the Practical Farmer

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Cover photo: Richard Black's vineyard and barn. Richard held a Field Day at his Farnhamville farm on July 22 and will be speaking at PFI's 2007 Annual Conference. THANK YOU to Jerry DeWitt, Rich Schuler, Rick Exner, and Meryl Hiler for their photos.



PFI Board of Directors

Correspondence to the PFI directors' addresses is always welcome.

District 1 (Northwest): Ken Wise, 3566 280th St., Lytton, IA 50561-7574. (712) 466-2473. Leo Benjamin, 17636 Birch Ave., Whiting, IA 51063. (712) 458-2001.

District 2 (North Central): Tim Landgraf, 1465 120th St., Kanawha, IA 50447-8060. (641) 495-6367. libland@frontiernet.net Nina Biensen, PFI Secretary/Treasurer, 2454 Binford Ave., State Center, IA 50247. (641) 483-2292. biensen@marshallnet.com

District 3 (Northeast): Walt Ebert, 1273 120th St., Plainfield, IA 50666. (319) 276-4444. ebert.w@gmail.com Eric Franzenburg, PFI Vice President, 6925 19th Ave., Van Horne, IA 52346. (319) 228-8758. eafran@netins.net

District 4 (Southwest): Angela Tedesco, 7260 NW 58th St., Johnston, IA 50131 (515) 278-4522. atedesco@worldnet.att.net Verlan Van Wyk. P.O. Box 246, Sully, IA 50251 (641) 594-2998.

District 5 (Southeast): Susan Jutz, PFI President, 5025 120th St. NE, Solon, IA 52333-9155. (319) 624-3052. zjfarm@ia.net

Tom Wahl, 13882 I Ave., Wapello, IA 52653-9449. (319) 729-5905. redfernfarm@lisco.com

Advisory Board

Dick Thompson, 2035 190th St., Boone, IA 50036-7423. (515) 432-1560. Larry Kallem, 12303 N.W. 158th Ave., Madrid IA, 50156. (515) 795-2303.

PFI Staff

For general information and staff connections, call (515) 232-5661; individual extensions are listed in parentheses after each name.

Director

Teresa Opheim (102), teresa@practicalfarmers.org

Food Systems Gary Huber (103), gary@practicalfarmers.org

Farming Systems Rick Exner, (515) 294-5486, dnexner@iastate.edu, Room 2104, Agronomy Hall, ISU, Ames, Iowa, 50011

Ronda Driskill, (515) 294-8512, misselly@iastate.edu

Membership Services Cedar Johnson (101), cedar@practicalfarmers.org

Communications Specialist Emily Clark (104), emily@practicalfarmers.org

Youth Camp Coordinator Brad Meyer, pfifarmer@hotmail.com

Buy Fresh, Buy Local Mallory Smith, 125 E. Third St., West Liberty, IA 52776, (319) 627-2922, mallorys@Lcom.net

Kamyar Enshayan, (319) 273-7575, kamyar.enshayan@uni.edu

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Newsletter Editor: Todd Kimm Additional Editorial: Sondra Feldstein Additional Design: Mary Sailer Original Template: Michael Nash

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www.practicalfarmers.org



Letter from the Director

Goals Clear and Simple

n the first day of school, my son and his fellow fifth graders were asked to set five goals for the year. Paul came up with these:

- 1. Make five new friends
- 2. Learn more science
- 3. Do math problems faster
- 4. Read longer books
- 5. Join band

My new personal goal? To come up with goals this clear and simple for myself!

At Practical Farmers of Iowa, we have been developing our "marching orders" for Fiscal Year 2007 (which started Oct. 1). We've tried to come up with a work plan that is concise and measurable.

The PFI Board of Directors, staff and many of you have brainstormed ideas, offered feedback on our past performance and reviewed our draft work plan. Our goals are ambitious, and I'd be glad to share the entire plan with you. I've included some highlights here.

By this time next year—with your help—PFI staff and board will report to you that we:

Moved forward on a robust distribution system for farmers selling directly to consumers. We will work to solve those vexing distribution issues, getting more income to farmers and more local, healthful food to consumers.

Better used PFI farmers as teachers and mentors. Look for more farmer networking opportunities and our farmers' expertise to be tapped at more conferences and field days.

Helped niche pork farmers and their companies become more profitable. Staffer Gary Huber is working hard for those farmers growing Berkshire, organic, and humanely raised hogs.

Increased PFI's visibility. PFI has 20 years of high quality on-farm and food systems research—let's get that information out to those who need it.



PFI Board and Staff Retreat, Aug 2006. Back: Rick Exner, Ken Wise, Todd Kimm, Tom Wahl, Leo Benjamin, Walt Ebert, Verlan Van Wyk, Angela Tedesco, Gary Huber, Tim Landgraf. Front: Cedar Johnson, Ronda Driskill, Nina Biensen, Eric Franzenburg, Susan Jutz, Teresa Opheim.

Increased the number of farmers participating in our open pollinated corn, flax and other on-farm research and demonstrations.

Better served our grazing members with more workshops and other networking opportunities.

Became a more fiscally sustainable organization. PFI, like many small nonprofit organizations, does not have a long-term stable funding base. We will further diversify our funding stream and continue to build support from individuals who believe in our core mission:

Healthy food Diverse farms Vibrant communities.

~ luna phin

Annual Conference

Paths to Prosperity

Join us for our 2007 Annual Conference Jan. 12 & 13

hether the niche is "organic," "local" or "humanely raised," the market demand for products that sustainable farmers produce far outweighs the supply. As farmers use a variety of models to solve the logistical hurdles and meet that demand, how do they hold on to their commitment to quality of life, environmental stewardship, and economic sustainability?

Come to the 2007 annual conference and explore the various paths PFIers and others are taking to grow their profits and maintain their values.

Our keynoters have taken two very different models to providing consumers with healthful food and the farmer with a fair deal. Steve Ells (right) founded the Chipotle restaurant chain in 1993. Since then, the chain has grown to more than 500 restaurants in more than 30 cities across the country.



Since 2001, Chipotle has been serving naturally raised pork in its restaurants, supplied in large part by Niman Ranch and its Midwest farmers, including many PFI members. More recently, Chipotle began serving naturally raised chicken and beef and hopes to further its efforts to support family farmers.

