Crops	Managing Seasonal Employees on a Vegetable Farm	Choosing Your Farm's Legal Structure	Encouraging Cover Crops on the Iowa Landscape	Landowners: Prioritizing Conservation on Rented Ground
The Beginnings of a Farm Transition	We All Live in a Watershed	What's the Soil Missing? Integrated Crop Rotation and Livestock	Leaving the Land Better: Measuring Your Impact	Cultivating Civility
Cultivating the Landscape With Biodynamics	Q&A With Michael Phillips	Managing Weed Control in an Organic Crop Rotation	Cultivating Community	Practical Tools for Dealing With the Stressors of Farming
	Mushroom Production, Drying and Marketing		Mechanical Weed Control	

# BECOME A MEMBER *Today!*

Want to register for a membership or the conference online? Head over to [www.practicalfarmers.org](http://www.practicalfarmers.org)!  
Membership is optional but qualifies you for conference discounts.

## I WANT TO BECOME A MEMBER ▼

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PH. \_\_\_\_\_

EMAIL \_\_\_\_\_

- |   |                |
|---|----------------|
| <input type="checkbox"/> Individual     | <b>\$50</b>    |
| <input type="checkbox"/> Farm/Household | <b>\$60</b>    |
| <input type="checkbox"/> Organization   | <b>\$110</b>   |
| <input type="checkbox"/> Lifetime       | <b>\$1,000</b> |
| <input type="checkbox"/> Student        | <b>\$20</b>    |

SUBTOTAL \$

Please calculate the total cost, including your new membership,  
in the blue box at the bottom of the following page.

### NOW A MEMBER? HOW EXCITING!

Please continue filling out the PFI member  
conference registration on the following page. ►

## I WANT TO RENEW MY MEMBERSHIP ▼

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PH. \_\_\_\_\_

EMAIL \_\_\_\_\_

- |   |                |
|---|----------------|
| <input type="checkbox"/> Individual     | <b>\$50</b>    |
| <input type="checkbox"/> Farm/Household | <b>\$60</b>    |
| <input type="checkbox"/> Organization   | <b>\$110</b>   |
| <input type="checkbox"/> Lifetime       | <b>\$1,000</b> |
| <input type="checkbox"/> Student        | <b>\$20</b>    |

SUBTOTAL \$

Please calculate the total cost, including your renewed membership,  
in the blue box at the bottom of the following page.

### MEMBERSHIP RENEWED? THANK YOU!

Please continue filling out the PFI member  
conference registration on the following page. ►

## PRACTICAL FARMERS OF IOWA

1615 Golden Aspen Dr. Suite 101 | Ames, IA 50010

(515) 232-5661 | [www.practicalfarmers.org](http://www.practicalfarmers.org)



**ATTENDEE NAME(S)** \_\_\_\_\_

**ADDRESS** \_\_\_\_\_

**CITY** \_\_\_\_\_ **STATE** \_\_\_\_\_ **COUNTY** \_\_\_\_\_ **ZIP** \_\_\_\_\_

**PH.** \_\_\_\_\_ **EMAIL** \_\_\_\_\_

Pre-registrations must be received or postmarked by Thursday, Jan. 10, or you must register as a walk-in at the conference.  
No refund requests honored after Jan. 10.

**Want to become a member or renew your membership today? Flip this form over to begin!** ►  
**Online membership and conference registration is also available at [www.practicalfarmers.org](http://www.practicalfarmers.org).**

## PFI MEMBER REGISTRATION

One registration covers all members of farm/household membership, three members per organizational membership or one person per individual membership. Extra guests should register themselves as non-members or students. Refreshments at breaks included.

**PRE-CONFERENCE SHORT COURSE** Optional, priced per person, choose 1 of 2 course options

☐ Silvopasture **OR** ☐ Orchardring  
\_\_\_\_\_ x \$55 \_\_\_\_\_ x \$55

☐ Optional Lunch for Friday, Jan. 18 for short course attendees

Sandwich \_\_\_\_\_ x \$15

Vegetarian Wrap \_\_\_\_\_ x \$15

Please list any special dietary issues

## CONFERENCE SESSIONS

Don't overpay! One registration covers all members of farm/household memberships, or three members per organizational membership.

☐ Friday sessions \_\_\_\_\_ x \$35  
☐ Saturday sessions \_\_\_\_\_ x \$55

## SATURDAY ALL-IOWA LUNCH

☐ Adult \_\_\_\_\_ x \$15  
☐ Vegetarian meal \_\_\_\_\_ x \$15  
☐ Child 12 or under \_\_\_\_\_ x \$7  
☐ Child vegetarian meal \_\_\_\_\_ x \$7

Please list any special dietary issues

## CHILDCARE

Optional  
Must pre-register for childcare; no drop-ins. Care extends through keynote. Snack Friday, and snack and lunch Saturday included.

☐ Friday Noon – 6:30 p.m. \_\_\_\_\_ x \$25  
☐ Saturday 8:15 a.m. – 5:15 p.m. \_\_\_\_\_ x \$45

**SUBTOTAL \$** \_\_\_\_\_

**COMPLETE FORM IN BLUE BOXES BELOW**

## NON-MEMBER REGISTRATION

Refreshments at breaks included.

