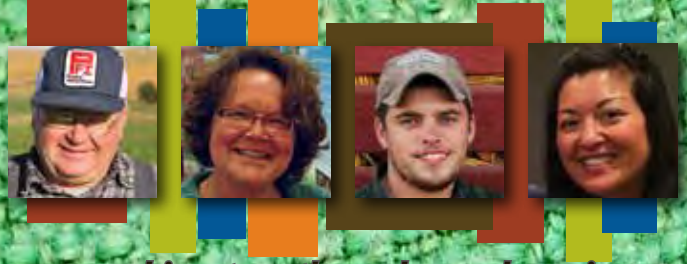

the Practical Farmer

working together, always learning

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On the cover

Lee Matteson and Rose Schick stand in one of their four greenhouses. The two are partners in Lee's Greens, based in Nevada, specializing in salad greens and other greenhouse-grown produce.

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features

departments

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the **Practical Farmer**

the Practical Farmer is published quarterly as a benefit of membership, and helps 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.

Newsletter Editor: Tamsyn Jones

The Practical Farmer: Who Are You?

PFI members, want to know more about each other? Well, here are some facts:

- Top enterprises for PFI farmers are: corn, soybeans, hay, vegetables and beef cattle (all together, more than 20 enterprises are represented in the membership)
- 26 percent of members are beginning farmers, having farmed 10 years or less
- 63 percent are new members in the past two years
- Overwhelmingly, members find our conference, workshops and field days most meaningful of all the programming we offer
- About 25 percent of our non-farmer members own farmland and rent it out, and report that they want to "invest in sustainable agriculture"

How do we know all this? Because we are in the thick of analyzing our member survey results! We finished our data-gathering efforts just in time to inform our work to develop a strategic plan for the next three years. We have a capable team working on that strategic plan, and it is pondering:

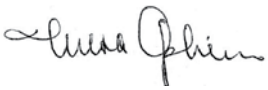
- How do we welcome all of you new members and keep you coming back?
- How do we continue to serve long-time members with all this growth?
- How do we effectively help farmers who have such diverse enterprises thrive?
- So many beginning farmers! How do we tap the talent of our experienced farmers to help them?
- You want even more face-to-face time with each other: How do we best provide that?
- How do we help friends of farmers purchase more directly from farmers, invest in them, and help them secure and improve farmland?

Thank you to my fellow committee members, who will soon have a plan to present to our board of directors: Sarah Carlson, Kate Edwards, Tom Frantzen, Helen Gunderson, Gail Hickenbottom, Cheryl Hopkins, Tim Landgraf, Drake Larsen, Dan Wilson and Sally Worley. And kudos to the full board and staff for providing input to the plan.

If you filled out a member survey: thank you! You really helped as we plan for the future of this organization. You may have thought our survey was long, and we apologize! But all the information we gathered helps us serve you better.

In total, we have at least partial survey data for 76 percent of you. And if we didn't hear from you or you JUST joined, please tell us about yourself and what you want from Practical Farmers.

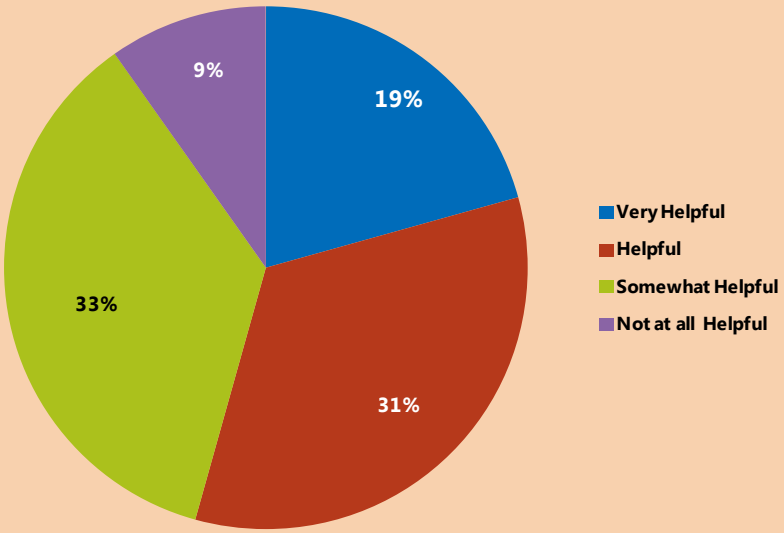
Working for you,



Dogs of the Issue

Dave and Meg Schmidt's two dogs exhibit quite different personalities. Elbie, a 2.5-year-old Australian shepherd, leaps exuberantly over a ditch while Burl – a 4-year-old, 180-pound German shepherd–Great Dane cross – calmly examines its contents. Says Dave: "Elbie is very high energy while Burl's major activities are sleeping and barking. Elbie loves moving cattle and sheep, even when he's not supposed to. Burl has a tremendous ability to bark, which he primarily reserves for the middle of the night. During the day he'd much rather bark at red cows than black cows."

Does PFI Help You Achieve Your Goals?



Protecting Their Right to Farm

by Sally Worley

Grinnell Heritage Farm's Andy and Melissa Dunham are no strangers to pesticide drift. Located just northeast of Grinnell, the 80-acre certified organic vegetable, hay and livestock farm shares borders with residential areas on three sides, and a corn and soybean farm on the north.

Andy and Melissa Dunham in their high tunnel. The couple have experienced two episodes of spray drift on their certified organic vegetable, hay and livestock farm.

Drift Episode #1

The first time Grinnell Heritage Farm was drifted on was July 2009. Andy, along with nine employees, were standing in a field outside when they witnessed spray drifting onto Andy's hay field from an aerial applicator spraying the farm north of theirs.

Andy respects the farmer to the north – who does custom baling for him and Melissa – and they have a good working relationship. "In years when it's soybeans, he lets us know when he's going to spray and works with us," Andy says. However, the farmer contracts with Monsanto to plant seed corn. In those years, chemical application is not done by the farmer, but by custom applicators.

"I didn't know what to do the first time we were drifted on," Andy says. "I contacted IDALS (Iowa Department of Agriculture and Land Stewardship). I contacted Monsanto. I contacted the farmer north of us that Monsanto contracts with."

IDALS came out within three days to take samples and Andy was able to point the inspector to the part of the field where he saw particles land. When tests came back a few months later, they were positive for fungicide. IDALS asked the pilot if he had checked the sensitive crops directory, which identifies specialty crops and certified organic crops in the state; he had not. Iowa code does not require this, but checking the sensitive crops directory is encouraged. However, the applicator had violated Iowa code regarding pesticide application and was fined $700 by the Pesticide Bureau. This money goes to the Iowa General Fund.

By the time the IDALS tests had come back, Andy had already identified the applicator through calls to Monsanto, which had hired the applicator. Andy contacted the applicator and obtained his insurance information. "Once I had positive results, and IDALS issued its report and fine, it was so easy to prove the applicator had done it," Andy recalls.

He contacted the insurance company for losses: "I looked at it as three years of organic hay; I was naïve not knowing how much loss really occurred. The adjustor said you can sell conventional hay; it's not a total loss, as you're still getting some crop. We settled for a very low number." Andy and Melissa incurred additional expenses marketing and managing a conventional hay crop, since their system and markets were set up for organic hay.

Drift Episode #2

In 2013, Andy's crew was out in the field again. "I had a bunch of crew members come into the packing shed and complain about a smell," he recalls. "The smell intensified, like we were licking a railroad tie or lying on a railroad."

A view of Grinnell Heritage Farm.

(Continued on next page)

Andy went out and saw a tractor spraying the field north of the farm. He got into his car and drove to the road where the tractor would end up after its pass. "As it turned around at the end of the row, I got out of the car and waved my hands very vigorously," Andy says. "I asked if he had checked the sensitive crops and bee registries. He replied no. I asked his name, who had hired him to spray, his pesticide applicator license number and what he was spraying."

His reaction was grave. The applicator – who farms near the area and applies pesticides part-time – hadn't checked either registry; nor had anybody at Monsanto told him to. Andy: "I told the person spraying, 'It's affecting me in a negative way, you need to stop. I'm writing down the time, I'm writing down that I'm telling you that you've hurt my business. The wind is blowing 15 mph directly toward our farm. Not only have you been notified that I'm registered on the sensitive crops and bee directory, I'm going to tell IDALS you've been notified of this.' He stopped spraying and apologized."

If a farm is registered on the bee registry, Iowa code states that the applicator must notify the farm being sprayed, and that restricted chemicals are prohibited after 8 a.m. The incident at Grinnell Heritage Farm occurred between 10 and 11 a.m. and the applicator hadn't contacted anyone at the farm. The farmer who farms the land was out of state and had no idea anyone was applying anything to his farm. This was another year that Monsanto seed corn was planted on his land.

Andy received test results from IDALS in late February, which found residue of the synthetic pyrethrin Mustang Max in their asparagus field. The final report will be ready in a few weeks to months, and will help Andy and Melissa know how to respond to the applicator as well as their customers.

"I'm 100 percent sure we can't call it organic," Andy says. "Some chemicals are not labeled for human consumption and some have a long withdrawal time for human consumption. I'm guessing we're probably okay, but I want to make sure

Andy stands by a Practical Farmers sign installed in some prairie plants on his farm.

before proceeding. Our customers have the right to know, and it is our job to be transparent."

Working under the assumption that the asparagus is safe to eat, Melissa says the issue is more complex than re-certifying the asparagus after a three-year transition period and losing the organic premium.

"Asparagus is our spring CSA (community supported agriculture) share anchor," she says. "Organic standards state that non-organic crops have to be stored and separated from organic product. We don't have a separate cooler, containers, etc. to clean, pack and store conventional product. We need to make a decision about whether the asparagus is a total loss or if we're going to invest in the infrastructure to maintain our organic integrity with our other crops as well as educate our crew how to keep these items separate."

> ***"If you get drifted on, take action. Be assertive. We are not in the wrong as specialty crop growers."***
>
> *– ANDY DUNHAM*

In addition, Melissa says she and Andy usually sell excess asparagus to grocery accounts – which will likely have no interest in non-organic asparagus – as well as at the farmers market. "We will have to label it as conventional and tarnish our image," Melissa says. "On the positive side, offering it at market might provide us a chance educate consumers about the real impacts of drift and agriculture policy. If we choose to sell this asparagus, there will be extra communication costs in addition to the logistics of keeping it separate."

The Iowa Reality

Andy thinks if pesticide applicators were regularly held accountable to label restrictions and Iowa code, the state would need "50 times more spraying rigs and drivers." The current reality, he says, is that they are in some sort of violation almost every time they apply chemicals. "Adhering to labels and code would make chemical agriculture more difficult," Andy says. "Spraying occurs a lot in May, and in Iowa this is a very windy time of year. Most pesticides have wind application restrictions. Spraying in accordance with all codes and labels can happen in a very small window."

