

the Practical Farmer

A quarterly publication of Practical Farmers of Iowa

Vol. 27, No. 1 | Winter 2012



Wyatt Wheeler hides in the hay at a pasture walk held at Jake and Amber Wheeler's farm near Monroe this winter.



In this issue

How specialty crops can supplement farm income
Savings Incentive Program: 25 new farmers embark on 2-year quest
Field crops: Profit more by using less, without sacrificing yield
Special 2012 PFI Annual Conference photo section
Solar PV pays off for PFI members

PFI Board of Directors

We love to hear from you! Please feel free to contact your board members or PFI staff.

DISTRICT 1 (NORTHWEST)

David Haden

4458 Starling Ave.
Primgar, IA 51245
712.448.2012
highland33@tcaexpress.net

Dan Wilson, PFI Vice-President

4375 Pierce Ave.
Paullina, IA 51046
712.448.3870
the7wilsons@gmail.com

DISTRICT 2 (NORTH CENTRAL)

Sara Hanson

2505 220th Ave.
Wesley, IA 50483
515.928.7690
dancingcarrot@yahoo.com

Tim Landgraf, PFI President

1465 120th St.
Kanawha, IA 50447
641.495.6367
libland@peconet.net

DISTRICT 3 (NORTHEAST)

Tyler Franzenburg

6915 15th Ave.
Keystone, IA 52249
319.721.2176
tfranzenburg@hotmail.com

Jeff Klinge

16609 Highway 13
Farmersburg, IA 52047
563.536.2314
jefkling@neitel.net

DISTRICT 4 (SOUTHWEST)

Earl Hafner

303 Oak Ridge Dr.
Panora, IA 50216
641.757.0560
hafnerin@netins.net

Sean Skeehan

746 Wyoming
Chariton, IA 50049
641.203.0758
skeebout@bluegatefarmfresh.com

District 5 (Southeast)

Ann Cromwell, PFI Secretary

3303 240th St.
Williamsburg, IA 52361
319.668.8248
anniowa@commspeed.net

Linda Grice

25739 170th St.
South English, IA 52335
319.667.2350
agricol@netins.net

AT-LARGE

Joyce Lock

725 54th St.
Des Moines, IA 50312
515.277.3615
stirjoy@aol.com

Gail Hickenbottom, Treasurer

810 Browns Woods Dr.
West Des Moines, IA 50265
515.256.7876

ADVISORY BOARD

Larry Kallem

12303 NW 158th Ave.
Madrid, IA 50156
515.795.2303

Dick Thompson

2035 190th St.
Boone, IA 50036
515.432.1560

PFI STAFF

For general information and staff connections, call 515.232.5661.

Individual extensions are listed in parentheses after each name.

Teresa Opheim (302)

Executive Director
teresa@practicalfarmers.org

Suzi Bernhard (301)

Finance & Benefits Manager
suzi@practicalfarmers.org

Patrick Burke (303)

Office Manager
patrick@practicalfarmers.org

Sarah Carlson (305)

Research & Policy Director
sarah@practicalfarmers.org

Kevin Dietzel (307)

Grazing Coordinator
kevin@practicalfarmers.org

Luke Gran (308)

Next Generation Coordinator
luke@practicalfarmers.org

Tomoko Ogawa (306)

Market Development, Local Foods,
PFI Cook
tomoko@practicalfarmers.org

Ann Seuferer (309)

Communications Director
ann@practicalfarmers.org

Julia Slocum

Office Assistant
julia@practicalfarmers.org

Marc Strobbe (304)

Farm Viability Coordinator
marc@practicalfarmers.org

Sally Worley (304)

Deputy Director
sally@practicalfarmers.org

Contents

Letter from the Director	3
Horticulture	4-5
2011 Beginning Farmer Retreat.....	6-7
PFI Leaders	8-9
Savings Incentive Program	10-11
Field Crops.....	12-13
Climate Change.....	14-15
2012 PFI Annual Conference.....	16-19
Local Foods.....	20
Alternative Energy	21
Grazing.....	22-23, 25
Member Book Review.....	24
PFI News.....	26-27
Young Member Spotlight	28
Member Discussion Groups	29
New Members & PFI Calendar	30
Join PFI.....	31

the Practical Farmer

the Practical Farmer keeps farmers and friends of farmers in touch with one another and provides informative articles about the latest on-farm research, demonstration and observation to help all types of farming operations to become profitable, while caring for the land that sustains them. Provided as a member benefit to PFI supporters, **the Practical Farmer** also serves to update members on PFI programming.

the Practical Farmer is published quarterly by Practical Farmers of Iowa, 137 Lynn Ave., Suite 200, Ames, IA 50014; 515.232.5661.

Newsletter Editor: Ann Seuferer

(Back issues are available upon request.)



LEOPOLD CENTER



Best Annual Conference yet; research plays big role at PFI

The annual conference is over. Dare I say it was the best one ever?

The conference showcased our open, sharing strategy at Practical Farmers. I especially want to thank Sara Hanson and Ryan and Janice Marquardt for presenting their business plans with a panel of financial experts (and the crowd). So many of our beginning farmers are writing or honing their farm enterprise strategies and are eager to see what others have done. Thanks to Jon Jaffe of Farm Credit, Renee LaBarge of Lincoln Savings Bank and Dave Miller of Working Farms Capital for giving the beginners much needed feedback.

Also: Gratitude to the Frantzen family for being willing to work through legacy planning questions publicly at the conference and in the PFI newsletter. Many of you are asking questions about how to provide for your children while keeping the farm together when you're gone, and we hope the Frantzens' journey will help you better figure out your own.



Farm dog Luke, shown above enjoying the attention of a field day participant, is a two-and-half-year-old Great Pyrenees. He is finally settling into his job as guard dog for owner Sharon Krause's sheep. Luke and his brother Bo used to bicker and fight, but Sharon recently separated them into two pastures guarding separate flocks. "They now have both bonded with their flocks and become even more protective. And they don't have any interest in each other."



(Left to right) Francis Thicke, Teresa Opheim and 2012 PFI Sustainable Agriculture Award winner Fred Kirschenmann.



Veteran PFI researchers Vic Madsen and Doug Alert at the 2011 Cooperators' Meeting.

Research plays major role at PFI

From nitrogen rates to weed management to P and K rates to cover cropping: Did you know that members of Practical Farmers of Iowa have done more than 1,000 research trials and demonstrations since 1987? What an astounding achievement! Not surprisingly, we are internationally known for this activity.

As part of its Strategic Plan, the PFI Board of Directors decided it was time to take a good look at where the Cooperators' Program has been and how it should be improved. That work took place at a December retreat in Ames with a terrific committee: Veteran PFI researchers Ron Rosmann and Jeff and Gayle Olson, and David Haden, Sean Skeehan and Mark Quee, who are newer cooperators in the program. Rick Exner—the person behind the program's long-term success—joined us, as well as staffers Sarah, Tomoko, Kevin and Sally.

The Cooperators' Committee Recommendations include:

- Conduct projects with more sites and more years of data, to give us better scientific information for our farmers;
- Be more strategic and conduct projects that will help farmers better deal with challenges they will be facing;
- Include economic information in project design;
- Secure more press on cooperator program results;
- Recognize the achievements of "our rock star researchers" and encourage them to mentor others;

- Look for funding to further analyze our 25 years of research results—so much of that information needs to be shared with a new generation!

It takes all kinds of skills to make an organization succeed. We are blessed to have Donna Prizgintas in our midst. Donna provided her home and her culinary skills for our Cooperators' Program retreat. She specializes in using food from PFI farmers, including for this event: Growing Harmony Farm, Jumping Bean Farm, Table Top Farm, Berry Patch, Paul Willis and more. We were well cared for, and I believe we got more done because of it.

Working for you,

Teresa

P.S. Please help us improve! Soon you will receive a member survey. Please respond promptly—we need your feedback to know what we, as your staff and Board of Directors, should do next to deserve your membership.

Specialty crops allow next generation to supplement income and return to conventional row crop farm

by Sally Worley

Kathy Hohl's fifth generation farm near Donnellson has been transformed from a solely conventional row crop operation to one with multiple identities. "When we first added specialty crops to our row crop operation, we were primarily a fall retail business and changed our name to Kathy's Pumpkin Patch," say Kathy. "Since then we have added business facets to become a year-round operation. 'Kathy's Pumpkin Patch' is how we answer the phone in the fall. In the summer we answer, 'Veggie Barn at Kathy's Pumpkin Patch,' and in the winter, 'Christmas Barn at Kathy's Pumpkin Patch.'"



Kathy Hohl (right), of Kathy's Pumpkin Patch near Donnellson, is shown here with son Adam, and Julie, Adam's wife.

The diversification of this traditional row crop family farm began after Kathy's dad retired and her husband Greg experienced neck trouble. "Greg needed several neck surgeries and couldn't be jostled around by animals any more so we had to give up the livestock aspect of the farm." The Hohl family started to explore specialty crop options to make up for the lost income that had been generated by hogs and cattle.

Finding their passion

Kathy and Greg's son Adam had raised pumpkins for a few years as part of a FFA project in high school. "We had fond memories of growing pumpkins, loved the crop and were familiar with the enterprise," Kathy says. In 2004 the Hohl family planted five acres of pumpkins. "We planted them by hand the first year," explains Adam. "We didn't do that again." They had a successful first season so planted pumpkins again the next year. At this point, Adam and his wife Julie expressed interest in returning to the farm from their teaching and business jobs in St. Louis. The family planted 30 acres of pumpkins that year and has increased their production to 40 acres since. They also raise two acres of sweet corn each year and two acres of other vegetable crops.

Working with a consuming public

The Hohls have built a large retail barn on the property and sell their products along

with products from other local farmers from spring through winter. "Our focus through every diversification has been making family memories," says Kathy. "If we keep that as a key mission statement, we can do that through fresh sweet corn, tomatoes and vegetables in summer; pumpkins and a corn maze in the fall; and a Christmas wonderland in the winter." Each season is ripe with on-farm activities for families to enjoy. They market their farm agritourism through social media and have had success participating in parades in communities neighboring their farm.

Growing their market base

The Hohls have also added holiday items and begun marketing them to drive business to their retail barn for more months of the year. They have a partnership with Nelson Family Tree Farm from northern Wisconsin, where they purchase trees and fresh greenery. They also sell other holiday wares. The barn is home to numerous children's activities, including create your own snowman, custom wreath design, build your own Gingerbread house and create your own ornament. Santa pays a visit on the weekends.

The Hohls added CSA (community supported agriculture) to their farm five years ago to increase farm sales after being encouraged to

do so by a local restaurant owner. To help them create a customer base, the restaurant shared their client contact list with the Hohls; they now offer around 50 CSA shares to individuals in their community. "Ideally we would like all our CSA members to drive to the farm each week, but haven't convinced them of that yet," Adam says. "Our dream would be to retail everything from our retail barn, that's why we built it, to bring everything and everyone to the farm," adds Kathy. For now, however, they deliver their CSA products to four nearby towns as well as offer on-farm pick up.

Kathy explains, "We are trying to educate customers that while picking up their produce, they can also pick up a pint of jelly, or a package of steaks from our neighbors the Hulsebus', or honey from Tull Honey farm, and baked goods from our licensed kitchen."

Diversifying their offerings

"Until our on-farm revenue has reached the level to adequately support our business and allow for growth, we realize we can't put all our eggs in one basket," says Adam. With that in mind, the Hohls market some of their products through local grocery stores, hospitals, assisted living centers and distributor Local Harvest Supply. They aren't satisfied with the

efficiency of these market avenues, but plan to improve them. He adds, “These markets are difficult for us because they don’t fit what we do the rest of the time, and we have to switch hats. With some of our smaller wholesale accounts, it doesn’t make sense for us to drive 10 to 20 minutes to service three or four assisted living facilities with two bunches of green onions, three heads of lettuce and two bunches of radishes. It just doesn’t justify packaging and delivery time.” Kathy and Adam are working to encourage some of their smaller accounts to have common delivery areas to make the trips profitable for them.

