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Practical Farmer

A quarterly publication of Practical Farmers of Iowa

Vol. 31, No. 2 | Spring 2015



Farmer Lead • Welcoming All • Sharing Information

30

years
1985-2015

PRACTICAL farmers of iowa
Strengthening Farms
and Communities

On the cover



Sean Skeehan, of Blue Gate Farm near Columbia, poses after loading five new hives with bees.

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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

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Five Things You Should Know About PFI Finances



- 1. We are strong**
- 2. We are grant-dependent but diverse**
- 3. We are serving beginning farmers because of you**
- 4. We financially support our farmers**
- 5. We are investing in the future**

Some Practical Farmers members have indicated they don't know enough about PFI's finances. Well, here you go!

Practical Farmers of Iowa's financial situation is strong. Total income for fiscal year 2014 was about \$1.4 million; for this fiscal year, our budget is slightly higher. Seventy-seven percent of the FY2014 operating budget came from grant sources. With your donations, we can rely less on grant funding sources. We do have, however, wonderful partnerships with a diverse set of grantors, and it is hard to imagine how this organization could have gotten as strong as it is without them.

Your donations to our beginner farmer programming over the past couple of years have kept our programming strong while we look for supplemental grant funds. Last fiscal year, \$45,907 of those donations were used to continue beginning farmer programming, funds that were raised in FY2013. In addition, at the end of the last fiscal year, we had a pot of \$266,000, which will be used for savings match payouts for

those enrolled in our Savings Incentive Program.

This organization puts its money where its mouth is in supporting farmers – financially, as well as in other ways. Practical Farmers remains committed to paying stipends to its members for the leadership they provide this organization. In FY2014, Practical Farmers paid out 9.1 percent of expenses (\$122,805) to its members for conducting on-farm research, holding field days and more.

We do not spend money we do not have. We plan for small surpluses and then plug that money back into programming the following year. The last couple of years, those surpluses have gone toward beginning farmer, farm transfer and energy programming.

We also are building a rainy-day fund with surpluses. We have just over three months of current operating expenses in reserve (the minimum industry standard), and have also just finished a "core budget" to make sure our organization would be viable even if we had a sudden rapid decrease in grant funds.

Our reserves are held in diversified accounts. We also have two endowment

funds, are about to put additional monies into investment vehicles and keep monies in certificates of deposit at various banks. Our Investment Committee, made up of Kurt Van Hulzen, Dick Schwab and me, just updated PFI's investment policy.

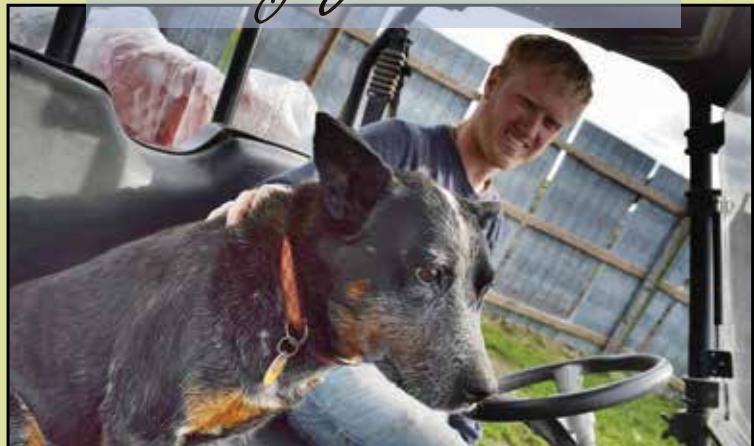
Thank you to our Finance Committee: Dana Chabot, Ann Cromwell, Kurt Van Hulzen, Dan Wilson and PFI staffer Suzi Howk. Your questions are welcomed! Contact Suzi: suzi@practicalfarmers.org.

– Gail Hickenbottom
(West Des Moines, Iowa)

Friend-of-farmer and Treasurer of Practical Farmers of Iowa

P.S.: Practical Farmers' financial audit for FY2014 was conducted by Houston & Seeman, PC of Boone, Iowa. That audit, the 990 tax document and other financial information are available for review at <http://practicalfarmers.org/about/accountability/>. You also recently received our 2014 annual report, which includes even more financial information.

Dog of the Issue



Jason Grimm with his dog, Ginger

Long-Term Research Helps to Paint a Clearer Picture of Cover Crops

by Stefan Gailans

How does a cover crop affect corn and soybean yields? This is a common question of farmers considering cover crops for the first time – but until recently, there wasn't long-term data to help offer a clear answer. In the fall of 2008, six PFI farmers sought to fill this gap by starting a study looking at how a cereal rye cover crop affects corn and soybean grain yields. Five additional farmers joined the project – which Practical Farmers is conducting with Iowa Learning Farms – in fall 2009, and 10 sites were maintained from 2009-2012. Presently, eight sites remain in the study. Thanks to this long-term research – and the efforts of the PFI members involved – the answer to that key question is becoming clearer.

The study employs a “paired strips” design in which alternating strips in a field receive one of two treatments each year: a cover crop in the fall or no cover crop. Because all participating farms are in a corn-soybean rotation, the crop planted in the strips changes each year. But in this design, the strips do not swap treatments from one year to the next. Rather, the same treatment – in this case, cover crop or no cover crop – is applied to the same strip at each farm for the duration of the study. In addition, each strip pair has been replicated at least twice at each farm. Depending on the farm, the cereal rye cover crop was either aerially seeded into standing crops in late summer or drilled after corn or soybean harvest in the fall. The following spring, the cereal rye cover crop was terminated either by tillage or herbicide prior to planting corn or soybean.

Since 2009, the first growing season for which yield data was collected, the study has

amassed soybean yields from 18 trials and corn yields from 28 trials. This is the major benefit of conducting a long-term study at multiple farms: generating large amounts of data from which to make inferences and “tell the story” about cover crops and grain yields.

Won't a Cover Crop Hurt My Corn and Soybean Yields?

Not necessarily, this long-term study has shown. The story of how a cereal rye cover crop affects corn yields can be divided into two parts: the beginning years (2009-2010) and the later years (2011-2014). Farmers from three of the 10 trials that took place during the beginning years reported corn yield reductions in the beginning years due to the cover crop. The primary culprits, according to the farmers at these sites, appeared to be insufficient termination of the cover crop prior to planting corn and incorrect planter settings when planting the corn into the cover crop residue. In the later years, farmers from 18 trials reported no difference in corn yields from the strips with the cover crop compared to those without. In 2014, five of the six farms reporting saw yields above 200 bushels per acre with or without the cover crop.

In the soybean phase of the rotation, in 13 of the 18 trials from 2009-2013, the farmers observed no



"The difference in knowledge about cover crops between the time we started this project and now is huge. We have learned that yields for soybeans are better in the rye strips and that corn yields are about equal in each."

– GEORGE SCHAEFER

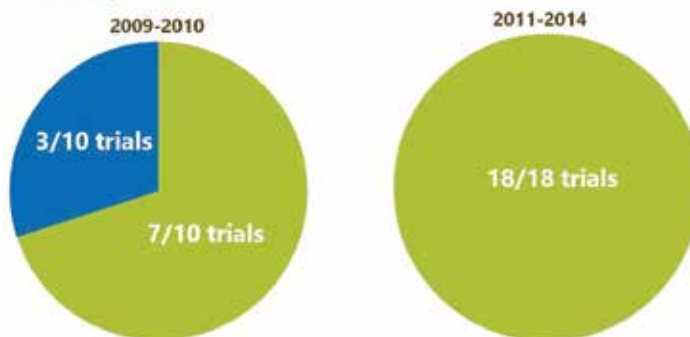
difference in yield between the strips with a cover crop and those without one. In fact, in four of those trials, the farms reported an increase in soybean yield by an average of 6.2 bushels per acre due to the cover crop. In only one instance did the cover crop result in a soybean yield reduction.



"I liked the idea of on-farm research that local farmers can buy into."

– JERRY SINDT

Corn yields



Cover Crop Resulted In:

■ No Change ■ Yield Decline

This data is making it clearer that, when properly managed, cover crops will not harm corn or soybean yields.

"I liked the idea of on-farm research that local farmers can buy into," recalls Jerry Sindt, who farms near Holstein in Ida County, when thinking about why he chose to participate in this study. "I have learned that cover crops ahead of corn require increased spring management and that rye ahead of soybeans seems to be the most beneficial simply because the cover crop has a longer growing season."

Farmers Say They're Getting the Hang of Cover Crops

As with most things, it takes time, patience and experience to hone one's skills when adopting a new practice. After a few years of using cover crops as part of this study, the farmers reported they were starting to learn how to properly manage cover crops in their systems. "Like any new change, there is a learning curve, and some management changes need to be made to make adding cover crops a paying proposition," says Rob Stout, a study participant who farms near West Chester in Washington County. Rick Juchems, who farms near Plainfield in Bremer County, agrees, adding that participating in the study for a few years "actually showed how easy it is to grow cover crops and make them work for you."

George Schaefer, who farms with his brother, Steve, near Kalona in Washington County says: "The difference in knowledge about cover crops between the time we started this project and now is huge. We have learned that yields for soybeans are better in the rye strips and that corn yields are about equal in each."

Ultimately, It's About Soil and Water Conservation

If cover crops don't negatively affect corn and soybean yields, then other farmers should feel less hesitant about embracing this soil conservation technique. Rob, Rick, Jerry and George all agree: It's all about getting more farmers to add cover crops to their conservation programs.

"Looking at just one practice to minimize our soil loss problems will have a small

Paired strips at the farm of Jim Funcke, a study participant in Greene County



impact, whereas a suite of practices that could include no-till, cover crops, prairie strips, water ways, buffer strip, terraces and others could have a huge impact on our environment," Rick says. "I would hope the information we are gathering in this long-term study will influence others to grow cover crops to help replenish the soil loss we have seen in the last few years of intense row crop farming."

Rob agrees that employing only one conservation method on the farm isn't quite enough: "Even with long-term no-till, I was experiencing some soil erosion from heavy spring rains, so I knew I needed to do more to hold the soil in place."

What About Soil Health?

Cover crops are often championed for their ability to prevent soil from eroding and losing nutrients. But what about their potential soil health benefits? That's another common question about incorporating cover crops into a cropping system. At the Cooperators' Meeting in December, many farmers wondered aloud about how cover crops could affect the "soil health score" associated with the new Haney soil test. This score is derived from an algorithm that considers the nitrogen, carbon and microbial activity in the soil. It is generally held that any changes to these factors will take time to manifest in the soil – yet another reason why long-term research efforts, such as this project, are important.

This summer, PFI staff will travel to each of the seven farms still in the study to collect

soil samples from each of the strips, which will be sent to Ward Labs in Kearney, Neb. to be analyzed with the Haney test. In addition, staff from Iowa Learning Farms will conduct earthworm counts in the strips. Taken together, this data will give us some idea of whether using a cover crop for multiple years in a corn-soybean rotation has an effect on soil health.

Rob says he hopes this new data will help farmers simultaneously glean some insights into how cover crops affect soil health while learning about the effect on yields. "I'm hoping to see some soil health benefits and an increase in soil organic matter, so that in the long-term I can potentially reduce my added nitrogen fertilization because of the extra nitrogen released from the soil organic material."

Rick shares Rob's sentiment when thinking about this long-term effort, and adds: "We have only scratched the surface of what can happen if the right practices are used to promote soil health and protect our soils and water supplies. With the results of this project I hope we can improve the way people look at cover crops as an investment in their farming operation." ■

This project is supported in part by the Iowa Department of Agriculture and Land Stewardship, Division of Soil Conservation.

Read more about this project in "Winter Cereal Rye Cover Crop Effect on Cash Crop Yield: Year 5," online at <http://practicalfarmers.org/farmer-knowledge/research-reports/2014/winter-cereal-rye-cover-crop-effect-cash-crop-yield>

Small-Scale Fruit and Vegetable Farms: Financially Viable?

by Liz Kolbe

Two recent op-eds made big splashes in the local-food and small-scale farmer worlds. The first, in the New York Times, was titled "Don't Let Your Child Grow Up to be a Farmer" (Aug. 9, 2014) by New Jersey farmer Bren Smith. The second appeared in February in a Salon.com article ("What Nobody Told Me About Small Farming: I Can't Make a Living," Feb. 9, 2015), penned by California farmer Jaclyn Moyer. These two articles exposed a big concern about small-scale farming and local foods: Can these farms generate a livable income?

The extensive comments that followed each piece took a variety of positions: Some concurred with the authors' experiences, others disregarded the articles' main premises and highlighted the lifestyle benefits of farming; some listed counter-examples of farms that are profitable, while other comments shamed the food system – or criticized the authors for not having their eyes open when they started out.

I asked a few PFI farmers to read these articles (they already had, thanks to Facebook) and share their perspectives. Their reactions revealed anxieties they have about their own farms and those of people they care about – but also demonstrated an awareness of reality: Not every farm will make it.