Andy uses a sprayer on his farm to apply organic-approved pesticides and says it can be tricky: "I'll get up to check wind

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Predicting Forage Quality: To Guess or Test

by Margaret Dunn

What's in a bale? Well, really, it's hard to say. Several factors play into the quality of the bale that gets put in front of animals. This is not news to many. Hay quality is affected by forage species and maturity, the timing of cutting and baling, and storage methods. While many people can identify "good" hay by smell or appearance, it still does not present the whole picture of what that hay is worth nutritionally. How long did it sit in the sun or rain before being baled? Is there enough protein for growing animals, or would it be better filler hay for pregnant cows?

Dave Schmidt

Ron Dunphy

The only way to really know what's in that bale is with a forage test. "I do it so I know what kind of hay I will be feeding my cows, and so I know differences between lots," says Kevin Dietzel of Lost Lake Farm in Jewell. "If the test shows the hay is really bad quality, I will consider buying some better hay or even grain to supplement. I also use it for planning purposes. I need to know if I need to plan on doing a lot of renovations to hay fields for better quality in the future – which I am doing – or if I need to plan on buying a lot of better hay and grain to get the milk yields I will need."

Dave and Meg Schmidt, of Troublesome Creek Cattle Co. in Exira, test hay lots before purchase to make sure they get the appropriate type of feed, and use the analyses to decide what to feed when. Jake Hartnett of Thousand Hills Cattle Co. in Cannon Falls, Minn., concurs: "We had a field of sorghum-sudangrass that had a ton of lambsquarter growing in it. We were curious about the feed value, so we sent in a sample. It was extremely digestible and it had high protein that balanced well with the (sorghum-sudangrass) that was there."

Sometimes forage testing is a safety issue, too. Jake recalls hearing of a producer whose untested forage caused cattle to gain poorly, get sick and even die. As it turned out, the forage had high levels of toxic nitrates. "A $20 forage test is worth every penny just for the nitrate test," he says.

Anatomy of a Forage Test

A standard forage test reports a number of nutrient values. All may be important depending on what class of livestock you're feeding. Some of the major values include:

- **Dry matter (DM)** – The dry fraction of a forage, i.e., 100 percent minus the percent moisture. Most nutrients are reported on a dry-matter basis, so 10 percent crude protein means that 10 percent of the dry forage is protein.
- **Crude protein (CP)** – Protein concentration of the forage. Higher is generally better.
- **ADF** – Acid detergent fiber (fairly indigestible fiber fraction). Lower is better. ADF affects how digestible a forage is, and how much of the forage an animal can physically eat.
- **aNDF** – Neutral detergent fiber (more digestible fiber fraction). Lower is better, but ruminants need some for healthy gut function.
- **Lignin** – Totally indigestible fiber fraction. Lower is definitely better.
- **TDN** – Total digestible nutrients, a value derived from other nutrient values mentioned above. Higher is better.
- **Adjusted crude protein** – Crude protein concentration, adjusted if lignin is so high that it will interfere with protein digestibility.
- **NEl, NEg, NEm** – Net energy for lactation, gain or maintenance. These values show energy content of the forage for different uses by the animal.
- **RFV (relative feed value) and RFQ (relative forage quality)** – Equation-derived indices of forage quality, based on estimated animal intake, digestibility and quality. Full bloom alfalfa has an RFV of 100, so an RFV above or below 100 tells a producer roughly how that forage compares to alfalfa. RFQ is slightly more accurate, and values are often (not always) similar to RFV.

How to Use a Forage Test

Are you buying some hay? If you can get it tested beforehand, compare nutrient values. The fastest way is to compare RFV or RFQ. Whichever value is higher often indicates the "better" forage – though this also depends on what your animals need. These values won't help balance a ration, however.

(Continued on next page)

Table 1. *Nutrient composition of two hay samples from Dave and Meg Schmidt.*

Forage	DM (%)	CP (% DM)	ADF (% DM)	NDF (% DM)	Lignin (% DM)	TDN (% DM)	RFV	RFQ	NEg (Mcal / cwt)	NEm (Mcal / cwt)
Hay 1	84.0	14.7	39.9	56.8	6.3	49.9	94.6	122.9	20.8	45.8
Hay 2	90.2	11.6	26.6	48.9	7.0	56.5	129.4	144.8	33.9	60.0

Table 2. *Daily nutrient needs of mature cows and growing steers.*

	Daily Nutrient Needs			
	DMI (lb)	CP (lb)	NEg (Mcal)	NEm (Mcal)
1,100-lb Cow in Mid-Gestation	24.2	2.0	n/a	12.4
600-lb Yearling Steer, Gaining 2.0 lb/day	14.6	1.7	3.2	5.2

Table 3. *Nutrients supplied to cattle by Hay 1.*

	Nutrients Supplied by Hay 1			
	DMI (lb)	CP (lb)	NEg (Mcal)	NEm (Mcal)
1,100-lb Cow in Mid-Gestation	24.2	3.6	n/a	5.0
600-lb Yearling Steer, Gaining 2.0 lb/day	14.6	2.1	3.0	6.7

Table 4. *Nutrients supplied to cattle by Hay 1.*

	Nutrients Supplied by Hay 2			
	DMI (lb)	CP (lb)	NEg (Mcal)	NEm (Mcal)
1,100-lb Cow in Mid-Gestation	24.2	2.8	n/a	14.5
600-lb Yearling Steer, Gaining 2.0 lb/day	14.6	1.7	4.9	8.8

Are you balancing a ration? First, make sure you know what your animals need – and then see if the forage meets those needs. Ron Dunphy, of the Miller Farm in Creston, agrees. "Without testing, how do you know if the critter is getting fed what's needed?" Growing or lactating animals require high energy, high protein and high digestibility forages. Maintaining animals need much less. "After receiving [my forage test], I enter an analysis in BRaNDS software to adjust rations for calves or cows," Ron says. Fred Abels, of K&A Acres in Holland, gets silage and hay tested and works with a beef specialist to adjust the rations as needed. "I'd recommend feed testing for anyone, with a large- or small-sized herd."

Let's look at some actual forage values. On-farm researchers Dave and Meg Schmidt have been testing hay and stockpiled forages as part of the Winter Feed Monitoring study, to make sure they're feeding the right stuff to the right animals at the right time. Dave offered to share some of the results (Table 1).

At first glance, the "best" hay (based on RFV/RFQ) is Hay 2, even though it has a lower CP than Hay 1. Recall that RFV and RFQ are based more on fiber and digestibility, to reflect how much forage an animal can eat and use. But "best" depends on what the animals need, not just an assigned value.

Now let's put this to use. Table 2 shows the daily nutrient needs of two animals: a mature cow maintaining her weight while in mid-gestation, and a steer still gaining weight towards finish.

If they're fed Hay 1, are their nutrient needs met? To find out, calculate the amount of feed they'll eat by the nutrient concentration in that feed. For the cow's CP requirements, you would use this formula:

CP consumed = DM consumed x % CP in feed
= 24.2 lb x 14.7% = 24.2 x 0.1474 = 3.6 lb CP

Table 3 shows the amount of nutrients the animals get by eating only Hay 1. This hay has plenty of protein – but not enough energy. The cow lacks maintenance energy (NEm) and the steer is a bit shy on energy for gain (NEg). Recall that Hay 2 has less protein, but more energy and digestibility – let's try that instead (Table 4).

Much better! The hay meets protein requirements for both animals, and exceeds requirements for energy. The farmer knows, then, that Hay 2 can be fed as a complete ration, while Hay 1 would require an energy supplement, such as corn or higher-quality hay, to fill in the nutrient gaps.

There's more to hay than just grass. Knowing what feeds you have, and what your animals need, contributes to happy and healthy livestock and profits. ■

Resources

Undersander, D. and J. E. Moore. 2002. Relative forage quality. Focus on Forage, vol. 4 no. 5

Parish, J. and J. Rhinehart. 2009. Beef cattle nutrient requirements. Mississippi State University Extension Service

Conversations on Extended Crop Rotations

by Stefan Gailans

Diverse crop rotations that go beyond the traditional corn-soybean system have begun to gain renewed attention after the Iowa Nutrient Reduction Strategy Science Assessment identified how extended rotations help control erosion and meet water quality goals. Potential options for extending rotations in Iowa include small grain crops like oats, wheat, triticale and cereal rye. If you're thinking about adding a small grain crop to your rotation, consider obtaining seed and planting and harvesting at times of the year that will differ from raising corn and soybeans.

Dick Sloan

Tim Sieren

Dick Sloan farms near Rowley, in Buchanan County and Tim Sieren farms near Keota, in Washington County. Both started experimenting with winter cereal rye as a cover crop between corn and soybeans a few years ago. They were impressed with the rye cover crop's ability to control erosion on their farms. Eventually, they began including winter rye in their rotations with the purpose of growing it to maturity and harvesting for grain and straw. What follows is a conversation with both about procuring seed and managing field operations in a timely manner in their three-year rotations that now include corn, soybeans and winter cereal rye plus red clover. Their experiences and insights portrayed here will be helpful to any farmer considering adding a small grain to a crop rotation.

1. *Winter rye is planted in early fall, which is different from corn and soybeans planted in the spring. When in the year do you start thinking about procuring and purchasing your rye seed?*

DICK — I am usually working with my seed dealer by July to get my certified seed ordered for fall. I am also lining up seed cleaning of my recently harvested rye grain at this time. Plans can change on into August, but get talking early.

TIM — I'm growing a lot of my own cover crop seed. However, I am going to look into getting certified seed for next year in an effort to increase the yields. Around here, if you want seed for fall, you need to have it booked by the end of August.

2. *In your rotation, the rye is drilled following soybean harvest in early fall. Does this planting operation interfere with harvesting corn?*

DICK — I try to harvest soybeans as early as they are ready and chase the combine with the drill. I have a talented friend run the drill if my brother and I are busy with corn harvest. The fields going to the rye grain crop get priority over cover crop fields.

TIM — We are usually done with soybean harvest by mid-October, which allows plenty of time for rye seeding. I try to get the rye in the ground as soon as possible because of moisture issues more than seeding date. The last few years have been very dry falls, and it's been hard to get the rye germinated.

I've seeded winter rye up to Nov. 10 with good results. The main thing is to get rye germinated before freeze-up, so it can go into dormancy for the winter. Rye seeding takes priority over corn harvest. I'm usually waiting for the corn to dry down anyway after soybean harvest. I share the combine with my brothers and we rotate it between farms, so I plant rye when they're using the combine. I can usually harvest beans and seed the rye in a week's time.

3. *Red clover is frost-seeded into the rye in early spring. When in the year do you start thinking about procuring and purchasing your clover seed?*

DICK — I talk to my seed dealer at meetings over winter and let him know what I'll want. Then I can pick it up in March on fairly short notice.

TIM —This year I booked the clover seed in January with my corn and soybean seed.

4. *Rye grain and straw is harvested in July. Does this interfere with any other operations on your farm?*

DICK — It does not interfere so it is an opportunity, but it's more work than just growing another 20 acres of corn.