While Chipotle looks national, our second keynoter, Francis Thicke sells no further than his southeast Iowa county of Jefferson. Francis and his wife, Susan, own Radiance Dairy, near Fairfield, where they process milk and many other dairy products on their farm. All of their products are sold in nearby Fairfield, to three grocery stores and a dozen restaurants. They are committed to staying small and local, despite requests to grow their operation.

"In many ways we have become a community dairy," says Francis. "We provide tours for classes from local schools and often our customers will stop by to see how their milk is produced."

Something for Everyone

Grazing, high-tunnel greenhouses, eating locally, transitioning to organics: There is something for everyone at the 2007 PFI conference. As always, we'll be offering plenty of time for networking. We know this is your main opportunity to ask other farmers for advice! We'll be serving up a lot of locally grown food, and offering highly recommended bluegrass music from a fun group called The McPunk Brothers (named, they say, after two band memers' great-great-great grandfather, Angus McPunk, who immigrated from Scotland "to escape the great kilt famine of 1790.") We'll have child care again, and special programming for the older youth. Bring the whole family!

Here's the workshop lineup for Friday:

- Growing High Quality Forage: Risk Management for Volatile Weather
- Adding an Enterprise: Barriers and Opportunities for Growing Beyond Commodity Markets
- Creating New Iowa Food Distribution Systems
- High-Tunnels for Lower Costs and Higher Profits



PREPARING FOR AVIAN FLU: Darrell Trampel (shown here with Kate Hogg and Judy Jedlicka)

Annual Conference

PFI Sustainable Ag Achievement Award— Francis Thicke

Congratulations to the recipient of the 2007 PFI Sustainable Agriculture Achievement Award, Francis Thicke of Fairfield. Francis will accept the award at the PFI conference in January.

In both his actions and his writings, Francis Thicke has been a leader in sustainable agriculture for decades. Upon finishing his undergraduate degree in 1972, he moved back home and helped convert his family dairy farm to organic. After farming for nearly a decade, he rejoined the world of academia, obtaining an M.S. in Soil Science and a Ph.D. in Agronomy/Soil Fertility. This led to a position with the USDA—Extension Service in Washington D.C., where Francis worked extensively in water quality and sustainable agriculture programs as National Program Leader for Soil Science.

But farming was in his blood, and after several years of public service, Francis and his wife, Susan, moved to Fairfield, Iowa, and took over Radiance Dairy in 1992. He and Susan milk 65 cows on their organic, grass-based dairy. They produce bottled milk, cream, yogurt, and cheese, which they market through local grocery stores and restaurants.

Francis has served on a dozen boards and committees and received many awards and honors since returning to farming. He currently serves on the board of directors for the Organic Farming Research Foundation, the Iowa Environmental Protection Commission,

and the USDA State Technical Committee for the state of Iowa. He helped initiate an incentive program assisting Iowa farmers in conversion to organic production, the first such program in the nation. Francis was also named a Fellow of the Food and Society Policy Fellows program from 2002 to 2004.

The workshop lineup for Saturday:

- * Paths to Prosperity: Roundtable discussion on the keynote addresses
- Eating Locally Year-round: Pie in the Sky or Easy as Pie?
- * Avian Influenza: Preparing Your Small Flock
- Clusters of Grapes: A Virtual Farm Tour and Cluster Model of Farmer Networking
- * Living Comfortably on Little Energy: A case study on slashing your electric bill
- Soil Building and Budgets in Organic and Extended Rotations
- * Getting into Livestock: Do you have to leverage the farm?
- How to Preserve Heirloom Seeds
- * Livestock Farming: Ask a Colleague
- Transitioning to Organic Crops: What to Expect
- Weed Management in Field Crops and Vegetables
- * Economics of Organic Dairy Production
- Conservation Security Program: Tale of Two Farms
- Who Will Run the Farm? Planning for Succession



GROWING GRAPES: Richard Black will give a virtual tour of his well cared for vineyards, pictured here



ADDING AN ENTERPRISE: Eric Franzenburg will speak on adding an herb business



Member Spotlight

Farmer as Conservationist Q and A with Andy Johnson



Andy Johnson and Emily Young Johnson, Helen (6) and Leila (2), Waterloo, manage Christmas trees at Oneota Slopes, the family farm.

Describe your farm and interests.

I grew up on a small jersey dairy and Christmas tree farm northeast of Decorah. My parents (Pat and Paul Johnson) farmed sustainably before sustainable agriculture became a national movement, rotationally grazing the cows and working the Christmas trees in a wildlife-friendly, chemical- and tillage-free manner. Luckily for my brother, sister and I, when friends and relatives asked what they were raising on the farm, the first answer was always "kids," and we were indeed an integral part of the farm (sometimes even more so than we wished). After college my wife and I moved around a good deal-getting graduate degrees, living and working in Guatemala, then in Georgiaand our hope has always been to settle back on the farm someday. We're getting close.

What is one problem you've managed to fix on your farm?

Christmas trees are similar to the rest of agriculture in that prices received by the farmer haven't even come close to keeping up with inflation over the past 25 years. About five or six years ago, it was time to either let the trees go or find a way to make them more profitable. We decided to test the market for sustainably grown Christmas trees. After many discussions with often bewildered produce managers around the tri-state region, we finally found two food co-ops in the Twin Cities willing to try our trees.

In four years we went from two stores to 10, and sustainabilitybased sales increased over five-fold. Profitability is up significantly from a few years ago, and this past year we couldn't meet the demand. It is often heard that consumers are willing to pay a premium on food for health reasons, but not for sustainable farming or land management practices. Our experience shows otherwise, proven by the inedibility of our trees!

What is one problem you are still trying to fix?

Our farm and our family are not co-located. Hopefully that will change sometime over this next year.

Share an interesting, funny or inspiring experience you've had related to PFI or another PFI member. When I was working with Northeast Iowa Resource Conservation and Development (RC&D) in Postville, a farmer wearing shorts, sandals, and a

baseball cap came into my office and said "we need to work on conjugated linoleic acid in pasture-raised beef." Huh? The more I heard the more interesting it sounded, and eventually led to a SARE-funded study organized by local farmers and partnered with CROPP and ISU. The farmer was Dan Specht, and his local conspirators in RC&D subversion were Greg Koether, Jeff Klinge, and Dan and Bonnie Beard.

Name one book you'd recommend.

My favorite Aldo Leopold book is "The River of the Mother of God; and Other Essays by Aldo Leopold," full of gems like "The Farmer as Conservationist," written in 1939.