A Basic Reality

Jordan Scheibel of Middle Way Farm says: "I think both these articles portray a basic reality about small-scale vegetable farming that has not been previously expressed to the general public through media. Vegetable farming has become trendy and romanticized; it can never live up to the expectations of pastoral bliss that many non-farming local food eaters assume of it."



Fruit and vegetable farmer members discuss financial viability of fruit and vegetable farms at the 2014 Next Generation Retreat.

Part of the issue, he adds, is the fact that small businesses more generally tend to fail at a high rate. He believes many people getting into vegetable farming "are totally unprepared to run businesses" and will not make it. "I think that's an unremarkable statement, but because vegetable farming has built up such cachet, it's seen as iconoclastic to declare that publicly."

Tony Thompson agrees, acknowledging that his social status and material wealth changed when he started farming. "I think it's possible to make a living at farming, but it is a major lifestyle change," he says. "How well I deal with the change depends on the day. Sometimes it would be nice to have more disposable cash. But being single provided me a lot of flexibility starting out. On my own, I was comfortable eating rice and beans, leftover carrots and turnips. I had enough savings to support a bachelor lifestyle, but having a family will add additional stress."

Both Jordan and Tony are beginning farmers, a few years into producing fruits and vegetables on their own farms. As I've met with farmers (and eavesdropped on more), one question keeps resurfacing, especially among beginners: "Are there any vegetable farmers like me who are making a living?" This question, or some form of it, is asked at retreats, in survey comments and over casserole at potlucks. The answer? "No" – but also "yes," and "kind of"

In an article on his blog, Richard Wiswall of Cate Farm wrote that he knows farmers netting \$51,000 and \$65,000. More commonly, however, he sees farmers gross \$20,000 to \$30,000 and net \$0 to \$20,000. University studies have determined farmers could net \$40,000 on 3 acres of vegetables, but stories on NPR have featured a farm couple making a household farm income of just \$25,000. A news report from Mark Paul in Massachusetts reported that 13 of the 16 CSA farms he interviewed were not making a living wage.

Which of these farms is like yours? Are any? That's the crux of the question. Other farmers may have lingering college debt or a few years interning on a vegetable farm; others might drive an old van to a farmers market to complement their expanding CSA. Or they might have family land and a golden egg. But maybe a farmer has a great social media presence. Maybe he or she is great at managing employees, or has four teenagers to help out. No two farm businesses have the same mixture of capital assets – human, financial, social, natural or material.

What's Your Personal Asset Mix?

Knowing what you have – and don't – is critical. For example, one piece of Tony's human and social capital is his comfort transitioning from the farm to the professional world. Because he has

experience in and understands corporate culture, he feels confident pursuing new institutional markets and ventures. "The markets need to match your personality," he says. "If you don't like talking to the farmers market crowd, it's not the market for you." But he adds that he doesn't have it figured out yet. "I'm still learning what I'm willing and not willing to do – and what will pay back in profitable ways. Sometimes things don't work, sometimes I'm able to do something innovative."

Jordan has used a tempered pragmatism to keep his farm in the black. "I know as a beginning farmer I have had to continually shed purist tendencies that, if I retained them, might have made my business less viable. I'm seeing more and more the wisdom of trying to emulate the practices and models of successful businesses in other industries, rather than assuming that what I'm doing is fundamentally different

- Six farms hope to earn 100 percent of their household income from farming – the other five vary, down to 0 percent (equity only)
- For farms meeting their profitability goals, the median amount the owners draw is \$24,000
- For farms not meeting their goals, the median amount farmers draw is \$5,000
- The median debt-to-asset ratio is 0.56 for farmers not meeting profitability goals; 0.10 for farms meeting profitability goals

Are these numbers good or bad? It depends on the farmer's goals, circumstance and what the other numbers involved look like. Practical Farmers has been working to analyze and display this data. We plan to release the report this spring, so stay tuned! We hope this data will provide a place for conversations to begin, and goals

the 2014 Next Generation Retreat and the 2015 annual conference. Other participants in the Savings Incentive Program have similarly shared their business plans with other beginners – not out of a belief their plans are the best examples, but because they offer somewhere to start.

Certainly there is more work to do on broader issues related to farm profitability, but it isn't hopeless. Tony Thompson is "cautiously optimistic" about the future of his vegetable farming friends. And Jordan Scheibel sums up the issue beautifully: "I don't think the idea of having a profitable vegetable farm is a pipe dream. I just think it is much harder than both the general public and beginning or aspiring farmers might realize.

"I look forward to the day when local, direct-market farmers are not seen as living out the 'green-acre dreams' that more practical,

Vegetable farming has become trendy and romanticized; it can never live up to the expectations of pastoral bliss that many non-farming local food eaters assume of it.

– JORDAN SCHEIBEL

and alternative and thus doesn't have to follow the economic rules that constrain every other industry."

Sharing Information

Some fruit and vegetable farmers have opened up their books for Practical Farmers, and for each other.

At PFI's 2015 annual conference, Melissa Dunham "got naked" and Rob Faux "gave an eyeful" – financially speaking. Melissa showed three years of Grinnell Heritage Farms' complete financial records; Rob shared his profit and loss statement. Some attendees commented it was the bravest – and best – presentation they've ever seen.

Similarly, 11 farms shared their revenue by market, profit and loss statements, balance sheets, and demographic information with Practical Farmers for the Whole Farm Financial Project. Here is a taste of what we're seeing:

- Of these 11 farms, five are meeting their expectations for profitability, six are not

and strategies to take shape. Perhaps it will embolden others to share their books, too.

Rick Hartmann of Small Potatoes Farm shared his farm's trajectory of revenue and profit over the last 10 years during a meeting of the Dallas County Growing Food and Profit group. Kate Edwards, Jordan Scheibel, and Jacob and Lauren Peterson opened up their business plans at

risk-adverse people eschew in favor of their secure 9-to-5 job. Instead, direct-market farmers are just another occupation that contributes to the life and health of their communities, like teachers, doctors, lawyers or other small-business owners." ■



Terrance (T.D.) Holub draws his vision of what his ideal farm would look like at the 2015 Next Generation Retreat.

Your Estate Plan: How Do You Decide What's Fair?

by Teresa Opheim

Check with many PFI farmers, and you will find both farming and non-farming heirs. Perhaps more than any other issue, how to treat these heirs at farm transfer time is the most challenging.

What is fair?

Dividing the farming business financially equally among farming and non-farming heirs may not be fair to the farming offspring who have invested a lot of labor, time and resources to the business, according to Nebraska farm transfer specialist David Goeller. It also may mean that the farming offspring will not be able to make a living operating the family farm once assets are divided among the heirs, especially at the land prices we have now.

"Treating unequals equally may be the most unfair thing you can do," David says. "The challenge is to make sure that contributions by heirs are fairly compensated, either by wages, sweetheart arrangements or, finally, the estate plan."



Amber Mohr and her family have set up farming on family land; her parents, Chris and Darrell Mohr, have two other children not farming.

“I believe it is very important to talk about estate plans when you are in good health and with time for heirs to adjust and understand your intentions.”

— JERRY PECKUMN

On the other hand, giving the farming child the entire farm assets might not be fair either.

"Take the case of a mother and father whose wealth is in diamonds, gold, art masterpieces, money or other assets not linked to a location," farmland owner Helen Gunderson argues. "They value their children's growth into whole human beings following their unique passions and gifts. Wouldn't the parents want to pass on their assets somewhat equally to all of their offspring? Why is it different for people who are focused on a place and farming it? Yes, I think there should be consideration given to the offspring who stay and farm. But just because they do so does not mean they should be seen as extra virtuous and receive all of the family assets."

Who Was Asked to Farm?

Further complicating the issues: Who was asked to stay and farm in the first place? Often, daughters were never asked to farm, even if they had the desire and inclination. (Women have definitely shown they have that desire: At least 35 percent of the beginning farmers in PFI's network are female.)

"Being a daughter, I was told the family farm couldn't support me in addition to my brother and that I should find another career," reports one PFI member. "I didn't leave willingly; I left out of necessity."

Various experts have used the idea of "sweat equity" to put a number to the farming child's contribution to the farm business. Did the farming child actively contribute over the years, increasing the farm's value? If so, by how much? David Goeller has come up with an example, modified and included here.

Put a Value on "Sweat Equity"

The farming offspring (Jo) joined the family business in 1990, when the value of the farm business was \$600,000. Today's net worth for the business is \$1.5 million.

The parents decided that Jo had contributed a sizable amount of sweat equity to increase the farm business's value (including adding a cow-calf herd, renting and farming additional land, etc.) since 1990. They valued that contribution at 50 percent of the farm business value's increase since 1990.

The parents plan to divide the **1990 value** of the farm business equally among their three children: \$200,000 for each child.

The increase in the farm business value since 1990 is \$900,000 (\$1.5 million minus \$600,000). They decided Jo was responsible for 50 percent of that increase (\$450,000).

In the estate:

Jo's portion will be: \$450,000 (sweat equity, increase in value since 1990) + \$200,000 (her portion of the 1990 value) + \$150,000 (one-third of parents' portion of the increase in value since 1990) = \$800,000

Jo's sibling Jim will get: \$200,000 (his portion of the 1990 value) + \$150,000 (one-third of parents' portion of the increase in value since 1990) = \$350,000

Jo's other sibling Jane will also get \$350,000 (same math as Jim).

"Each family situation will be different," David says. "The next family may have decided that their successor had contributed to only 10 percent, or maybe 80 or 90 percent of the growth. The question is how much has the sweat equity contributed to the growth of the farm?"

“Wouldn't the parents want to pass on their assets somewhat equally to all of their offspring? Why is it different for people who are focused on a place and farming it?”

– HELEN GUNDERSON

Were They Treated Fairly?

Jerry Peckum, who farms near Jefferson with his son, wonders if the siblings in David's example would believe they were treated fairly. He also wants to know: Who owned the cows? By the time the parents were gone, who had paid for the machinery? How were expenses and income split?

“In our family's situation, Mom and Dad should have had a written agreement with my brother, Bill, who slowly took over the family farm,” Jerry says. “It would have been clear what his contribution was and what each expected. With the passing of my mom, it has worked out fine in our family because all the siblings care about each other. But because so little was in writing, Bill was at great risk of losing the opportunity to farm if the siblings had



Jeff Beaman has four non-farming sisters; he farms with parents Mary and Bill near Bedford.

started to fight. I believe it is very important to talk about estate plans when you are in good health and with time for heirs to adjust and understand your intentions.”

New Hampton farmer Tom Frantzen agrees that making arrangements after the fact can be a problem: “When the sibling joined the operation, the entire family should have been informed on the plan for the sweat equity to be a part of the long-term strategy. This one turned out well since the valuation rose – but that could have been different, and that risk is the trade for the equity.” In the Frantzens' estate planning, their daughters will receive a set guaranteed amount and their son accepts the risk that the value of the feed business may rise or fall. Tom reports that it feels good knowing all three offspring are aware of – and at peace with – the arrangement their parents have set up.

Farm real estate (land and structures) is the major asset on the farm sector balance sheet, accounting for 84 percent of the total value of U.S. farm assets in 2009, according to the USDA Economic Research Service. With real estate this dominant, one of the following goals may need to trump the others when you have farming and non-farming heirs:

- Give all my heirs an inheritance of equal economic value
- Provide land for my farming heir to farm
- Keep the farmland together

Which is most important? ■

Some Methods Used to Transfer Assets to Farming and Non-Farming Heirs:

- **Buy/sell agreements with farming heirs:** Parents commit to exact sale prices, terms and timing of payments on farm properties. The agreements provide the farm heirs a guarantee of property purchase at an acceptable pace and price, and are binding on non-farm heirs.
- **Life insurance:** Parents purchase life insurance on themselves and list the off-farm heirs as the beneficiaries and give farm heirs the farm assets.
- **A testamentary trust (through a complex will) or revocable living trust** that states the farm heirs have the right to purchase farm assets from the trust at predetermined prices, terms and conditions over a number of years. This guarantees the non-farm heirs their percentage of the estate over time.
- **The will:** Non-farm heirs may be given an inheritance of cash, non-farm assets or remote land holdings. Farm assets are transferred to the farming heirs. If the farming heirs or any heir has received earlier compensation, the will may spell out that they now get less than other heirs.