As the farm has diversified, the family is careful to consider strengths and interests of each family member. “My husband Greg is very much a traditional farmer. You will find him out in the field, but not in the barn working with the public. He keeps up the row crop side of our operation and serves as machinery engineer,” says Kathy. Adam, on the other hand, is passionate about specialty crop diversification. “I have an interest in growing specialty crops, and feel they provide a good way to add revenue to support two families without increasing our land base. Our family is fortunate to own between 600

and 700 acres, enough land to add specialty crop rotation into our existing operation.”

Dedication begins with good communication

When Adam and Julie joined the farm, the Hohl family made a conscious effort to get everyone on the same page. “With multiple generations in a family operation,” says Kathy, “it is beneficial to go through a deliberate process to look at where you’ve been, what has or has not been successful, where you are and where you’re going.” The Hohl family scheduled sessions with a consultant to work through the business planning process and make sure goals were clear and shared by everyone. “It is important to talk about giving value to what the farm had been in past and ensure that the farm’s new direction continues to give value to past,” says Kathy. In addition to meeting with a consultant, the family attended conferences focused on inter-generational farm management, and Kathy took Penny Brown Huber’s Grow Your Small Market Farm course to help create a solid written plan for their evolving farm.

Educating themselves

Kathy attended the branding workshop, organized by Practical Farmers of Iowa, last spring to help think about a new farm identity that would properly encompass all the farm does, from corn, to beans, to pumpkins, to radishes, to Christmas trees. They have not found a solution yet but plan to revisit the identity of the farm around the family table this winter.

Get PRIMED for adding a specialty crop

Kathy and Adam Hohl have some good advice for traditional crop and livestock farmers who are considering adding a specialty crop. Run through their shortlist reality check below before launching a new business enterprise.

- **Passion.** Do you have a passion for working with the public? Traditional farming does not involve the volume of people contacts that direct marketing specialty crops does. The Hohls love interacting with their customers. “We have so much fun with folks coming to the farm. Be sure you enjoy that,” says Kathy.
- **Research.** Make sure the specialty you’ve chosen is something you’re going to enjoy raising and that you have the time and expertise to grow it. “The pumpkins are time-consuming with weeding, spraying, harvesting, scouting and marketing,” explains Kathy. But the Hohl family loves raising them and working the pumpkin patch together so it is worth the extra effort.
- **Insurance.** “The whole new liability concept—all of a sudden dealing with potential for food-borne illnesses or on-farm customer injury—is huge and constantly at the forefront of our thinking,” says Kathy. She recommends having a good insurance agent. “Our agent has been willing to learn, is extremely supportive and provides updates on legislation that may be up and coming,” Kathy adds. “She translates the policy into a language that helps us understand the details of the coverage.”
- **Market base.** Do you have the ability and willingness to get people to come to you or to go out and develop markets in your community? Do you have or can you generate a sufficient market base?
- **Education.** Are you willing to learn something new and really work at mastering a new way of growing?
- **Dedication.** Is the entire family willing to take this journey together? To be successful, all family members must be committed and involved. Every member of the Hohl family plays a role on the farm, from daughter Amber coming back from graduate school to work on the weekends to Kathy’s dad, DeWayne Hentzel, making scarecrows at his retirement home in Grinnell.



2011 Beginning Farmer Retreat: Demystifying business planning with Richard Wiswall

by Luke Gran

On December 8–9, 2011, at the YMCA Camp near Boone, 30 beginning farmers gathered to learn how to budget for profit, organize their farm offices, complete financial tables and better manage their employees.

They also enjoyed networking with and learning from one another and from more experienced farmers about business planning and other farm challenges.

Richard Wiswall shares business planning process

Author and experienced farmer Richard Wiswall, from Vermont, led beginning farmers through the business planning process outlined in his book, *The Organic Farmer's Business Handbook*. Richard's presentations and discussion exemplified the PFI mission to provide practical, usable information and ideas for farmers.

Attendee Jeff Scott of Decorah wrote on his evaluation, "It was a wonderful opportunity to attend a small multi-day workshop with a nationally known speaker on farm profitability." Picking up a theme in PFI

events, Jeff also noted, "The fellowship with beginning farmers and the good food would have been reason enough to come, but the excellent presentation was the cherry on top."

Participants hailed from all parts of the state, and one participant even made the trip from neighboring Missouri to take advantage of the learning and sense of community.

Dave Schmidt, a beginning farmer from Garwin, left feeling "... ready to jump into my business plan."

Beginners provide positive feedback

Julia Slocum, beginning farmer from Ames, had this to say, "The best part is meeting all these other young people who are a few steps ahead of me in the process and hearing what they've done and plan to do."

Beth Kemp, beginning farmer also from Ames, mentioned that the retreat, "... gave me simple steps to take to improve my finances for the farm."



Beginning farmer Nathan Anderson helps himself to a little lunch at the Beginning Farmer Retreat.

Many attendees reported that they wished they could meet several times each year as a group and for longer periods of time. Beginners from every enterprise in our network were in attendance including row crops, grazing, poultry, tree crops, and fruits and vegetables. It didn't matter to a grazer or a row crop grain beginner that the speaker was a vegetable farmer, the fundamental lessons learned were the same no matter the enterprise.

Looking ahead

Based on this year's survey responses, next year we will be looking for a farmer speaker to represent the livestock side of farming at the next beginning farmer retreat.

Special thanks to PFI staff member Tomoko Ogawa who provided and coordinated delicious meals made of PFI member products and to Food Corps volunteers Daniel Schultz and Mauricio Rosas-Alvarez who helped prepare Saturday lunch.



(Above) Sally Hertz-Gran checks out the PFI display at the Beginning Farmer Retreat.

(Right) Beginners mingle during a break at the retreat.



Next Generation



(Above) There's always fresh, local food at PFI events. (Below) Beginners brave the cold to attend the retreat, which was held in December.



(Above) Beginner Emily Rose Pfaltzgraff. (Above right) Mike Salama and Beth Kemp listen to presenter Richard Wiswall talk about business planning. (Below) The room is captivated as Wiswall provides practical information young farmers can use to build a successful business.



PFI Leaders

More than 200 PFI members play leadership role in 2011

From hosting a field day to conducting on-farm research to serving on a committee, more than 200 members of Practical Farmers of Iowa served as leaders of this organization in 2011. Thank you to all of you! (And, if we accidentally left you off, let us know! We will make amends in the next newsletter!)



Mark Peterson

Kelly Tobin

Speakers

Sharing knowledge, in the news

Pete Lammers	Dave Schmidt
Andy Larson	Jennie Smith
Matt Liebman	Nick Wallace
Ryan Marquardt	Ellen Walsh-Rosmann
Jeff Olson	Julie Wilber
Jerry Peckumn	Erin Wilson
Donna Prizgintas	Lorna Wilson
Lois Reichert	Torray Wilson

In the news

Paul Ackley
Nathan Anderson
Emily Babin
Ethan Book
Ray Bratsch-Prince
Bruce Carney
Craig Fleishman
Irene Frantzen
James Frantzen
Tom Frantzen

Farminars

Ann Franzenburg
Thomas Burkhead
Mary Cory
Tom Cory
Karl Dallefeld
Glenn Drown
Erin Drinnin
Rob Faux
Ann Franzenburg
Eric Franzenburg
Theresa Gould
Sara Hanson
Morgan Hoenig
Tai Johnson-Spratt
Jason Jones
Andrew Knafel
Eric Madsen
Janice Marquardt
Ryan Marquardt
Adam Montri
Mathew Patterson
Carol Prescott
Derek Roller
Ben Saunders

Workshops

Nathan Anderson
Mark Armstrong
Jill Beebout
Kelly Biensen
Ray Bratsch-Prince
Craig Chase
Chris Corbin
Tim Daley
Wade Dooley
Rob Faux
Tammy Faux
Laura Frerichs



Ellen Walsh-Rosmann and Daniel Rosmann

Cooperators

Finding solutions to on-farm challenges

Paul Ackley	Greg Koether	Mark Quee
Doug Alert	Tim Landgraf	Steve Reinart
Kim Alexander	Nicholas Leete	Ron Rosmann
Marilyn Andersen	Jan Libbey	Ben Saunders
Nathan Anderson	Amy Logan	George Schaefer
Barney Bahrenfuse	Joel Logan	Dave Schmidt
Art Behrens	Anita Maher-Lewis	Rich Schuler
Steve Berger	Galen Marten	Scott Shriver
Ray Bratsch-Prince	Alice McGary	Jerry Sindt
Ann Brau	Steve McGrew	Harn Soper
Ron Brunk	Paul Mugge	Dan Specht
Steve Brunk	Jake Myers	Gary Steenblock
Bill Buman	Mike Natvig	Kelly Tagtow
Patrick Burke	Dave Nelson	Francis Thicke
Sarah Carlson	Larry Ness	Dick Thompson
Bruce Carney	Tomoko Ogawa	Sharon Thompson
Tom Cory	Jeff Olson	Tom Thorpe
Daniel Davidson	Teresa Opheim	Mark Tjelmeland
Wade Dooley	Bill Pardee	Kelly Tobin
Irene Frantzen	Jerry Peckumn	Ron Vos
James Frantzen	Mark Peterson	Dan Wilson
Tom Frantzen	Mark Pokorny	
Ann Franzenburg	Susan Posch	



Kamyar Enshayan, Jeff Olson and Craig Chase

Tom German
Chris Goedhart
Barbara Grant
Earl Hafner
Rick Hartmann
Stacy Hartmann
Ryan Herman
Susan Jutz
Laura Krouse

Field Day Hosts

Providing networking and information sharing

- | | | |
|-------------------|------------------|---------------------|
| Nathan Anderson | Sara Hanson | Francis Thicke |
| Barney Bahrenfuse | Jarret Herke | Susan Thicke |
| Bonnie Beard | Ryan Herman | Irene Tobin |
| Dan Beard | Gene Herman | Kelly Tobin |
| Parker Beard | Jon Judson | Ron Vos |
| Sam Beard | Sharon Krause | Ellen Walsh-Rosmann |
| Tom Beard | Laura Krouse | Amber Wheeler |
| Jill Beebout | Tim Landgraf | Jake Wheeler |
| Art Behrens | Jan Libbey | John Whitson |
| Rose Behrens | Garth Lloyd | Luella Yoder |
| Tim Blair | Cindy Madsen | Robert Yoder |
| Ethan Book | Eric Madsen | |
| Rebecca Book | Vic Madsen | |
| Charles Brown | Paul Mugge | |
| Thomas Burkhead | Karen Mugge | |
| Bruce Carney | Linda Naeve | |
| Connie Carney | Randy Naeve | |
| Mary Cory | Carol Oliver | |
| Tom Cory | John Pierce | |
| Suzanne Castello | Joy Pierce | |
| Dan Dennison | Tony Pille | |
| Andy Dunham | Mark Quee | |
| Melissa Dunham | Jack Reichert | |
| Beau Ebersole | Lois Reichert | |
| Shanen Ebersole | Daniel Rosmann | |
| Craig Fleishman | Maria Rosmann | |
| Deb Fleishman | Ron Rosmann | |
| Dana Foster | Matt Russell | |
| Irene Frantzen | Neal Sawyer | |
| James Frantzen | Norm Sawyer | |
| Tom Frantzen | Arnold Schneider | |
| Ann Franzenburg | Jane Schnieder | |
| Eric Franzenburg | Sharon Seuferer | |
| Tyler Franzenburg | Sean Skeehan | |
| Chris Goedhart | Dan Smith | |
| Craig Griffieon | Sheila Smith | |
| LaVon Griffieon | Harn Soper | |
| Jeremy Gustafson | Patrick Standley | |
| Steve Gustafson | Kim Steele-Blair | |
| Earl Hafner | Becky Sullivan | |
| Jeff Hafner | Sean Sullivan | |



Sean Sullivan

Committee, Board & Savings Incentive Program

Charting a course for the future

Cooperators' Advisory

- David Haden
- Gayle Olson
- Jeff Olson
- Mark Quee
- Ron Rosmann
- Sean Skeehan

Policy Reps in DC

- Nathan Anderson
- Ethan Book
- Earl Hafner
- Jack Knight
- Jerry Peckumn
- Sean Skeehan

Policy Committee

- Ron Dunphy
- Eric Franzenburg
- Jeff Klinge
- Laura Krouse
- Jerry Peckumn

Strategic Directions

- Tim Landgraf
- Jerry Peckumn
- Sean Skeehan
- Ellen Walsh-Rosmann
- Dan Wilson

PFI Board

- Ann Cromwell
- Tyler Franzenburg
- Linda Grice
- David Haden
- Earl Hafner
- Sara Hanson
- Gail Hickenbottom
- Jeff Klinge
- Tim Landgraf
- Joyce Lock
- Sean Skeehan
- Dan Wilson

- Andy Dunham
- Melissa Dunham
- John Gilbert
- Earl Hafner
- Gary Huber
- Penny Brown Huber
- Virgil Knobloch
- Tim Landgraf
- Jan Libbey
- Angela Tedesco
- Dan Wilson

SIP Committee

- Earl Hafner
- Gail Hickenbottom
- Ryan Marquardt
- Sean Skeehan
- Angela Tedesco

SIP Mentors

- Bonnie Beard
- Dan Beard
- Mary Cory
- Tom Cory

SIP Enrollees

- Nathan Anderson
- Becca Book
- Ethan Book
- Garrett Caryl
- Erin Drinnin
- Sara Hanson
- Jason Jones
- Nicholas Leete
- Eric Madsen
- Janice Marquardt
- Ryan Marquardt
- Alice McGary
- Ben Saunders
- Joel Winnes



Erin and little Audrey Wilson

Savings Incentive Program

Committee selects 25 new beginning farmers to start two-year Savings Incentive Program

by Sally Worley

Practical Farmers of Iowa has accepted an additional 25 beginning farmers into its Savings Incentive Program. This program, created to help beginning farmers succeed, now has 35 participants; Practical Farmers of Iowa plans to enroll 100 beginning farmers in the program over the next four years.