TIM — Rye harvest only interferes with hay-making and the county fair. Those activities can be worked around. Again, I don't have many acres, so rye harvest is somewhat a relaxed activity, unless the weather doesn't cooperate.

(Continued on next page)

5. ***After you harvest the rye, the clover acts as a cover crop. What benefits do you perceive from the clover in the grand scheme of your crop rotation?***

DICK — A nice, thick stand of clover suppresses weeds and puts nitrogen in the ground, bees in the air and adds diversity to feed the soil biotic community.

TIM — Last year was my first year interseeding clover into rye. I was impressed with the cover I had and the fast green-up after rye harvest. The clover suppressed the weeds, kept erosion to zero and has potential for a crop of hay in late summer, which prompted me to increase the size of my beef cow herd as a result. I've tried double cropping soybeans, sorghum and field peas after rye and wheat in years past, but moisture is always an issue in getting anything germinated in July. The interseeded clover is well established and ready to grow, and does so quite well when it turns hot and dry. I'm anxious to see the nitrogen-fixing potential for the following corn crop also.

6. ***Three-crop rotations require multiple staggered planting and harvesting times. Does this help or hinder the successful management of your farm?***

DICK — I would say it helps me farm more successfully by conserving resources, polluting less and saving money. I am learning where to put the rye, wondering if it will make better use of drought-prone soils – which can run out of water about the time of rye harvest instead of the time of corn and soybean grain fill.

TIM — Staggered planting and harvest in a three-crop rotation helps to manage time and labor more efficiently. More labor is required for harvesting the straw and clover hay, which could be a drawback if summer labor is in short supply. Summer harvest is also a good opportunity to get the combine out and go over it before fall harvest season. There are also custom harvesting opportunities available for neighbors with oats, wheat and rye who don't want to mess with their combine for a few acres – if you want to make a little money on the side. On-farm storage facilities can also be used when sitting idle during the summer months.

7. ***Any final thoughts on your extended rotation?***

DICK — In effect, I grow corn-soybean-rye and soil quality is my fourth crop in a three-year rotation. The blooming legumes following rye help pollinators, while their roots reach deep adding diversity to my soils.

TIM — In this rotation, you can rotate four different crops in a three-year cycle, which should reduce disease and pest pressure. Harvesting the rye straw and clover hay adds value to the rotation, and establishing a stable market for the straw and clover hay is more challenging than marketing corn and soybeans. This is where a livestock enterprise fits nicely. ■

Read more about this conversation on extended rotations at this accompanying blog post:
http://practicalfarmers.org/blog/2014/05/01/extended-crop-rotations/

Mature winter cereal rye just prior to harvest.

New PFI Project – Capturing Farmer Knowledge of Small Grains Production

Extending a common corn-bean crop rotation to three or more years by adding small grains can help farmers reduce their input costs, manage pests and spread their workload across the growing season. But despite encouraging research and some farmer success with these crops – such as oats, wheat, rye, barley, triticale or succotash (a mixture of numerous small grains) – relatively few farmers are diversifying.

In the past, these crops were grown on almost all Iowa farms – but for many it's been two generations since they were last planted, leading to a growing gap in experiential knowledge on how to be successful with small grains. Farmers tell us this knowledge gap is a barrier to adding small grains to the rotation; many don't even have a neighbor to ask for advice.

With this in mind, Practical Farmers has begun a project to gather and share the nuts and bolts of growing small grains in Iowa. Camera and notebook in hand, staffers Drake and Stefan are visiting the farms of small grain producers – both conventional and certified organic – to talk about grain production, harvest and handling. Small grains will also be featured at several field days throughout the summer.

You will see this project chronicled in future pages of *the Practical Farmer*, as well as our blog, farminars and in the farm press. We also plan to create a series of online video vignettes to demonstrate important hands-on advice, such as proper equipment settings. This is part of a larger goal of ours: to increasingly capture and share all the invaluable information PFI members have to offer through video and multimedia.

Practical Farmers small grains work is supported by the Leopold Center for Sustainable Agriculture and the Ceres Trust. This work wouldn't be possible without our generous members willing to share their time and expertise, especially as this means having a camera in their face and equipment during the busiest times of the year!

For more information, keep an eye on our website or contact Drake at (515) 232-5661, or drake@practicalfarmers.org.

Five Generations of Farm Transfer

Let the younger generations do their own thing, advises farmer Bob Lynch

by Teresa Opheim

The Bob and Linda Lynch homestead near Gilmore City is a cozy but utilitarian setting. The 100-year-old home and old trees give a feel of history to the place, but a spanking-new garage and two large storage buildings have brought the farm into the 21st century. Seams of soil in the adjacent field reveal recent work to close an ag drainage well. (The state provided 75 percent cost share, but it was a $2.4 million project.) Cover crops are a common sight on their surrounding corn and soybean land.

In the early 1900s, Bob's great-great-grandfather came from California and bought the homestead. Lynches have lived there since. Bob and Linda Lynch are the fourth generation on this land with a fifth, Jay and his wife Emily, also farming with them and living nearby.

Bob and Linda met at Iowa State University. After graduation in 1977, they married and moved to a farm and acreage south of their current home, began farming and raised three sons. Jay, the oldest of the boys, didn't start working on the farm until he was about 16. "We didn't want the kids to think they had to farm," Linda reports. (Their middle child, Kevin, lives in Chicago and is a "big city kid"; the youngest, Ben, lives in Ames.)

When Jay graduated high school, "we told him he had to find a job off the farm for a year," Bob says. "He went to Iowa Lakes Community College in Emmetsburg and worked for a Fort Dodge farmer. When he came back, we hired him as a laborer for the first year. We knew communication was going to be essential. So we used that first year to see how it would go."

Bob grew up farming with his dad, Larry, and Linda reports that Bob and his dad are very similar in the way they think and communicate with each other. "Looking out at them, it would be hard to tell one from the other sometimes. Jay and I have a different, more direct communication style," Linda says.

During the 30-plus years they farmed together, Bob and his father shared some equipment and owned some of their own; Bob and Linda continue that arrangement with Jay. For example, Jay owns half of the planter and has his own tractor; Bob and Linda own the combine. "Having Jay buy into the equipment is a way for him to get equity in the operation," Bob says. "If Jay just paid rent on my equipment, he wouldn't be building up that equity."

Altogether, Bob and Linda farm about 1,000 acres, 800 of it rented; Jay owns and rents some of his own land as well. They farm a dozen parcels and have seven landlords "who all want to communicate a bit differently," Bob says. "I treat their ground the same as my ground. There is a lot of trust there."

Several years ago, Bob's parents said they were concerned the farm would be sold when they died to help pay the estate taxes (many thought the federal tax exemption rate would be lowered to $1 million, which did not happen; the tax-free limit for an individual is $5.34 million in 2014). So Larry and his wife, Esther, who now live in Humboldt, gifted the homestead portion of 90 acres to Bob. "If I ever want to sell, it will be $900 an acre basis – but I will never sell it," Bob says, pointing out the capital gains implications of selling land this is now roughly $12,000 per acre. "Each of my two sisters will get 90 acres when my parents die. We just got ours early."

Larry and Esther still own 180 acres, which will be divided equally among their non-farming offspring when they die, and they gifted another 100 acres to Bob and his two sisters through a partnership agreement recently.

What is Fair?

Would it be more equitable for Bob to have received more than a one-third interest of his parents' farmland, as he stayed, improved it and did more than his share of taking care of elderly relatives while his two sisters moved on?

Bob and Linda both report they have indeed received a benefit for staying home farming. "I will get the income on the farm they sold us while they are still living," Bob explains. "My folks will live off the income of the other two farms for the rest of their lives and use that income to help pay for

"I don't want Jay to be 50-something and not ever have been in charge . . . . I don't want to be 75 or 80 and still farming, even though it is easier to do that now physically. We want to keep younger generations learning and doing their own thing," Bob says.

Esther and Larry Lynch

Jay, Linda and Bob Lynch

long-term care expenses they might need. Plus, it's up to my folks to decide how they want to divide their assets anyway; it's not up to me.

"My dad bought the farm from his dad. My granddad had to pay the capital gains tax. I told my dad I would rather inherit the farm than purchase it. At first he wasn't interested in talking about a gift of the land while they are living. But they did agree to sit down with a financial expert, and that adviser suggested reducing their assets. I'm grateful to them that they shared the land now."

Linda sees the equal distribution as fair: "We make a living off the land, and we are paid for our work. It was a blessing for us to be close and help Bob's grandma as she got older and passed."

Bob and Linda also own 80 acres to the south of the homestead, and he hopes to purchase his sisters' shares of the 100 acres that they own together, "so that there would be three parcels in a row." Bob and Linda are beneficiaries on two life insurance policies on his parents; proceeds from those policies could be used to buy the farmland.

Making Space for the Next Generation

Bob remembers fondly planting his first rows (they were crooked, he reports), and being given responsibility to try things himself in his early 20s. When he and Jay started farming together, he says he used to run the combine. "Then one day, Jay wanted to do it," Bob says. "The next day he showed up and wanted to do it again. I said, 'Well then you fuel it and grease it as well.' That taught responsibility – the sooner the better for retiring."

Retirement will have to wait a little longer, Bob says, as Jay has just started a seed business with Syngenta (the reason for the newest storage building), which "is going to pull us back into the farming operation a little longer." Bob doesn't mind, however, as he believes it's good for Jay to diversify his income with the seed business. "The way we farm doesn't keep you busy full-time anyway," he quips.

But looking longer-term, Bob doesn't want to be in the day-to-day operations in the future. "Linda and I hope to travel and be back here to help with planting and harvesting. I don't want Jay to be 50-something and not ever have been in charge," Bob says. "I know a farmer in his middle 60s who had never planted or harvested a kernel because his dad always did that. I don't want to be 75 or 80 and still farming, even though it is easier to do that now physically. We want to keep younger generations learning and doing their own thing." ■

Reaction from John Baker
(Attorney with the Beginning Farmer Center):

- "This family is doing a good job working through transition issues. Bob and Linda did this just right by requiring that Jay work off the farm, to ensure that he really wanted to return to the farm. Also, hiring him as an employee for the first year was good, because it would have made it easier for Jay to leave if it did not work out.
- Having Jay own his own equipment is an excellent way to build equity.
- Bob should consider a buy-sell agreement for the land he owns with his sisters. This will ensure the ownership of the land is not fractionated if either sister wants to sell it in the future.
- Bob and Linda should make sure they transfer strategic decision-making authority, as well as tactical (day-to-day decisions) to Jay as well.
- It is wonderfully perceptive to back off and let the younger generation take over."

Summer in a Bag: Iowa Choice Harvest Links Consumers with Locally Grown Frozen Produce

by Tomoko Ogawa

With wholesale frozen produce, the secret to quality lies in two key factors: good ingredients to start out with, and swift processing from field to freezer. This quality is unmistakable in Iowa Choice Harvest's frozen corn and apples: If you sample some, the fresh taste and texture immediately stand out, and might make you wonder if you're eating frozen produce at all. It is the essence of summer in a bag – only better, because it's available all year. How does Iowa Choice Harvest achieve this feat? By working with local farmers to harvest their fresh produce, sell it and have it frozen and packaged within a day.