– From Gary Hachfeld, David Bau and Robert Holcomb, “Treatment of Heirs in the Transfer Process,” University of Minnesota Extension

Resources:

1. "Putting a Value on Sweat Equity," David Goeller, University of Nebraska-Lincoln:
http://swroc.cfans.umn.edu/prod/groups/cfans/@pub/@cfans/@swroc/documents/asset/cfans_asset_366292.pdf
2. "Treatment of Heirs in the Transfer Process" by Gary Hachfeld, David Bau and Robert Holcomb, University of Minnesota Extension
<http://www.extension.umn.edu/agriculture/business/farm-transfer-estate-planning/docs/treatment-of-heirs-2014.pdf>
3. "Farm Transition Issues: Farming Children and Non-Farming Children," Harlan Attorney Kate Kohorst
<http://practicalfarmers.org/farm-transfer>

Milk and Money: Backgrounding Dairy Steers Helps Beginners Fund their Dairy Dream

by Meghan Filbert and Julie Wheelock

Aspiring dairy farmers Heather and Loren Luitjens are taking a unique path to reach their goal of milking 150 cows. The Luitjens, from Osceola County, both grew up in dairy families and hope to take over Loren's family dairy in the future. In the meantime, they both have off-farm jobs, and raise two children under the age of two, as well as an array of livestock. Loren works at the local grain elevator and Heather works at a nearby calf ranch custom-feeding Holstein steers. Together, their knowledge and enjoyment of raising calves led the couple to pursue their own beef backgrounding enterprise before starting to milk cows.

Diverging from Dairy

At a time when beef prices are high and corn prices are low, there is money to be made feeding dairy steers, which make up 14 percent of cattle sent to market for beef production. Heather purchases "overflow" calves from the calf ranch where she is employed. These calves are weaned Holstein steers, 10 to 12 weeks old, weighing 180 to 250 pounds.

"The price for dairy steers has followed the beef markets," Heather says. "Feedlots need to be filled, so buyers are currently paying high dollar for Holstein steers." In 2009, when milk prices dropped below \$12 per hundredweight, some farmers had to pay truckers to take bull calves off the farm. Now, a three-day-old bull calf in Iowa can sell for \$375. 2014 was a great year for dairy producers, with prices averaging over \$24 per hundredweight. The feeder-calf industry has benefitted from high milk prices because "higher milk prices mean more money to spend on better employees that follow protocols," Heather explains when asked if dairy steers receive colostrum before being shipped to a backgrounding operation. All the calves Heather buys are fully vaccinated with good body condition.

Multi-Purpose Facility Plans

This summer, construction of a 100-by-140-foot gable barn will begin on the farm. The barn will be able to house 300 feeder steers, but designed in a way that it can easily be converted into a dairy freestall facility. Layout plans include a drive-through feed alley down the center and double curtains on the north and south sides to provide natural ventilation

to the four group pens. Two waterers will be installed in each pen and steers will be housed on a bedded pack.

Heather and Loren have a Beginning Farmer Loan from USDA's Farm Service Agency to help finance the \$250,000 facility. The couple says their ultimate goal is to "use the income generated from backgrounding calves to pay for the building, then



Loren and Heather Luitjens

transition into dairy." Backgrounding refers to the time period between weaning and finishing when calves are fed for optimal frame growth and muscle development. With current backgrounding rates, the Luitjens figure they can pay off the building in seven years. They recognize the cattle market is risky, but feel there will always be opportunities in backgrounding.

The farmers are taking advantage of high cattle markets and are currently using an old barn to feed 30 to 40 steers per month.

At any given time, there are approximately 90 calves on the farm: 30 coming in, 30 growing and 30 ready to be sold as feeders at the Tri-State Livestock Auction in Sioux Center. Adding the new facility will allow them to scale up, selling 100 feeder steers per month, year-round. Calves spend three to four months at the farm, reaching Loren and Heather's goal of an average daily gain of 3 pounds. By the time they leave at six to seven months old, calves weigh 500 pounds.

Enterprise Budget

The Luitjens are 2014 graduates of PFI's Savings Incentive Program (SIP). As part of their SIP requirements, Heather and Loren completed a business plan that included a budget for their backgrounding enterprise. Heather used Iowa State University's Ag Decision Maker enterprise budgets, available at www.extension.iastate.edu/agdm/ldfirst.html. "The budget templates are a valuable tool for us to better understand our farm finances and make informed business decisions on which livestock enterprise makes money," she says. "You know ahead of time what you're going to profit."

Heather and Loren currently purchase steers for \$750 per 225-pound animal, with the purchase price locked in at three-month intervals. The interest for the operating note to purchase the calves is secured at an annual rate of 5.5 percent. However, the note is paid off at four months, equating to \$11.78 per head in interest expenses.

Fixed Costs: Heather and Loren house the calves in a hip-roof barn with access to two dry lots located on the acreage where they currently reside. The only piece of equipment they use for the backgrounding enterprise is a skid loader, which is used to feed the cattle and clean out the building. (Transportation and trucking costs are noted as a variable cost.) Since the Luitjens make one mortgage payment for their entire acreage, Heather estimates housing expenses along with skid loader depreciation to be about \$14 per head.

Feed Costs: Calves have unlimited access to roughage consisting of either low-quality alfalfa hay or high-quality grass hay.

Each steer consumes about one-half ton of hay during the backgrounding phase. Heather says their most recent price for hay was \$112.50 per ton, bringing hay costs to \$56.25 per calf. In addition, steers are fed daily with a mix referred to as a "total mixed ration" (TMR), which includes cracked corn, distillers grain, molasses and a pre-mix called Steak Maker. The ration is mixed and delivered by the local elevator. Each calf consumes about 1,080 pounds (the current price is \$.085 per pound) during its three months at the Luitjens' farm. This equates to \$91.80 in TMR costs per calf, bringing the total feed cost per calf (hay plus the TMR) to \$148.05.

Other Variable Costs: Veterinary and health expenses are minimal for the calves due to proactive health management protocols before they arrive at the Luitjen farm. They are spot-treated with the antibiotic Aureomycin as needed. Thus, health management costs are around \$5 per calf. The estimated death loss is 1 percent – which calculates to a cost of \$7.53 per head. As noted earlier, skid loader depreciation is considered a fixed machinery cost. However, it has related variable costs, including fuel to run it, and wear and tear. These costs were estimated to be around \$4.50 per head. Marketing and miscellaneous expenses were estimated to be \$12 per head, and include costs such as equipment repairs, fencing supplies and trucking costs to weigh cattle and transport them to the sale barn in Sioux Center.

The Luitjens are able to cash-flow about half of their feed expenses with their own capital. For the other half, they secure an operating note for 2.5 months at a 5.5 percent annual interest rate, resulting in \$2.04 per head in interest expense. Heather and Loren estimate the time they spend doing daily chores and transporting animals to be 1.25 hours per day: At \$14 per hour, this amounts to \$17.50 in labor costs per day for the entire herd. With a 90-head herd kept for 90 days, the total labor cost is \$17.50 per head.

The Profit

Considering all expenses, Heather and Loren figure they need to receive \$1.97 per pound to break even. Price fluctuates based on the market, but the Luitjens sold the most recent group for \$2.23 per pound. With this price, they actually netted \$.26 per pound – or \$128.30 per head. This

Backgrounded dairy calves at the Luitjens' farm



is a little on the low end, as their initial calf purchase price was slightly higher than usual. However, Loren and Heather see a bright future for their backgrounding enterprise.

"Beef is in high demand and Holstein steer calves are known for their tender meat,"

Heather says. "We anticipate feeder prices to increase over the next three months by \$50 to \$60 per head." Heather and Loren have the experience and passion to become dairy farmers. They consider their backgrounding enterprise as the "sugar-daddy" that is steadily providing working capital to make that dream a reality. ■

Table 1. Loren and Heather Luitjens' enterprise budget for their backgrounded dairy steer calf operation. Numbers are per head for a 90-head operation.

EXPENSES					
Variable Costs	Price	Per Unit	Quantity	Unit	Total / Head
Calf Purchase	\$3.34	lb	225	lb	\$751.50
Interest on Initial Calf Purchase Capital	5.5	%	4	month	\$11.78
Corn (TMR)	\$0.085	lb	1080	lb	\$91.80
Hay (low-quality alfalfa or high-quality hay)	\$112.50	ton	0.5	ton	\$56.25
Supplement & Minerals	\$0.16	lb	80	lb	\$12.80
Veterinary & Health	\$5.00	head	1		\$5.00
Machinery & Equipment (skid loader fuel, and wear and tear)	\$4.50	head	1		\$4.50
Marketing & Misc. (repairs and trucking)	\$12.00	head	1		\$12.00
Interest on Feed Operating Note	5.5	%	2.5	months	\$2.04
Labor	\$14.00	hour	1.25	hours	\$17.50
Death Loss	1	%			\$7.53
Fixed Costs					
Housing & Machinery (building and skid loader depreciation)	\$14.00	head	1		\$14.00
TOTAL EXPENSES / HEAD					\$986.70
INCOME					
Gross Profit / Head	\$2.23	lb	500	lb	\$1,115.00
Break-Even \$ / lb					\$1.97
Net Profit / Head					\$128.30

Practical Advice for Small Grains Success

by Drake Larsen

Practical Farmers of Iowa has been working to capture and share the knowledge of Iowa farmers who grow small grains. During the 2014 growing season, we visited farmers across Iowa as they conducted small grains field operations. Our aim was to document the nuts and bolts of small grains production in both conventional and organic systems to help farmers interested in adopting small grains into their crop rotation.

A main motivation for this project was PFI farmers telling us that a roadblock in bringing small grains into their rotation was a lack of small grains knowledge; many farmers don't have a relative or neighbor to turn to for advice. These crops have been grown on nearly every Iowa farm, but not for a generation or more.

Gaining Confidence Through Experience

The farmers we talked to all said: Don't be afraid to try. "I think small grains are easier to grow than corn or soybeans," says Scott Shriver, who grows wheat in Jefferson



▲ Scott Shriver shares information about growing clover with attendees at a PFI field day.

County. "They're more forgiving in many ways."

Any farmer who is successful following best management practices in corn and soybeans can achieve success with small grains. As with adopting any new practice, farmers new to small grains should start with a modest acreage.

Pick a smaller field or partial field to start out. Like any cash crop, your small grains yield will only be as good as the field you planted in. New users will often experiment with small grains in the worst place on the farm, because they don't want to jeopardize corn or bean yields. So if you plant on an eroded sidehill or poorly drained bottom ground – places where corn typically doesn't do well – then don't expect a bumper oat crop there either.

Mixing It Up

One reason small grains are perhaps "easier" than corn or soybeans is because their early growth suppresses weeds; therefore they don't succumb to the same weed pressures that can hinder row crops. That difference is also a benefit in that adding small grains to a rotation can effectively disrupt weed and other pest cycles.

Tom Frantzen, who grows a succotash mix of wheat, oats and barley, uses small grains as a way to manage giant ragweed on his farm in Chickasaw County. Small grains are harvested in July, just before many weeds are preparing to set seed. "Harvest activity will chop them off at a time when the weeds are most vulnerable," Tom explains, "when they are putting all of their energy into seed production and have the fewest below-ground reserves." Tom's small grains stand was weak during the 2014 season, and the ragweed was threatening to get ahead of it. So Tom decided to chop a portion of a field as silage instead. He says he'd rather have had the grain and straw – but the ragweed, which could have been a

big problem, instead became food for his livestock.

Where Do They Fit in the Rotation?

Planting small grains following soybeans is best. Why? Because seed-to-soil contact is critical. That's not to say it can't work after corn. Following corn, the field must be disked or chopped multiple times to reduce the size of residue and ensure that seed doesn't sit on top of the corn residue. Last year, Marc Strobbe yielded 90 bushels of oats following corn on land he's farming in Boone County – a great first-time success with small grains. He disked twice, drilled the seed, then packed the soil with a Billion seeder.

All the farmers we talked to for the project were planting with a seed drill, though several reported past successes broadcasting oats. "If you are just starting out and don't have a drill, broadcasting oats will work just fine," reports Rex Thompson, who plants oats as a nurse crop for his hay and pasture in Boone County. He says there's no need to invest in equipment at first; rather, "just get out and get the experience," he suggests.

There's one caveat to this advice, however. With a good seed bed in mind, Roger Knutson, who farms organic small grains with family member Jacob Bolson in Hardin County, cautions newcomers: "Don't try this in no-till systems unless you have lots of experience."

Practical Farmers' small grains work will continue during the 2015 growing season. Stay tuned for more small grains outreach. For more information, or if you'd like to participate, contact Nick Ohde at nick@practicalfarmers.org or (515) 232-5661. ■

Why Small Grains?

Small grains may not compete financially year to year with row crops, but the intangibles are what makes them worth having in a crop rotation. Diversifying your cropping rotations by adding a small-grain crop is a strategy for balancing productivity, profitability and environmental health.

Recent research from Iowa State University shows that a diverse crop rotation is less reliant on chemicals, fossil fuels and fertilizers than the typical corn-soybean rotation. Fewer inputs means a lower cost of production, which improves the bottom line – especially as corn prices are down. Diverse rotations are also less vulnerable to rising input costs, as they consume approximately half the energy of a corn-soybean system.

Research at the ISU Extension and Outreach Marsden Farm compared a conventional corn-soybean rotation with “low-input, high-diversity” rotations, which included a small grain. The investigators found that “more diverse cropping systems can use small amounts of synthetic agrichemical inputs as powerful tools with which to tune, rather than drive, agroecosystem performance, while meeting or exceeding the performance of less diverse systems,” (Davis et al 2012).