I probably wasn't alone in noticing there was little mention of the farmer as conservationist at the past PFI conference. I'm sure most PFI members are good conservationists, but I think among all the excitement over alternative crops and production methods, direct marketing, and local food systems, we sometimes lose track of the land community, and of all the thousands of other members and citizens who also need a bit of room to breathe and to grow. We don't need a wilderness area in our working landscapes, but all life could use a little more wildness than we tend to allow. This is what Leopold meant when he said the farmer as conservationist isn't concerned only with restraint (such as reducing soil erosion or fertilizer and pesticide use), but also with "a positive exercise of skill and insight." I'd bet many of you could add your own experience of what makes a farmer a conservationist.

Member Spotlight

Q and A with Laura Dowd

We're trying something new: "Member Spotlight," to provide a chance for members to share their thoughts and ideas

Tell us about your organization.

Local Foods Connection purchases vegetables, meat products and other goods from small family farms and then donates this food to low-income families. We have two missions: to support farmers who use earth-friendly farming methods, and to put highquality, fresh foods on the tables of people in the community who wouldn't normally purchase such goods.

What is one problem you've managed to fix in your business? How did you do it?

Asking for help from the many talented and generous people and businesses in my community has solved many of the problems I've encountered in building a new, unique organization. For example, the IRS paperwork required for obtaining legal nonprofit status is complicated and intimidating, and I wasn't certain I could complete it accurately on my own. Researching technical support options, I discovered that the University of Iowa College of Law has a Nonprofit Resource Center. When I asked them for help,



they not only completed the paperwork with me, they helped me develop bylaws and a risk management plan. In addition, the Center assigned a student intern to work with me every semester for two years. The people at the Center are wonderful, and I highly recommend their services!

What is one problem you are still trying to fix?

Negotiating the balance between the expansion of our organization and the impersonalization of services to a large number of people.

How does, or can, PFI contribute to your aspirations?

PFI empowers farmers to make new choices about how they manage the land and their crops. I believe that people make the best choices for themselves and for others if they are given a range of options. People respond better to choices than inflexible directives. PFI shows farmers their choices, and then provides them support and tools to carry out their decisions. Back row, left to right, Frances Zacharakis-Jutz, Brad Meyer, Jack Gilbert, Caremen Black. Front row, left to right, Susan Jutz, Kelsey Harringa, Laura Dowd.

Share an interesting, funny or inspiring experience you've had related to PFI or involving another PFI member.

Nearly 10 years ago, Susan Jutz, PFI president, engaged me in several discussions about the importance of having local, organic foods available to everyone in a wholesome, healthy diet. These discussions inspired me to create Local Foods Connection. In addition, Susan gave me access to her clientele to recruit LFC's first financial sponsors.

Describe your perfect day or meal. My perfect meal would:

- include asparagus or artichokes (not local, sorry),
- be served with lots of cheese sauce and/or butter,
- be eaten with friends,
- and be prepared by any of the talented chefs I know.

Anything else you'd like to share? "You must be the change you want to see in the world"

–Mahatma Gandhi

PFI Camp

PFI Campers Play, Explore, and Learn to Lead

By Brad Meyer

nce again we had great weather for another successfull PFI Camp this year! For two days the leadership program was held before camp. The young youth went through low and high ropes courses at the Des Moines Area YMCA Camp near Boone. They were able to bond together and develp skills they could use in their life. They also received training to be junior counselors for PFI Camp. The highlights of PFI Camp this year included playing in the creek and just running through the Y-Camp. We had a seasoned camp participant this year: 86-year-old Wes Buchele, who did admirably in keeping up with the kids. We studied stream life and ecosystems. We built dams all along the creek and then broke them again before we left, so the creek was left the way we found it. For all you PFI Alumni, yes we had POOL TROUBLE AGAIN! Everything turned out fine though, we took a bus to the public pool in Boone. On behalf of all the kids, we thank everyone that helped make camp happen through volunteering and donations. SS

2006 PFI Camp Participants

Back row, left to right: Meryl Hiler, Andrew Landgraf, TJ Thompson, George Schaefer, Martin Wise, Brad Meyer, Wes Buchele, Laura Waldo-Semken, Frances Zacharakis-Jutz Front row, left to right: Tory Olsen, Jordan Scott, Cole Thompson, Kurt Yaeger, Dani Shaw, Cary Schaefer, Jake Armstrong, Jess Landgraf, Fenna Semken THANK YOU to The CHS Foundation and all those who generously donated and bid on auction items at the 2006 PFI Annual Conference!



Jess Landgraf helps Cary Schaefer with his helmet before scaling the wall!



PFI Camp



Youth Reunion! Come to the Annual Conference for a Youth Leadership Camp reunion. Saturday afternoon we'll take a trip to the ice rink to catch up with old friends.

Left: Cole Thompson and Kurt Yaeger smile big, either for for the camera or for cool juice on a hot day.

Bottom Left: Tory Olsen and Wes Buchele take aim on the archery range.

Bottom Right: Martin Wise, TJ Thompson, Dani Shaw, and Jess Landgraf...I don't think I'd mess with them if you want to stay clean, they're having a little too much fun!





Field Days

Come One, Come All Highlights from Our 23 Field Days



Field Days



From the Field Days of:

Top: Steve Reinart (Aug. 10, Glidden; that's member Todd Churchill's son)

Middle: Susan Jutz (Sept. 23, Solon; that's Susan and Judy Jedlicka); Tom Wahl and Kathy Dice (Sept. 30, Wapello); Rick Hartmann and Stacy Bastian (Oct. 7th, Minburn); Paul and Karen Mugge (Sept. 16th, Sutherland).

Bottom: Richard Black (July 22, Farnhamville); Francis and Susan Thicke (July 15th, Fairfield)







More Field Days

TOPICS Covered at 2006 Field Days:

Grazing Flax Soybean Aphid Living Mulch Conservation Security Program Articifial Swine Insemination Buy Fresh, Buy Local Farm Vineyards Agritourism On-Farm Energy Audit Organic Soybeans Corn Breeding Transitioning to Organics CSAs Tree Crops and more

From the Field Days of (clockwise from top):

John Sellers (July 29, Corydon; that's PFI staffer Ronda Driskill and PFI board member Verlan Van Wyk). Roger and Amy Lansink (Sept. 9, Odebolt). ISU Allee Experimental Farm (Sept. 7, Newell). Ron and Steve Brunk and families (Sept. 12, Eldora). The Homestead and Sally Worley (Aug. 26 Runnells).