The Seeds of a Big Idea

In 2006, 13 farmers began discussing their vision for a company that would process Iowa-grown fruits and vegetables. Between 2001 and 2006 they had all participated in a yearlong business planning course called Grow Your Small Market Farm, run by PFI member Penny Brown Huber. Penny, who is executive director of Prairie Rivers of Iowa, is today also CEO of Iowa Choice Harvest.

During those early years, she started a conversation with some of the participants: What would they think about starting a local food processing business that would a). create a wholesale market for Iowa vegetable and fruit growers, and b). provide Iowans with quality, local produce all year long? The farmers were all eager: The lack of wholesale markets had been a glaring gap in Iowa's local food economy. Seven years after the seeds were planted, Iowa Choice Harvest LLC opened its plant and started processing sweet corn and apples in August 2013, using 100 percent Iowa-raised produce. PFI members Craig and LaVon Griffieon, who farm near Ankeny, supply the sweet corn, and apples come from eight orchards across Iowa. Today, Iowa Choice Harvest has two full-time staff and two half-time staff, as well as 26 member-owners (60 percent farmer and 40 percent non-farmer, all Iowans).

From Idea to Reality

The member-owners conducted extensive research to build a solid business plan. They researched processing options and decided on freezing, based on the kinds of products available in Iowa. The group traveled to Nebraska to visit the Food Processing Center at University of Nebraska-Lincoln, which offers various food processing trainings and workshops.

Penny Brown Huber

The group also researched funding options. To date, Iowa Choice Harvest has been awarded two USDA Value-Added Producer Grants, one for planning and one for marketing. It has also received USDA's Business and Industry Guaranteed Loan. "Receiving two grants and a loan were critical moments that made the biggest difference in our efforts to create the business," Penny says. She adds that these USDA grants are the only ones that "directly empower [farmers] to create the market."

After creating a solid business plan, they were ready to take action. The first order of business: finding a suitable plant – a task that proved more difficult than expected. Member-owners spent much of winter 2012-13 looking, only to find there were no food-grade plants in Iowa with the infrastructure capacity they needed. They decided to build their own facility, after one of the members – who owns a large warehouse in Marshalltown that houses several other businesses – offered the group 10,000 square feet of space inside.

Need Begets Business

Business has quickly accelerated. Since October 2013, Iowa Choice Harvest has processed approximately 3,000 pounds of apples daily – about 80,000 total pounds – and 110,000 total pounds of sweet corn. Penny says the company has contracted all the sweet corn acres it can process in 2014.

New products are also in the offing. This year, Iowa Choice Harvest plans to add aronia berries, and in 2015, asparagus and rhubarb. It will also explore more crop varieties in the future, such as blueberries, strawberries and carrots. Penny says she receives a few phone calls a week from farmers interested in selling to Iowa Choice Harvest. In addition to flash-freezing

(Continued on next page)

ON GROWING SWEET CORN FOR IOWA CHOICE HARVEST

> *"It's another way to diversify our farming operation while making locally grown, healthy, fresh foods available to Iowans year-round."*
>
> *– LaVon Griffieon*

Craig Griffieon

produce under its own label, Iowa Choice Harvest offers a custom freezing service (known as co-packing) to farmers. With this service, the company will quick-freeze and return crops to producers who want to market the crops on their own, rather than selling it under the Iowa Choice Harvest brand.

While the founding farmers were thorough in establishing Iowa Choice Harvest, this rapid growth and strong demand since the business launched indicate the vital need it has filled in Iowa's local foods scene.

Besides creating new opportunities for Iowa fruit and vegetable producers, Iowa Choice Harvest is helping to connect producers to new customers. Simply through word of mouth, for instance, Penny says the company has learned about apple orchards it never knew existed. "Orchards we purchased from in the beginning started to refer other orchards," she says. "I think we've provided a missing link for apple orchards." Based on this experience, she thinks aronia berry growers would benefit from aggregating and marketing together to Iowa Choice Harvest – as well as by collectively investigating other markets, instead of each producer trying to find markets individually.

"Currently there are over 400 acres of aronia berries in Iowa," Penny says. "One mature aronia berry bush can produce 20 to 50 pounds of berries. That's a lot of berries! Having plans for markets immediately after the harvest will be important for aronia berry producers."

> *In 1924, Iowa had 58 sweet corn canning facilities in 36 counties; by the late 90s there were just two.*

Wholesale Saves Labor, Promotes Diversity

Beyond the broader value of creating a new link in Iowa's local food system, Iowa Choice Harvest offers producers more practical benefits as well: It saves them time and labor, and encourages on-farm diversification by creating an outlet for those new products. Craig and LaVon Griffieon have been member-owners of the company since the beginning. In 2013 they grew 55 acres of sweet corn and delivered 19 truckloads to Iowa Choice Harvest. "It's another way to diversify our farming operation while making locally grown, healthy, fresh foods available to Iowans year-round," LaVon says. She adds, "Having a local processing business like Iowa Choice Harvest is a win-win for Iowans and the local economy." There used to be many more in Iowa. A study by the Leopold Center for Sustainable Agriculture, conducted by Rich Pirog and others, found that in 1924 Iowa had 58 sweet corn canning facilities in 36 counties; by the late 90s there were just two.

The Griffieons say they couldn't believe how good their frozen corn tasted. After much research, Craig chose two non-GMO sweet corn varieties recommended by the seed company. While Iowa Choice Harvest values "earth-conscious farming" and cares about both the farming practices and quality of the crops it processes (owner-members visited each orchard before purchasing product), Penny says the company is not exclusive and does not require specific farming practices.

Of their experience of being involved in starting a local food processing company, LaVon says: "It's been a long process, with a steep learning curve and a leap of faith. But it has been gratifying to see the business finally materialize. When we planted all those acres of sweet corn before the processing plant was hardly started, I knew in the back of my mind the possibility of sitting on the corner with a truckload – a dump-truckload, not a pick-up load – of sweet corn for sale was a real possibility."

Consumers who are interested can now find Iowa Choice Harvest's products at several Hy-Vee stores and all of Dahl's Foods stores, as well as several restaurants, retirement communities, colleges and food cooperatives in central Iowa. Hometown Foods, a local grocery store with seven stores in east-central Iowa, also recently started to carry Iowa Harvest Choice products. And in April, all Fareway Stores across Iowa started carrying Iowa Choice Harvest's products. ■

If you are interested in selling produce to Iowa Choice Harvest, taking advantage of the co-packing service or want to learn more about the company, contact Penny Brown Huber at (515) 232-1344 or pbrownhuber@iowachoiceharvest.org.

Beginning Farmer Retreat Recap

by Luke Gran and Liz Kolbe

Farmer networking was a top priority of the sixth annual Next Generation Retreat, which took place Feb. 21-22 in Cedar Falls at the Center for Energy and Environmental Education (CEEE) on the University of Northern Iowa campus. Forty people attended the event, which included an overnight stay and provided opportunities for small and large group discussions and informal socializing. At the request of our beginning farmers, discussion topics for the retreat included: strategic business plan decision-making, production information, farm budgets and financial statements.

Two strategic coaches – farmer Tom Frantzen of New Hampton, and entrepreneur Dick Schwab of Solon – were matched with beginning farmers for an opening retreat activity. Ahead of the retreat, the coaches helped beginners communicate the goals, vision, mission and values that drive their businesses. At the retreat, the beginners and coaches shared these business plan components in an open discussion with attendees as a springboard to further in-depth group work. Andy Hunziker, from Boone County Iowa Farm Service Agency, met individually with beginning farmers throughout the day to give financial consultations.

"I enjoyed my meeting with the FSA rep and think everyone could benefit from hearing a quick summary on how to conservatively approach farm loans," one beginner commented.

Another beginner shared an appreciation for Tom's frankness. "He tells it like it is. New farmers often are not told enough about the tough times."

Beginning farmer Tyler Albers agreed: "Talking with Tom was awesome. It really got me thinking about some deficiencies in my operation that I think we are now getting a much better handle on."

The final activity on Friday featured beginning farmer Kate Edwards, of Wild Woods Farm; experienced producer Susan Jutz, of ZJ Farm; and entrepreneur Dick Schwab. The trio founded The Farming Institute – and are collaborating to help grow more successful farms in Johnson and Linn counties. Their example shows how innovative approaches and working together can produce greater profits for Iowa horticulture farmers.

On Saturday morning participants arrived at CEEE for a hot breakfast buffet and a morning filled with small-group discussion, organized by farm enterprise. Group leaders included:

- **Tom Frantzen** – Hogs and Holistic Management
- **Marcus and Emma Johnson** – Planning Orchards into the Future
- **Wendy Johnson** – Budgeting for Hay and Sheep
- **Rob Faux** – CSA Vegetables and Farm Finance
- **John and Sarah Gilbert** – Diverse Grain and Forage Crops in Rotation

All food enjoyed at the retreat was purchased from PFI members, including: Buffalo Ridge Orchard, FarmTable Delivery, Frantzen Family Farm, Lee's Greens and TableTop Farm. Wheatsfield Cooperative donated a fine tea assortment. ■

Did You Know?

- A beginning farmer is classified as someone farming 10 or fewer years
- As of April, PFI has more than 650 beginning farmers who are members – that's about 26 percent of the membership!
- The top five crop enterprises are: **1).** Vegetables **2).** Corn **3).** Soybeans **4).** Alfalfa / hay **5).** Herbs and flowers
- The top five livestock enterprises are **1).** Beef cattle **2).** Poultry – eggs **3).** Poultry – meat **4).** Sheep – meat **5).** Swine
- At least 40 percent of our beginning farmer members are women

What Do Beginning Farmers Say About the Retreat?

"We're not alone!"

"I was happy to hear how there was a real interest in collaboration."

"I liked the informal sit-down session with different enterprises a lot. Farmers sharing real numbers is always the best."

"I loved the networking – there was a good amount of time dedicated to networking and it was incredibly beneficial."

"I enjoyed looking at budget numbers and being able to talk to other farmers."

"It is nice to see others have the same questions and concerns."

"I especially liked the small-budget conversations split by enterprise. So incredibly helpful, and didn't waste anyone's time."

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▲ ***Above:*** *Beginning farmer Barton Howard speaks with Tom Frantzen.* ► ***Right:*** *Rob Faux (red cap) leads a group discussion on CSAs and farm finance.* ▼ ***Below:*** *Marcus and Emma Johnson (left and middle) converse with Daniel Reading.*

▲ ***Above:*** *Luke Schuldt (left) speaks with Martha McFarland during one of the retreat sessions.*

◄ ***Left:*** *Retreat attendees have abundant opportunities to network, learn from each other and ask questions of experienced farmers.*

▼ ***Below:*** *Sarah Gilbert (red shirt) and her husband John (across the table in green shirt) lead a group discussion on diverse crops and livestock farm budgets.*

Iowans Making a Difference in D.C.

