

# the Practical Farmer

Practical Farmers of Iowa Newsletter

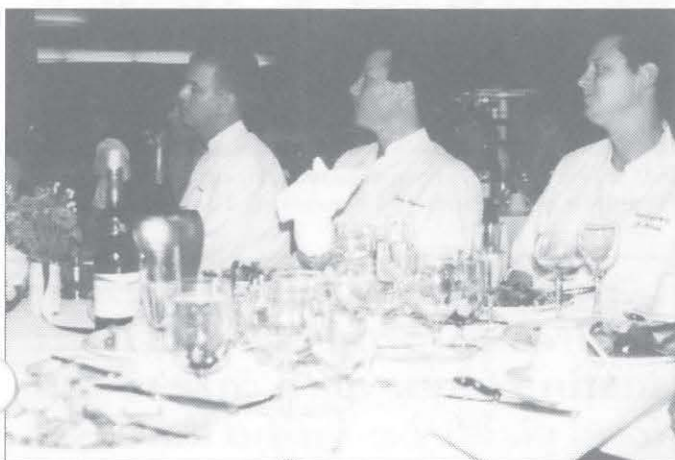
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## FOOD THAT SUSTAINS THE LAND

Gary Huber

Practical Farmers of Iowa has worked hard to develop connections between farmers and food service providers through its Field to Family Project. A special dinner was held on July 29<sup>th</sup> to highlight these connections. The setting was The Embassy Club at Capital Square in Des Moines; the theme was food that sustains the land. Hosts included PFI, The Embassy Club, Niman Ranch Pork Company, and the Chez Panisse restaurant of Berkeley, California,

Nine local chefs joined two chefs from Chez Panisse to prepare an extraordinary meal for 250 people. These were chefs who know the value of good foods grown well. They also understand the importance of regional cuisines – of using the finest foods an area has to offer to create experiences with taste that give both sustenance and meaning.



The chefs were truly the guests of honor at the All Iowa Banquet they prepared.

Local chefs included five from The Embassy Club and one each from Bistro 43, Bistro Montage, Brix, Mosaix, and Exquisite.

Attendees included over eighty farmers who produce

### IN THIS ISSUE

- 1** All Iowa Banquet
- 4** Notes and Notices
  - SARE Regional Coordinator
  - SARE Producer Grants
  - Kirschenmann to be Keynoter
  - Annual Meeting January 2001
  - Editor's Apologies
  - Autumn Field Days
  - Food Systems Conference
  - Mentoring Program Video
  - Web Site on Contracts
  - Equipment for Sale
  - PFI Caps and Patches
- 5** Board Business
- 6** The Editor Muses
- 6** Field to Family Project Update
  - Robert Karp
- 8** Ames Farmers' Market
  - Rick Hartmann
- 9** Organics Recycling Council
  - Colin Greenan
- 10** Recalling Cuba
  - Rick Exner
  - Gary A.T. Guthrie
  - Susan Zacharakis-Jutz
- 16** Slugs Wanted
- 16** Field Days Extend into Fall
- 18** Summer Camp 2000
  - Bryce Bauer
- 19** 1999 On-Farm Trials, Part III
  - Weed Management Trials
  - Strip Intercropping
  - Tillage
  - Grass-Based Dairy Farming
  - CSA Economic Analysis
- 26** Footprints: Drainage
  - Tom Frantzen
- 27** SARE Publications
- 28** Iowa Women's Hall of Fame
- 27** Bits of Sustenance:
  - Privilege to Farm
  - Denise O'Brien



**Michael LaValle, general manager for the Embassy Club, preps his table service crew.**

pork for Niman Ranch, plus twenty PFI members who raise fruits and vegetables for our Field to Family Project. Other attendees included friends, supporters and food enthusiasts from as far away as Atlanta, Chicago, Kansas City, Denver and San Francisco.

At tables set with flowers from local PFI farms, these farmers, friends and supporters enjoyed an exquisite meal. Dinner wines came from Summerset Winery near Indianola and Tabor Home Winery near Baldwin. Food for the four-course meal (see sidebar) came from farmers who supply Niman Ranch with humanely-raised pork and PFI members who produce fruits, vegetables, herbs, eggs and dairy products for our Field to Family Project. The program listed these farmers with a note about how their practices flow from desires to produce excellent tasting foods with care so the land yields bountiful harvests long into the future. Special arrangements meant the surplus food from the evening went to the New Directions Emergency Shelter for Women and Children in Des Moines.

The evening's experience delighted and energized participants. Chefs were given a standing ovation, and in their comments they gave tribute to the farmers involved. The farmers were also applauded heartily by all, elevating them to guests of honor. This significant event was a milestone marking the change occurring in Iowa and elsewhere toward the use of foods that sustain the land. The help and support of everyone involved is greatly appreciated.