New Board Member Profile

New Board Member Tim Landgraf

As Tim Landgraf and his wife, Jan Libbey, finish up their 11th season on their CSA farm, One Step at a Time Gardens, the cooler weather makes room for reflection. Summer is busy with a little under 100 CSA members receiving weekly deliveries. Then there are the 700 pasture-raised broiler chickens direct-marketed off the farm. On top of that, the family sells at farmers markets in Belmond and Mason City.

Believe it or not, farming wasn't even part of the plan when they purchased land near Kanawha. "When we started our family," Tim said, "we looked around for some space to live in the country, not thinking we would ever be farmers."

Tim grew up on a small farm near Odebolt. His family grew corn, soybeans, oats and alfalfa, while also raising milk cows, chickens, feeder pigs and a small cow/calf herd. By the time Tim, the youngest, was in high school only the cow/calf herd remained. Tim's father discouraged his children from farming, because of the struggles and consolidation he'd seen in his lifetime.

As a result, Tim studied engineering at Iowa State, where he met Jan, then took a job at an engine valve manufacturing plant in Belmond, where he worked for 20 years. Soon after they moved to the country and "the hog confinement controversies began rumbling 'in our backyard," says Tim. "We decided to find a way to live our beliefs and educate others regarding what agriculture in Iowa could be."



New board member, Tim Landgraf (second from right in the back) at a picnic this summer with the neighbors.

One Step at a Time Gardens began in 1996, and by 2002 Tim was able to leave his job as an engineer to farm full-time. "We have always been gardeners," Tim said. "Our parents tell us that the garden 'got out of control' when we moved to our farm."

The name, One Step at a Time Gardens, grew out of watching their children grow and develop, and that humility is still alive. "Sustainability, vital rural communities, organic farming techniques, habitat diversity, access to local food," Tim said, "these are all issues we continually study ourselves and try to educate those we come in contact with."

These goals relate to Tim's reasons for joining PFI, an organization he believes holds a vision of agriculture that keeps the farmer gainfully employed on the farm. Tim's son and daughter, both now in high school, have also enjoyed PFI camp over the years.

When asked, "What keeps you going?" at the end of this busy summer season, Tim replied, "Jan...The sunshine on a brisk autumn day...A cool summer rain...The swans and geese and red-tailed hawks overhead...The leopard frogs and salamanders and toads and garter snakes and...The excitement of seeing farm members open their box on delivery day. A surprising number of members comment on getting 20 Christmases each summer—even after several summers with us...I think this is one of the best jobs there is..."

-Cedar Johnson

Breeding Corn for Sustainability

By Rick Exner, PFI/ISU Extension Farming Systems Coordinator

Background: Corn seed is becoming more expensive due to technologies that many sustainable farmers don't want. Most commercial corn does not contain nutrient levels desired by livestock producers and farmers growing for food-grade markets.

Objectives: Bring enhanced nutrient traits into corn adapted to the Midwest in varieties that allow producers to conserve their own seed and/or provide opportunities for small seed companies.

On-Farm Results: Some corn yields are approaching those of commercial hybrids. The project has varieties that

could meet the organic poultry industry's need for natural methionine if enough seed were available.

Sustainable farmers are often more concerned about corn's nutritional quality for their livestock or their consumers than in, say, the crop's characteristics as a feedstock for ethanol fermentation or

how many transgenic traits are stacked into its DNA. In fact, some producers are a little concerned about trends in the seed industry that include consolidation, the loss of public sector breeding programs, and rising technology fees.

It has been some time since newsletter readers have seen a project update on PFI's corn breeding work. Here's the background. Things came together in 2001, with Walter Goldstein of the Michael Fields Ag Institute distributing seeds of his open-pollinated variety Nokomis Gold and ISU corn breeder Kendall Lamkey realizing that his work might be useful to the sustainable agriculture community. PFI partnered with these two agronomists on an initial USDA SARE project, and in 2003 the partnership expanded to include USDA corn breeder Linda Pollak. Since then much work has been done on farms and experiment stations, and field days and meetings have engaged growers and seed houses.

These meetings have brought out the diverse needs among those interested in sustainable corn breeding. There are some producers who are more interested in palatability than



Many PFI farmers want corn that is bred for its nutritional qualities

yield. They may be satisfied with a lower-yielding open-pollinated variety or a "synthetic" variety that they can maintain with some selection. Other producers want nutritional quality, but they also need the high yields that can come with hybrid vigor. Included in this group are small seed companies. The project is providing something for both these groups.

How can a breeding program that is tiny in comparison with the seed industry expect to come up with something new? By returning to the "roots" of corn, which lie in Mexico and Central and South America. USDA breeder Linda Pollak has spent most of her career working with these types of corn, which were selected for several thousand years by farmers who ate the corn themselves. These "exotic" varieties often contain high protein, oil, vitamins, or antioxidants. The trouble is, they are adapted to environments other than the Midwest. They need a growing season with shorter days than we have. In the Midwest these corns only tassel when the geese are flying south!

That is where the breeding comes in (diagram). The process started with another project called GEM

> (Germplasm Enhancement of Maize). GEM produced a series of "breeding crosses" that contain some genes for adaptation to Iowa and some exotic genes for enhanced nutrient content. Linda and Walter were familiar with these crosses from their involvement in GEM, Linda by evaluating the exotic

Exotic variety X commercial inbred (GEM)

Select "breeding crosses"

"Selfing" breeding crosses to develop S, lines

Select

"Selfing" S, crosses to develop S, lines

Select

S₂ lines X tester inbred line

Yield tests of experimental hybrids (S, X tester)

Select 10 best-combining S₂ lines

Combine 10 best S; lines together to make a "synthetic" variety

On-Farm Research

varieties and then coordinating the startup of GEM, and Walter by being a breeder cooperator. Linda and Walter are taking different but complementary approaches to improving the breeding crosses.

Walter is taking more of a "population improvement" approach similar to his improvement of Nokomis Gold. This fits in well with his resources, his need to work with earlier-maturing germplasm, and the Michael Fields philosophy.