Soon after passage of the new farm bill, PFI member Andrew Pittz traveled to the Capitol to advocate for important programs

by Drake Larsen

The new farm bill – The Agricultural Act of 2014 – was signed into law on Feb. 7. Following two years of delays, the new bill brought with it some fundamental changes. Certain staples of past farm bills, such as direct payments, have been repealed. Other programs continue with large modifications, and several new programs are also now available. The bill authorizes $956 billion in spending over the next 10 years.

It's a Process

Rather than being the end, the passing of the omnibus farm bill is only the beginning of a long process. Nearly 450 complex provisions now need to be translated into on-the-ground programs that work for farmers and their communities.

On the Hill – much like in Practical Farmers' work in Iowa – face-to-face interaction and sharing of stories is one of the most effective ways to ensure federal programs are implemented in ways that bring real and productive results. The farmer fly-in approach is one of the most persuasive ways to communicate the needs of farmers to members of Congress and others, such as the USDA, involved in farm bill programs. Through our partnership with the National Sustainable Agriculture Coalition (NSAC), PFI regularly provides opportunities for our farmer members to participate in shaping farm bill policy.

Andrew Pittz, of Sawmill Hollow Family Farm near Missouri Valley, took advantage of one of these opportunities in late March. Andrew, who grows aronia berries on his fifth-generation family farm, traveled to Washington D.C. to meet with his congressmen and agriculture leaders to discuss the Sustainable Agriculture Research and Education (SARE) Program and the Beginning Farmer and Rancher Development Program (BFRDP), along with other programs that interest him, including specialty crops and conservation. Andrew was able to meet with U.S. Rep. Tom Latham's agricultural policy staffer and with Sen. Tom Harkin for meetings that he describes as "out-of-the-park positive."

"Our best elected officials want to hear from Iowa farmers – what's working, what's not and what programs can best serve Iowa agriculture," Andrew says. "I was really honored to have the opportunity to share."

Iowans Talking to Iowans

The first reaction when farmers are offered the opportunity to join a farmer fly-in is often one of hesitation. Many wonder what they can offer to the process. The answer is: Farmers can offer a lot! Policymakers are sometimes elevated to iconic status, causing many citizens to believe that their representatives are inapproachable. But when it comes to agriculture and land stewardship, farmers are the experts – and policymakers want to hear from you.

Andrew, who has been to D.C. several times for farm bill and sustainable agriculture issues, remembers that he too initially shared this impression. "I felt some nervousness in my first meetings. But I told myself these are Iowans and I like talking to Iowans," Andrew says. "And really, it's no different whether you are in a Senate conference room or at the county fair. In Iowa we're all neighbors. Our communities work better when we share ideas, respect our interesting differences and work together on common-sense solutions."

The staff at NSAC helps to make the fly-in process trouble-free by arranging many of the meetings, as well as taking care of travel and lodging. If needed, NSAC will also provide talking points, and its office – right next door to the Supreme Court – offers a home base for storing luggage or simply getting off your feet for a few minutes.

The 2014 Farm Bill in a Nutshell

There's a lot to it, but here are some details on a few programs important to Practical Farmers members:

1. **Beginning Farmers**
The new farm bill will invest $444 million into beginning, veteran and socially disadvantaged farmer

Andrew Pittz of Sawmill Hollow Farm had a chance to meet Iowa Sen. Tom Harkin in late March, during a farmer fly-in organized by the National Sustainable Agriculture Coalition.
(Photo courtesy of NSAC)

During his sit-down with Sen. Harkin, Andrew told the senator why SARE, beginning farmer, specialty crops and conservation programs are important for farmers.

(Photo courtesy of NSAC)

initiatives over the next 10 years – an increase of 154 percent over the previous farm bill. The bill makes giving beginning farmers access to credit a priority and gives lenders more flexibility on what counts as "farm management experience" when considering applicants for farm ownership loans. Other changes should also make it easier for beginners to access federal crop insurance and give them priority status for Value-Added Producer Grants.

Perhaps the best news on the beginning farmer front is the influx of $100 million into the Beginning Farmer and Rancher Development Program, a program PFI has relied on before but which most recently was unfunded. Unfortunately, the Beginning Farmer and Rancher Individual Development Account (IDA) program – focused on financial planning and savings – went unfunded, again. But IDA remains in the new bill and hopefully funding can be secured during the budget and appropriations process going on now.

2. Working Lands

Farm bill conservation programs took an overall cut in 2014, the first time this has happened since before the 1985 bill. Much of the decrease is attributed to streamlining programs with the hope of continued conservation benefits with greater program efficiency. The final bill cut the Conservation Title by $4 billion over 10 years, and the total cut will exceed $6 billion with pending cuts as part of the sequestration.

A big win for working lands conservation, the Conservation Stewardship Program (CSP), remains intact and is now the biggest conservation program as far as acres enrolled. While the details are yet to be sorted out, the program includes one piece of important new language that should pave the way for the Natural Resources Conservation Service (NRCS) to begin providing financial assistance for farmers interested in writing a comprehensive conservation plan. Previously, the NRCS was not allowed to provide payments for practices that do not incur costs, despite the fact that writing a comprehensive farm plan can be time-intensive.

The final farm bill cuts the Environmental Quality Incentives Program (EQIP) slightly. However, new reporting rules related to EQIP require that NRCS publicly report project outcomes, lessons learned, and successes and challenges from implementing the program, which should bolster its success into the future. As part of an overall push to reduce the total number of conservation programs, the Wildlife Habitat Incentives Program was rolled into EQIP.

3. Direct Payments and Crop Insurance

The direct and counter-cyclical payment programs and the average crop revenue election program – all cornerstones of past farm bills – were repealed and replaced by two new risk management programs that farmers will get to choose from: Price Loss Coverage and Agricultural Risk Coverage (ARC). Both can be selected based on county yields on a crop-by-crop basis, or a farmer can choose a whole-farm ARC for the entire farm. Essentially, the new choice is one between a revenue guarantee and a price guarantee. The choice is irrevocable and will be tied to the land for the life of this farm bill. As of newsletter press time, the deadline and many of the program details have not yet been set.

4. Food Stamps

Those who follow farm bill politics will know that food stamps – formally known as the Supplemental Nutrition Assistance Program (SNAP) – are usually a hotly contested issue; that debate was no less heated this time around. I'll refrain from presenting the polemical details here, save for mentioning one new and exciting feature: A provision was added that will now allow for SNAP benefits to be accepted "in advance of food delivery" such that purchase of a CSA share is now possible using food stamps.

The new farm bill was long in coming – but feedback from many farmers around the country was instrumental. Whether it's the farm bill or another important policy issue, Andrew thinks it's essential for farmers to be involved: "We've got a great feedback loop on our farms and small businesses here in Iowa. We need to extend these conversations to D.C. and make sure our elected officials are a part of our feedback loop." ■

Going Solar at One Step at a Time Gardens

Energy needs, cost and reliability help decide the system

by Liz Kolbe

As part of on-going work in the On-Farm Energy Program, Practical Farmers is catching up with farmers who have worked to reduce energy use on their farms and installed renewable energy systems. In this feature, I spoke with Tim Landgraf, who operates One Step at a Time Gardens with his wife, Jan Libbey, near Kanawha. In the following conversation, Tim reflects on his and Jan's decision to install solar panels, from selection and funding to their experience with the system so far.

Steve Guyer (left), a solar array installer, with Tim Landraf at Tim and Jan's energy-focused field day last summer.

Tell me about your decision to install solar photovoltaic panels.

Tim:

Jan and I have been tracking our electrical energy use since 1993, a couple of years after we moved to the farm. Our plan was to understand how much energy we were using, and when (on a monthly basis). The goal was to target energy reductions and plan for renewables, either wind or solar. Solar was priced at such a high cost per watt that we only focused on wind for many years. As our farm enterprises grew, we found that the average pattern of energy production from wind in Iowa did not match our energy usage. Wind in Iowa tends to be strongest during the seasonal changes (spring and fall), followed by winter, with summer being the lowest production. Our energy use pattern was highest in summer, followed by spring, then fall and lowest in winter. Solar was a much better fit.

Another factor in this equation: We were attached to the grid system through Prairie Energy Cooperative, our area Rural Electrical Cooperative (REC). Prairie Energy offered a small amount of net metering, but this quota had been filled for many years. Net metering would have allowed us to bank energy production from low usage periods for credit during high usage periods, and would have improved the feasibility of wind production for us. So we waited, and saved up our money.

In 2012, with the beginning of the dramatic reduction in solar panel cost per watt, we contacted a certified solar pv (photovoltaic) installer and applied for a USDA Rural Energy for America Program (REAP) grant. The application was for a solar pv system capable of supplying 75 percent of our on-farm electrical usage. We did not receive a REAP grant in 2012, but decided to go ahead and install a scaled-down version of the system. In late September 2012, the 5.76 kW (direct current, or DC) system was installed and powered up. This system has provided approximately 25 percent of our electrical usage.

Meanwhile, with much help from Rich Schuler, Practical Farmers' energy consultant, we launched a project to reduce the energy use of our outdoor walk-in cooler, which was our single largest energy consumer on the farm. This project has been the primary contributor to a 15 percent reduction in total electrical energy usage on the farm.

In 2013, we learned that the REAP application was valid for two years, if we wanted to submit the application again. We did re-submit it and learned in the fall that we were awarded the grant. The grant covers expenses incurred since the original application was submitted (March 2012), and is active for two years after the award is made – meaning we have until late 2015 to finish the project.

Due to the reduction of total energy usage on the farm, we have decided to reduce the total size of the project when compared to the grant application. In the spring of 2014, we will be installing an additional 8.25 kW (DC) of solar panels, bringing the total package to 14.01 kW (DC).

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What were the crucial steps in getting your grant funded?

Tim:

Interesting question. If anything we did on the application had an impact, the key seemed to be improving how the project is scored by USDA. The application process includes a section on self-assessment, meaning that the applicant scores the project as part of the submission. USDA reviews the application and adjusts the scoring. Each year, money is allocated to each state that wants to participate in the program. States tally up their applications (individual scores and project costs) and compare that to the funding available. Awards are made to those projects with the best scores until the money runs out. Any unspent money or unawarded projects are forwarded to USDA at the national level, which then holds a second award program. We received our award based on this second award program at the national level.

What types of panels and inverters are you using and how did you decide on these?

Tim:

This can be a long answer. We have greatly relied on the advice of our installer. Let's do the inverters first. To do that, we have to do a review of high school physics.

Solar pv generates DC (direct current) power – the kind that is stored in a battery. Most of our homes use AC (alternating current). In order to use the power from pv panels, we need to convert it from DC to AC. This is done through the use of an inverter. The inverter will cause a slight loss of efficiency. In the simplest terms, there are two classes of inverters normally used: whole-system inverters and individual panel inverters, or micro-inverters. We chose micro-inverters. The total system cost will be slightly larger with micro-inverters, but there is one serious advantage: A system inverter will limit the output of all the panels to the output from the lowest-producing panel. So, for instance, if it snows and we brush off the snow from all but the top row panels, then the output of all the panels will be limited by the output from this top row. Micro-inverters maximize the output from each individual panel, thus maximizing the output for the entire array in the situation described above.