The Savings Incentive Program is designed to encourage the next generation of farmers to make regular deposits into a savings account for their future farm development. Upon program completion, Practical Farmers of Iowa will match their savings dollar for dollar up to \$2,400 so recipients will have \$4,800 to use toward a business purchase. The savings match is only a small component of the program. Participants also learn valuable farm and business skills by being matched with a farmer mentor, attending field days, workshops and webinars, and completing a business plan.

Growing the next generation of farmers

Iowa native and beginning farmer Kate Edwards recently returned to the state to begin her vegetable farming career near Solon. "I have been so encouraged by multiple conversations with PFI members, farm visits and PFI field days," she says. "Being involved in a deeper way with the PFI community through the requirements of this program will make a significant impact on my development as a farmer and the development of the farm. The financial aspect of this program will enable me to purchase a high tunnel for season extension."

Makeup of SIP recipients

Beginning farmers taking advantage of this program are diverse in farm location and enterprise. Of the 25 new enrollees, 14 are producing fruits and vegetables, eight are raising row crops, six are raising beef cattle, four are raising poultry, four are raising sheep, two are growing herbs, one has meat goats, two operate a dairy and one raises niche pork.



“Being involved in a deeper way with the PFI community through the requirements of this program will make a significant impact on my development as a farmer ...”

Kate Edwards

Savings Incentive Program recipients were selected by a panel of Practical Farmers of Iowa members through an application process. Panelist Sean Skeehan says, "As a member of the panel that selects SIP participants from a large number of applications, I am impressed that many of the diverse applicants equally value the opportunity to work with professionals and mentors developing ideas into strong business plans as well as the matching dollar component of the program."

Program requirements

Applicants are required to live or farm in Iowa, be members of Practical Farmers of Iowa, be farming now, and have farmed

for five or fewer years. Practical Farmers of Iowa will accept applications for a third round of enrollees in the fall of 2012. If you have questions about the Savings Incentive Program, please contact Sally Worley, 515.232.5661, sally@practicalfarmers.org.

The Savings Incentive Program is part of Practical Farmers of Iowa's Next Generation Program, which offers a group of almost 600 beginning farmers opportunities to network and learn from each other and experienced farmers through field days, Farminars, workshops, retreats and other events.

PFI exceeds SIP fundraising goal

Practical Farmers of Iowa set a goal to raise \$250,000 to provide savings matches to 100 beginning farmers. Through generous donations from individuals and companies dedicated to helping the next generation of Iowa farmers succeed as well as a grant from the Assets for Independence program of the Department of Human Services, Practical Farmers of Iowa has exceeded its goal, raising more than \$298,000. Educational aspects of this program are made possible through the Beginning Farmer and Rancher Development Program of the National Institute of Food and Agriculture, USDA, Grant # 2010-49400-21843.

More than a savings match

The savings match is only a small component of the program. When these 25 young farmers finish the SIP program, they will not only have up to \$4,800 to spend on a business purchase, they will have a completed business plan to guide them to a successful future. They will have learned countless valuable farm and business lessons from their farmer mentors and from attending field days, workshops and webinars. Most important, they will have a lifelong resource in PFI and its members to help guide them. Check out the new group of enrollees who will graduate from the program in December 2013, featured on the next page and view profiles of all the Savings Incentive Program recipients, by visiting <http://www.practicalfarmers.org/programs/youth-and-next-generation.html>.

Savings Incentive Program

Savings Incentive Program

Class of 2013



Brian Bagge
Worthington



Thomas Burkhead
Rockwell City



Jordan Clasen
Des Moines



Chris Corbin
Nevada



Betsy Dahl
Rolfe



Luke Dahl
Rolfe



Kate Edwards
Solon



Glen Elsbernd
Calmar



Karla Hanson
Monona



Morgan Hoenig
Mt. Pleasant



Cheryl and Mike Hopkins
Walker



Jay Jung
Colwell



Drew Lietz
Pocahontas



Brian and Cheryl Ness
Newton



Jacob Petersen,
Knoxville



Ellen Walsh-Rosman and
Daniel Rosmann, Harlan



Mike Salama
Boone



Jordan Scheibel
Grinnell



Dave Schmidt
Garwin



Luke and Linsey Scholdt
Tripoli



Grant Schultz
Eldridge



Adam Schultz
Eldridge



Michael von Weihe
Carson



Jake and Amber Wheeler
Monroe



Erin Wilson
Paullina



Ben Wise
Lytton

To view profiles of Savings Incentive Program recipients, visit <http://www.practicalfarmers.org/programs/youth-and-next-generation.html>.

Profit more by using less, without sacrificing yield

by Sarah Carlson

Corn and soybean prices are riding high but so are the costs to produce these crops. How can farmers reduce production costs and protect themselves should the price of corn and soybeans take a dive? A study launched in 2002 by Dr. Matt Liebman of Iowa State University shows that crop diversity holds the key.

Iowa farmers raise an estimated 23 million acres of corn and soybeans in any given year. All other crops pale in comparison. In 2007, for example, 130,000 acres of small grains, which were harvested for grain, were grown in the state. In that year, 13.8 million acres of corn for grain and 8.6 million acres of soybeans were harvested.

Corn and soybeans reign in the state, but as the prices of corn and soybeans increase in the marketplace, the costs on the input side of the equation increase at nearly the same rate. It is predicted that this year farm expenses will pass the \$300 billion high set in 1979 to reach an estimated \$320 billion (<http://www.ers.usda.gov/briefing/farmincome/nationalestimates.htm>).

What if prices drop?

What happens should the price of corn and soybeans drop? What options are there for those who don't want to bet the whole farm that this trend of market prices being higher than the cost of production will last? An ongoing Iowa State University study of cropping systems launched in 2002 by Liebman shows that the key to real protection from market fluctuations and rising costs of production is diversification of crops. But can farmers increase their crop portfolio without sacrificing yield? Liebman's research says, "Yes!" Now is the time, and the results show that it is possible.

Marsden Farm Cropping Systems Experiment

Liebman established the cropping systems experiment at ISU's Marsden Farm near Boone. Three crop rotation systems are being compared: corn-soybean (two-year),

Rotation	Corn	Soybean
Two-year (conventional)	Agrigold 6395 Yield Guard Plus (GE) Broadcast preemergence herbicides: Dual II Magnum, Balance Pro 100 lb N/A applied at planting with additional N sidedressed according to soil test results	Kruger 287RR (GE) Broadcast post-emergence herbicide: Glystar Plus
Three-year and Four-year (low-external-input)	Agrigold 6395 (non-GE) Banded post-emergence herbicides: Callisto, Steadfast Interrow cultivation Red cover or alfalfa residues incorporated and cattle manure applied (7 ton/A) N sidedressed according to soil test results	Kruger 2918 (non-GE) Banded post-emergence herbicides: Select Max, Phoenix, Resource Interrow cultivation

corn-soybean-oat with red clover (three-year), and corn-soybean-oat with two years of alfalfa (four-year). The plot area is big, covering 22 acres, which allows all parts of all the rotations to be present in every year. Each rotation is also replicated four times to ensure the study is scientifically rigorous. Dr. Craig Chase from Iowa State University Extension and Outreach provides the economic analysis of the three different rotations while Liebman's team analyzes the production results.

Contrasting crop production packages

Beginning in 2006, corn and soybeans in the two-year rotation were managed with "technology packages" that differed from those used in the three-year and four-year rotations. These different packages comprise contrasting crop production and protection scenarios that Iowa farmers may use depending on their cropping system, their ability to band herbicides or use cultivation, and their use of conventional seeds or genetically engineered (GE) materials. Above is a table describing the cropping systems, the corn hybrids or soybean varieties planted and the herbicide and fertilizer programs used for the corn or soybean year of each of the three different rotations. Notice that in the three-year and four-year rotations, where conventional corn hybrids or soybean varieties are used, the weed

management is a mixture of steel (cultivation) and post-emergent, banded herbicides. In the two-year rotation, where the GE materials are used, broadcast pre-emergent herbicides are used in corn and a broadcast post-emergence application of glyphosate is used in soybeans. The fertilizer program for the two-year rotation is based on a flat 100 lbs N/A application of urea in the spring followed by additional side-dress of liquid UAN based on soil tests. In the three-year and four-year rotations, no at-planting N fertilizer application is made; fertilizer is sidedressed to those systems only if soil test results indicate it is necessary.

Results

Longer rotations=higher yields

Yield data from 2006 through 2011 indicate that under the Liebman team's management, corn and soybean yields of the longer rotations were significantly higher compared to the two-year rotation. Oat and alfalfa hay yields in the longer rotations were above averages recorded for commercial farms in surrounding Boone County.

Longer rotation = fewer herbicides & N fertilizers

The amounts of nitrogen fertilizer and pounds of herbicide active ingredient (a.i.) used differed among the cropping systems. In the two-year rotation, on average for

both years 71 lbs N/A was used while the three-year and four-year rotations needed only 8 lbs N/A and 6 lbs N/A, respectively. The latter values represented reductions of 89 percent and 92 percent compared to N fertilizer use in the two-year rotation.

Controlling production costs the key for profitability longer rotations=greater profits

Economic analyses indicate that gross revenue was greater for the two-year rotation (C-Sb) than for the three-year (c-Sb-O/Red clover) and four-year (C-Sb-O/alfalfa-alfalfa) rotations. Labor requirements were higher in the longer rotations, due to extra hours needed to cultivate, spread manure, and harvest hay. Nonetheless, overall production costs, including expenses for labor, were lower in the three-year and four-year rotations than the

manure, whereas alfalfa in the four-year system was used as a multicut hay crop. Removal of P and K in the alfalfa hay was substantial and not entirely offset by manure application to the corn phase, requiring P and K fertilizer applications to maintain a reasonable balance. Also no premium for non-GE grain was given to the grain in the longer rotations.

Profitability	Two year rotation	Three year rotation	Four year rotation
Gross revenue for whole rotation	\$666	\$582	\$587
Labor for fieldwork (hours • acre ⁻¹ • year ⁻¹)	0.69	1.12	1.45
Costs of production (dollars • acre ⁻¹ • year ⁻¹)	\$318	\$189	\$226
Net returns to land and management	\$341	\$380	\$345

¹2006-2011 time period; 2011 numbers are preliminary

Yields	Two year rotation	Three year rotation	Four year rotation
Corn (bu • acre ⁻¹)	194 b	199 a	203 a
Soybeans (bu • acre ⁻¹)	50 b	55 a	57 a
Oat (bu • acre ⁻¹)	—	97 b	101 a
Alfalfa, second year (ton • acre ⁻¹)	—	—	4

Average yields in 2006-2011. Different letters indicate that the averages across a row are statistically different ($p < 0.05$).