Linda is using an inbreeding/ testcross evaluation approach that fits with her past GEM experience developing lines from the exotic breeding crosses. Starting from the breeding crosses, a couple of cycles of self-pollination and selection

("S1" and "S2") increase the uniformity and weed out undesirable traits (diagram).

Then it's time to see which of the S2 lines might eventually go into the makeup of a good hybrid or synthetic variety. Their "combining ability" is evaluated by crossing them with established inbred "testers" and growing out the seed of

the "experimental hybrids" resulting from the cross.

Then the breeders go back to the S2 lines that made good experimental hybrids and use them in their breeding projects. Linda Pollak typically takes ten of the best S2 lines and crosses them in all directions to make a "synthetic" variety that should display a degree of hybrid vigor. These synthetics can then go through another selection cycle to make new S2 lines, but they may be reasonably good varieties in their own right. Ron Brunk (Eldora) grew a synthetic in 2004 that yielded 200 bushels in a small plot. The Brunks are now using selection

(8 sites, 2005)	% of max site yield
AR01150:N04 SynS/BS13(S)C10	77%
CUBA117:S1520 SynS/BSCB1(R)C15	88%
FS8B(T):N1802 SynS/BS13(S)C10	85%
(check) NC+ 52N17	94%
(check) NC+ 3448 Org	87%
(check) NC+ 100A2 Org	90%
(check) BSSS(R)C15/BSCB1 (R)C15	83%

to adapt that corn to the farm and are increasing the seed for planting a larger area.

Will the Brunks' 2004 success be repeated? Are any of these yields repeatable? The table shows performance of three experimental "variety



crosses," three NC+ hybrids and an ISU variety cross at eight sites in 2005. A variety cross is similar to a hybrid, but instead of an inbred crossed to another inbred as in a typical hybrid, the variety cross is a variety crossed to another variety, making it genetically more diverse. When yields were expressed as a percent of the highest yield at each site, one of the three experimental variety crosses outyielded two of the four checks. In fact at one site a variety cross was the top yielder in 2005. PFI workshops in Feb.–March, 2007 will provide the 2006 update.

Grain quality is another aspect of the breeding program, and its

importance is quickly coming into focus with changes in the organic poultry industry. Methionine is the amino acid most limiting in typical poultry feed, so organic producers have added synthetic methionine to feed to make up for the deficiency.

 This may be prohibited after October 2008. However, our breeding program has varieties with about one-third more methionine than typical corn, and in a recent trial by Organic Valley Co-op the corn successfully replaced added synthetic methionine. The challenge now is to increase seed of this variety so that it can go into production in time.

The corn breeding project needs farmers! If you have a small, isolated field, you might grow out a variety for seed increase. Or you might want to try one of these varieties in production, or even improve it for your farm with Linda or Walter's help. Your farm can be a site for yield evaluations managed by Linda's staff, or you can make an experimental variety cross hybrid in a small, isolated spot. Contact me at the PFI Farming Systems Program if you'd like to be in the loop for future workshop and field day announcements. 5%

Ethanol in Context

The four-headed monster returns

By Kamyar Enshayan

I has been in the news that state legislators wish to subsidize each gas station that will feature 85 percent ethanol fuel. The reason offered is straightforward, corn is a resource we have, why import oil from far away, plus this helps farmers market their corn at a better price. I would like to put these ideas in a broader context, hoping to better understand what is happening around us here in the Heartland.

Economist Ken Meter has assembled data from the Agricultural Census and the Bureau of Economic Analysis for many counties around the nation to characterize the nature of commodity agriculture. For our eight-county area around Black Hawk County, we have about 8,500 farmers who mostly raise corn and beans and some livestock. On the average, from 1999 to 2003, these farms sold \$1.08 billion worth of crops every year. But, they spent \$1.14 billion every year to produce it. A loss of \$62 million, every year, from 1999-2003. Most other counties in Iowa are doing worse, even as we see images of record harvest, etc.

During the same period, our eight-county-area farms received \$173 million per year in federal government crop subsidies for corn and beans. It is a long story, but by every measure rural communities are declining and these huge subsidies have not helped, because these are not community-building subsidies, these are commodity-exporting subsidies for two specific crops. Ethanol fits well into this picture.

Commodity agriculture is acrebased. It requires acres, grain elevators, fuels and chemicals. A Casey's and a bar are what is left in many rural towns. But a human community requires churches, schools, health clinics and civic organizations that are people-based, and "modern agriculture" has no place for them. Most of the subsidies end up in more seeds,



chemicals, machinery from the same companies that these farms sell their crops to. A sort of company town with its token currency. And not surprisingly, these companies heavily shape the federal farm policies that bring them the wealth. This is not something grain farmers alone can change. They are simply trying to make a living in an unfair system they have little control over.

In addition to this economy of loss, we are seeing soil loss and degradation as a result of harsh farming practices encouraged by federal crop subsidies. We are seeing corn fertilizer and corn pesticides in our drinking waters.

Now, to top it off, there is a bipartisan rush by state legislators to make the matter worse: Let's subsidize ethanol even more. And here is the four-headed monster: a quadruple gravy train of ethanol subsidies. First, you have the huge federal corn subsidies that mask an economy of loss I described above. Then you have the federal ethanol subsidies to makers of ethanol. The third head of the monster is all the tax dollars Iowa Department of Economic Development is handing out to build the ethanol plants. The forth head is the one that makes ethanol blend cheaper at the gas station-state subsidies to ethanol retailers.

It would be very interesting to add up the total annual subsidies our state and federal governments provide to make corn ethanol cheap, and then to think how better we could have spent it towards revitalizing our rural communities. And now the multinational grain merchants want taxpayers to pay for an ethanol pump at every gas station. A pump that, to me, signifies the monster is winning. A pump that really reflects the soil-eroding, nitrate-leaking, money-losing, community-ruining "farm" policies of the last 50 years.

By some analyses ethanol is a net energy loser. Even by promoters' most Farmers lose \$62 million, while consumers spend \$500 million on food each year in my part of lowa

optimistic analysis, it barely makes enough energy to make up for all the fossil energy burned to produce it. Meanwhile farmers pay for high fuel and energy costs on the farm!

Just like coal mining company towns, questioning the company policies is not cool and after a while people begin to internalize it and believe it. Corn and ethanol are sacred, and few lawmakers want to appear unsupportive.

Taming the monster

It is possible to tame the monster. Things do not have to be this way. Let's look at what we have going for us: knowledgeable, skilled farmers, the best soils in the world, community-minded people, sunshine and excellent rainfall. How can we guard these assets and build on them?