Solar panels on Tim Landgraf and Jan Libbey's farm.

As for the panels, there are several factors to consider. First, long-term stability of the manufacturing company. These panels have a fairly long warranty period, so we want a company that plans to be in business a long time. We have relied on our installer here. Next, output size (in watts) per panel and cost per panel. I put these together, since the choice needs to consider both. Generally, the higher the watt output per panel, the greater the cost per panel. But this relationship is not linear. Recent developments in pv panel manufacturing have significantly increased the wattage output for a standard-size panel. However, the cost per watt produced is much more than for lower wattage panels. If space at the installation site is limited – for instance, for a roof mount installation – then one might want to maximize the energy production, even though the panel cost per watt generated is higher. If space is not an issue, then one can choose panels with a lower panel cost per generated watt. Our original array has 24 panels that each produce 240 watts (24 x 240 watts = 5,760 watts or 5.76 kW). The new array will have 33 panels that each produce 250 watts (33 x 250 watts = 8,250 watts or 8.25 kW).

Is everything working as expected? Winter maintenance issues?

Tim:

We have been very pleased with the system's performance. The only maintenance has been to brush the snow off the panels. The snow will melt off the panels eventually, but brooming it off just speeds up the process.

We chose a system with no moving parts. Everything is fixed to the ground. A compromise is made regarding the tilt towards the seasonal sun, as well as the daily sun movement compared to single or double axis mounts. The result is a lower installation cost, a lower annual output and much lower maintenance costs (none). Also noteworthy, the warranty for most single or double axis mounts is something like 90 days. Given that the panels have a warranty period of 25 years, this might raise some questions as to the reliability of the moving parts. ■

From "Perspiration to Inspiration": Creating New Ideas Through On-Farm Research

by Tamsyn Jones

In the winter issue of* the Practical Farmer*, we introduced a new recurring section that would explore and reflect on the legacy, impact and wisdom of Dick Thompson, PFI co-founder and visionary farmer. One of the ways we said we planned to do this was by revisiting* Thompson Alternatives in Agriculture*, a publication that, until Dick's illness and death last August, was updated annually by Dick and Sharon chronicling their on-farm research and other discoveries.

In his Dec. 5 tribute to the life of Dick Thompson, delivered during the 2013 Cooperators' Meeting dinner, Rick Hartmann said that, for him, the important and influential part of *Thompson Agriculture Alternatives* was not the research results, but rather "the introduction, the first chapter and the last chapter. In these sections, there are no replicated strip trials, but there lies a de facto farm manual. This manifesto of guiding principles tells what integrated, or sustainable agriculture is, why it is important and how to do it – no matter what crops you raise or what your role in agriculture."

Following on Rick's words, last issue we shared the first paragraph of the first chapter, which began with these powerful words that resonate as true today as when they were first written: "Our experience tells us that there are no quick answers to solve agriculture's problems." It was this philosophy that led Dick and Sharon to pursue a lifelong quest to use on-farm research and demonstration as a key means to seek the continually evolving answers that would make their farm sustainable economically, environmentally and as part of a farm community.

Farmer-led on-farm research and demonstration remain a core part of Practical Farmers. With the 2014 spring and summer field day season now upon us, this is an appropriate time to consider some of Dick's own musings on why on-farm research was so important for their farm. The following words come from page 11 of the Introduction:

> *The new ideas we share came by inspiration and perspiration. The ideas then need to be tested. The replicated and randomized long narrow test strips that are farmer manageable, has helped us determine what practices are right for this farm. We tell other farmers to use the same process on their farm.*

Later on in Chapter 1, Dick and Sharon elaborate more on why on-farm research is so important: Not only does it help reveal answers to challenges that before seemed frustrating, inevitable, unprofitable or unsustainable, but on-farm research is a bridge to better dialog with others, such as farmers who are doing things a little differently, a skeptical neighbor and the public. As they write:

> *The vast majority of financially stressed farmers perceive they cannot jump from one extreme to another. Conventional farmers perceive that the organic movement is asking them to make a complete change from step A to step Z all at one time. This has given the organic movement a bad name and has built many walls between people. The perception needs to be changed to a practical, sensible approach of moving from step A to step B and then step C and then continue moving toward Z.*

Through on-farm research, they continue, we can change the perception of the sustainable movement "by emphasizing positive practices as diverse rotations, rotation of tillage and various kinds of conservation practices that increase profit, take better care of the resources and are ultimately kinder to people."

"We have the data that proves the above statement is true," Dick and Sharon say, "so let's use the information in a positive way that will be more inviting to other farmers." This belief remains central to PFI today – and is one reason you can see farmers from across the spectrum interacting, in friendship, at our field days. We hope to see many of you at field days this season! ■

Want to see farmer-led research in action?

Here are field days scheduled for this coming year that involve our farmer-researchers:

Horticulture:

- **June 22** – ***On-Farm Pollinator Research*** – Blue Gate Farm, Jill Beebout and Sean Skeehan
- **Aug. 3** – ***Worm Castings Trial*** – Rolling Acres Farm, Denise O'Brien and Larry Harris
- **Aug. 17** – ***Whole Farm Financial Project; Yield Data Collection; On-Farm Pollinator Research; Cover Crops*** – Genuine Faux Farm, Rob and Tammy Faux
- **Sept. 13** – ***Compost Heat Generation*** – TableTop Farm, Sally Gran and Rich Schuler

Livestock:

- **Aug. 21** – ***Grazing Management and Pasture Design*** – Bruce Carney

Field Crops:

- **June 10** – ***Three-Crop Rotation; Cover Crops*** – Tim Sieren
- **June 19** – ***Three-Crop Rotation; Cover Crops*** – Dick and Diana Sloan
- **July 19** – ***Neonicotinoid-Free Soybeans; Soybeans Planted into Standing Rye Cover Crop*** – Bob and Linda Lynch
- **Aug. 26** – ***Early-Maturing Corn and Soybeans and Cover Crops*** – Jon Bakehouse

Leave A Legacy

"I believe in PFI's values and mission. I want to see it continue into the future."

— RICH PIROG

There are ways to provide for your loved ones AND leave a legacy for Practical Farmers of Iowa. You can do both, and it's easy.

- *Designation of your retirement plan for PFI*
- *Leave a life insurance policy*
- *Make a gift through your will*
- *Make a gift now and receive income for life with a charitable gift annuity.*

Many such gifts can help you and your family today as well as help our mission years into the future. You can put some in place today without affecting your cash flow during your lifetime.

Want to learn more? Contact Teresa Opheim, executive director, at (515) 232-5661 or teresa@practicalfarmers.org.

** Important: Consult with your own legal and financial advisors before making any planned gift. **

Spray Drift at Grinnell Heritage Farm (cont'd)

(Continued from page 6)

speeds at 3:30 a.m. so I can be done spraying before the wind picks up. I don't spray crops that are flowering because those crops attract pollinators, and I don't spray crops that will be harvested that day. We follow the label and only apply according to our integrated pest management plan. We care about our crew, the environment and we do not want to harm our beneficial insects, fungi and soil microorganisms."

Not only is drift ubiquitous across Iowa, it is often difficult to identify the responsible party. In the IDALS case files, there are multiple instances where the conclusion to the study is: "Closed without penalty due to inconclusive results; multiple farms spraying and fault could not be discerned."

In addition, investigators have to navigate many channels to find who is accountable, even if the farmer knows where the drift came from. "Large companies like Monsanto have bigger legal budgets than us, and insulate themselves effectively from being accountable," Andy says. For instance, when tracking down who is at fault, the path can lead from the farmer or landowner, to the cooperative contracting spray, to the aerial consultant, to the service applying drift.

Right to Farm

Drift is not an issue only for certified organic farms or those that sell produce. It is also an issue for farms with livestock, non-GMO crops, farm homesteads and humans. For example, some corn farmers don't apply Roundup to their fields – but they plant Roundup-Ready corn to avoid losses when their neighbors apply the product to their fields.

Andy recommends sending certified letters to neighbors, letting them know you exist. "It almost makes you feel a villain, telling the neighbors what they can't do," he says. "Alternatively, they're doing something on their land that is drifting onto my land and impacting my business. I now intend to send a certified letter to Monsanto, letting them know I'm here, have drift-catching equipment and am registered in both the sensitive crops and bee directory. In the letter I let them know that I'll protect my business as much as possible." Melissa says the letter doesn't have to be negative. "it's about educating them as much as anything. It's possible to have a good conversation with your neighbor," she says. "We realize we're lucky that our neighbor is as receptive to feedback as he is. That's not always the case for other farmers."

Andy recommends a proactive stance. "If you get drifted on, take action. Be assertive," he says, adding that specialty crop growers shouldn't simply concede that we they to put up with drift. "They're violating their applicator's license. This is not something they should be doing. We are not in the wrong as specialty crop growers." Andy points out that chemical applicators don't need to change ther practices because of specialty crop growers. Rather, they should be adhering to Iowa code regardless of farm type, everywhere in the state.

"If they say they make too many concessions for us – they're drifting everywhere," Andy says. "And if a product cannot be safely applied without drift or volatilizing even in ideal conditions, it should not be on the market." ■

To share your drift story or learn more about responding to drift, contact Liz Kolbe at (515) 232-5661 or liz@practicalfarmers.org.

Converting Cropland for Livestock: Is Pasture or Forage Best?

Compiled by
Margaret Dunn and Erica Andorf

In early March, new member Jeff Roe called the PFI office to ask Margaret Dunn, our livestock coordinator, about converting some of his northern Iowa cropland into pasture or forage for his beef cows and goat herd. The animals currently receive baleage from winter rye cover crops and corn silage from some acres, but the cost of custom harvesting and plastic was getting prohibitive. Jeff wanted to know his options, and any advice on what he should plant to make the best use of his land and resources to get the most return on investment. After discussing the relative merits of permanent pasture and annuals, Margaret ultimately referred him to the real experts – other PFI farmers. Here are some highlights of what became a very informative exchange on the livestock email discussion list.

"The best answer is to walk into NRCS and sign up for EQIP (Environmental Quality Incentives Program," Fred Abels advised. "With that you'll get help with a grazing plan and forages to use for your situation." He said that reed canarygrass and kura clover have served him well.

Joe Sellers mentioned the importance of stockpiling forage and picking species that retain quality after frost, as these "can reduce cow costs by grazing stalks. Be sure you come up with a flexible system that fits your needs."

Margaret replied back: "Green Cover Seed (www.greencoverseed.com) has a pretty cool cover crop mix calculator. . . . It gets information on the soil types and climate in the area, and makes recommendations based on that."