Average cost of production over the time period for each rotation was \$318 (C-Sb); \$189 (C-Sb-O/Rc); \$226 (C-Sb-O/A-A).¹ The 2011 numbers are preliminary and could change. Final 2011 numbers will be known by November of 2012, the end of the marketing year.

Looking for curious farmers

PFI is looking for three or four conventional row crop farmers who would want to add a third or fourth crop to their rotation and document the crop performance, expenses and overall profitability of an extended rotation on a larger scale.

Interested?

Please contact Sarah Carlson, 515.232.5661 or sarah@practicalfarmers.org, for more information.

conventionally managed two-year rotation. Lower costs in the longer rotations reflected lower expenses for fertilizer, herbicides and gas for drying corn grain. N fertilizer costs were held down due to the contributions of N from the red clover, alfalfa, and cattle manure. Herbicide costs were reduced by using banded applications and inter-row cultivation.

Overall, net returns were higher in the three-year rotation (\$380/acre) than in the two-year (\$341/acre) and four-year (\$345/acre) rotations. The superior returns from the three-year system reflected minimal costs for synthetic P and K fertilizer. Red clover in the three-year system was used as a plow-down green

Rotation	N Fertilizer			Herbicides		
	Two-year	Three-year	Four-year	Two-year	Three-year	Four-year
	lb N/acre			lb a.i./acre		
Corn	140	18	10	1.77	0.07	0.07
Soybeans	3	3	3	1.42	0.12	0.12
Oats	—	3	3	—	—	—
Alfalfa	—	—	3	—	—	—
Rotation av.	71	8	6	1.60	0.06	0.05
Reduction		-89%	-92%		-96%	-97%

Average annual N fertilizer and herbicide use, 2006-2011. To control weeds in the two-year rotation, an average of 1.6 lbs of herbicide a.i./A was used. In contrast, in the three-year and four-year rotations only 0.06 lbs herbicide a.i./A and 0.05 lbs herbicide a.i./A were needed, respectively. These figures represented reductions of 96 percent and 97 percent compared to the two-year rotation.

Climate change report reveals trends that cannot be ignored

Where are the Iowa winters in which children could count on sledding, snowball fights and snowman construction as regular wintertime activities most any day from January through March? If you are old enough to remember a time when these activities were a given and not a maybe, you can have little doubt that Iowa's climate is changing. The question then becomes, what do these changes mean for Iowans and for farmers in particular?

Recently the Iowa legislature commissioned a group, the Iowa Climate Change Impacts Committee, which has drawn upon the expertise of faculty and staff from Iowa State University, the University of Iowa, the University of Northern Iowa and specialists in Iowa government, to examine the existing climate change research and determine the impact for Iowans. In their report, *Climate Change Impacts on Iowa 2010*, they document some significant trends with widespread ramifications for all Iowans but especially for those who make their living on the land.

PFI member Laura Jackson, PhD, University of Northern Iowa, is a member of the Impacts Committee and co-author of the report. "It's human nature when faced with a problem of this magnitude to deny it or ignore it, but eventually we have to roll up our sleeves and deal with it," she says.

"In a stable climate, we know what to expect," says Jackson in the report. "We know when to expect the leaves to turn color in the fall, the first killing



frost and spring thaw, the first robin, summer thunderstorms, and the arrival

of certain weeds and pests in our gardens. Farmers know when to plant and harvest, and which crop varieties are best for their county."

In recent years farmers have learned to expect the unexpected, and it sounds like that won't be changing any time soon. "... climate change is prolonged and exacerbated by increasing greenhouse gas emissions globally from the use of fossil fuels and fertilizers, the clearing of land, and agricultural and industrial emissions."

According to Jackson, what is happening in Iowa is closely tied to global climate change in ways that are not yet completely understood, but what is clear is that "... statistically significant changes in precipitation, stream flow, nighttime minimum temperatures, winter average

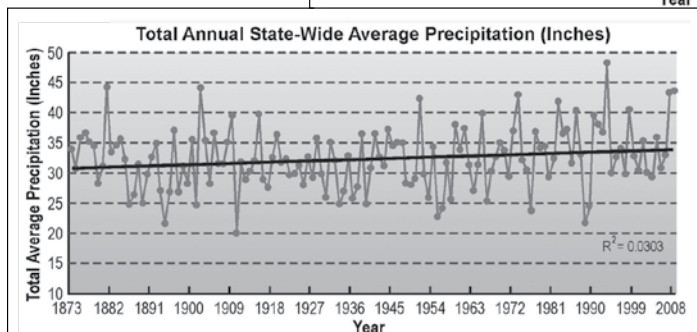
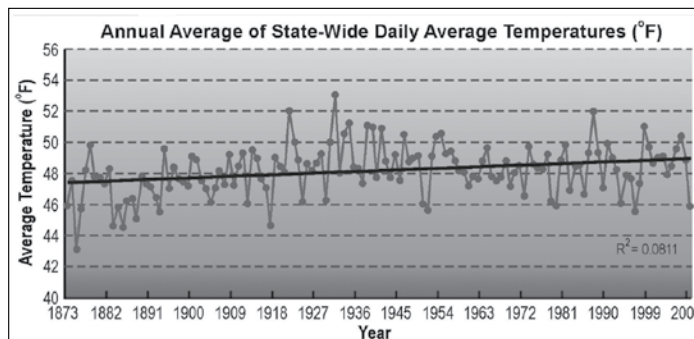
a positive effect on yields. On the other hand, increased occurrences of intense rainfalls and flooding common during the last few decades will likely continue to cause costly problems—erosion, property damage and crop losses.

Many farmers are taking advantage of the longer growing season by planting corn and soybeans earlier, and increased precipitation has prompted many to add more subsurface tiles to drain excess soil water faster to access the field sooner. They are also purchasing larger combine heads to facilitate harvest in the fewer hours without dew.

While Iowans cannot reverse global climate change by themselves, PFI members are doing their part by adding diversity to their farms, and an impressive 27 percent of our members participate in conservation programs compared to 1.6 percent of all Iowa Farmers. The report encourages policy makers to take stronger steps to protect Iowa's soil, water quality and long-term agricultural productivity through programs such as these.

"Iowa is among the states with the largest greenhouse gas emissions per capita, and Iowa is also among the states that could benefit the most economically by mitigating climate change through the use of energy efficiency and renewable sources of energy," the report states. PFI is helping its members meet their on-farm energy needs by offering energy audits and assistance from PFI energy consultant Rich Schuler (see story page 21).

Since it looks like accelerated climate change is here to stay, Jackson says that the key is to try to prepare. The following trends have been documented and can return some degree of predictability to the climate equation.



temperatures and dew point humidity readings have occurred during the past few decades" and hold potential positive and negative impacts for Iowa agriculture.

A longer growing season and warmer temperatures could have

Changes in precipitation

While geological records show that the climate of Iowa, and the planet, has always been changing, human activity has hastened the process. Trends in precipitation and temperature have contributed to a noticeable change in seasons. Increased rainfall during the first half of the year and less in the second half has led to wetter springs and drier

Climate Change

autumns, according to the report. This is a trend with a negative impact on farmers.

Waterlogged soil conditions during early plant growth result in shallower root systems that are prone to diseases, nutrient deficiencies and drought stress later in the season. Elevated precipitation also keeps farmers out of the fields, increases nitrate nitrogen losses and affects nitrogen fertilizer application timing. One study showed that delaying soybean planting from April to May or June results in a 12 to 41 percent yield reduction while another study cited in the report indicated that waterlogged conditions are responsible for an average 32 percent loss in crop yields.

Increased soil moisture combined with rising temperatures mean weeds are proving more difficult to control. Heavy rains and saturated soils reduce the effectiveness of pre-emergent herbicides and the development of crop canopy, allowing weeds to thrive. Furthermore many invasive weeds and plant pathogens can now overwinter in regions that were previously too cold for them.

Increases in violent weather and flooding

According to the report, we can also expect a continued climb in severity and frequency of summer storm systems. Warmer summer temperatures and rising humidity levels provide the ingredients to fuel severe weather.

“The greater intensity and amount of rainfall increased the erosive power of Iowa’s precipitation, resulting in significant erosion of topsoil,” says the report. Many PFI members are combatting weeds and erosion with cover crops.

The Climate Change Impact Committee also warns that Iowa is susceptible to climate fluctuations. “... a drying pattern to the west could routinely push drier air eastward ... [leading to dry conditions in Iowa]. ... a strengthened northward flow of moisture from the Gulf of Mexico, without an eastward shift in its path, might lead to wetter conditions in Iowa.” It is possible then that Iowans could expect a “wider swing in extremes in precipitation from year to year.”

“It’s not immediately apparent how some changes are affecting us,” says Jackson. “There are complex feedback loops to consider.” She mentions increased rainfall, for example, which

has led to an increase in the use of tiling to reduce erosion and drain soils but creates its own problems. “That water has to go somewhere,” she says, explaining that it ends up in streams faster than it would have otherwise, which leads to swollen rivers, further exacerbating flooding. This in turn can wash out roads and destroy property downstream. Furthermore, because this runoff reaches streams and rivers faster, it has less time for the soil to mitigate fertilizers, herbicides and pesticides, and high concentrations of these harmful chemicals wind up in our drinking water with untold costs to human health.

Temperature change

While Iowa’s annual average temperature has increased at a modest rate, seasonal and day-night changes are “proportionately larger and have higher impacts. Temperatures have increased six times more in winter than in

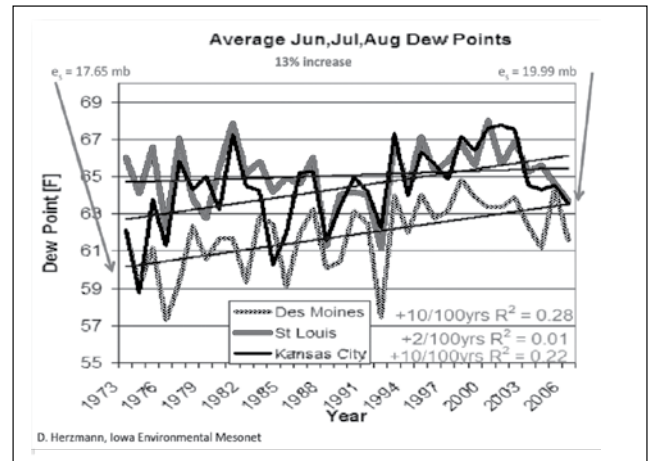


summer, and nighttime temperatures have been increasing more than daytime temperatures.”

An increase in nighttime temperature reduces corn yield by shortening the time in which grain is accumulating dry matter. “In 2010, corn yield forecasts dropped from the previously projected 179 to 169 bu/acre due to warm temperatures during the grain fill period,” says the report.

“... High temperatures have also been shown to reduce summer milk production, impair immunological and digestive functions of animals, and increase mortality rates among dairy cattle,” it continues.

Iowa’s current increases in temperature, soil wetness and humidity favor the development and establishment of plant diseases, leading to severe disease epidemics, such as soybean sudden death syndrome. This



increased risk of plant disease in turn has led to more frequent use of foliar fungicides with speculated negative health effects.

Changes in the atmosphere

Measures of dew point and relative humidity in Des Moines during the last 35 years show that the atmosphere contains about 13 percent more moisture these days. This increase in atmospheric moisture further increases the likelihood of summer rain. Also, surface wind speeds (at a height of 32 ft.) across Iowa and the US have been declining over the last 30 years, according to research cited in the report. Slower surface wind speeds have a negative impact on agriculture, reducing ventilation of crops and increasing heat stress on crops and animals during periods of intense heat. Slower wind speeds combined with longer dew periods have also created favorable conditions for survival and spread of many unwanted pests and pathogens.

Changes in Ozone

Ozone in the lowest five miles of the atmosphere (the troposphere) is produced by both natural and man-made causes. Different from stratospheric ozone—the kind that protects us from harmful UV radiation and which is destroyed by human emissions of long-lived chlorine-containing compounds—tropospheric ozone has a negative impact on agriculture and human health.