Similarly, Long-Term Agroecological Research at the ISU Neely-Kenyon Farm compares a conventional corn-soybean cropping system with an organic rotation that includes corn, soybeans, oats and alfalfa. This investigation finds similar crop yields between cropping systems: Some years the conventional crop does better, some years the organic does better. However, because the diverse system has



▲ Marc Strobbe harvests oats by combine with a pick-up on crop-share land in Boone County.

fewer input costs, it is more profitable (Delate et al 2012).

In each case the research reveals lessened environmental impacts. For example, at the Marsden Farm researchers found herbicide-related freshwater toxicity in low-impact, high-diversity rotations is 200 times lower than in corn-soybean rotations after nine years.

References

- Davis, AS . JD Hill, CA Chase, AM Johanns, M Liebman, 2012. "Increasing Cropping System Diversity Balances Productivity, Profitability and Environmental Health," PLoS one 7 (10), e47149
- Delate, K., R. Rice, N. Wang, K. Schwarte and R Breach, 2012. "Comparison of Organic and Conventional Crops at the Neely-Kinyon Long-term Agroecological Research Site." RFR-A1291 found at: <http://www.ag.iastate.edu/farms/2012%20Farm%20Reports/Armstrong/ComparisonOrganic.pdf>

Read More

It's not possible to share all the information we've gathered in one article, so here are some recent publications PFI has authored as part of our ongoing small grains work:

- ⦿ "Practical Oat Production Tips" – *Wallaces Farmer*, March 2014
<http://magissues.farmprogress.com/wal/WF03Mar14/wal064.pdf>
- ⦿ "Extend Your Crop Rotation" – *Wallaces Farmer*, June 2014
<http://magissues.farmprogress.com/WAL/WF06Jun14/wal018.pdf>
- ⦿ "Diversifying Production by Growing Cover Crop Seed" – *Wallaces Farmer*, July 2014
<http://magissues.farmprogress.com/MOR/MR08Aug14/mor024.pdf>
- ⦿ "From Hogs to Whiskey: Making Use of Small Grains" – *Wallaces Farmer*, August 2014
<http://magissues.farmprogress.com/WAL/WF08Aug14/wal018.pdf>
- ⦿ "Small Grains Spawn Biodiversity" – *Wallaces Farmer*, October 2014
<http://magissues.farmprogress.com/WAL/WF10Oct14/wal068.pdf>
- ⦿ "Small Grains Offer Many Benefits in Crop Rotation" – *Organic Broadcaster*, January 2015
<http://mosesorganic.org/small-grains/>

Listen and Learn

We also hosted a number of farminars on small grains during the 2014 fall and 2015 winter series. Farminars are archived and free to access anytime at: practicalfarmers.org/farmer-knowledge/farminar-archive

- ⦿ "Extending the Rotation Beyond Corn and Beans" – November 24, 2014
- ⦿ "Setting Up Fall and Spring Small Grains for Success" – February 3, 2015
- ⦿ "Oats for Iowa: Variety Selection and Agronomic Tips" – February 10, 2015
- ⦿ "Cereal Rye: Stand Evaluation and Seed Selection" – February 17, 2015

(Note: You can search by date or keyword to easily locate the audio links).

Member Photo Feature

For the 2015 annual conference, we asked PFI members to share photos of your farms and gardens, families and fields, livestock and landscapes – or any other aspect of your daily experience that gives you pride, joy, inspiration (or perspiration!). In the coming issues, we plan to feature these images as we celebrate the diversity of people and perspectives that give PFI its strength.

KEVIN & RANAE DIETZEL – LOST LAKE FARM
 (Jewell, Iowa)



LYN & VERN VANDEBRAKE – ALMA DE FARM
 (Randall, Iowa)



JANNA FELDMAN – DOES AND DIVAS DAIRY
 (Honey Creek, Iowa)

TWYLA HEIN & KIM CROSS – EARTH BISCUIT FARM
 (Tipton, Iowa)





TOM & COLLEEN YUCUS – SAND PRAIRIE FARMS

(Ohio, Illinois)



GILBERT FAMILY – GIBRALTER FARMS

(Iowa Falls, Iowa)



DAVE & MEG SCHMIDT – TROUBLESOME CREEK CATTLE CO.

(Exira, Iowa)



Preserving Our Foundations

by Sally Worley

Practical Farmers has experienced substantial growth in membership over the past five years (see chart). This is exciting! More people participating in Practical Farmers of Iowa equals more farmers sharing with and learning from other farmers. The growth also demonstrates increased demand for farmer-to-farmer learning and networking opportunities.

This growth also poses potential risks. Our conference has been referred to in the past as a "family reunion," where people get the opportunity to catch up with farmer friends. With 838 attendees at our 2015 conference, the event has become a very prolific family reunion.

How can we preserve the close-knit feel of Practical Farmers while adding leaves to the table to accommodate more members? Four members weigh in.

1. Jeff and Gayle Olson (circa 1999)



We were recruited to become PFI members in 1989 because PFI was looking for a research cooperater in southeast Iowa. Back then, Practical Farmers was kind of a ridge-till club. It was a support group to us, and has continued to be so over the years. It was and remains a group of people who want to share and help other people succeed, not just themselves.

Meetings were a lot smaller when I joined. As we've grown older, I'm so proud of the young people coming in, the growth and the evolution of the organization to address more kinds of agriculture. It's wonderful to see all the diversity – it has always been strength through diversity with PFI.

For new members to create relationships within PFI, you have to attend field days. You learn just as much talking to attendees as you do from speakers at field days, presentations and meetings. Also, what comes around goes around. Don't be afraid to share and help others. As information exchange is changing and neighbors work more in air-conditioned tractors driven by a computer, the sharing and networking of PFI is more important than ever.

I like talking with deep thinkers through Practical Farmers who keep us away from tunnel vision. PFI members really get that success has more than one definition. It is important to me that PFI preserves this perspective – that there is always more than one way to make profit. It is also important to me that PFI remains a group of innovators and early adopters. ■

2. Tom Wahl (circa 1998)



I have been keeping track of PFI since before it existed. When I joined and first went to the annual conference in the mid-90s, we could all fit at the Starlite in Ames. At that time, farmers ran the whole gamut of enterprises. It was mainly diversified conventional crop and livestock farmers. There were far fewer vegetable growers, but there were some even then.

Before I was a member, I attended a Holistic Resource Management training. There were a couple of PFI people there, including Vic Madsen. Vic and I hit it off right away. When I joined Practical Farmers, Vic was the president, and there was a program called Shared Visions. It brought a bunch of people into PFI, including Susan Jutz. We made a lot of connections through this program. The group met the day before the conference started, much like the short courses now.

For people new to Practical Farmers, I recommend you attend field days. Attend the conference, do a lot of networking. Networking has always been the biggest attraction for us to PFI. When I was on the board, I remember reading lots of comments to that effect.

As PFI grows, I hope it preserves its diversity – of ideas and members, people thinking outside the box. That's what is most important in agriculture, and this is the only group that provides that diversity. ■



3. Gary Guthrie (circa late 1990s)

My first PFI conference was January 1995. There were perhaps 100 in attendance and I knew almost no one. Barney Bahrenfuse came up to talk with me over lunch. He made it a point to always sit with someone he didn't know at each PFI conference. That impressed me!

Nancy and I worked many years in Bolivia and El Salvador with peasant farmers who were quite articulate about their reality. They knew how to critically think. Upon our return to Iowa, we were frustrated as we spoke about these realities to countless audiences. There was a lack of awareness about their own reality, let alone what was happening in other parts of the world.

So perhaps you can imagine what it was like to walk into a room of PFI people who not only could think critically, but were trying to do something positive for change! I had yet to experience that



type of community since returning from El Salvador in 1990.

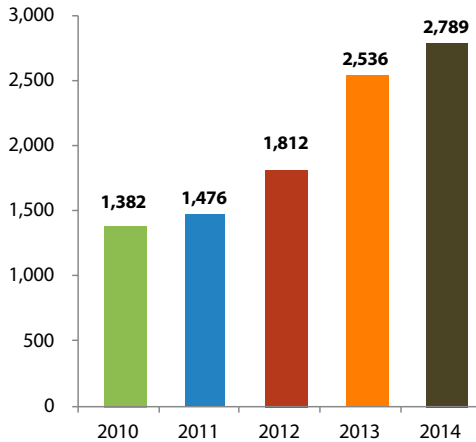
There is a phrase that the Center for Action and Contemplation in New Mexico uses: "You counter the bad by practicing the good." I believe that is the unspoken, underlying principle the PFI founders started with – and so many people of all stripes and persuasions are attracted to.

This principle, modeled by Larry Kallem and Dick and Sharon Thompson, must be preserved for PFI to continue to grow while being true to the spirit of openness, acceptance and cooperation practiced by its founders. There are no stupid questions and we are here to learn from one another. It is a level of truth and authenticity seldom encountered anymore in the broader American context.

Going to field days was one of the best ways that I began to connect with PFI members. I hosted a field day almost every year for quite a few years. Many a PFIer came, and I always appreciated it tremendously. There are too many to name here but you all know who you are. I am deeply grateful.

If a person does not develop a support network when starting a new endeavor, it almost always fails because one is isolated and doubts creep in. With more friends to rely upon, it is not fail-safe – but it is easier to work and live through the rougher times. I have not grown rich by American standards, but I can tell you this: I am one of the richest people on this planet for the wealth of friendships and relationships I have cultivated and been gifted through the myriad of connections and opportunities given me via PFI. ■

Member Growth



4. Alyssa Dunn (circa 2015)

I joined PFI in 2012 at the behest of Laura Krouse. I expected PFI to be composed of people like her: local vegetable growers who thought about farming a little differently than their neighbors. When I went to my first conference in 2014, I was surprised at the diversity. There were people of all ages and backgrounds, and such a range of interests. It wasn't just veggie farmers; PFI was row crop farmers, livestock farmers, fruit and nut growers, and a lot of people who do a little of everything. I have found this to be one of the most beneficial parts of my membership. No matter what I want to do or have a question about, someone in this network has or is doing it and has feedback to give.



Another thing that has struck me is that everyone is equal. I'm a young, female city kid looking to get into farming; it would be easy to write me off and exclude me from "the club." But at Practical Farmers there is no club. Everyone is welcome, no matter how novice. It's hard for me to walk into a room of people who have been farming all their lives; but without fail, every time I go to a PFI gathering, I come away with new friends and knowledge, having been made welcome from the start.

My go-to resource is the email discussion list. It's a great way to get feedback from a variety of experienced individuals quickly. The email list has been pivotal to getting my farm started. It's easy to sit back and relish the anonymity of the email list; it's not so easy to lose a beautiful, sunny, summer work day to attend a field day – but that is what you *must* do. You never know what you'll learn or whom you will meet. Nothing can replace the face-to-face exchange of ideas.

As PFI grows, it is important to me that it preserves the open exchange of ideas among people of diverse backgrounds and interests – and that we don't "preach to the choir." It's good we don't all agree or think the same way, because that opens the door for new kinds of thought. ■

PFI's Beginning Farmers: Who are They? What Do They Need?

by Steve Carlson

Just as Practical Farmers' membership has grown over the past few years, so too has our beginning farmer network. It's hard to know just how many beginning and aspiring farmers are in our network, as memberships lapse, definitions vary and people move in and out of beginning farmer status. One indicator may be the 1,500 contacts in our beginning farmer email list. Equally hard to define is a what a typical beginning farmer looks like.

Julie Wheelock showed this by highlighting three diverse beginning farmers in the Winter 2015 issue of the newsletter. That being said, the following information may help paint a picture of our diverse beginning farmer network. The information presented here reflects responses from 202 beginning farmers who completed our beginning farmer survey between December 2014 and February 2015, and may not be statistically representative of the entire beginning farmer network.

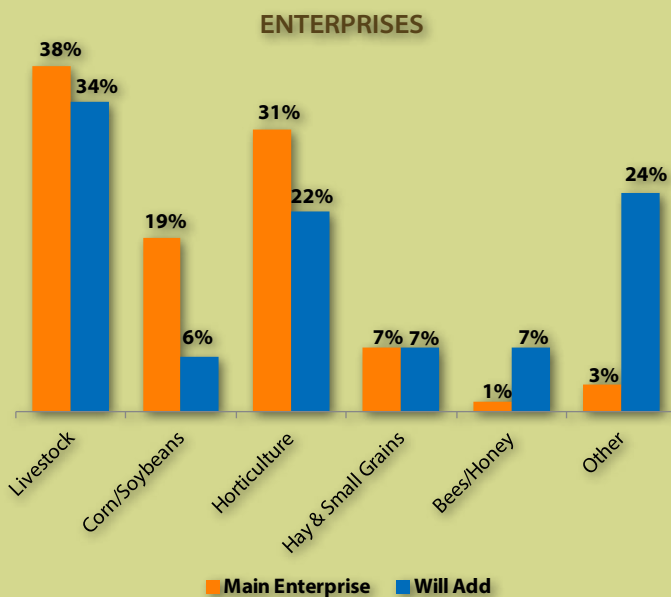


MISSY and PHILLIP JENSEN
Savings Incentive Program Class of 2015

“Practical Farmers offers a new way forward for folks like me wanting to get started in farming. They have formed an extended family across Iowa to which I now belong. This family offers new ideas, mentors, networking, finances and accountability for me and many others. As a beginning farmer, I would be lost without PFI – and would probably be doing something different.”