Greg Lipes pointed out that there's a difference between adding forage crops as part of a rotation and converting cropland to pasture. Also, the type of livestock Jeff has – cow-calf and doe-kid, or finishing animals – would influence the types of forage that would be appropriate. "Knowing your production model can help inform your management decisions."

Jack Knight gave some factors that would shift the argument either way, such as Jeff's willingness to fence, water availability, and the slope and shape of the land.

Torray Wilson has land somewhat similar to Jeff's, and suggested starting with cover crop mixes and portable fence. That way, he could see if he liked the grazing system before committing a lot of time, money and fence to it. Cover crops would also will help rejuvenate the soil in the short-term, allowing more productivity later. "You have to get your biological activity built up with the cover crops so that when you go to permanent pasture it has the right biology to keep it going," Torray said. "That is how nature converts bare ground to grassland."

Bruce Carney, who has converted row crop land to pasture himself, reinforced the idea of whole-system health. "What are my resource concerns ... and what do I want to get out of this (erosion control, nutrient loss, compaction, build soil life, grazing, water infiltration ETC)."

Francis Thicke agreed. Citing one of the annual conference speakers, he said that "in the first year of converting row-crop land to pasture it is good to plant annual forages in order to get rapid root growth and begin to change the soil ecology more rapidly than if you plant perennials, which are slower to establish roots -- and then go to perennials after a year or two of year-round annual cropping."

Jeff did end up going to his NRCS office, but had missed the EQIP deadline. He said that the plan this year will be to keep it simple and start small: an area near the cattle building will be seeded with annuals. He's still brainstorming ideas for the future.

In the end, Harn Soper summed it up best: "Isn't this one of the best parts of PFI?" ■

If you are a PFI member and would like to be on the livestock email discussion – or any of our other six lists – please contact Erica at erica@practicalfarmers.org.

"In Meat We Trust: An Unexpected History of Carnivore America"

by Jeff Abbas

More than any other country on the face of this planet, the United States has pushed the mass production of the things her citizens want to the limit, only to reinvent the processes over and over again to meet the demand they have created. In every case, this process has resulted in reaching the saturation point, a place that is not only uncomfortable, it is downright painful.

If America is known for any one thing over another, it is our virtual cornucopia of food and the ease with which we can get it. We love to eat. And let's face it, we are a nation of carnivores – and to such an extent, we have relegated the meat we eat to a status food: We have forgotten that the delicious New York strip on our plate once was a living, breathing creature. But that's a good thing for the industry, because the process of raising and processing that steak to get it to your plate is cruel to the animal, harmful to the environment and a detriment to the economy of this country as a whole. Or is it?

That's just one of the debates covered in Maureen Ogle's book, "In Meat We Trust: An Unexpected History of Carnivore America". Ogle covers 200 years of the history of meat production in America in a manner that is not only engaging and well-written, it is a sobering referendum on the old adage about learning from our past mistakes.

Jeff Abbas

Ogle has portrayed the growth of the meat industry in this country from its first family farms, through the pitfalls of the processes and the ultimate "standardization" along the way that led to the controversial confined animal feeding operations we see and hear so much about today. And she does it in a manner that does not pummel the reader with a lot of statistical rehashing of the arguments. Instead, the issues are both presented and explored in a concise, conversational manner that amplifies that point rather than muddling it.

This is a book everyone should read, whether you live in the heart of a metropolitan area or on a small farm with your own cows and chickens. Ogle clearly supports the processes that would provide us with the necessary consolidation and standardization so all of the world can be fed. ■

Jeff Abbas and his wife, Mary, operate Kitchen Table Farm CSA near Dorchester, raising fruits, vegetables and collecting wild edibles that are also included in CSA shares. Learn more about their farm at www.kitchentablecsa.com.

Good Quotes from the Book

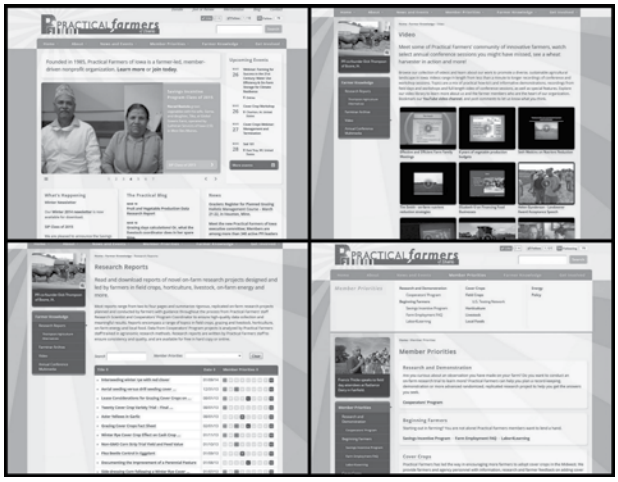
"Make no mistake: the history of meat in America has been shaped by corporate players like Gustavus Swift, Christian gentleman and meat- packing titan, and good ol' Arkansas boy Don Tyson, a chicken "farmer" who built one of the largest food-making companies in the world. But that history also includes millions of anonymous Americans living in both town and country who, over many generations, shaped a meat-supply system designed to accommodate urban populations, dwindling supplies of farm-land, and, most important, consumers who insisted that farmers and meatpackers provide them with high-quality, low-cost meat."

"[M]eat is the culinary equivalent of gasoline. Think about what happens whenever gas prices rise above a vaguely defined "acceptable" level: we blame greedy corporations and imagine a future of apocalyptic poverty in which we'll be unable to afford new TV sets or that pair of shoes we crave; instead, we'll be forced to spend every dime (or so it seems) to fill the tank. But we pay up…. Then the price drops a few cents our routine, half-mile, gas-powered jaunts are once again affordable; and we rejoice. And because it's so easy to blame corporations, few of us contemplate the morality and wisdom of using a car to travel a half-mile to pick up one item at a grocery store, which is what most of us do when gas prices are low.

"So it is with meat. Most of us rarely think about it. After all, grocery store freezer and re-frigerator cases are stuffed with it; burger- and chicken-centric restaurants abound; and nearly everyone can afford to eat meat whenever they want to. But when meat's price rises above a (vaguely defined) acceptable level, tempers flare and consumers blame rich farmers, richer corporations, or government subsidy programs. We're Americans, after all, and we're entitled to meat. So we either pay up or stretch a pound of burger with rice or pasta (often by using an expensive processed product). Eventually the price of steak and bacon drops, and back to the meat counter we go with nary a thought about changing our diets or, more important, about the true cost of meat, the one that bar-coded price stickers don't show."

Practical Farmers Has a New Website!

Have you explored our new website yet? If not, take a few minutes to visit the new and improved www.practicalfarmers.org. The redesigned site, launched in late March, features new content; a design that's more intuitive, easier to navigate and updated for viewing on mobile devices; and a structure that better reflects our member- and farmer-centered focus.



Some of the new and improved features include:

- **A streamlined but dynamic navigation structure.** Top-level menu items are now organized into six categories – Home, About, News and Events, Member Priorities, Farmer Knowledge and Get Involved – with informative one-tier drop-down panels.
- **Categorized and searchable research reports** that can be sorted by topic area, date or title; searched by keyword; and have useful summaries of cooperators and partners.
- **A newsroom** where visitors can easily find and download our recent and archived news releases, logos and accompanying photos; sign up for our weekly email newsletter; view our usage and reprint policies and access quick links to other sections of the site.
- **An improved homepage** featuring event listings that automatically update, summaries of the most recent posts to The Practical Blog and quick links to our social media channels.
- **A gallery of our YouTube videos**, which range from practical how-tos to longer recordings of workshops and annual conference sessions.
- **A new "Get Involved" section** that has information for those who want to volunteer, farmers interested in sharing their stories and new ways to support Practical Farmers.

GungHo! Creative, a Web design company based in Pittsburgh – and founded by former Practical Farmers of Iowa staff member Patrick Burke – led the redesign effort.

For questions on the site design, contact Erica Andorf at erica@practicalfarmers.org, or (515) 232-5661. ■

PFI Whiskey Shows the Potential for Local Small Grains Markets

In February, staff were surprised by an unexpected afternoon delivery: Ryan and Garrett Burchett, owners of the Mississippi River Distilling Company in Le Claire, Iowa, had sent two bottles of whiskey – a bourbon whiskey and a rye whiskey – made with small grains sown and harvested by PFI for a research project. The spirits had been three years in the making (this lag time was due to the fact that crafting whiskey takes time, including at least a year of aging).

It started in fall 2010, when we planted 17 cover crop varieties – including rye, barley, spring wheat and winter wheat – to test their merits as cover crops as well as their grain qualities. We harvested them in July 2011, yielding 530 pounds of grain (after being cleaned to food grade). The grains were grown as a cover crop trial on land rented by Practical Farmers at the Iowa State University Agronomy Farm near Ames.

How much grain is needed for a bottle of whiskey? Consider this: 400 pounds of cleaned small grains yielded 1,400 bottles of whiskey. That's a promising quantity for farmers looking for possible small-grains markets! One of the bottles we received was a rye whiskey made with 100 percent rye from our project. The other was bourbon whiskey, made with barley and spring wheat from PFI mixed with corn that Mississippi River Distilling Company purchased from local farmers Ryan and Dan Clark in Le Claire. The Burchett brothers strive to source their grains and ingredients from local farmers. PFI staff were so excited to see our small grains come full-circle. Keep a watch out at next year's conference: You just might find one of these in the silent auction!

Read the research report that resulted from this project for more on how cover crops can benefit soil health and generate a third cash crop on a grain farm: **bit.ly/PFI_Small_Grains_Research_Report**.

You can also read a related blog post by Tomoko: **bit.ly/Field_to_Glass_Blog_Post**. ■

Watch for the 2014 Field Day Guide

It's spring, that magical time of year when the land renews itself and farmers tread their annual dance with Mother Nature. This means it's also field day season! After a long winter, it's safe to say we're all eager for warmth, sunshine and the opportunity to learn and reconnect at Practical Farmers field days. At the PFI office, we have been busy planning another excellent field day line-up showcasing farmer knowledge and ingenuity, hosted by farmers all over Iowa.

A large crowd turned out to hear Francis Thicke and tour his farm last year.

Another tell-tale sign of the season: The 2014 Field Day Guide is in process and will be mailed out soon (***look for it in your mailboxes toward the end of May)***! This year's guide will feature more than 35 events across the state. Learn about topics as diverse as:

- Grazing and harvesting cover crops
- Intercropping in vegetables
- Using cattle to manage and maintain native prairie and tree groves
- Collecting yield data
- Trimming hooves, hair and feathers for animal health and for showing
- On-farm poultry processing
- Growing watermelons with row-crop machinery
- Dairy goat management
- Tribally Supported Agriculture
- Hydroponic tomato and basil production
- And more!