Today, climate extremes, not the averages, frequently control productivity of crops and livestock. PFI farmers know that adding diversity and conservation practices can protect them from the unexpected. To view this report and possible implications for your farm, visit: http://www.iowadnr.gov/portals/idnr/uploads/air/environment/climatechange/complete_report.pdf?amp;tabid=1077idnr/uploads/

2012 Annual Conference



Network

1. Barney Bahrenfuss and Fred Kirschenmann catch up over a cup of coffee at the Practical Farmers of Iowa Annual Conference in January.
2. PFI Board President Tim Landgraf talks with member Loyd Johnson of Bloomin' Wooley Acres farm.
3. Farmer and long-time member Vic Madsen enjoys mingling with PFI co-founder Larry Kallem and veteran member Walt Ebert.
4. Sponsoring PFI's Annual Conference gives exhibitor Michael Ahlers a unique opportunity to reach potential customers.
5. Exhibitor Greg Thessen, National Agricultural Statistics Survey, talks with member Paul Willis. Exhibitors like Greg provide free advice and information to farmers as well as help keep conference prices down through their sponsorship.



2012 Annual Conference



Share Ideas Everywhere you look, ideas abound and conversation flows. 6. Ron Rosmann and Laura Krouse engage in a stimulating discussion with keynote Fede Baucio. 7. Sponsor Georgeanne Artz and attendee Barb Sands get acquainted. 8. Cheryl Johnson and Scott Young are deep in conversation. 9. Penny Brown-Huber, Grow Your Small Market Farm, talks with Erv Klass and Eric Franzenburg. 10. Member Ben Saunders, Turtle Farm, and PFI Board Member Sean Skeeahan, Blue Gate Farm, greet each other.



2012 Annual Conference



Learn

1. Conference attendees learn about preserving local foods at a session called *Extending the Season in Your Kitchen*. They are shown here sampling fruit leather prepared by the ISU Dining staff. Local Chef Donna Prizgintas and member Ann Holck are armed with tongs.
2. Most sessions allow for interaction between presenters and participants. Lincoln Savings Bank's Renee LaBarge and Jon Jaffe, Farm Credit Services East, provide feedback to beginning farmers who presented their business plans.
3. Keynote speaker Fedele Bauccio, CEO, Bon Appétit Management Company, makes the connection between food and climate change.
4. Lonna Nachtigal of Onion Creek Farm shares her knowledge of preserving local foods at the *Extending the Season in Your Kitchen* Session on Friday.



Inform

5. Beth Kemp, Jumping Bean Farm, explains the process she uses for making apple cider. Hang on to your hat. This cider comes with a kick!
6. Anette and Kaj Munck, shown here, traveled all the way from Denmark to talk about raising pigs while responding to regulations, including a ban on subtherapeutic antibiotic use.



2012 Annual Conference



Enjoy 7. Dan Wilson presents at a session on raising profitable pigs on alternative feeds. 8. Fresh, local food purchased from PFI farmer members is a part of every PFI event. 9. James Gruber signs a birthday banner for PFI founding member Dick Thompson. Happy 80th, Dick! 10. Research is a big part of PFI, young member Heidi Frank uses a PFI Youth Mini Grant to discover whether row covers are worth the investment. 11. JoAn Van Balen and her daughter Siobhan Spain listen intently to the Business Plan Vetting session. 12. Warning: All the friends, food and fun can cause Spontaneous Contentment Syndrome, resulting in an urgent need to nap, especially among our young members like Gabe Bahrenfuse (above).

How to include local flavors in the midst of an Iowa winter

by Tomoko Ogawa

By the time you are holding this newsletter in your hands, you've probably had enough winter and are looking forward to the abundance of fresh produce of the summer. While we wait, we can enjoy some local food right now. "But how?" you ask.

The seven participants in our local foods study last year kept records of their food purchases for 15 months from May 2010 to July 2011. While our prediction was correct in that the participants' local food purchases declined during the winter, the average percentage of local foods spending was still about 20 percent. This fall, I interviewed all the participants to learn the backgrounds of their eating practices. There were certain trends among them that helped their local foods consumption during the non-growing seasons. For example, they continued to purchase food that is available locally year around such as dairy, meat and eggs. Also, many of them preserved produce that they purchased in the summer, by freezing, canning and dehydrating.

In preparation for our annual conference session on preserving, I interviewed one of the speakers, Mary Swander, Iowa State University professor and Poet Laureate of Iowa, about how she preserves food for the long winter. Mary has some strict dietary restrictions so she eats what she grows in her garden or what she buys directly from farmers she knows. For many years, she has preserved these foods on a large scale to eat throughout the non-growing season.

While she cans pickles and other produce, her main methods for extending the season in her kitchen is using a root cellar and a

dehydrator. Mary created her own underground root cellar by burying a metal garbage bin (it has to be metal), a method she learned from the book on root cellaring from the Rodale Institute. Her first underground garbage bin root cellar lasted for 20 years. "To me, root vegetables are the best thing," Mary says. "Root vegetables do not require processing, they are filled with nutrients, and they store well in the root cellar for up to nine months."

Another preservation technique that Mary uses is dehydration, both in her solar dehydrating

Some options for purchasing local food year-round

Farm to Folk

Email: marilyn@farmtofolk.com
Website: <http://www.farmtofolk.com/index.html>

Iowa Food Coop

Email: info@iowafood.coop
Website: <http://iowafood.coop/>

Iowa Valley Food Coop

Email: info@iowavalleyfood.com
Website: www.iowavalleyfood.com

Wheatsfield Food Coop

Email: shop@wheatsfield.coop
Website: www.wheatsfield.coop

shed and in her electric dehydrator. She dries a wide variety of produce including tomato, okra, kale, chard, zucchini, onion and garlic. She makes powder from dried produce, which makes a quick and delicious soup, which is especially handy when traveling.

However, if you didn't preserve any local produce before this winter or do not have friends who did, there



Fresh produce waiting to be picked up at Farm to Folk Member Appreciation Day on February 23, 2011.

are other options for enjoying local flavors. Farm to Folk, in Ames, Iowa Food Coop, in Des Moines, and Iowa Valley Food Coop, in Iowa City/Cedar Rapids, are year-round online market places that offer local products. Besides their regular offerings of meats, eggs, dairy, baked goods, etc., these markets usually have some fresh produce as well around.

Marilyn Anderson, the coordinator of Farm to Folks says that last February, Farm to Folk producers were offering lettuce, spinach, arugula, kale, radishes, beets, baby cabbages and mixed lettuces.

Gary Huber from Iowa Food Coop says that last February they had some producers who sold greenhouse lettuce, spinach and micro-greens.

Jason Grimm from Iowa Valley Food Coop, a new coop that started this past summer, expects to offer some local carrots, potatoes, celeriac, salad greens, frozen aronia berries and winter squash in February.

Of course, all these are predictions, which were made in December, and actual availability may vary depending on the weather, supply and demand. Nevertheless, it's worth checking out one of these markets closest to you.

Enjoy getting connected to some fresh Iowa produce and making plans for preserving for the next winter.



Mary Swander's metal trash bin root cellar shown filled with potatoes (left).

Solar Photo Voltaic pays off for PFI members

by Rich Schuler

Practical Farmers of Iowa Members Bill Pardee and Cathy Rawitt looked to reduce their dependence on “grid electricity” and chose solar rather than wind.

“We, personally, want to live as sustainably as we can,” writes PFI farmer Bill Pardee. “We’re a long way from meeting the UN definition of sustainability, which I will paraphrase as, ‘use only resources that do not compromise the next generation’s quality of life.’ I don’t expect to satisfy this in my lifetime ...”

Nevertheless, Bill and Cathy have started the walk toward sustainability. Shortly after noon on July 25, 2011, their 10.1 kW PV array, which creates electricity directly from sunlight, was connected to the grid and started generating power. By 7 p.m., the array had produced 37 kWh. During the first 100 days, July 25 - November 1, the system averaged 45.0 kW/hr/day, including a one-day peak of 66.9 kWh/day.

Bill and Cathy purchased their 29-acre farm located seven miles northeast of Decorah in 2007. They moved into the original farmhouse and began construction of the energy efficient home in which they currently reside. Roughly one-half of their farm acreage is pasture/hay field, and they are currently raising a small herd of organic grass-fed Dexter cattle for beef. They expect to have calves in the spring, and are “... breeding for red [Dexters], believing that they survive the heat better.”

Their farmhouse is a well-insulated, all-electric home which includes geothermal heating & cooling. Bill and Cathy analyzed their electrical

records and determined that their average monthly use was 2,350 kWh, or 77.3 kWh/day. Consequently, during the first 100 days of operation the solar PV system generated 58 percent of their average daily electrical use.

The Pardee/Rawitt farm provides a good example that a wind turbine isn’t the best renewable energy option for everyone in Iowa. A site survey and review of the Iowa Wind Map concluded that there was a limited wind resource at their farm in northeast Iowa. Bill and Cathy’s research also revealed that turbines require more



Bill Pardee next to the Pardee/Rawitt farm solar PV array.

contrast, solar PV is consistent day to day, and year to year; consequently, solar PV provides a more predictable on-farm energy resource.”

Hawkeye Tri-County Rural Electric Coop (REC) currently provides electricity to the farm at a rate of \$0.112 /kWh. Bill & Cathy have a Net Metering contact with the REC, so they receive the same rate for their surplus energy. Upon completion, Bill and Cathy received the 30% federal investment tax credit for the system. Since the generated energy is used almost entirely for their residence, they could not take advantage of the accelerated depreciation tax reduction, or a REAP grant.

Nevertheless, between July 25th and December 29th, the solar PV system has generated 6,052 kWh of energy with a net metering value of \$680. The measured energy output to date is 14% higher than predicted from the PVWattsTM online calculator (see graph). After five months of operation, Bill concludes that “...PVWattsTM is a credible, conservative basis for estimating the return on investment (ROI).” Furthermore, Bill reports that “[w]ith a 7% per year estimated increase in energy prices, the array [will be] paid for in 14 years. This is significantly shorter than the 25 year life expectancy.”

Bill’s opinion of the system after nearly five months? “It’s great. It is reducing our cost of living and our future cost of living, probably for the rest of our lives.”

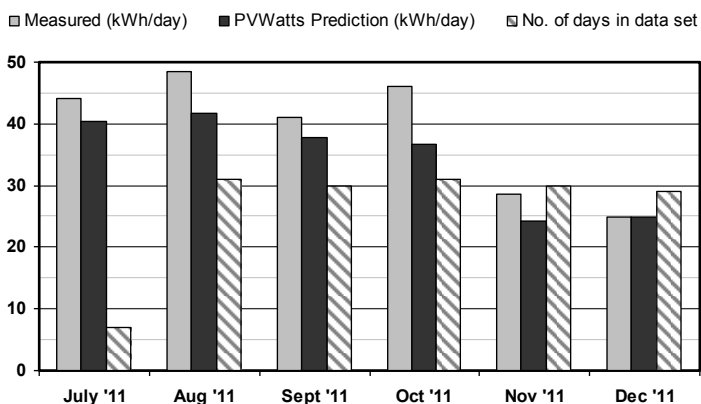
Questions? Interested in becoming a PFI Energy Cooperator? Contact Sarah Carlson, 515.232.5661, sarah@practicalfarmers.org.

Saving Energy

Saving energy on-farm is one of the top five priorities of PFI members. That’s why PFI is working with a group of Energy Cooperators in an effort to understand both on-farm energy use and “ground truth” alternative energy installations. The goals of the Energy Cooperators’ Program include:

- Developing a baseline for farm energy use, cost and environmental impact,
- Verifying implemented energy conservation practices,
- “Ground Truthing” alternative energy production and “pay back” times, and
- Allow members to predict and manage their future energy costs.

Average Daily Generated Energy (25 July - 29 Dec '11)



maintenance than PV arrays and are ultimately safer since “wind turbines sometimes throw ice or even blades.” Finally, Bill believes that “the long term performance of a turbine in the face of climate change is uncertain. In

On a quest to improve a pasture? Consider these key factors *by Karl Dallefeld*

Karl Dallefeld, who manages Prairie Creek Seed, consults with farmers on pastures and forage selection throughout the U.S. and Canada. Before turning his focus to the seed business, he raised grass-finished beef and sheep with his family near Worthington, and continues to raise cattle today. Dallefeld highlights below some key concepts in improving pastures.