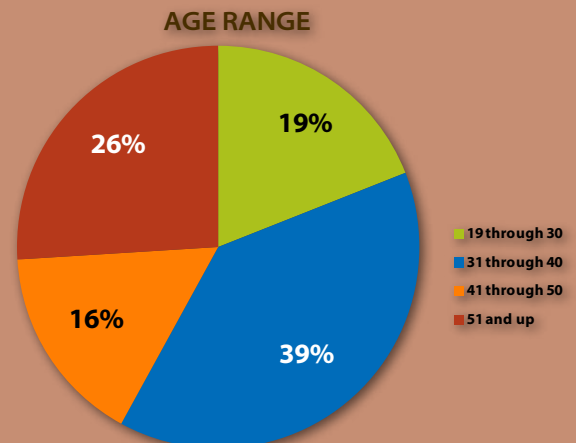
Farm Enterprises

The beginning farmer survey asked respondents to indicate what their main farm enterprise was for the 2014 year, as well as what farm enterprises they plan to add within the next three years. Livestock, horticulture, and corn and soybeans are the top three enterprises. Within livestock, respondents plan to add, from most to least popular: cattle, swine, poultry, goats and sheep. Within the horticulture group, in descending order of popularity, are vegetables; fruits; herbs and flowers; and orchards, trees and agroforestry. The "other" category includes agritourism, aquaponics, hydroponics, edible mushrooms, value-added goods, on-farm energy production and custom work.



Demographics of Beginners

The age range for beginning farmers in Practical Farmers' network falls between 19 and 68, with an average age of 41 years and a median age of 38. Sixty-five percent of our members are male, and 35 percent are female.





Access to Farmland & Succession Plans

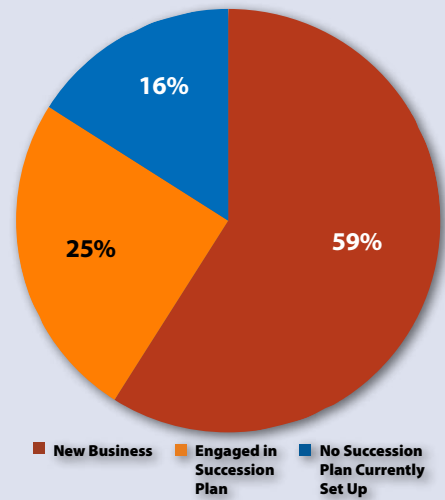
Of the beginners in our network who are currently farming, 56 percent reported owning land and 53 percent reported renting land (these are not mutually exclusive). The average reported number of acres owned is 112, though the median number of acres owned is 13. This difference is due to the fact that only a few larger farms responded to our survey, while many more smaller farms responded. Similarly, the average reported number of acres leased or rented is 177, with 70 being the median number of acres leased or rented.

Fifty-five percent of respondents need farmland to rent or purchase, and the

other 45 percent report having the right land access. Of those needing land to rent or purchase, 74 percent have not identified a piece of land.

Fifty-nine percent of our beginning farmer network have started or will start a new farming business, 25 percent are engaged in a succession plan for the continuation of a farm business, and 16 percent do not have a succession plan but may take over an existing farm business. This means 41 percent of respondents have the potential to take over an existing farm business but 59 percent must start from scratch.

SUCCESSION PLANS



What Do PFI's Beginning Farmers Need?

While all questions help us better understand our beginning farmer network. Perhaps the most useful for staff to develop beginning farmer programming is "What would you like help with the most?" Respondents were given a list of 31 topics and asked to rank each on a scale of one to five in order of importance. The following chart lists the top 10 topics beginning farmers requested the most help with.

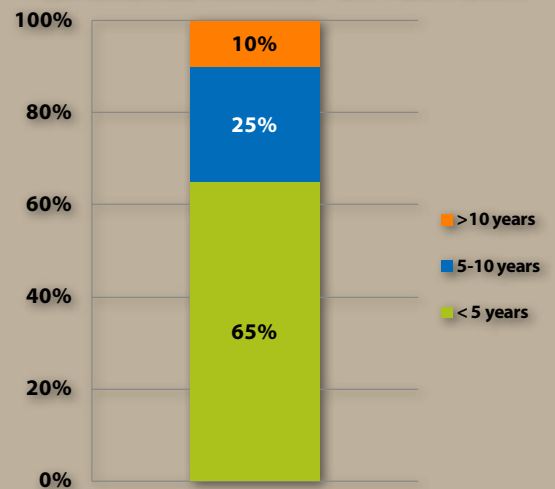
Capital infrastructure improvements lead the pack (hoop house construction, fencing, etc.), with help finding land close second. The remaining items can be grouped under marketing and business development, with production efficiency included in the latter. Recognizing the importance of a solid business plan, we asked specifically "Do you have a plan for your farm business with annual income forecast, and a budget of expenses?" Forty-five percent of respondents do not have a business plan, which includes those who currently farm as well as those who plan to farm in the future.

"What would you like help with the most?"	Ranking
Capital Infrastructure Improvements	1
Finding Land	2
Financing	3
Market Assessment	4
Marketing	5
Business Plan Development	6
Production Efficiency	7
Increasing My Customers	8
Financial Record Keeping	9
Livestock Expansion	10

Experience Farming

Thirty percent of this network does not currently farm, while 70 percent is currently farming. Of those who are currently farming, 65 percent have been farming "on their own" for fewer than five years, 25 percent have been farming "on their own" for five to 10 years, and 10 percent have been farming "on their own" for more than 10 years. Although those farming more than 10 years don't fall under the USDA beginning farmer definition, they have asked to remain included in our communications about our beginning farmer programming.

EXPERIENCE FARMING "ON YOUR OWN"



Do you have questions about this data or about our beginning farmer network? Suggestions for addressing our beginning farmer needs? Contact Steve Carlson at steve@practicalfarmers.org.

Harvesting Solar Energy

Managed Intensive Grazing with the Beards of Decorah

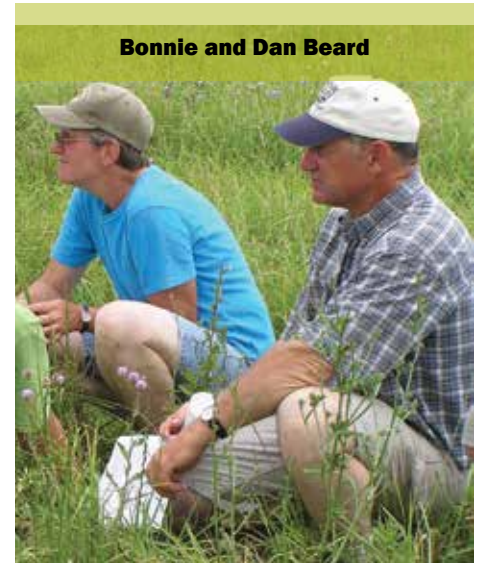
An excerpt from *Oneota Flow*
by David S. Faldet

Making conservation pay is the philosophy of Dan and Bonnie Beard, whose farm straddles Canoe Creek [near Decorah]. Their way of staying in farming has been to turn to an approach that will pay them a premium price for a product that takes a level of deliberation and care, which limits the size of their farm. They run an organic dairy that relies on an approach called “managed intensive grazing.”

Dan's great-great-grandfather, William Beard, began practical farming experiments when he moved to the country in the 1850s. William Beard and his sons promoted the first large-scale dairy in the country in the 1880s. One hundred years later, Dan Beard left school ready to milk cows and try out some experiments of his own. Growing up in a dairy family, Dan knew he wanted to farm, but his approach over the years has shifted from conventional dairying to intensive grazing to organic farming. Organic milk pays a premium price, but the primary reason for Dan and Bonnie to shift to organic farming was idealistic. By 2002 they had stopped using any chemicals on the land or antibiotics for their cattle. “It was the way we wanted to farm,” Dan philosophizes, “environmentally.”

I visit the Beards on a summer afternoon when the heat index is pushing 100 degrees. The white house and weathered red outbuildings sit below the road on a farmstead overgrown with trees. Dan walks across the driveway from the dairy parlor to meet me, wiping off his hands on his denim shorts. He has a hesitant way of talking, but he is a man of enthusiasm.

“Basically,” Dan explains, “managed intensive grazing is harvesting solar energy. The product is milk. It’s cheaper for the cows to harvest the grass than for us to do it for them.” The Beards have divided their farm into 60 separate grass paddocks. Their herd of 119 milk cows is put into a fresh paddock after each milking. To bring in the cows from their afternoon paddock, Dan has me join him on the bench seat



Bonnie and Dan Beard

of their Kawasaki four-wheeler, a vehicle that looks like a mud-spattered, industrial-strength golf cart. We start downhill through the farmyard toward the creek bottoms. Scattered trees become a forest as the hill steepens on either side of the dusty lane.

“A lot of this land,” Dan says, “is not tillable, but it is still really productive as pasture.” The grazing philosophy that Dan and Bonnie have put in practice was developed in the 1950s by Andre Voisin, a French scientist. He realized that plants

"We like to think the best reward is to turn [the cows] back into grass that is nice and lush. Grass is as good a feed as a cow can get."

—BONNIE BEARD



Dan and Bonnie Beard's pasture-raised dairy herd as they "harvest solar energy."

“Basically, managed intensive grazing is harvesting solar energy. The product is milk. It's cheaper for the cows to harvest the grass than for us to do it for them.”

—DAN BEARD

and animals developed interdependent relations. The hooves of cattle loosen and aerate the soil. The cattle's grazing stimulates growth. Cattle excrement fertilizes regrowth. In moderation, these animal activities help grass and clover. For their part, cattle thrive on grass and clover at their prime. Left free to roam, cows follow their noses, seeking out plants that are filled with energy and nutrition. Left penned in the same pasture, they overgraze the best plants until they are forced to eat less desirable plants. Neither the pasture nor the animals are well served.

Managed intensive grazing holds cows back from pastures until the grass is again at its prime, usually 11 to 14 days after it was last grazed. Though grazing is as old as civilization, Voisin's approach is a modern refinement, facilitated by the ease of creating new paddocks with electric fencing.

As we turn a bend near the base of the woods, a view of the lush bottomland opens up: A cow herd the color of deer, mixed with a few animals of black, white and roan, stands-heads down-in a green field through which Canoe Creek meanders. We jostle slowly to the far end of the enclosure; then Dan angles the Kawasaki around. Already the cattle are drawing together into a single herd, ambling slowly toward the lane down which we have come. They hesitate as they cross the creek, slow to leave the water that flows cool around their legs.

When we return to the yard, two boys wait in the shade of the barn, playing with a farm cat and her kittens in the grass. Bonnie Beard, in rubber overshoes, jeans and a green polo shirt, walks from the house to clean the pipelines to the bulk tanks. The boys walk over to help as Dan shows me the milking parlor. At the front of the room is a series of whiteboards, neatly covered with columns of names and numbers. The names on the board range from the exotic – “Spilde, Music, Scary,

Sonnet, Tattoo” – to the mundane: “Sadie, Madine, Jenna.”

The natural food of a cow is grass, and on their grass diet the Beards' cows live long, productive lives. When Bonnie comes into the parlor and picks up on our conversation, she tells me about one cow who had her last calf at the age of 15. “We didn't milk her that year. She seemed to want to just raise that last calf, and so that's what we let her do. She lived to be 16.”

Bonnie's voice betrays her strong bond of attachment to the animals in her care. “Soleil, one of the cows here, was in a herd we bought 10 years ago. She's got to be at least 12.” The life the Beards' cows lead is long compared to a confinement herd. The Beards quit milking in December to give the herd a rest through the harshest part of the winter until they calf in the spring, but through the rest of the year they milk each animal twice a day. Bonnie says that the whole herd will get some corn, some minerals and some dried kelp after milking. “But we like to think the best reward,” she says, “is to turn them back into the grass that is nice and lush. Grass is as good a feed as a cow can eat.”

Most dairy farms rely heavily on grain because it is rich in nutrients that produce milk. Relying mainly on grass, the Beards' cows give less milk [than grain-fed cows]. But the margin of profit per animal is good; the labor is more devoted to cows than crops. Since the farm is also organic, the Beards have no outlay for chemical fertilizers and pesticides. Equally important,

the milk and beef the Beards produce is organic, fetching a higher price.