### Menu for Chez Panisse Dinner

Radishes, cherry tomatoes, and lardo toasts with black pepper



Corn and summer squash soup with sweet peppers and basil

Roasted pork loin with green bean and shell bean gratin, heirloom tomato and garlic confit and arugula

Panna cotta with berries and hickory and black walnut cookies



**ISU's Jerry DeWitt connects with Drakes's Neil Hamilton and former PFI President, Tom Frantzen.**

***...their practices flow from desires to produce excellent tasting foods with care so the land yields bountiful harvests long into the future.***

## Closing Remarks

Neil Hamilton

**Editor's Note: Professor Neil Hamilton is Director of the Agricultural Law Center, Drake University and Chair, Iowa Food Policy Council. His remarks concluded the evening. They're reprinted here with Neil's permission.**

Thank you, Gary, for the kind introduction and for giving me the honor of saying a few words tonight. What a marvelous evening it has been.

The experience we have shared tonight – eating fresh food with friends and loved ones – is as ancient as human existence. But an event like tonight – to honor the people who raise that food and to celebrate the bounty and quality of food we can raise in Iowa – is unfortunately all too new for us.

Tonight's dinner was Jeffersonian in its ideal, Iowan in its spirit, and just plain delicious. It is the essence of what farming and food production should be about. For much too long the effect, if not the goal, of agriculture and food policy in the U.S. has been to sever the connections between farmers and consumers. As a result, we have cheapened both our food and ourselves. And we have lost much of the societal understanding that must exist for farmers to survive and produce food like we have eaten tonight.

Fortunately this is beginning to change. There is a New Agriculture emerging in our state and nation. Tonight's dinner represents an important marker on the road to the new agriculture. All of us in this room are in the vanguard of this movement, but there are countless others wanting to enlist.

The goal of the New Agriculture is to restore the connections that make a food system and a society stronger. To link farmers with consumers; to link chefs with local foods; and to connect communities with the farms that feed them. One important value of the New Agriculture is to put a face on our food – and this dinner has done so in the most valuable way possible.

But we have done something else tonight – we have eaten with our eyes open. We have recognized and appreciated the quality food we can produce in Iowa; we have thought about the conditions of those who farm and those who work in our food system. And we have shown concern for the animals that nurture us. As we go home from this meal there are many

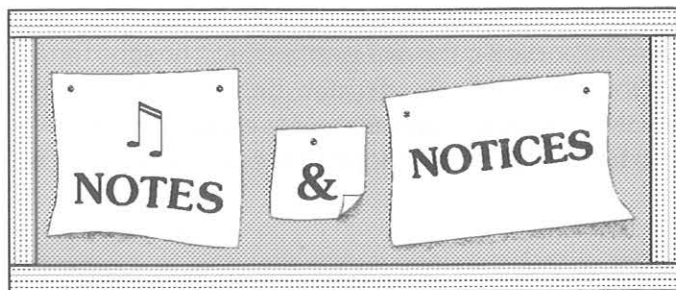
thoughts and memories we can take with us. Perhaps most important is the recognition that a healthy farm sector and a quality food system depend on the people involved and their commitment to each other. Thank you for coming – and I hope to see you next year. ♡



**Producer meets consumer – Penny Brown, My Farmer, LLC., chats with Mary Swalla Holmes, ISU Value Added Extension.**



**Sandra and Bill Niman attended from Niman Ranch in Oakland, California.**



### North Central SARE Names New Regional Coordinator

David Baltensperger, professor and crop breeder in Department of Agronomy at University of Nebraska, is the new interim regional coordinator for North Central SARE (Sustainable Agriculture Research and Education). Baltensperger replaces Steve Waller who served in the post for more than ten years. The coordinator supports a 22-member Administrative Council in developing program goals and making funding decisions.

### SARE Producer Grants Announced

Speaking of SARE, congratulations to these PFI members who have received SARE producer grants for 2001: Susan Zacharakis-Jutz, Solon; Michael Nash, Postville; Wende Elliott, Colo; and Tom Cory, Elkhart. (Sister Sherry Pech is another Iowa recipient.)

### Fred Kirschenmann to be Keynote Speaker at Annual Meeting

On July 1, 2000, Fred Kirschenmann became the first farmer to head the 12-year-old Leopold Center for Sustainable Agriculture. Described in that organization's summer newsletter, Dr. Kirschenmann "brings with him a national and international reputation in organic agriculture, more than 20 years of putting theories of sustainability into practice on his own 3,500-acre farm, and service as a faculty member and administrator in four colleges." PFI members can look forward to an extended visit with Dr. Kirschenmann since he has accepted an invitation to be keynote speaker at our Annual Meeting on January 13, 2001 in Ames.

### Yes, that's right. January 12 and 13, 2001

This is the date to mark on your calendar. Saturday, January 13 is the PFI Annual Meeting and Winter Workshops. Highlight it, circle it, star it. And while you're at it, mark yourself in for a party on Friday, January 12, 2001. PFI will be 15 years old and we have plenty to celebrate. Contact Nan at 515-294-8512 if you have ideas about the festivities. The place for both events is once again the Gateway Conference Center at the Holiday Inn in Ames.