A connection between diversity and forage quality

It is plain to see that quality starts in the soil. What is less obvious, though, is the connection between plant diversity and quality. Many different forage analyses show a clear picture—the greater the diversity of species in a sample, the better the overall quality of the forage. Some believe the best way to create diversity in pastures is simply to let nature's seed bank fill the density of the sward. This can work if the costs of the land are low and the farmer can afford to wait until viable pasture has been established. The seed bank is definitely full of great native and introduced species, but it also has some not-so-desirable species.

"If land in northeastern Iowa where I live is left to fallow or is grazed without assistance, there is a long wait for reclamation," explains Dallefeld. "The first responders are usually foxtail, Canada thistle, lamb's-quarter and common ragweed." These species are not palatable to most livestock and have a low biomass yield. Furthermore, the land costs in the area are so high that waiting until better plant species arrive could mean lost profitability.

Mother Nature vs. intervention

Alternatives to Mother Nature alone include introducing new varieties into an existing stand or a total renovation of the pasture. The latter involves killing the existing grasses and starting from scratch. Depending on the species in the current stand, slope, soil type and management restrictions, the method of renovation may vary. If the old stand consists of Kentucky 31 tall fescue, for example, it would be advisable to harvest two summers



This photo shows a diverse pasture that includes forbs, which deter parasites and provide livestock with essential minerals and protein. Notice the plantain, grasses and legumes.

of annual crops for stored forage before planting a new mix. This will deplete the seed bank of Kentucky 31 seeds, allowing the newly-seeded plants to take hold.

Seeding without tilling

Sometimes spraying to kill the existing pasture is the best answer. This requires a waiting period to allow the sod to break down before planting. During this period, the soil biology is digesting the dead material and can rob nutrients from new establishments. After the new seeding is established into the no-till pasture that first year, time needs to be spent carefully managing the pasture to thicken the stand and keep weed pressure at a minimum. Young grass plants require plenty of sunshine to become established and will die off if they don't get it. It may be necessary to harvest the first crop as hay and wait to graze the pasture until the plants are 10-12 inches tall. The key is to keep equipment and livestock off of the pasture so they cannot compact or damage the new seedlings. To thicken the stand and encourage tillering, farmers need to cut or graze the plants short enough so that sunlight can reach the basal nodes. When no-tilling into unworked soils, the new plants tend to anchor themselves better.

Using tillage

In areas where you can till, the options are to plow or use a rotovator to kill the existing stand. Herbicides can be used but are not absolutely necessary. Using a plow or rotovator will do a good job of killing the current species, but this method may require additional tillage. The trick is to maintain a firm seed bed. As a person walks across it, he or she should not sink more than 1/4" - 1/2". Grass and legume seeds are usually small so the soil-to-seed contact is critical. The soil needs to be clod-free and have good structure. The biggest reasons for failed stands of grasses are too loose of a seed bed and competition from other species, especially weeds. Rolling the fields with a smooth roller or cultimulcher after seeding helps to anchor the seed to the soil and hold critical moisture for the seedlings.

Using a companion crop

The amount of time required to establish a new seed mix is the same for till or no-till methods and a companion crop is preferred for both scenarios but incorporating a nurse crop in a tilled pasture is essential. It would be better to harvest a forage crop that can be fed to livestock in the winter than to produce a pasture of fresh weeds that livestock

will not want to eat. Pasture management becomes even more important and is the key to protecting the new plants. Because the soil has been tilled, loose seeds and roots are less protected, and livestock and equipment, especially during wet periods, can inflict considerable damage. The nurse crop should be harvested as soon as possible to allow sunlight to reach new seedlings and to prevent the nurse crop from robbing moisture from the seeding in dry summer months.

Interseeding to add diversity

In a scenario where existing pasture species are desirable and the goal is to add new species for diversity, there are new drills that have been developed specifically for interseeding pastures. In addition to the standard 6" to 7.5" row-width drills, there are till and no-till drills that use tines. These drills are basically adapted tine weeders and look promising. There is also a seeder from Germany that rolls the seed into tilled soil or sod with a culti-packer-like action. Both of these seeders are worth consideration. They are reported to reduce energy needs and place seed better. The key is to get soil-to-seed contact and maintain a ¼" to ½" seeding depth.

Grazing management is paramount

Farmers need to take care when livestock are turned out onto a new pasture that they are not pulling out the new plants by the roots. If this happens, farmers should remove the livestock for a while to allow the roots to develop or take a first cutting as stored forage. Grazing management is critical for successfully interseeding into existing stands. Farmers must walk a fine line between overgrazing and allowing new seedlings to establish themselves. The first two grazing events will need to happen before the old stand is fully recovered so that sunlight can get to the new plants. After the new plants are established, farmers can return to their preferred grazing management style.

Selecting species for greater diversity

As far as species selection goes, a healthy diversity of plant types is best. The mix should include grasses, legumes and forbs to get optimal animal growth from the forages.

Wider diversity also extends the time between harvests while maintaining quality. Grazing strategies may change depending on the types of animals grazing but the concept of diversity remains constant. Soil types, climate and farm objectives factor into the decision of which individual plant types to include. Be sure to select plants that are compatible with your operation. Grazing management varies from farm to farm, including rotational grazing, mob grazing or other modified systems. As such farms will have different preferred grazing times, forage heights and lengths of pasture recovery times. Soil conditions from farm to farm may vary from wet, to sandy, to drought-prone. Forage selections will vary with each of these factors.



Karl Dallefeld, Prairie Creek Seed



A dairy herd grazes on renovated pastures in the photo above. The cows look awesome and so does the pasture. This is the sign of good pasture management practices that match the farm's objectives.

Don't forget the forbs

Forbs are broadleaf plants that are not legumes and are frequently overlooked in the seed mix. These plants are an integral part of a healthy pasture and cannot be replaced by adding supplements. They are nature's detox program, naturally deterring parasites and providing livestock with essential minerals and a good protein source. Plantain, chicory, sheep's parsley and little burnet are a few good choices of forbs.

Each plant species brings a different quality to the nutritional plate. Grasses take up more phosphorus than legumes. Legumes bring up more calcium from the soil. Grasses and legumes have different amino acid profiles

that complement one another. Grasses have higher fiber levels and are more digestible. Forbs provide outstanding mineral content. The options for plant species to include for a better pasture are plentiful. The optimal mix is the result of knowing the soil, the farmer's goals and the nutritional requirements of the livestock. By taking these many factors into consideration, you will spend your dollars on pasture improvement wisely and receive a better return on your investment.

Member Book Review

Raising Elijah is everyone's work

by Kamyar Enshayan

At my university, the College of Education has more than 100 years of experience in early childhood education. Key words here are: child development, early childhood, infants, toddlers and preschoolers. The core idea is that early years are critical in child development and all of us can enrich these early years to give our kids a strong start.

On April 21, 2011, the *Journal of Environmental Health Perspectives* published three research studies related to early childhood exposure to common pesticides. Blood and urine samples from 1000 pregnant women and their babies were analyzed over 10 years. Conclusion: babies exposed to pesticides in the womb have lower I.Q. scores than peers by the time they reach school age. (*Early childhood compromised, resulting in life-long lower functions and immense costs to society.*)

Referring to these studies, *The New York Times* had quoted renowned pediatrician Philip Landrigan, "When we took lead out of gasoline, we reduced lead poisoning by 90 percent and raised the I.Q. of a whole generation of children by four or five points." He advised we need to sharply reduce childhood exposure to pesticides through public policy.

Renowned biologist Sandra Steingraber's new book, *Raising Elijah: Protecting our children in an age of environmental crisis*, explores the environmental lives of children through daily family routines such as homework, pizza and playground. Steingraber thoroughly documents how child development is directly intertwined with our national energy, transportation and agricultural policies. Family stories and environmental health literature are woven together into a highly readable and compelling logic.

One of the recurring themes is the failure of individualized approach to public health, which is "surround the kids with brain poisons and enlist mothers and fathers to serve as security detail." In the chapter titled Homework (and Frontiers of Neurotoxicology), referring to

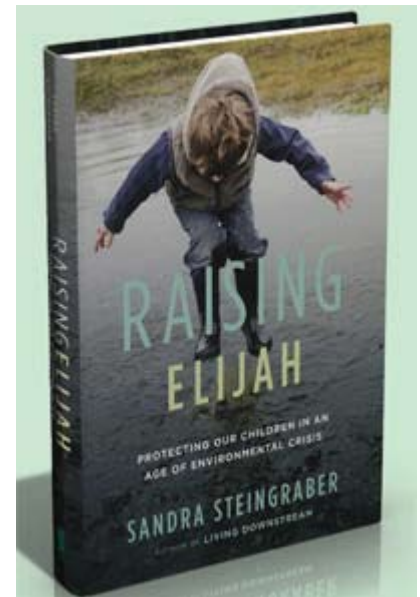
the studies mentioned above, she writes "If organophosphate pesticides are damaging children's brains at background levels of exposure and above, they should be abolished. After decades of dithering, abolition was the decision we ultimately took with lead paint. It worked. Educating parents to prevent the problem on their own did not work."

In the chapter The Big Talk, Steingraber discusses the difficulties of talking to our children about climate disruptions caused by burning of coal, oil and natural gas. She recounts her family's close encounter with rabies and discusses a highly effective proactive national system in place to prevent rabies. "I began to wonder why we don't bring a rabies approach—with its urgent, multi-tiered, take-no-chances, can-do lines of attack—to climate change."

In the face of looming climate disruptions (which are a huge health threat to children), do we stay silent? Steingraber suggests that we could stop acting like "good Germans" and start demonstrating to our kids that we are part of the French Resistance. That we can do this at home in ways that are visible to our children (clotheslines, garden, compost pile), as well as working toward public policies that will move us toward massive conservation and renewable energy.

"Hanging laundry can not stop global warming. The process that clotheslines—and reel mowers and compost piles—begin, however, is de-normalizing the fossil fuel ways of living. They are daily reminders that we urgently need new choices within new systems. They are harbingers. They signal our eagerness to embrace much bigger changes. They bear witness to our children that we are willing to exert energy, that we are not cynical, that we respect their right to inherit a habitable planet."

Steingraber refers to the environmental crisis as two crises with a common cause. Disruption of the Earth's atmosphere through accumulation of heat trapping gases and the accumulation of toxic chemical pollutants in our bodies. Both crises are rooted in our



economic dependency on fossil energy. "Ultimately the environmental crisis is a parenting crisis. It undermines my ability to carry out my two fundamental duties: to protect my children from harm and to plan for their future."

Steingraber reminds us that another world is possible, a better one, and that we need to organize, plan and mobilize, possibly in the scale of the Civil Rights movement, and create broad cultural and policy changes that will safeguard the biosphere on which children's lives depend.

When I first read, *The Land Ethic* in Aldo Leopold's *1948 A Sand County Almanac* in college, it put in motion for me a lifelong mission to protect and restore the environment. And now, Sandra Steingraber's new book *Raising Elijah* offers all of us a new logic, strong evidence and a framework for action as compelling as Aldo Leopold's.

Do you agree? Disagree? Let PFI know. Call us at 515.232.5661 or send an email to info@practicalfarmers.org

Kamyar Enshayan, longtime PFI member, is director of University of Northern Iowa's Center for Energy and Environmental Education in Cedar Falls, Iowa. He can be reached at kamyar.enshayan@uni.edu

Pasture walks show how farmers are extending the grazing season

Four PFI farmers hosted pasture walks in November and December to show how they are extending the grazing season. They shared strategies – included stockpiled perennial pastures, crop residues and annual forage mixes – with attendees from across the state.

In early December, at Bruce and Connie Carney’s farm in Polk County, participants heard about the advantages of tall fescue for stockpile grazing and how to avoid fescue toxicosis. Strategies for preventing toxicosis include not grazing tall fescue when it is too mature because it tends to have higher concentrations of the problematic endophyte that infects many fescue stands.

Joe Sellers of ISU Extension also talked about grazing or haying more often; on stockpile Sellers recommends 90-110 days of growth and suggests to start stockpiling around August 1. The second strategy involves either getting more diversity into the stand, either through



Participants check out the stockpiled tall fescue at Bruce Carney’s farm in Polk County.

grazing management, by interseeding other forage species or by supplementing the pasture diet with hay or grain. The advantage of fescue grass is that it is very hardy and it maintains its quality well through the winter.