You'll also have a chance to view a soil pit, tour the Story City Locker, learn about value-added pork processing, and much more! Several field days also feature topics being explored by on-farm research cooperators. It's your chance to view the research in action, see research trial set-ups and ask questions of the farmer-researchers. When you get your guide, be sure to mark your calendars: You won't want to miss what promises to be another enriching season of farmer-to-farmer learning! ■

(NOTE: Be aware that the Field Day Guide contains events planned and hosted by Practical Farmers, as well as events organized by other groups. We include these as a convenience, but have no control over itinerary or schedule changes to non-PFI events. To make it easier to tell PFI from non-PFI events, this year we are publishing all non-PFI events in a separate section at the back of the guide.

Learning about energy at One Step at a Time Gardens' 2013 field day.

Field day attendees listen with interest to Tom Cory at Cory Family Farm's 2013 field day.

PFI's 2013 Annual Report is Online

Usually we print our annual report inside the spring issue of *the Practical Farmer*, but with the launch of our new website – and its more user-friendly, accessible design – we decided this year to spare some trees and publish it there instead. You'll find it on the homepage (**www.practicalfarmers.org**) under "What's Happening," and you can read it there or download the PDF to view, share or print.

New Solar Discussion List is Available

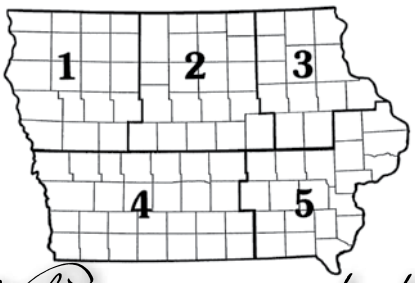
With growing member interest in ways to reduce on-farm energy use, we launched a new email discussion list called PFISolar.

If you are interested in on-farm energy, or are thinking of installing solar power on your home, farm or acreage, this list is for you. All PFI members are welcome to join the list to discuss topics such as purchasing and installing solar pv for the home or farm, performance issues, your personal experiences with solar pv, and related topics.

The new list is one of seven email discussion lists available to exclusively to PFI members. The other lists are: General, Horticulture, Livestock, Cover Crops, GardenandFood and Policy.

How to join: Interested in joining the new solar list (or any of the others)? It's quick and easy: Send an email to Erica Andorf at erica@practicalfarmers.org if you are interested.

Calendar



Welcome, new members!

District 1–Northwest
- William Frevert, Emmetsburg
- Judy Majors, Marcus
- Dean Schultes, Dedham
- Brian Tolbeck, Manning
- Tim Youngquist, Kiron

District 2–North Central
- Nick Baker, Huxley
- Sean Brown, Radcliffe
- Farm News, Barbara Wallace Hughes, Fort Dodge
- Dustin Farnsworth, Grand Junction
- Doug Follmann, Stanhope
- Mark Gannon, Ames
- Stuart and Ranee Greenfield, Ellsworth
- Larry Haren, Webster City
- Rafael Martinez-Feria, Ames
- Roy Metzger, Marshalltown
- Ron Morgan, Ames
- Anthony Pille, Paton
- Eric Ports, Ames
- Jeff Roe, Saint Ansgar
- Jerry Shickell, Collins
- Tim Sklenar, Ames
- Rory Sterling, Woolstock
- Donna Warhover, Mount Vernon

District 3–Northeast
- John Blake, Waukon
- Megan Buckingham, Decorah
- Tim Doyle, Cedar Falls
- Dustin Kaestner, Luzerne
- Steffen Mirsky, Decorah
- Wayne Volkl, Alburnett

District 4–Southwest
- Jean Curtis, Hastings
- Dale Foster, Guthrie Center
- Linda Hupton, Des Moines
- Angela and Jason Johnson, Derby
- Celeste Karan, Johnston
- Star Ann Kloberdanz, Shenandoah
- Kevin McCarthy, De Soto
- Zach Modlin, Dawson
- Scott Myer, Logan
- Aaron Price, West Des Moines
- Jeff Rosener, Jamaica
- Jeff Royer, Neola
- The Energy Group, Chad Kloberdanz, Des Moines
- Steve Turman & Margaret McQuown, Red Oak
- Christine Walker, Grimes
- Robert Wright, Clarinda

District 5–Southeast
- Wes Howard, Muscatine
- Barton Howard, Letts
- Greg Lipes, West Branch
- Nicole Miller, Wellman
- Royce Schintler, Iowa City
- David Schrock, Bloomfield
- Steve Siegel, Ottumwa
- Donnie Simmet, Iowa City
- Bill and Stacy Watts, Bettendorf
- Susan Young, Iowa City

District 6–Out of State
- Al Brudelie, Lewisville, MN
- Corrine Bruning, Minneapolis
- Noah Engel, Josh Engel and Mike Lind, Soldiers Grove, WI
- Jacob and Gabriela Fimple, Ashland, NE
- Keith Frederick, Morrison, IL
- Dave Lafrenz, East Moline, IL
- Dennis Pannkuk, Liberal, KS
- Dan Pries, D'Hanis, TX

UPCOMING EVENTS – MAY | JUNE | JULY

May 10 – 2014 Meat Goat Extravaganza | Washington, IA | Washington Co. Fairgrounds | 8:30 a.m. – 4:30 p.m.
Sponsored by the Tall Corn Meat Goat Wether Association, Inc. and Washington County Extension, learn about meat goat nutrition, structure, fitting and showing. Featured speakers include: Beth Mason, Bruce Read and Blake Lanphier. Walk-ins welcome. Learn more: meatgoatwether.com/new/index.php/events

May 15-17 – Aquaponics Master Class | Montello, WI
This comprehensive course by Nelson and Pade, Inc. covers all aspects of aquaponics and controlled-environment agriculture. Our Aquaponics Master Class is intended for anyone seriously considering getting into aquaponic food production, or those already doing aquaponics who want to learn more about the technology. Learn more: aquaponics.com/page/aquaponics-master-class-3-days

May 16-18 – Shepherd's Harvest Sheep & Wool Festival | Lake Elmo, MN | $5 (free for 8 and under)
Shepherd's Harvest Festival is an opportunity for rural and urban people to meet and share information about sheep and sheep products and other fiber-producing animals. The festival was started to provide a venue where wool producers, wool consumers and wool artisans could come together and share the excitement of working with sheep and wool, but has grown to include other fiber animals such as angora rabbits, alpacas and goats. Enjoy live entertainment, classes and demonstrations of sheep shearing, herding dogs, spinning and knitting. For more: http://shepherdsharvestfestival.org

May 17 – Introduction to Apple Orchard and Integrated Pest Management | Cloquet, MN
This full-day workshop is geared toward backyard and beginning growers of all skill levels. The class will provide an overview of issues related to growing healthy trees and fruit, and controlling pests and diseases throughout the season. Classes will include handouts on specific topics covered. Contact Cindy at cindy@clovervalleyfarms.com.

May 22-26 – Advanced Farm and Homestead Design with Ben Falk | Iowa City, IA
Lead instructor Ben Falk is equal parts landscape architect, builder, designer, author and homesteader. For those familiar with his best-selling book, The Resilient Farm and Homestead, this workshop will expand far beyond what the book can contain. This course is for those who want to live a resilient, rewarding life on their own abundant homesteads. For more information, visit: www.versaland.com/workshops/advanced-farmstead-design

May 31 – Biological Monitoring with Holistic Management | Cresco, IA
This workshop is one of a series focused on Holistic Management being offered in the region this winter and early summer. HM presents a whole-farm planning framework that incorporates farmer and family principles into realistic management decisions based on quality of life, profitability and stewardship goals. Contact Margaret Dunn for more details or to register: (515) 232-5661 or margaret@practicalfarmers.org

June 2 – Drip Irrigation and Small Farm Equipment | Olathe, KS | Olathe Horticulture Research & Extension Center | 4-7 p.m. | $15
This workshop is part of a series offered by Growing Growers of Kansas City. The Growing Growers program offers workshops and classes throughout the year that are open to the public and address skills required to run a local farm. For more information or to register, contact Cary Rivard at crivard@ksu.edu. Learn more at www.growinggrowers.org

June 6-8 – Midwest Women's Herbal Conference | Mukwonago, WI
With over 40 workshops, plant walks and entertainment this is the fastest-growing herbal resource in the Midwest. Centered in the Wise Woman Tradition, this conference provides a gathering space to focus on earth-centered healing, nourishment and the plants that grow around us. For more information, visit: midwestwomensherbal.com

June 7– Building a Backyard Composting Bin | Kansas City, MO | Switzer Neighborhood Farm | 1:30-3:30 p.m.
In this free workshop, held by Lincoln University Cooperative Extension, you will learn about building composting bins (aerobic and worm); compost waste mixing tips; composting monitoring; compost quality and uses; and composting problem and solutions. Located at 1842 West Pennway Blvd. No advance registration required. For more, call (816) 841-3960 or visit www.lincolnu.edu/web/programs-and-projects/kansas-city-urban-impact-center

June 14 – Introduction to Small Fruit Production | Kingsville, MO | Powell Gardens | 9 a.m. – 2 p.m. | $30
This workshop is part of a series offered by Growing Growers of Kansas City. For more information or to register, contact Lala Kumar at kumarl@missouri.edu. Learn more at www.growinggrowers.org

June 21 – Greg Brown Concert | Seed Savers Exchange | Decorah, IA | $30 Tickets | $15 Campsites
Celebrate the summer solstice with Iowa's favorite folk-musician, long-time friend and supporter of SSE, Greg Brown. Ticket sales support SSE's non-profit mission to protect and promote America's garden and food heritage. For more, visit: www.seedsavers.org/Education/Events

June 22 – Farm Dreams Workshop | Minnetrista, MN | 1-5 p.m. | $40 (non-LSP member) | $20 (LSP member)
Farm Dreams is an entry level, four-hour, exploratory workshop designed to help people who are seeking practical, common sense information on whether sustainable farming is the next step for them. This is a great workshop to attend if you are in the preliminary stages of getting started farming. For more information, visit: landstewardshipproject.org/events/item/232

July 18 -20– Seed Savers Exchange Annual Conference and Campout | Decorah, IA |
Join the SSE community at the 34th Annual Conference & Campout. This event brings together experts and amateurs to share seed saving knowledge, stories and enthusiasm. Speakers in 2014 include ethnoecologist Dr. Virginia Nazarea and Ogden Publications' Bryan Welch. For more, visit: www.seedsavers.org/Education/Events

July 21 – Low-Till and No-Till Cropping Systems | Kansas City, MO | 4-7 p.m. | $15
This workshop is part of a series offered by Growing Growers of Kansas City. For more information or to register, contact Cary Rivard at crivard@ksu.edu. Learn more at www.growinggrowers.org

For more events, visit www.practicalfarmers.org

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How did you hear about Practical Farmers of Iowa?

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

Payment:

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TO PAY WITH A CREDIT CARD, PLEASE GO TO: http://practicalfarmers.org/join-pfi.html

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Healthy Food

Wholesome food that is celebrated
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to local farmers
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to hard work
and good stewardship
Communities alive with
diverse connections between
farmers and friends of farmers

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Places where commerce,
cooperation, creativity
and spirituality are thriving
Places where the working landscape,
the fresh air and the clean water
remind us of all that is good about Iowa.