First, we already know how to farm without damaging the soil or polluting our waters. Practical Farmers of Iowa, the Leopold Center and ISU's Sustainable Agriculture Program are chuck full of the knowledge and practice of land stewardship: crop rotation and grass-based livestock production, less purchased inputs, less fuel, better soils, better yields, better pest and disease management, better water quality, and better income. There is solid data here to create good public policy for the nation and for our state.

Another much needed strategy is to expand local/regional markets for local farm products. Farmers I know do not want favors, just fair markets. In my eight-county area, while farmers lose \$62 million a year, consumers spend \$500 million on food every year. This would reconnect our plate to their fields, our grocery expenditures to their livelihood. I am glad that the Leopold Center and PFI are leading the way.

Now imagine if only \$1 million per year of that \$173 million crop subsidy for our eight-county area were invested in strengthening the local food economy of our region. We would see more truck farms, more orchards, more canneries and creameries, more bakeries, more processing facilities, all meeting primarily local/regional food needs. We have lots of work to do to accomplish these goals.

Magic meets thermodynamics

In terms of farms being a source of energy generation, yes, it is critical that farms produce most of their own energy needs and perhaps some for the immediate local area (electricity from wind and sun, wood and other biomass for heat, etc.) We need programs that assist farms to make a transition in that direction and in strong energy conservation.

It is one thing to burn biological matter to get their heat energy, but to go from dispersed, low-energy content biomass to concentrated, high-energy liquid fuel makes no thermodynamic sense and requires substantial amount of fossil energy. Dispersed air molecules out there will not by themselves get together and rush in to inflate a flat tire! You have to spend energy to make it happen. The same for ethanol, bio-diesel, this liquid fuel, that liquid fuel, liquid from switch grass, whatever. It is an inherently energy-wasteful process. The Second Law of Thermodynamics has been around for a while. The best energy use for biomass is to burn it efficiently.

If it makes no sense energy-wise, then why are so many ethanol plants operating successfully? Well, it's like the little kids' lemonade stand in the neighborhood. The kids are having fun selling drinks real cheap. Behind this stand is a substantial infrastructure of a home, mom is in the kitchen making the drinks, there are mortgage payments, car payments, etc. From the kids' view point it is lots of fun and they are making money! Likewise, behind the façade of ethanol plants is a vast oil-based infrastructure and massive financial subsidies creating a make-believe success.

The idea that farms will be able to provide an endless supply of energy for a wasteful culture that demands more and more energy makes no logical sense. There is nothing "renewable" about it. It will take us back to more of what we have already seen—soil degradation, along with corn weed killers and nitrate in our drinking water. We need to be smarter, see a broader picture and not fall for the pie-in-the-sky bio-fuels (bio-fools), ignoring all that we already know. S

Kamyar Enshayan is an agricultural engineer and works at University of Northern Iowa. He can be reached at 319-273-7575 or Kamyar.enshayan@uni.edu.

Reactions welcomed to PFI newsletter editor Emily Clark: emily@practicalfarmers.org.

Announcing the ISU On-Farm Research and Demonstration Program for 2007

Sharpen your pencil, the ISU College of Agriculture On-Farm Research and Demonstration program is coming back for a second year!

Like PFI's Farming Systems Program, ISU seeks to encourage partnerships between producers and scientists or students at Iowa State University and other researchers. PFI played "matchmaker" for many of last year's proposals, steering a number of farmers and ISU people to each other. For example, PFI member Susan Jutz wanted to test an approach to cucumber beetle management. She recruited two other vegetable farmers and came to PFI looking for a collaborator on campus. Simultaneously, Department of Horticulture scientist Hank Taber expressed interest in the ISU program. Through PFI they came together and submitted a proposal that was accepted for funding.

The 2007 On-Farm Research and Demonstration program is on an

Grant proposals wanted

Farmer education

For farmers and ranchers who have research questions to answer, wish to demonstrate, or educate others on projects and ideas, now is the time to start planning and writing goals. The North Central Region (NCR) Sustainable Agriculture Research and Education (SARE) has announced the 2006 Call for Farmer Rancher Grant Proposals.

Through this program, grants are awarded to individuals (maximum of \$6,000) or to groups (maximum of \$18,000). Proposals are due December 1, 2006.

Grant applications and more information can be found at



PFI member Sally Worley and ISU researcher Hank Taber showing bugs at The Homestead Field Day.

earlier calendar. Proposals for the program, which is funded at \$50,000 per year, are due Thursday, December 14. Whether you are a farmer, a student, or an ISU faculty person, we want your ideas! Contact PFI FarmingSystemsCoordinatorRickExner, 515-294-5486, dnexner@iastate.edu or ISU Leopold Center Director Jerry DeWitt, 515-294-7836, jdewitt@iastate.edu. Look for ISU's press release on the 2007 program.

On-farm research online

From the early days of PFI, sharing information has been an important part of what we do together. Now the results of 17 years of PFI on-farm research are available on the Web.

The Farming Systems Program section of the PFI Website now contains annual research reports from 1997 through 2003. Research topics range from livestock to field crops, horticulture to nuts, more than 700 research trials in all. Links to the reports are at http://www.pfi.iastate.edu/ofr/ OFR_Reports/OFR_Reports_Intro.htm. These are essentially the same reports that were presented at annual meetings and/or mailed to members. The reports are in "pdf" format, which can be read with the free Acrobat Reader software supplied by Adobe Systems.

www.sare.org/ncrsare/cfp.htm, or by contacting North Central Region SARE, University of Nebraska, 13A Activities Bldg, 1734 N 34th St, Lincoln, NE 68583-0840; calling 1-800-529-1342; or emailing ncrsare@unl.edu.

Organic farming

After evaluating the impact on organic agriculture, the Organic Farming Research Foundation (OFRF) is calling for grant proposals. Although proposals are open to all subject areas, proposals are encouraged in the topics of organic livestock systems, economic constraints and opportunities important to the viability of small- and mediumscale organic farms and ranches, and projects that investigate the interactions between components of organic systems and that take a systemsmanagement approach to solving production problems. Proposals are due December 15, 2006.

For further information on the OFRF grants program or applying for a grant, visit the Organic Farming Research Foundation Request for Proposals website at http://www.ofrf.org/research/application.html or contact OFRF's technical program coordinator, Jane Sooby, at (831) 426-6606 or jane@ofrf.org.