We also saw a field of radishes, turnips and oats for late fall grazing. Our final stop at the Carneys’ was at a corn

field where some of their cows were grazing corn stalks.

Ryan and Gene Herman welcomed 24 people to their farm in Allamakee County on November 15. The Hermans utilize Holistic Management principles to set goals for their farm and monitor their progress in achieving those goals. We saw the Hermans’ cow-calf herd grazing green stockpiled grass. The Hermans have all perennial pastures on their farm, some of which were transitioned to pasture from cropland. Ryan says his preferred method of transitioning cropland to pasture is to have it in hay for a few years, and as the alfalfa is thinning out in the stand and grasses are filling in, he will start grazing it.



There appear to be two discussions taking place on the pasture at Jake and Amber Wheeler’s farm, located in Jasper County.

chili, discussing ways for Jake to become a full-time farmer.

Garth Lloyd and his daughter Taylor took us on a stroll around their farm in Scotland County, Missouri, in November. We saw Garth’s smaller-than-average-frame cow herd, which was achieved by bringing in smaller bulls and by having one selection criterion: if a cow weans a calf, she stays, if not, she’s gone. Garth said the best way to extend the grazing season is to sell all your haying equipment but warns that many cows in your herd may not be suited to grazing stockpile all winter.

In November, Jake and Amber Wheeler welcomed us to their farm in Jasper County, where we saw stockpiled perennial pasture, a soybean field that had been grazed a few weeks earlier and the Wheelers’ massive cedar tree removal project. We ended this very cool pasture walk in the Wheelers’ kitchen with delicious



Garth Lloyd and daughter Taylor lead a tour of their pastures located in Scotland County, Missouri.



Graziers look over the gate at Ryan and Gene Herman’s pasture in Allamakee County.

Watch for a couple new faces at PFI

New Farm Viability Coordinator joins PFI full-time staff



Marc Strobbe is the new Farm Viability Coordinator at PFI. He works with the Savings Incentive Program and PFI's farm business planning, local foods and horticulture efforts. He joined the staff in January 2012

after five years living and working on the coast of Maine.

Marc grew up on the family farm in Long Grove. He graduated from Augustana College in Rock Island, Illinois, and did graduate work in rural development at Western Illinois University and the Illinois Institute for Rural Affairs. He was an agriculture extension worker in Peace Corps-Ecuador from 2000-2002.

As a farmer, Marc has raised vegetables, pastured poultry, eggs and pork with his wife Abby. He has also worked at grass-fed sheep and cow dairies, an oyster farm and as a timber-framer. In his free time Marc likes to travel, be a "food and farm geek" and spend time with Abby and their son Ethan.

ISU Extension releases new publication on capturing high tunnel runoff for irrigation

"Rainwater Catchment from a High Tunnel for Irrigation" is a new extension publication that will be available to download in late January (www.extension.iastate.edu/store). The publication describes the methods and materials for attaching gutters to a high tunnel to collect the water in tanks and use it to irrigate crops in the tunnel. It includes information on electric and solar-powered pump systems. This Leopold-funded project was conducted at the ISU Armstrong Research and Demonstration Farm near Lewis, Iowa and demonstrated a PFI Field Day at Nature Road Farm near Boone.



Linda Naeve demonstrates how rainwater collects in a large tank and is then diverted to a gutter once the tank is full.

PFI Staffer Suzi Bernhard weds

By the time this newsletter hits mailboxes, wedding bells will have rung, and Finance and Benefits Manager Suzi Bernhard will be Mrs. Suzi Howk.



Suzi married ISU Computer Systems and Network Administrator and student Jim Howk, Saturday, February 4, 2012, at Lifepointe Church in Ames.

Two lucky conference goers win FREE PFI memberships

Thank you to all the conference attendees who completed the Iowa State University survey on machinery usage. Congratulations to Mike Salama and James Nisly for winning a free annual membership to PFI.

Annual Conference garners record attendance and funds for youth

A whopping 510 people attended the 2012 Annual Conference, topping the previous year's attendance by more than 100. The event's silent auction was also a hit, yielding \$2,507.50 for youth programs. PFI provides mini grants to members 18 and younger for their on-farm projects. Research is a big part of what we do at PFI, and mini grants help our young people start early to finding answers to their farm-related questions.

PFI members featured in NPR report about the changing roles of women on the farm

PFI members Helen Gunderson and Betsy Dahl are putting a new face on farming. That face is female. Today, women own or co-own nearly half the land in Iowa and an increasing number of them are sole owners who rent their farmland to a tenant.

Gunderson is among the latter. She inherited 500 acres of farmland near Rolfe from her grandparents in the 1970s. According to an NPR report featuring Gunderson and Dahl, Helen's brother managed the land for her until 20 years later when she decided she wanted to manage her own land.

Women now run about 14 percent of the nation's farms, up from only five percent in the 1980s, according to the report "U.S. Sees More Female Farmers Cropping Up" by Kathleen Masterson.

"Most female-run farms tend to be smaller and more diverse, and many are part of the burgeoning organic and local foods movement," Masterson says in her story.

Dahl is part of a growing number of female farmers and farms 180 acres of Gunderson's land, which she is converting to organic production.



Helen Gunderson



Betsy Dahl

In the story, Dahl attributes her desire and ability to farm to her father for having "encouraged and included her in all aspects of farming."

In case you missed it when it aired on NPR's *All Things Considered* last spring, use the following link to listen to the complete story: <http://www.npr.org/2011/03/30/134979252/u-s-sees-more-female-farmers-cropping-up>

Leopold's Kirschenmann receives PFI's Sustainable Ag Award

Practical Farmers of Iowa names its 2012 Sustainable Agriculture Achievement Award recipient—farmer Fred Kirschenmann—a longtime national and international leader in sustainable agriculture and Distinguished Fellow for the Leopold Center for Sustainable Agriculture at Iowa State University.

Practical Farmers of Iowa presented Kirschenmann with the award and a basket of local foods on Friday night of the PFI 2012 Annual Conference, January 13. PFI grants this award annually to those who have excelled in demonstrating sustainable agriculture and have been generous in sharing what they have learned with others.

Kirschenmann oversees the management of his family's 2,600-acre, certified-organic farm, where he grew up in south-central North Dakota. "I loved being outdoors and driving the tractor," he recalls, "My father always insisted on me getting as much education as I could so there was never any question whether I'd go to college; otherwise, I'd probably have stayed on the farm."

Kirschenmann holds a doctorate in philosophy from the University of Chicago and has written extensively about ethics and agriculture. He was a teacher and administrator for several years before returning, in 1976, to North Dakota to farm. "My father instilled in me a deep respect for the land. The question he always asked when making a farming decision or considering a new



Fred Kirschenmann accepts the Sustainable Ag award at the PFI Annual Conference in January.

practice was, 'But is this good for the soil?'" By 1980, the farm had been certified organic, one of the early operations to make the transition. Today, the farm includes a natural prairie livestock grazing system that combines a nine-crop rotation of cereal grains, forages and green manure.

"In the early days, it never occurred to us that we would have to think about climate change and skyrocketing fossil fuel costs. We figured we could just tweak the current system—lower inputs, reduce pollutants—now we realize we need to completely overhaul the industrial model to make it resilient enough to survive the challenges we will be facing in the future."

Through his efforts to educate others, the seeds of stewardship planted by his father took root and Kirschenmann's innovative ideas about agriculture eventually were cast to a wider audience than life on the farm alone could have provided. Kirschenmann's practical, on-farm experiences were filled with successes and failures as he pioneered new practices and sought guidance wherever he could find it. "I started getting acquainted with the sustainable ag community and got connected with ISU [Iowa State University] and the Leopold Center, and that's when I heard about Practical Farmers of Iowa."

Kirschenmann has been an active member of Practical Farmers of Iowa since 1987, when he was asked to speak at the organization's second annual conference. "On-farm research is critical to farmers' success and that's what Practical Farmers is known for. Very few organizations are doing this sort of thing," he says. "But, in doing so, PFI is supporting one of the most important resources that we are in danger of losing—farmers. The social and intellectual capital that this group generates will be its most important contribution to farmers of the future."

Kirschenmann was director of the Leopold Center from July 2000 to November 2005, and is currently a charter member of the Whiterock Conservancy, a nonprofit organization that manages a 5,000-acre conservation area in west-central Iowa and president of the Stone Barns Center for Food and Agriculture in Pocantico Hills, New York. He has also held numerous appointments, including the USDA's National Organic Standards Board and the National Commission on Industrial Farm Animal Production.



Fred Kirschenmann oversees the management of his family's certified-organic farm in North Dakota.

Honored recently as a visionary and for his lifetime of leadership in sustainable food and farming systems, Kirschenmann is among 10 food pioneers, including First Lady Michelle Obama, to receive the inaugural Leadership Award from the James Beard Foundation.

In addition, he served as a key advisor for a new documentary that is due to be released this spring called, "Symphony of the Soil," by Deborah Koons Garcia, which focuses on what's happening to the land and changes that need to be made to return our soil to health. A screening is planned for March 27 in Cedar Falls and March 28 in Ames. (See the calendar on page 31.)

"We are looking at crude oil reaching \$300/barrel and facing weather challenges unseen in my lifetime," Kirschenmann says. "It's time to shift the vision for the future from an industrial farm model that focuses on maximum efficient production for short-term economic returns, because there is nothing in that model that addresses sustainability, and look instead at an 'agroecological' model, which recognizes the importance of long-term resilience. By employing ecological principals, farming will emphasize self-renewing and self-regulating systems for maximum long-term economic returns, based on nature's wisdom."

Young Member Spotlight

Youth Mini Grants fuel fun and learning

Practical Farmers of Iowa offered Youth Mini Grants for the first time in 2011. Each year PFI raises funds through the Annual Conference Silent Auction to provide youth programming.

In years past, these funds paid for a summer camp with an agriculture-related theme. After board and staff evaluated the goals and effectiveness of PFI's youth program, they decided the audience served, largely farm kids, were already well-versed in the themes the camps offered, and created instead the Youth Mini Grant program to better serve young members.

Practical Farmers of Iowa was founded by a group of farmer researchers, and that tradition has remained central to the organization through the years. The Youth Mini Grant program was created to equip young PFI members with research skills that will help them to find answers to their farming-related questions.

This first year of offering Youth Mini Grants has been fun for PFI staff and youth alike. Applications filled in with pink pens, hearts and smiley faces abound, bringing light hearts to PFI staff. Many applications lacked a specific question to be answered, or a way to objectively measure results. Next Generation Coordinator Luke Gran worked with applicants to develop these components. This process taught young researchers how to structure an on-farm research or demonstration trial.

Fourteen Youth Mini Grants were awarded for 2011. Youth displayed their results at the Annual Conference through poster presentations.



Scott Fank shows his poster about Warre and Kenya beehives to PFI Annual Conference goers.

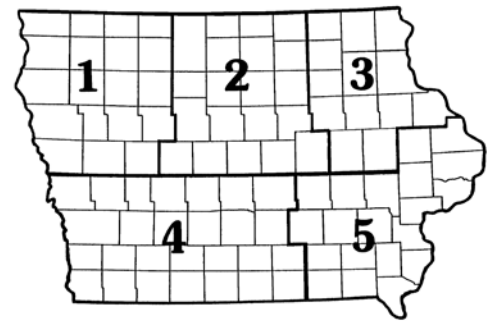


Sophia Roland stands next to a poster she made to illustrate the results of her Garden Plot Comparison, which compared yields from conventional rows, wide rows and block planting.

Practical Farmers of Iowa is excited to offer Youth Mini Grants again in 2012. Applicants must be 18 or younger and members of Practical Farmers of Iowa. Practical Farmers of Iowa reimburses for documented supplies up to \$250 for each project. Applications will be available soon. If you are interested in learning more about the Youth Mini Grant program, please contact Luke Gran, luke@practicalfarmers.org, 515.232.5661.