Ironically, since they pride themselves in a low outlay of fuel and anything coming from petroleum, Dan and Bonnie's milk is often shipped to the coasts. “The demand is out East and out West,” Dan explains, “but most of the producers are like us, here in the middle of the country.”

. . . . The Beards are trying a new version of old-fashioned farming for which a growing number of consumers pay a premium. These consumers buy the milk, in part, because they share Dan and Bonnie's desire to return to a solar-based farming system that sends less pollution into rural streams, and in part because they believe that the produce of this system makes better food. ■

From "Oneota Flow: The Upper Iowa River and Its People" by David S. Faldet (University of Iowa Press 2009). Reprinted with Permission.

Want to Visit Gabe Brown's Ranch in August?

Sign up now; seating is limited!

PFI is planning a bus trip to Gabe Brown's Ranch near Bismarck, N.D., Aug. 3-6, to learn about soil health, cover crops and grazing.

Spend a full day on Gabe's farm, and the next day at the Menoken farm for a workshop and tour led by Jay Fuhrer. The bus will depart from Ames and stop in Clear Lake to pick up additional attendees. The cost is \$260, and seating is limited. Get full details, or sign up, at practicalfarmers.org (look under "What's Happening").

Questions? Contact Meghan at (515) 232-5661 or meghan@practicalfarmers.org

Tracking Energy Use at Blue Gate Farm

Keeping records helps farm meet cost-savings and conservation goals

by Nick Ohde

Practical Farmers has conducted a study to establish baseline farm energy data on 12 farms across the state to identify areas for future focus and on-farm research. Participating farmers shared electric, gas, diesel and LP records in an effort to identify dominant energy sources on their farms. Jill Beebout and Sean Skeeahan, who operate Blue Gate Farm near Columbia, were among the farmers who took part in the study.

Jill and Sean have operated Blue Gate Farm since 2005. They grow a wide variety of produce for their CSA and the Des Moines Farmers Market; have a laying flock of free-range chickens; raise alpacas for fiber, which they process into yarn; keep honey bees; value-add their orchard fruit into jam; harvest wild edibles from their timber; and sell hay. For them, reducing energy use is about more than just saving money. Jill is the fourth generation from her family on the land, and wants the land to be productive for future generations. In an effort to live and farm sustainably, Jill and Sean engage in practices ranging from composting to responsible timber management. Trying to limit their dependence on petroleum products and public utilities fits into that plan. "Our goal is to be as sustainable as possible," Sean says.

Because fossil fuel energy costs have come down in recent months, alternative energy sources have become a less attractive option for some farmers. Sean and Jill are not among them. Despite the cheaper monetary cost, fossil fuels still emit greenhouse gases, and they worry about the long-term cost to society. "What's the ultimate cost of our energy use for future generations?" Sean asks.

Farm Metered Energy Analysis

The first step toward analyzing on-farm energy use was collecting records.

Comparing energy sources on farms can be more difficult than it might sound. While it's easy to look at your gas or electric bill to see how much you spent – or to track money spent on gasoline and diesel – comparing energy use across sources can be difficult because they are measured in different ways. Gas, diesel and LP are usually measured in gallons, while electricity is measured in kilowatt-hours. Furthermore, you pay for each type of energy in different ways. For gas, diesel and LP, you pay to fill a tank and then use that pre-set amount of energy. Once the tank is used up, that energy source is offline until the tank is refilled. For electricity, however, the monthly bill is based on how much you use, and it can vary from one month to the next.

For this study, PFI energy consultant Rich Schuler designed an Excel tool that allowed staff to compare energy sources for each month and year. For electricity, the tool estimated use and cost over the preceding month based on the monthly bill. For LP, the tool forecast use until the next bulk purchase was made. In addition, different metrics of energy use were converted to a common unit: megajoules. Converting all your energy sources to a common unit is simple – just multiply the amount of particular energy source by the number of megajoules for that unit (Table 1) – and can be very useful in determining which energy source you rely most heavily on at your farm.

With this information, farmer cooperators were able to establish an energy baseline on a variety of farms across the state.

Table 1. Energy equivalencies for converting different energy sources to megajoules (M-Joules).

Energy Sources in M-Joules Per Unit		
Fuel	M-Joules	"per"
Diesel	150	gallon
Gasoline	132	gallon
LPG	96.7	gallon
Gasohol	129	gallon
Natural Gas	1.1	ft ³
Electricity	3.6	kWh



Jill Beebout and Sean Skeeahan

For farms with primarily horticultural enterprises, electricity was usually the largest source of energy, although for those farmers that included transportation fuel, gasoline equaled or surpassed electricity. For predominantly crop and livestock operations, energy use varied throughout the year, but diesel and LP were much bigger contributors. For horticulture farmers, greenhouses and coolers were the big energy users, while field operations and grain drying were big users for crop and livestock farmers. More detailed information can be found in the research report "Farm Metered Energy Analysis" (available at practicalfarmers.org/member-priorities/energy).

Tracking Energy Use

One major takeaway from the study was that it's hard to analyze energy use with incomplete accounting. While monitoring electricity and propane bills is a great start to tracking energy, more detailed recordkeeping could help better pinpoint which sources use the most energy – and when. Tracking and graphing monthly electricity use can give you a good idea of

the times of year you use the most energy (see Figure 1).

Because of various jobs, Sean has been tracking his personal gasoline use and mileage for years. When he started farming, continuing that practice was natural. "Once you get into the habit of it, it's easy," he says. "That's just what you do." Having complete fuel and mileage records is helpful not just for energy tracking, but for tax and budgeting purposes as well.

Sean says seeing all of Blue Gate Farm's energy use compared in the same unit (Figure 1) has been very useful: "When you see it laid out over multiple months and years, you can really identify those areas of improvement." Even those with energy-efficient houses and farms could benefit from tracking their use, he adds: "I think everyone can tighten up a little bit."

Identifying Energy Hogs

Once you figure out which energy source is responsible for most of the energy consumption on your farm, you can better pinpoint what might be using that energy. In some cases – such as grain drying, diesel or gasoline use – the source might be obvious. For vegetable growers, however, many of whom depend on electricity for the bulk of their energy needs, it may be helpful to further break down which appliances or devices are using electricity.

Unlike other energy sources, electricity is used by many devices: lights, fans, compressors, appliances and anything else that's plugged in on the farm or in the house. For each device, you can determine the general energy consumption with a

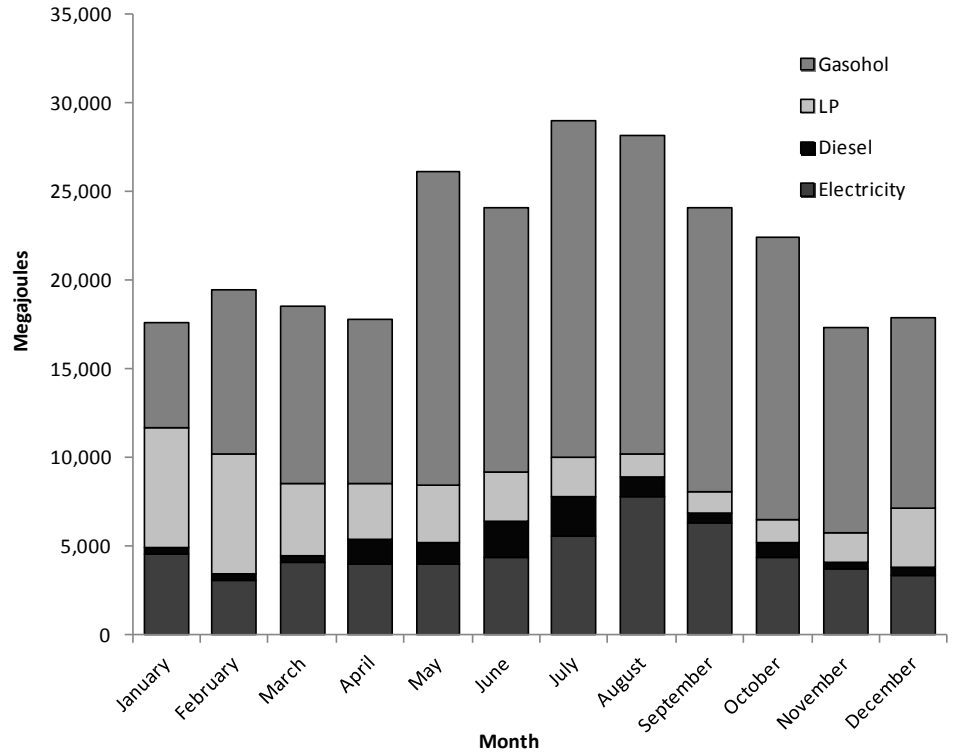


Figure 1. Average monthly energy use at Blue Gate Farm, by source, 2005-2012.

little basic information. First you need the wattage, which measures the rate at which energy is consumed (or produced) over time by a given device. Second, you need to know how long that device is using energy, in order to figure out the kilowatt-hours (kWh). For example, a 60-watt light bulb running for two hours would consume 0.12 kWh (1 kW = 1,000 W; thus, 60 W = 0.06 kW. So 0.06 kW x 2 hours = 0.12 kWh).

For Jill and Sean, and many other vegetable farmers, cooling produce in the hot summer months is a big source of energy use. Last summer, the compressor went out on their three-door standup cooler, so they decided to build a walk-in cooler.

"We were really outgrowing our old cooler, but energy efficiency played a big role in deciding to build the walk-in," Sean says. He hopes to install a meter on the cooler to track energy use, explaining that he and Jill constructed the cooler to ensure

maximum efficiency, but want to know if something is leaking. "We just don't want to waste stuff if we don't have to," he says, "and that especially goes for energy."

Jill and Sean have many plans to become more energy-efficient and -independent. Right now, they heat their high tunnel with a wood boiler and use some of that heat to supplement LP heat in their house, but Sean says they might invest in a larger, more efficient wood boiler. By practicing sustainable forest management on their farm, they hope to grow their own source of heat for years to come.

Years of detailed recordkeeping allow Jill and Sean to know how much energy they use, and what time of year they use it. They want to generate as much of their own power as possible, and those records will help them know when they can afford to install alternative energy technologies, such as wind and solar, into their system.

Saving money is important for Sean, but at the end of the day he says it's about environmental sustainability: "It's about our footprint on the planet. It would make me feel a lot better to know I'm not polluting as much as I had been." ■

The walk-in cooler at Blue Gate Farm



Meeting Policy-Makers Where they Work: Talking Ag Funding in D.C.

by Mark Peterson

I was privileged to be asked by Practical Farmers of Iowa and the National Sustainable Agriculture Coalition (NSAC) to go to Washington D.C. to speak with some of Iowa's congressional folks about ag funding. I spoke with staffers at the offices of Rep. David Young and Rep. Steve King. I do feel that our asking was well received. We were requesting funding for the Conservation Stewardship Program and the Environmental Quality Incentives Program, along with beginning farmer funding.

At Sen. Joni Ernst's office, I was able to speak with not only a staffer, but with Joni herself. Joni is actually a Stanton native whom I have known for years. She seemed to be very concerned about these issues as well. Time will tell; the proof is in the voting record. I do think because of things going on in Iowa, there is a renewed focus on conservation issues. Which brings me to my second topic: the lawsuit that the Des Moines Water Works has filed against drainage districts in Northwest Iowa.

What can be done? Thanks to the internet and an online subscription to the "Des Moines Register," I have been able to follow the news here in what I only somewhat jokingly refer to as "extreme southeastern Nebraska." I am a county supervisor here in Montgomery County and can only imagine what the supervisors in the counties being sued are feeling. With that being said, we all want clean water and I can understand the frustration that staff at the Des Moines Water Works must be feeling.

Back to my question: What can be done? While all farmers are good stewards, I do

feel that we, as Practical Farmers members, care deeply about our environment. I would hope we can all work together as fellow Iowans to find a solution to [the water quality] problem. I know there are plenty of you out there who are light-years ahead of me in sustainability, along with caring for the environment. I would hope that we all do whatever we can to reach out to our friends and neighbors by conducting field days, along with visiting with them one-on-one about things that can be done to preserve and enhance Mother Nature.

Additionally, I would suggest perhaps donning a Don't Farm Naked T-shirt or bike jersey before you head for the urban areas. Melanie and I know from experience that it can lead to some interesting conversations. If you are not comfortable with that slogan, no problem; find your own way to tell your story. I do believe that we need to tell our stories so that we can gain help and support from the vast majority of the population that is not involved in agriculture. I know it

gets frustrating and would be so easy to just drink the Kool-Aid and then go run with the pack, but in the words of Dick Thompson: "We need to get along, but not go along." Hopefully clear heads prevail and we can find a reasonable solution to this problem that affects us all. ■

Mark Peterson farms at Bent Gate Farm in Stanton, Iowa, and serves as vice president on Practical Farmers of Iowa's board of directors.