Calendar

November

- Farmer Cooperatives conference, Nov. 1–2, Sheraton Bloomington Hotel, Minneapolis South, Minn. Explore policy, sourcing and marketing, renewable energy, biofuels, financing, environmental management. Contact: Anne Reynolds, 608-263-4775, atreynol@wisc.edu.
- Organic Growers Conference, Nov. 2–3, Sergeant Bluff. Organic and organic grass-based systems, organic food, music, speakers, meet organic food buyers. Contact: Rob Marqusee, 712-279-6609 or Angela Jackson-Pridie, 605-638-0748.
- Leopold Center Marketing & Food Systems Initiative Workshop, Nov. 6, Gateway Hotel & Conference Center, Ames. Contact: Rich Pirog, rspirog@iastate.edu.

- Our Value-Added Environment, Nov. 15–16, Gateway Hotel and Conference Center, Ames. See www.cdeiowa.org or call 641-774-4461.
- Iowa Organic Conference, Nov. 20, ISU Scheman Building, Ames. Presentations on transitioning and organic grains, vegetables, herbs, fruits, livestock; trade show; all-organic, local lunch. To register online: www.ucs.iastate.edu/mnet/ organic06/home.html
- Iowa Forage and Grassland Council conference, Nov. 20–21 (see box below)

December

Rural Life Day 2006, Dec. 2, Catholic Center, Jefferson City, Mo. Contact National Catholic Rural Life Conference: www.ncrlc.org or 515/270-2634

- Acres USA Pre-Conference Advanced Learning Course, Dec. 4–6, St. Paul, Minn. Dr. Arden Andersen explains how the various technologies of eco-agriculture combine to form a system that works with nature. More info: www.acresusa.com/events/ events.htm
- Acres U.S.A. Conference, Dec. 7–9, St. Paul, Minn. For organic/sustainable farmers covering all facets of ecological soil, crop and livestock management. Reservations: 877-227-6963, www.acresusa.com.

January

 PFI Annual Conference, Jan. 12–13, Airport Holiday Inn, Des Moines.
"Paths to Prosperity," keynoters: Steve Ells, founder and CEO, Chipotle Mexican Grill; Francis Thicke, Radiance Dairy. Contact: 5 1 5 - 2 3 2 - 5 6 6 1 , www.practicalfarmers.org. See pages 4–5 of this newsletter.

PFI partners with Iowa Forage and Grassland Council on upcoming meetings

Terry Gompert, UNL Extension educator from Knox Co., NE is making 2 trips to Iowa this winter. He will make his first trek to Iowa when he speaks at the Iowa Forage and Grassland Council Annual Meeting and Convention on November 21, 2006 in Des Moines. Terry will be presenting "Growing high quality forage—all year long!", and "Grassfed beef—what does it take?" Terry will also be at the PFI Annual Conference in January speaking on "Growing High Quality Forage: Risk Management for Volatile Weather". For information about the Iowa Forage and Grassland Council Annual Meeting, contact Joan O'Brien at 515-262-8323 or 800-383-1682. Stay tuned to the PFI website and mailings for more information on the PFI Annual Conference.



Resources

In each issue we focus on a selection of resource organizations and highlight some of the reports, books, newsletters, etc. each offers. This issue, we look at resources relating to energy conservation on the farm.

ATTRA National Sustainable Agriculture

www.attra.org/energy.html, 800-346-9140

ATTRA provides the latest in sustainable agriculture news, events and funding opportunities, as well as publications on production practices, alternative crop and livestock enterprises, innovative marketing, organic certification, and much more.

Farm energy calculators

The site offers access to farm energy calculators from several organizations, including Alliant and the USDA. Farm energy calculators are planning tools designed to help producers save electrical energy, fuel or fossil-fuel-based fertilizers.

Publications

- Efficient Agricultural Buildings: An Overview
- · Compost Heated Greenhouses
- Root Zone Heating for Greenhouse Crops
- Energy Saving Tips for Irrigators
- Anaerobic Digestion of Animal Wastes: Factors to Consider
- Solar-Powered Livestock Watering Systems
- Freeze Protection for Solar-powered Livestock Watering Systems
- Wind-powered Electric Systems for Homes, Farms, and Ranches: Resources
- Solar Greenhouses Resource List

Iowa Energy Center

www.energy.iastate.edu, 515-294-8819

Iowa Energy Center's website offers extensive information on energy conservation for farmers and homeowners. Whether you're considering upgrades to your windows or lighting, or need information on how to keep comfortable this winter, they are an excellent resource. Their website includes updated and archived press releases, events and publications.

Publications

Home Series for homeowners:

- Book 1: Home Tightening, Insulation, and Ventilation
- Book 2: Home Heating and Cooling
- Book 3: Water Heating

Call the Iowa Energy Center or email iec@energy.iastate.edu to receive these free publications.

PFI 2007 Annual Conference

This year PFI is bringing in some expertise in the area of energy conservation. Dan and Kim Isbell, of Vinton, converted their home to wind and solar power in 1999. In order to do so they drastically reduced their energy consumption from 46 kwh a day to 3. Come learn how you too can slash your electric bill and still live comfortably. If you can't make the conference, email Dan Isbell at ibdizzy1@netzero.net.

Books



Real Goods Solar Living Sourcebook– 12th Edition: The Complete Guide to Renewable Energy Technologies & Sustainable Living editor John Schaeffer, New Society Publishers, 2005.

Sourcebook for Farm Energy Alternatives by James D. Ritchie, McGraw-Hill, 1983.

Resources



PFI member Jon Carlson hosted PFI's Focus on Energy Field Day this August, along with Spatial Designs of Mason City, www.spatialdesigns.com.



Mark Kingland, Alliant Energy, explains how a Farm Energy Audit could help Jon Carlson save money.



Jeff Kestel from Iowa Lakes RC&D (Resource Conservation and Development) demonstrates the practicality of a solar livestock watering pump. Cost share available, visit iowalakesrcd.org.

Alliant Energy

www.alliantenergy.com, 800-255-4268

Alliant Energy provides electric and natural gas for Midwestern customers. Several programs designed to help customers conserve energy are specifically tailored for farmers.