**PRE-CONFERENCE SHORT COURSE** Optional, priced per person, choose 1 of 2 course options

☐ Silvopasture **OR** ☐ Orchardring  
\_\_\_\_\_ x \$70 \_\_\_\_\_ x \$70

☐ Optional Lunch for Friday, Jan. 18 for short course attendees

Sandwich \_\_\_\_\_ x \$15

Vegetarian Wrap \_\_\_\_\_ x \$15

Please list any special dietary issues

## CONFERENCE SESSIONS

Priced per person  
☐ Friday sessions \_\_\_\_\_ x \$50  
☐ Saturday sessions \_\_\_\_\_ x \$70

## SATURDAY ALL-IOWA LUNCH

Optional  
☐ Adult \_\_\_\_\_ x \$15  
☐ Vegetarian meal \_\_\_\_\_ x \$15  
☐ Child 12 or under \_\_\_\_\_ x \$7  
☐ Child vegetarian meal \_\_\_\_\_ x \$7

Please list any special dietary issues

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☐ Friday Noon – 6:30 p.m. \_\_\_\_\_ x \$25  
☐ Saturday 8:15 a.m. – 5:15 p.m. \_\_\_\_\_ x \$45

**SUBTOTAL \$** \_\_\_\_\_

**COMPLETE FORM IN BLUE BOXES BELOW**

## STUDENT REGISTRATION

Discounted registration for high school and college students. Membership not required. Walk-ins welcome. Refreshments at breaks included. (Student ID required at registration).

**PRE-CONFERENCE SHORT COURSE** Optional, priced per person, choose 1 of 2 course options

☐ Silvopasture **OR** ☐ Orchardring  
\_\_\_\_\_ x \$55 PFI member \_\_\_\_\_ x \$55 PFI member  
\_\_\_\_\_ x \$70 Non-member \_\_\_\_\_ x \$70 Non-member

☐ Optional Lunch for Friday, Jan. 18 for short course attendees

Sandwich \_\_\_\_\_ x \$15

Vegetarian Wrap \_\_\_\_\_ x \$15

Please list any special dietary issues

## CONFERENCE SESSIONS

Priced per person  
☐ Friday & Saturday sessions \_\_\_\_\_ x \$30

## SATURDAY ALL-IOWA LUNCH

Optional  
☐ Adult \_\_\_\_\_ x \$15  
☐ Vegetarian meal \_\_\_\_\_ x \$15  
☐ Child 12 or under \_\_\_\_\_ x \$7  
☐ Child vegetarian meal \_\_\_\_\_ x \$7

Please list any special dietary issues

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☐ Friday Noon – 6:30 p.m. \_\_\_\_\_ x \$25  
☐ Saturday 8:15 a.m. – 5:15 p.m. \_\_\_\_\_ x \$45

**SUBTOTAL \$** \_\_\_\_\_

**COMPLETE FORM IN BLUE BOXES BELOW**

## WANT TO SUPPORT PFI WITH AN ADDITIONAL DONATION?

**DONATION SUBTOTAL \$** \_\_\_\_\_

## WALK-IN REGISTRATION

Rates increase for walk-ins. You will still be able to purchase a walk-in registration badge at the conference if you do not pre-register.

## SILENT AUCTION

☐ I plan to bring an item for the silent auction:

Make checks payable to  
**PRACTICAL FARMERS OF IOWA**  
or pay by credit card online at  
**PRACTICALFARMERS.ORG**

**TOTAL \$** \_\_\_\_\_

If you became a member or renewed your membership today, please calculate the total cost from both pages.



# THANK YOU

## *To Our Sponsors*



### LOCATION

Iowa State Center, Scheman Building  
1805 Center Dr. Ames, Iowa

### DIRECTIONS

Near the junction of Interstate 35 and U.S. 30, the Iowa State Center is located at the corner of Lincoln Way and University Boulevard, Ames, Iowa. Just south on University Boulevard from Lincoln Way, turn west onto Center Drive.

### LODGING

Practical Farmers has reserved a block of hotel rooms 2 miles south of the conference site at the Best Western Plus University Park Inn and Suites, 2500 University Blvd. (just south of U.S. 30). Please call (515) 296-2500 by Jan. 1 to guarantee a room. Prices range from \$99-\$104/night. Mention Practical Farmers of Iowa to get a discounted rate.

### QUESTIONS

Contact Maggie at (515) 232-5661, or [maggie@practicalfarmers.org](mailto:maggie@practicalfarmers.org).



PRACTICAL FARMERS OF IOWA  
1615 Golden Aspen Drive, Suite 101 | Ames, IA 50010  
(515) 232-5661  
[www.practicalfarmers.org](http://www.practicalfarmers.org)

2019  
**CULTIVATING**  
*Connections*  
JANUARY 17-19

PRACTICAL FARMERS OF IOWA  
ANNUAL CONFERENCE

IOWA STATE CENTER / SCHEMAN BUILDING / AMES, IOWA

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