Note, you can read more about this farmer fly-in on this NSAC blog post: <http://sustainableagriculture.net/blog/farmers-visit-dc-march-2015>

Learn more about the policy issues Practical Farmers works on at: <http://practicalfarmers.org/member-priorities/policy>

Mark Peterson with Sen. Joni Ernst





"Dodging Extinction: Power, Food, Money, and the Future of Life on Earth"

by Ray Bratsch-Prince

I finished reading "Dodging Extinction: Power, Food, Money, and the Future of Life on Earth" after getting back from PFI's annual conference in January, which is always a good time, sharing laughs with old friends and making new ones. I don't need to go to the conference to share a laugh, as I find humor in a lot of things and am generally happy (my wife says I wear rose-colored glasses, which may be true on a day-to-day basis). But long-term, I am anxious about the survival of humanity.

Before reading "Dodging Extinction," published in October 2014 by Anthony D. Barnosky, I thought the issue was that there are getting to be too many of us. We use too much water; the way we farm is burning through soil organic matter; and industry, along with the way we travel, is raising the carbon dioxide concentration in the atmosphere, causing havoc with weather. This is why I latched onto Barnosky's book: If he thinks humans can "dodge" extinction, then perhaps there is some hope for us.

Ray Bratsch-Prince

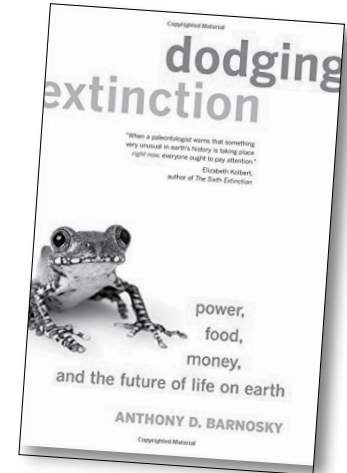


Barnosky, a professor of paleobiology at Stanford, does believe there is hope for human survival, but he describes the "health issues" of our planet in much more comprehensive – and scary – terms than I did. Barnosky writes: "If the worst mass extinction of all resulted from the cascading effects of rising CO₂, climatic warming, ocean acidification, and dead zones; and all past extinctions seem to have involved at least two of those four factors; and we've got all four of those things not only going on today, but actually accelerating – what does that mean for the plausibility of another mass extinction?"

Barnosky breaks down the manner in which humans are impacting the environment in three ways: the way we use energy for power, both for transportation as well as heating, cooling and lighting; the way we acquire food; and the way money is implicated – essentially how wild elephants, tigers and rhinos are poached for short-term economic gain. While these problems are significant, he proposes several solutions.

On the energy front, he says the solution is to use fossil fuels for cars and power plants more efficiently, and to eventually replace fossil fuels with carbon-neutral sources, by creating fuel from non-food sources such as algae. He argues that we need to increase the use of solar power 70-fold, and wind power 40-fold. For wind power, Barnosky says we ought to construct 3.8 million more windmills. Sound outlandish? Not, says Barnosky, if you consider that we build 78 million cars and trucks each year.

To tackle the role of money in depleting wildlife, Barnosky writes that we need to eliminate poaching – and the value placed on elephants for ivory, and on tigers and rhinos for medicinal purposes. Ecotourism, which provides jobs for many and is already a large industry in parts of Asia, places a different value on wildlife:



the value people place on – and are willing to pay for – seeing animals in their environments. With ecotourism, the value of wildlife shifts to how they can improve ecosystems to support that economic base – similar to the way graziers have found that rotated cattle can improve grasses and wildlife.

The way we obtain our food is a big issue that might not seem immediately linked to human survival. But when you look a little closer, the links are more clear, such as clearing forests for agriculture. Barnosky writes that to solve the food issue, we need to stop deforestation and go no-till. To avoid taking over rainforests and other lands abundant in species, agriculture in the next 50 years is going to have to again double its production on the same amount of acres – without causing additional damage to the soil.

How? By using "better seed, but especially by restricting fertilizer and pesticide use, employing efficient irrigation, and using planting techniques that minimize soil disturbance and erosion," Barnosky writes. These are things many PFI members are already doing, and PFIs are the choir he is preaching to when he says these

(Continued on page 26) ➔

Leave A Legacy:

DARRELL AND CHRIS MOHR

FARM
LEGACY LETTER
A Project of Practical Farmers of Iowa



Darrell Mohr's family moved to their 120 acres near Avoca in 1955 as sharecroppers. They purchased the farm in December 1964 for \$306 an acre. Darrell has abstracts on portions of this property dated back to 1855. Through the years, the family raised corn, oats, soybeans and milo, and alfalfa and clover for both hay and pasture. They raised cattle, both for dairy and meat, as well

as chickens, hogs and sometimes sheep. The family had a huge strawberry patch and garden with all kinds of vegetables, which his mother canned and froze.

The farm now is owned in trust, with the Mohrs' three children as trustees. After years of renting the homeplace out, the Mohrs' daughter, Amber, and her family moved to the acreage in January 2014 to start a poultry and vegetable farm business.

Darrell and his wife, Chris, recently wrote farm legacy letters, to share with their children what matters most to them with the farm. Chris writes: "When I think of the farm as I found it upon marriage to Darrell, I remember that Ernest had hogs and cattle. This is in 1973. A beautiful golden retriever dog named Goldie resided there too. Ernest not only farmed that place but rented other land. The place was always well kept on the outside as well as on the in. The lovely blue grass lawn stands out in my mind with the trees that bordered on the west and north.

"Leona's garden was a marvel. I especially remember fresh peas and how she would make this delightful dish of new potatoes creamed with fresh peas. Her strawberries were the best ever. When it came time to put up sweet corn she had us all at a station to keep the process moving smoothly. There is one incident that, at the time I looked at it in disdain. Now I see her methods of 'waste not, want not.' I was pregnant with Darren and Leona remarked that before we left she would like Darrell to help her get the squab down at the barn. This silly 'town girl' thought we must be getting some vegetable. Darrell knocked down some nests of pigeons and right there she took off their heads and de-feathered them to prepare them to cook. I went around the barn and threw up. As I said, I thought it was disgusting at the time, but now look upon it as being raised to be resourceful.

"Ernest's work was also his recreation. When they built a golf course in Avoca, he remarked that he did not need to swing a club. He could get the same exercise with a scythe swinging at weeds.

"Hopefully in the future, there will always be living on this land someone who would work it, fulfilling the idea of farming with pride. I would want them to conserve, improve soil and water quality. I would want them to keep themselves educated on healthy farm practices, so that, even another 30 years down the road, this land is beneficial not only to the owners and those they serve but to the agricultural community.

"I would want my immediate heirs to receive to the best of my ability equal economic value. Harmony in the family is important as well as all recognizing the value of this farm."

– From the Farm Legacy Letters of Darrell and Chris Mohr. For more letters, visit practicalfarmers.org/farmtransfer

"Dodging Extinction"

(Continued from page 25)

"simple fixes can result in pumping up production dramatically without causing additional environmental damage." We also have to stop wasting food – now at 30 to 50 percent pre-consumer, and 40 percent post-consumer – and eat from appropriately grazed animals.

Can extinctions be avoided if you and I lower the amount of carbon we use by, among other things, driving efficient vehicles and not wasting food? Barnosky believes we are at the point where only deliberate human action will achieve this – and he believes we'd better start soon. By starting now we may be able to halt the increase in global temperature to 3.8 degrees Fahrenheit in the next 100 years, something Barnosky feels humans could adjust to. If we don't and the temperature goes up 8 degrees, as some models predict, life on earth for 10 billion people will be tough.

Barnosky argues that all of mankind's institutions – religious, government, education and industry, including our food system – will have to adopt and work towards these solutions. Getting governments to write and enforce regulations can be tricky, but industry has already taken the lead. Barnosky writes that many Fortune 500 companies realize they will be operating in a changed climate and are finding ways to offset their carbon footprint.

So, barring famine, epidemic, war or other human folly, which might limit human population, could our efforts to halt climate change work? Yes, says the optimist Barnosky. So do I! But don't believe me. I wear rose-colored glasses. ■

Ray Bratsch-Prince operates Prairie Cattle Company near Nevada, raising and direct-marketing grass-fed beef.



Thirty Years of Farmers Teaching Farmers

This year marks Practical Farmers of Iowa's 30th anniversary. Over the decades, Practical Farmers has worked to strengthen farms and communities through farmer-led investigation and information-sharing. Along the way, membership has grown and topics have shifted a bit based on farmers' priorities, but Practical Farmers has preserved the tenets on which PFI was founded.

LOOKING BACK: 30 YEARS AGO IN THE NEWSLETTER

It's remarkable to look back through the years and read what members' priorities were, and how many of those same goals still guide the organization today – a testament to our farmer-led focus. Here are some excerpts from the very first issue of "the Practical Farmer," published for the first time in spring 1986:

Share and Promote

The Practical Farmers of Iowa board of director met Feb. 21-22 and took steps to set the course of the organization for both the near- and long-term.

A set of goals was formalized as a statement of purpose. The board felt the priorities are the following:

- 1). Finding and sharing ways to profitably reduce the use of such purchased inputs as herbicides, insecticides, fertilizers and antibiotics – both to lower production costs and to maintain a healthy environment.
- 2). Promotion of conservation and improvement of the land, through: 1. rotations and cover crops; 2. residue handling and tillage systems; 3. manure handling in livestock systems; 4. avoiding unnecessary compaction and maintaining good soil structure.

Serve a Broad Spectrum of Farmers

The board reaffirmed that as a general policy, PFI should strive to appeal to as broad a spectrum of farmers as possible, from purely organic growers to those who haven't begun to reduce inputs.

From the Practical Farmer Vol. 1, no. 3, Fall 1986 newsletter:

Work Toward Stewardship, Improved Farm Net Income

The time is ripe to capitalize on the concern throughout the state for clean drinking water and improved farm net income. These two issues have attracted the attention of newspapers, radio, and television, and should by now be concerning state officials. Through friendly exposure we can plant a seed in the minds of these officials; then, when they are seeking solutions to problems of chemical abuse in agriculture, they may remember us as a source of constructive information.



Ron Rosmann (holding mic) speaks to a group at his field day in the early 1990s.



PRACTICAL farmers of Iowa
Strengthening Farms and Communities

SENTIMENTS FROM SOME FOUNDING MEMBERS

Strengthen Culture in Agriculture

– Tom Frantzen

The common basis of all PFI activities is the development and preservation of agricultural skills. These skills are what form the "culture" in agriculture. If we work together, we can shape them into a diverse, productive, and creative portion of our society.

Help People Develop Farms and Communities

– Vic Madsen

PFI can do nitrogen tests, but it also has to have communication and community. We sometimes underestimate the power of examples and of practicing what we preach. Many members are developing farming systems by putting together practices proven by our research plots. The resulting farming systems have dramatic profit potential compared to conventional corn and soybeans. We feel PFI serves best by helping people develop their farms and communities.

(Continued on page 29)

Farewell from Drake Larsen: From Iowa to the Fields of Canada

It is with bittersweet sentiment that I write this note to you all. After three years on the Practical Farmers staff, I am moving on. This move is a greater leap than simply changing jobs: I am making the transition to agrarian pursuits – a lifestyle change many of you know. This move takes me from my native state of Iowa to the shores of Lake Erie in Ontario, Canada.

In Ontario, near a little town called Sparta, my wife and I have purchased a farm for ourselves and our daughter. Planted in row crops just a few years ago, the farm has now been seeded to pasture and forage. There's a tiny house on the ridge that we will call home. I'm teaming up with a local farmland owner there in an endeavor we call EverTerra Farms.

EverTerra Farms is founded on the idea that conserving biodiversity requires a unified approach to managing all aspects of land and water. Our primary motivation will be restoring the natural functions that rebuild previously degraded soils.

We will do this through silvopasture (an integrated crop and livestock system that includes trees), perennial plants (berries and nuts, forage and fodder, and wood and biomass), and soil and water management using Keyline Design.

It was the realization of the above tenet – that farms must serve as natural habitat – that initially drew me to sustainable agriculture, and in turn to Practical Farmers of Iowa. And it's the relationships I have forged through PFI that have given me the courage to make this move.

To find a better way to produce our food, fiber and fuel – a sustainable agriculture – is the challenge of our time. Facing climate change, oppressive consolidation of resources and a burgeoning world



population is no small feat, and success is not guaranteed. But here, Practical Farmers of Iowa and its curious and innovative members, are a beacon of hope. You all inspire me. I will be forever thankful for the friendships and partnerships I've made through this organization. I will see you all again through the email discussion lists and at the annual conference (I'll be back!), but for now: Thank you and good-bye. ■

Host a Potluck in Your Area!

Potluck Anyone? We would love to help you host a PFI potluck in your area! We will help you organize the event, but have discovered that potlucks are much more successful when hosted by a local member.