Farm Energy Audit and Agricultural Rebate Program

This summer Mark Kingland of Alliant Energy discussed the results of Alliant's free Farm Energy Audit and agricultural rebate program on Jon Carlson's North Central Iowa farm. Alliant not only helps farmers evaluate their energy usage, but gives cash incentives for investing in energy efficient equipment or building energy efficiency into new construction.

My Home Comfort Check Up

Professional home energy audits are also available for homeowners. My Home Comfort Check Up is a free doit-yourself survey customers can send to Alliant for an assessment. Homeowners can also choose cash rebates on things from appliances to windows.

Second Nature

Alliant also supports alternative energy. Second Nature is a voluntary program that allows Alliant Energy customers to support electricity generated from renewable resources.

Press Releases

- New Bohemia Solar Project Recognized by Governor Vilsack
- Alliant Energy Releases Annual Environmental Progress Report

MidAmerican Energy

www.midamericanenergy.com, 888-427-5632

MidAmerican Energy serves most of the cities in Iowa with electricity and natutal gas. They also have many programs to help customers conserve energy and support the development of renewable sources.

HomeCheck online, their home energy audit, even takes into account the area you live in. **Energy Efficiency World** is a program to teach children about energy conservation.

EnergyAdvantage provides rebates and financing incentives for businesses installing qualifying equipment.

Renewable Advantage allows Iowa customers to voluntarily contribute to a fund that will be used to further develop cleaner energy in Iowa.

Tell us about you!

Your member info form provides valuable information

Cedar Johnson, Membership Services

When people ask me what it is exactly that Practical Farmers of Iowa offers its members, the word "community" comes to mind. My job is to gather information that enables us to build this community. Hopefully, our members not only feel surrounded by others with similar interests, but know that we are a resource for them.

How do I gather this valuable information? Today most anything you'd want to learn is pretty easy to come by, but the value in the information we seek is that it can only come directly from you. We can't just Google it; we are dependent on you to tell us!

Many of you have probably seen the new member information forms with convenient check boxes that tell us what your interests are (and many of you have kindly filled them out and sent them in; thank you!). If every member provided this information, we could serve as a resource in many ways. First, we hope to provide networking opportunities by informing

PFI Board and

Annual Board and Staff Retreat

The PFI staff and board retreat was held August 28 and 29 at Taylor Hill Lodge, Audubon. On the 28th, we discussed how we can be effective ambassadors of PFI by developing our own "elevator speeches" that can be used for donors and just average people wanting to know more about PFI. We also reviewed the role the board of directors plays in running an organization like PFI. On the 29th, we held a regular board meeting that included a

you about members in your area and their interests.

We could also answer simple questions that come up so often. Questions like: Who is interested in flax? Swine? Eggs? Who is selling to alternative markets and where? What other talents do our members have? And, of course, we are always interested in suggestions for further research and education topics.

The staff here at PFI would like to get to know you and serve you better. So when you see that member information form cross your desk, please consider the potential for community and resources that await you when you send it in!



Jill Beebout and Sean Skeehan have turned in their membership form. Have you?

retreat update

visit by Dr. Jerry DeWitt of the Leopold Center. Discussion centered on how we will work together to advance sustainable agriculture in 2007.

June 29 board meeting

The summer meeting of the PFI Board of Directors was held June 29 at the Iowa Arboretum near Boone. The meeting was highlighted by a discussion of various funding possibilities for 2006 and beyond. Leopold Center director Dr. Jerry DeWitt shared

Grass-based CD sells like hotcakes

The grass-based meat project resource CD featuring three PFI members' operations was a hot item this summer. The supply was distributed within months, so the Leopold Center made a second order possible. The CD is still available for \$5 shipping and handling. Contact the PFI office by telephone, 515-232-5661 ext. 101, email cedar@practicalfarmers.org, or mail check to Practical Farmers of Iowa, PO Box 349, Ames, IA 50010.

PFI wins award

Recent PFI staff member Rick Hartmann's Digging Deeper Community Food Project was awarded a Merit Award by the American Society of Landscape Architects. Nine edible sustainable landscapes were designed and implemented in the Des Moines metro area, turning unused land into a positive social and economic activity. The award, given each year, recognizes excellence in design quality, functionality, environmental responsibility, and public relevance and welfare.

information on the center's five-year review and what this means for the future of the Leopold Center and how it may work with PFI. Mallory Smith and Kamyar Enshayan provided a report on the Buy Fresh, Buy Local campaign in Iowa. The board also spent time brainstorming for the annual conference in January.

Respectfully, Eric Franzenburg **District 3**

Join PFI

My interest in joining PFI is primarily as a:

non-farmer (You will have the opportunity to expand upon this when you receive your membership infor-

□ farmer/grower

mation form.)

Support Our Efforts ~ Sustain Our Work

This annual membership is a:

- new membership
- 🖵 renewal

I am joining at the level of:

- □ Student—\$15
- □ Individual—\$25
- □ Farm or Household—\$35
- Organization (including businesses, agencies, not-forprofit groups)—\$50

Each membership includes one vote and one subscription to *The Practical Farmer*.

Sustain PFI

For the sake of the long term health and vitality of PFI, we ask you to consider making a donation above and beyond your membership fee. Donation without membership is also welcome. Donors who give \$100 and above will receive a special gift and will receive an invitation to our annual Cooperators and Partners Banquet.

I would like to make a tax deductible donation to PFI in the amount	0	f:
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	□ \$1,000	□ \$500	□ \$250	□ \$100	□ \$50	□ \$	
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Individual or Farm or Organization Name:_____

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E-mail:_

* For Farm/Household membership, please list names of persons included.

* For Organization membership, please list one or two contact persons.

Total: \$ = \$	5 membership + \$_	donation + \$	merchandise (from opposite page)
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□ Check or money order enclosed. (*Please make payable to "Practical Farmers of Iowa.*")

Credit Card	🗆 Visa	□ MasterCard	Discover	
Card Numbe				

Expiration Date_____

Signature

Our Vision for Iowa

Food that is celebrated for its freshness and flavor and connection to local farmers to seasons to hard work and good stewardship

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

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Communities that are alive with diverse connections between farmers and non-farmers; places where commerce, cooperation, creativity and spirituality are thriving; places where the working landscape, the fresh air and the clear water remind us of all that is good about lowa

Practical Farmers of Iowa

P.O. Box 349 Ames, IA. 50010

Address Service Requested

Healthy Food, Diverse Farms, Vibrant Communities