Youth Research Finding solutions

- Chicken Project, Barak Fall
- Growing Produce, Victoria Fall
- Rabbits, Christy Fall
- Do Rowcovers Pay? Heidi and Hollianna Fank
- Pros and Cons of Warre and Kenya Beehives, Scott and Luke Fank
- Summer Garden & Cooking Project, Carrie Herrman, UrbanDreams AgCulture
- Food Safety Investigation, Mason Osborne
- We Fight Cancer, Melanie Honey Philavanh
- Rabbits: Money Maker or Hobby? William Roland
- Learning to Deal with the Common Problems of Jumping, Burrowing Goats, Mary Elisabeth Roland
- Farm Dog Training, Peter James Roland
- Comparison Garden Plots: Yields from Conventional Rows, Wide Rows and Block Planting, Sophia Roland
- Growing Tomatoes in a High Tunnel, Jim Russ, New Hampton FFA
- Goats for Show, How Fast Do They Eat As They Grow? Sarah Daisy



Welcome, new members

District 1—Northwest

Basil and Billie Bergquist, Rockwell City
Timothy Chapman, Spirit Lake
Betsy Dahl, Rolfe
Dave and Meryl Hiler, Rockwell City
Duane Johnson, Lohrville
Caleb Wilson, Paullina

District 2—North Central

Dawn Anderson, Badger
Gregory Artz, Ames
Glenn Atkinson, Marshalltown
Omar de Kok-Mercado, Ames
David Eckles, Nevada
Tim Foerster, Story City
Nicole Friess-Schilling, Jefferson
Kevin Griggs, Boone
Danny and Sue Harrison, Nevada
Cheryl Johnson, Eagle Grove
David Keninger, Ackley
Erwin and Janet Klaas, Ames
Chad Krull, Ames
Matt Mayer, Cedar Rapids
Tracy Meise, Mason City
Jeffrey Murra, Buffalo Center
Byron Olson, Boone
April Richards, Boone
Erich Sneller, Ames
Sarah Willis, Mason City
Julie and Rick Zrostlik, Ames

District 3—Northeast

Anne Daily, Anamosa
Mike Gooder, Cresco
Jeff Libe, Hiawatha
Susanne Myres, Palo
Kim Paulsen, Cedar Rapids
Jeff Scott, Decorah
Lore Swartzendruber, Atkins
Nathan Wicks, Decorah
Scott Young, Lisbon

(Continued on page 30.)

PFI members' fungicide debate highlights need for openness and understanding

by Patrick Burke

Agriculture-related scientific studies are a common topic on the PFI email discussion lists. Back in October, PFI member Judy Beuter linked to a new study indicating that genetically modified feed causes organ disruption in animals. (To read the full report, go to: <http://tinyurl.com/GMOfeed>). Beuter asked the logical question about GMO feed: "So what might it do to us?"

The study, published in March 2011 in the journal *Environmental Sciences Europe*, did not involve new experiments on animals; instead, it was a review of 19 previous studies, plus analysis of data from several 90-day-long rat tests. The reviewed studies all dealt with mammals fed GM corn or soybeans "which represent, per trait and plant, more than 80 percent of all environmental genetically modified organisms (GMOs) cultivated on a large scale." The purpose of the study was to discover the limitations of the safety assessments used for genetically modified crops in Europe and suggest possible improvements to that system.

Among the convergent data uncovered by comparing the different studies, researchers found evidence of kidney and liver problems in animals. While some of the studies took as long as two years to complete, others were only 90-day tests, and these were too short to say conclusively whether changes to the kidney and liver indicated the onset of chronic disease. However, that alerted the researchers to one problem with GMO safety assessments: There is currently no required minimum length for studies of health effects of GMOs. The concern is that short-term studies could overlook side effects that longer-term studies might uncover.

One member participating in the discussion, Jack Knight, expresses similar concerns: "My guess is that some ill effects of GM feed are masked or

difficult to nail down because pigs and cattle and chickens are slaughtered early in their lives."

In terms of the effects of GMOs on humans, there seems to be three areas of concern among those participating in the discussion: 1) direct human consumption of GMOs (eating ingredients derived from GM corn, for example); 2) indirect human consumption of GMOs (eating meat from an animal raised on GM feed); and 3) human consumption of pesticide residues associated with GMOs (glyphosate, etc.)

We need to ask the question, 'How will our bodies deal with increasing concentrations of the novel proteins found in GM foods?'

Angie Tagtow

Regarding direct consumption of GM foods, Drake Larsen points out that many common ingredients in processed foods, including corn syrup, corn starch, citric acid and xanthan gum, come from the same GM corn supply. "Unless a product specifically says non-GMO or organic, it is a safer bet to assume it is made with GMO crops," says Larsen. And because US eaters are consuming more and more highly processed food, "the compounded load of genetically modified ingredients in US diets is significantly multiplied," adds Angie Tagtow. "We need to ask the question, 'How will our bodies deal with increasing concentrations of the novel proteins found in GM foods?'"

Margaret Dunn wonders if the proportion of GMO to non-GMO food in the diet is significant. "In animal feeding trials, the only thing the animal eats may be the GMO [but] if a person eats a GMO ear of corn amidst a relatively balanced diet otherwise,

is there any real risk?" asks Dunn. "Granted, the GMO consumption concentration rises greatly

if you consider meat from animals fed GMO crops," she adds. But what side effects, if any, are caused by eating that meat?

"[The safety of GMOs] is a topic I continue to struggle with and have so many unanswered questions," says Angie Tagtow. Regarding the pesticides applied to GMOs, Tagtow asks, "Is there research that analyzes the chemical

residue from these crops through the food system? And why are we not studying the compounded load of glyphosate and other agricultural chemicals in the human diet?"

Uncertainty and unanswered questions seem to be common in every discussion about the safety of GMO crops. As Fred Kirschenmann observes, "It sometimes takes a lifetime or more to determine negative unintended health or environmental consequences from introducing novel technologies."

Unfortunately, novel technologies are often widely adopted before they are fully understood. In this case, one thing is clear: More research is

necessary to understand exactly how GM feed affects livestock and how that translates to humans who consume GMOs.

Interested in participating in lively discussions like this one? PFI offers five email discussion lists for members: General, Grazing, Horticulture, Policy, and Poultry. Just email patrick@practicalfarmers.org and let me know which ones you'd like to join.

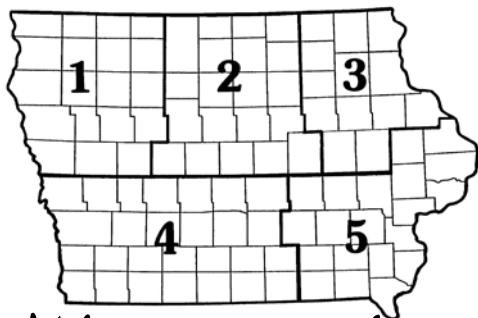
My guess is that some ill effects of GM feed are masked or difficult to nail down because pigs and cattle and chickens are slaughtered early in their lives.

Jack Knight

It sometimes takes a lifetime or more to determine negative unintended health or environmental consequences from introducing novel technologies.

Fred Kirschenmann

New Members & PFI Calendar



Welcome, new members

(Continued from page 28.)

District 4—Southwest

Betty Baker, Des Moines
 Sarah Costa, Greenfield
 Thomas and Janna Feldman, Honey Creek
 Marian and Sam Gelb, Des Moines
 Linda Gobberdiel, West Des Moines
 Golden Hills RC&D
 Chad Hensley, Council Bluffs
 James and Neisha Horn, Newton
 Meg Johnston, Exira
 James Martin, Panora
 Bahia Nightengale, Oakland
 Chandler Nunnikhoven, Harvey
 Nicholas Ohnmacht, College Springs
 Adam O'Neal, Winterset
 Jacob Petersen, Knoxville
 Jeff Schulz, Pleasant Hill
 Jason Smith, Mondamin
 Teresa Troxel, Crescent
 Michael Von Weihe, Carson
 Wallace Centers of Iowa
 Chris Westphal, Casey

District 5—Southeast

Dick and Deb Baker, Atalissa
 William Borrenpohl, LaMotte
 Christina Cowles, Burlington
 Doug Darrow, Oxford
 Stephen Pierce, Grinnell
 Weston Rockafellow, West Liberty

District 6—Out of State

Blackbrook Farm, Minneapolis, MN
 Mark Brisky, Salt Lake City, UT
 Judy Christianson, Ladoga, IN
 Robert DeMoss, Lincoln, NE
 Charles King, Kodiak, AK
 Kerri McClimen, Chicago, IL
 David Mixdorf, South Sioux City, NE
 Greg and Nancy Rasmussen, Lockwood, MO
 Rebecca Wiinanen, Grand Marais, MN
 Joanne Wilson, Baltimore, MD

FEB | MARCH | APRIL

FEBRUARY 23 | Food and Farm Policy in the US: Building the Economy and National Security with Public Health | Michael Hamm | Ames, IA 8 p.m. Great Hall, ISU Memorial Union, Ames; Contact: ISU Lectures Program, 515.294.9934, lectures@iastate.edu

FEBRUARY 23–25 | Midwest Organic and Sustainable Education Services Organic Farming Conference | LaCross Center | LaCross, WI Visit: http://www.mosesorganic.org/ofc_registration.html

FEBRUARY 28 | Pricing Poultry: Eggs, Broilers and Turkeys | Farminar | 7 p.m. Visit: www.practicalfarmers.org/farminar

MARCH 4 | Environmental Pollution, Climate Change and Our Health: Shivers Memorial Lecture | Sandra Steingraber | Ames, IA | 7 p.m. Sun Room, ISU Memorial Union, Ames; Contact: Leopold Center, 515.294.3711, leocenter@iastate.edu

MARCH 6 | Determining Whether Your Produce Farm Will Flourish or Wilt | Farminar | 7 p.m. Visit: www.practicalfarmers.org/farminar

MARCH 6–7 | Iowa Water Conference Ames, IA Iowa State University Scheman Building, Ames; Contact: 515.294.6429, waterconf@iastate.edu

MARCH 11 | The Care and Pruning of Fruit Trees | Angelic Organics Learning Center | Caledonia, IL | 1–5 p.m. Cost: \$50; Visit: <http://www.mosesorganic.org/events.html>

MARCH 12 | Good Agricultural Practices (GAP) Training | Oregon, IL Visit: <http://www.mosesorganic.org/events.html>

MARCH 17 | Capturing and Organizing Data for Organic Certification | Marion, IA | Noon–4 p.m. GAPs Compliance and Other Endeavors; Location: Marion Public Library, Marion; Contact: Jason Grimm, Iowa Valley Resource Conservation and Development, jason@ivrcd.org, 319.622.3264

MARCH 17 | Farm Dreams: Assessing Risk & Resources to Start a Small Farm or Garden | Angelic Organics Learning Center | Caledonia, IL 1–5 p.m.

Will cover farming careers in northern Illinois and southern Wisconsin. Cost: \$60; Visit: <http://www.mosesorganic.org/events.html>

MARCH 31–APRIL 1 | Student Initiatives in Sustainable Agriculture Conference | Appleton, WI (SISA) is a national event for current and recent college students dedicated to sustainable gardening and farming. This year's conference will feature a keynote address by agricultural economist John Ikerd, and much more! Visit: <http://www.sisaconference.org/>

MARCH 27 | Symphony of the Soil Iowa Screening | Cedar Falls | 7 p.m. Contact: Kamyar Enshayan, University of Northern Iowa Center for Energy and Environmental Education, Kamyar.enshayan@uni.edu, 319.273.7575

MARCH 28 | Symphony of the Soil Iowa Screening | Ames, IA | 7 p.m. Auditorium, 2245 Coover Hall, Iowa State University, Ames; Contact: Jeri Neal, Leopold Center Ecology Initiative, 515.294.5610, wink@iastate.edu

APRIL 3 | Local Food Summit Ames, IA Iowa State University Scheman Building; Contact: Craig Chase, 515.294.1854, cchase@iastate.edu

Grow your farm with PFI. Join today!

This annual membership is a:

- new membership
- renewal

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.)

I am joining at the level of:

- Student—\$15
- Individual—\$35
- Farm or Household—\$45
- Organization (including businesses, agencies, not-for-profit groups)—\$75

..... 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

137 Lynn Ave., Suite 200
Ames, IA 50014

Non-Profit
Organization
U.S. Postage
PAID
Waterloo, IA
Permit No. 901

Our Vision for Iowa



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 earn-
ing a good living



Wholesome 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



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.