We will send invitations to all members in your region and provide you with sign-up sheets so you can share your information with other attendees. If you would like to host a potluck, please contact Lauren Zastrow at lauren@practicalfarmers.org or by phone at (515) 232-5661. ■

Watch for the 2015 Field Day Guide

Mark your calendars: Field days start on June 6!

Are you eager to visit other farms across Iowa to learn about the many innovative things farmers are doing? Then get ready for Practical Farmers' 2015 field day season! Field days are farmer-led learning opportunities that cover topics across the spectrum, from field crops and horticulture, to on-farm research, livestock, land stewardship and more.

Last year, more than 3,800 people attended Practical Farmers field days, and nearly half were first-time attendees. Think our field days are just for farmers? Not so! PFI events are open to everyone, and are ideal outings for families and friends of farmers who want to learn more about Iowa agriculture. Do you have

farmer friends who are not PFI members? Invite them to an event! In 2014, more than half of all field day attendees were non-members – making PFI field days an excellent place to share your farm's story with a wider audience.

So if you're looking to network with other farmers, get ideas for your farm, learn something new or simply meet others interested in Iowa agriculture, plan to attend an event this season. With 40 events taking place around the state – and most free of charge – there's no reason not to! Stay tuned for the 2015 Field Day Guide to reach your mailboxes later this spring. ■



Looking Back at 30 Years

◀ (Continued from page 27)



▲ Dick Thompson (left) and Larry Kallem, co-founders, at a PFI field day.

▼ Vic Madsen (holding papers) hosts one of PFI's field days from the early years.



▲ Angela Tedesco, right, discusses trellising at a field day she hosted on her vegetable farm.

Focus on the Practical

– Dick Thompson

Maybe we should have named the group "usable" instead of "practical" farmers of Iowa. We were looking for information that's usable, information that can be applied.

Encourage Individual Experimentation

– Dick Thompson

It is important for agricultural science to be open to ideas. The agricultural scientific establishment has a proud record of accomplishment in generating ideas. But American agriculture also has a rich tradition of the individual tinkerer, inventor and general innovator sometimes ahead of the scientific establishment in originating ideas. Many such persons are experimenting with alternative ways to grow crops, husband animals, conserve the soil, use fewer inputs and protect the quality of food and water.

Stay Open

– Sharon Thompson

We don't have it all figured out. We're always learning. That's what PFI is about. There are two different opinions with everything, so it's best to be open.

Look at the Whole Picture

– Ron Rosmann

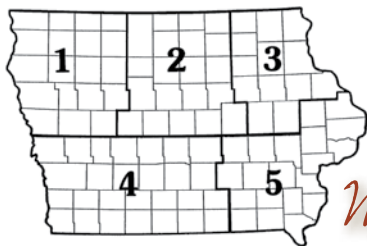
We always have to keep in perspective the whole picture; by that I mean the fabric of our whole society and where we may be heading.

Here is a partial list of what I think the ingredients of sustainable agriculture should be:

- Diversified crop and livestock operation
- Lower fertilizer and pesticide inputs
- Fairly labor-intensive
- Not too large
- Utilizing "appropriate sizes and types" of technology
- Employs water and soil stewardship principles
- Is family and community centered
- Relies more on self-ingenuity and experience for answers to farming problems
- Children partake in responsibilities on the farm
- There should be closeness to God and nature
- There should be a fair economic return for labor and production
- A large plant and animal species gene pool should be maintained

Some of the intended results of these ingredients would include:

- Widespread ownership of land and resources
- Better soil and water quality
- Would help farmers maintain control over their own lives
- Foster a sense of rootedness in both the land and the community
- Maintains and improves quality of life
- Is a system that will last ■



Welcome, New Members!

District 1–Northwest

- Grant Fineran, Denison
- Ann Hardy, Anthon
- Brian Irlbeck, Manning
- Gary Kuehl, Mapleton
- Cody and Bethany Larson, Armstrong
- Jim Larson, Sioux Rapids
- Sam Radke, Albert City

District 2–North Central

- Lennon Brandt, Swea City
- Tom Dobbin, State Center
- Bryce Eckley, Ames
- Thomas and Jennifer Fawcett, Ames
- Jody and Joyce Fisher, Ames
- Goats on the Go, LC, Aaron Steele, Ames
- Barton Hawley, Indianola
- Leon and Marilyn Isakson, Charles City
- Pat and Gina Kubik, Clutier
- Erin Laughlin, Ames
- Ray Lounsberry, Nevada
- Ryan and Tia McInroy, Charles City
- Eric Moore, Ames
- Stephanie Nelson, Ames
- David Nelson, Duncombe
- Gregory Nelson, Ames
- Jim Patton, Ames
- Mikaela Pruismann, Webster City
- Mike Robertson, Webster City
- Selden Spencer, Huxley
- Eric and Michele Werner, Toledo

District 3–Northeast

- Jeff and Amanda Baker, Lisbon
- Liz Blood, Alburnett
- Robert Busch, Waverly
- Earl Canfield, Dunkerton
- Brad Crawford, Decorah
- Cole DeKlotz, Springville
- Don Elsbernd, Postville
- Danielle and Jeff Hall, Palo
- Sarah Haugen, Decorah
- Iowa Food Hub, Nick Mabe, West Union

- Roger and Joanne Lane, Waterloo
- Zach Maxon, Decorah
- Zach and Jeff Reiter, Cascade
- Abby Rippe, Denver
- Steve Schmidt, Denver
- Jake Spece, Independence

District 4–Southwest

- Jake and Crystal Bigelow, Winterset
- Mark Cary, West Des Moines
- Matt Denton, Thayer
- Patricia Freeland, Windsor Heights
- Jim and Shannon Funcke, Jamaica
- Darrel Goodrich, Adel
- Green Cover Seed, Colten Catterton, Corning
- Jim Harvey, Waukeg
- Mallory Hohmann, Des Moines
- Leroy and Phyllis Larsen, Harlan
- Sara Lockie, Ankeny
- Dennis Lundy, Fontanelle
- Frederick W. Martens, Winterset
- Beth and Rick McGeough, Indianola
- Bryan Mowrer, Guthrie Center
- Principal Financial Group, Jolena Irving, West Des Moines
- Ron Reischl, Manilla
- Ethan Roos, Cumming
- Beverly Schelling, Atlantic
- Don Sponheim, Altoona
- Cheryl Standing, Earlham
- Barb and Randy Stewart, Newton

- Chris Sullivan, Marne
- Debra Swirmicky, Glenwood
- Lynne E.E. Tillman, Des Moines
- Marjorie Turnquist and Nickolas Illingworth, Des Moines
- Dan and Donna Wagner, Dallas Center

District 5–Southeast

- Dominica Borg, Fairfield
- David Brown, Grinnell
- Randy and Zachary Cross, Danville

- Deborah Dee, Coralville
- Bill Fortin, Danville
- Dean Goodale, Fairfield
- Twyla Hall, Bettendorf
- Renee Harper, Iowa City
- Sheldon Headings, Bellevue
- Iowa Mennonite School, Karen Van De Walle, Kalona
- Esther and Ed Johnson, Tiffin
- Allison Kelchen, Monticello
- Tim and Genna Knutson, Oakville
- Lloyd Koos, La Motte
- Adam Ledger, Brighton
- Robert Lisinski, West Branch
- Nick Messamer, Oskaloosa
- Chad Murphy, Iowa City
- Kerrilyn and Allen Nunnikhoven, Oskaloosa
- Samuel Odegemi, Iowa City
- Jim Peterson, Iowa City
- Faith Reeves, Fairfield
- Jack Robertson, Grinnell
- Scott Rochau, Davenport
- Don and Linda Stickle, Anamosa
- Chris Sutton, Solon
- Lucas Wedemeyer, Iowa City
- Samantha Wittrock, Iowa City

District 6–Out of State

- Ivan Arenson, Minnetonka, MN
- Ron Barber, Stewartville, MN
- Kathy Bull, Medford, MA
- Hanna and Eric Friedericks, Dodgeville, WI
- Rebecca Graff, Kearney, MO
- Brad Hagen, New Richland, MN
- John Hogeland, San Francisco, CA
- Adrian Keegan, Omaha, NE
- Rick Kennay, Ashton, IL
- Bonnie Madland, Idaho Falls, SD
- Dan Nath, Rochester, MN
- Betsy Nore, Chicago, IL
- ProfitPro, LLC Jim Ladlie, Albert Lea, MN
- Greg Rebman, Frederick, IL
- Gordon Richey, Marion, IL
- Sally Sofio, Omaha, NE

UPCOMING EVENTS ~ MAY | JUNE | JULY

Various Dates – "Map of My Kingdom" Play Performances | Multiple Locations

Commissioned by PFI and written by playwright Mary Swander, the play explores many of the thorny and emotional dimensions of farm transfer.

Check practicalfarmers.org or maryswander.com for the latest schedule information: New performances are being added all the time!

May 16 – Introduction to Small Ruminant Husbandry | Ashby, MN

Hosted by the Sustainable Farming Association, this workshop is for anyone considering adding goats or sheep to their sustainable food production system or those who want to manage their small ruminants more holistically. For more, visit: www.sfa-mn.org/

May 31–June 3 – 14th North American Agroforestry Conference | Ames, IA

The conference title is "Agroforestry as a Catalyst for On-Farm Conservation and Diversification" and it will take place at the Holiday Inn Conference Center at the Iowa State University campus. For more, visit: web.extension.illinois.edu/registration/?RegistrationID=11440

June 3 – Women Caring for the Land Workshop | Verona, WI

Organized by the MOSES Rural Women's Project and WFAN, these workshops teach women landowners how to assess and improve the health of their soils through cover crops, no-till and strip-till, and other conservation practices. For more, visit: <http://womencaringfortheland.org/wisconsin>

June 3-5 – 2015 World Pork Expo | Des Moines, IA

The world's largest pork-specific trade show features hundreds of commercial exhibits from companies throughout the world. For details about event schedules and the latest information on room availability at official World Pork Expo hotels, visit: worldpork.org

June 16-17 – Midwest Farm Energy Conference | Morris, MN

Hosted by the West Central Research and Outreach Center (WCROC), learn about optimized and cost-effective energy systems for dairy, swine and crop production. The conference includes speakers, practical information for producers and a renewable energy bus tour. For more visit: <http://wcroc.cfans.umn.edu/events/>

June 24-25 – Hay & Forage Expo | Cannon Falls, MN

The Hay & Forage Expo is a one-stop shopping and learning venue for hay and forage producers. Visit: <http://HayExpo.com>

July 17 – John Deere Factory Tour | Ankeny, IA

Here's your chance to go inside the factory and see how things are made from start to finish. Attendance is 60 max. Please RSVP to Deborah Bunka at (515) 451-8492 or dbunka@iowafarmersunion.org

July 23-25 – Aquaponics Master Class | Montello, WI

Organized by Nelson and Pade, Inc., this is a comprehensive course covering all aspects of aquaponics and controlled environment agriculture. For more, visit: <http://aquaponics.com/calendar/?i=68>.

For more events, visit practicalfarmers.org



Grow your farm with Practical Farmers. Join today!

This annual membership is a:

- New membership
- Renewal

I am joining at the level of:

- Student – \$20
- Individual – \$50
- Farm or Household – \$60
- Organization (including businesses, agencies, not-for-profit groups – \$110)
- Lifetime Member—\$1,000

My interest in joining PFI is primarily as a:

- Farmer/grower
- Non-farmer – (You will have the opportunity to expand upon this when you receive your membership information form.)

How did you hear about Practical Farmers of Iowa?

..... Each membership includes one subscription to *the Practical Farmer*.

Sustain PFI

For the long-term health and vitality of PFI, we ask you to consider making a donation above and beyond your membership fee. I would like to make a tax-deductible donation to PFI in the amount of:

- \$1,000
- \$500
- \$250
- \$100
- \$50
- \$_____

JOIN OUR GIFT OF THE MONTH CLUB

The Gift of the Month Club is an easy way to support Practical Farmers of Iowa! Send in your pledge with your credit card information, and we will automatically deduct your donation the first of each month.

YES! I would like to give _____ per month to PFI, to be automatically charged to my credit card the first of the month. (\$10 per month minimum)

Practical Farmers of Iowa is a 501(c) 3 organization. Your gift is tax deductible to the extent allowed by law.

Thank you!

Individual, Farm or Organization Name*: _____

Mailing Address: _____

Street: _____

City, State, ZIP: _____

Primary Phone (with area code): _____

Alternate Phone (with area code): _____

Email: _____

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

Payment:

Total: \$_____ = \$_____ membership + \$_____ donation

- Check or money order enclosed. (Please make payable to "Practical Farmers of Iowa.")

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

Practical Farmers of Iowa

600 Fifth Street, Suite 100

Ames, IA 50010-6071



Diverse Farms

Farms that are prized for their diversity of crops and livestock their wildlife, healthy soils, innovations, beauty and productivity their connection to a rich past and a fulfilling present where individuals and families are earning a good living



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Food that is celebrated for its connections to local farmers to seasons, 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.