### Apologies to Charles Carpenter

In the last PFI newsletter, the caption on page 25 incorrectly identified Charles Carpenter as David. Did anyone else catch that? We discovered, when we called to apologize, that even Charles had missed it. Turns out his full name is Charles David Carpenter. But we're still sorry.

### Autumn Field Days

PFI field days stretch well into fall this year. It's hard to predict when this newsletter will reach you, but here's our best guess at what will still be in the future when you read this.

September 14: Sharon and Dick Thompson's farm in Boone. Call 515-432-1560.

September 16: Susan and Jeff Zacharakis-Jutz's farm in Solon. Call 319-644-3052

September 18: Vic and Cindy Madsen's farm in Audubon. Call 712-563-3044.

October 11: Matt and Diana Stewart's farm in Oelwein. Call 319-283-1337.

### Urban-Rural Food Systems Conference, East Troy, WI

Consumers and farmers will draw together at Michael Fields Agricultural Institute in East Troy, Wisconsin, September 22-24 for the 9<sup>th</sup> Urban-Rural Food Systems Conference. PFI's Robert Karp is one of the presenters. Workshop sessions will address

topics that affect our food and farming systems. For registration information, call 262-642-3303.

### ♪ **Tri-state Fall Harvest Retreat for Women in Sustainable Agriculture**

Iowa, Minnesota, and Wisconsin, Retreat co-sponsored by Women, Food & Agriculture Network. November 10-12 at the Good Earth Village in Spring Valley, SE Minnesota. Cost \$65 for great programs and networking. Contact Stacey Brown or Denise O'Brien 712-243-3264 or wfan@nishna.net or 59624 Chicago Rd. Atlantic, IA 50022 for details.

### ♪ **Mentoring Program Video Available**

A documentary video on the Iowa Organic Farming Mentor Program has recently been completed and is now available. The Iowa Organic Farming Mentor Program links experienced organic farmers with others interested in trying organic production. The video, produced by videographer Amailia Bright, outlines the structure of the program and highlights some of the successful practices of the mentor farmers.

The mentor program and video have been funded by grants from the USDA SARE program, Iowa State University Vision 2020, and U.S. EPA. Copies of the video are available for \$19.95 (includes shipping). Checks should be sent to the Iowa Organic Farming Mentor Program, 610 South 4<sup>th</sup> Street, Fairfield, IA 52556.

### ♪ **New Web Site on Contracts from Attorney General's Office**

Attorney General Tom Miller unveiled a web site prepared by his office's Farm Division with production and marketing contracts. "Our goal is to give livestock and grain producers key information so they can compare the types of contracts and terms being offered in the marketplace and then make their best decisions," Miller said. The contract information can be found under "farm advocacy" at the Attorney General's web site [www.IowaAttorneyGeneral.org](http://www.IowaAttorneyGeneral.org). The information includes 37 production and marketing contracts being used in Iowa. The site features actual contracts of various types and companies,

including financial terms. Producers' names and any identifying information about them have been deleted.

### ♪ **Equipment for Sale**

"... a nice set of equipment for someone getting into organic farming." The equipment is four-row wide and consists of: Buffalo 8000 Planter with ridge-till and no-till accessories; Buffalo 4600 Cultivator; Buffalo Scout Cultivator Guidance System; and M&W Minimum Tillage Rotary Hoe

The equipment has low acres on it and is in nice condition. The planter has approximately 1,500 acres on it and the other equipment has substantially less than that. Interested? Call Bob Wemer in Montezuma, IA, at 641-623-3143 or email at [bobwemer@netins.net](mailto:bobwemer@netins.net)

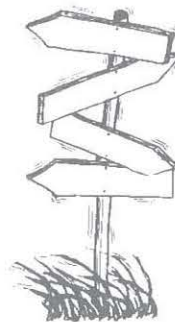
### ♪ **PFI Caps and Embroidered Patches**

Thanks to Donna Bauer, a fresh crop of cotton caps are now available. The crown is blue denim with the embroidered PFI logo; the back is white, open weave mesh. The cost is \$10 (to cover cap and postage).

Not partial to farm caps? Already got a rack full? If you prefer, \$3 will get you the PFI logo embroidered on a patch. With velcro attachments, you can wear it wherever it suits you. (\$3 covers patch, velcro, postage.)

For cap or patch, contact Nan at 515-294-8512, [nanb@iastate.edu](mailto:nanb@iastate.edu). Make your check out to PFI.

## **BOARD BUSINESS**



On July 6 and 7, 2000, the PFI board retreated to the 4-H Center in Madrid to do a little head scratching, a lot of talking, and not enough horseshoe tossing. Under the leadership of Jerry Jost, from the Kansas Rural Center, the board took stock of PFI's history and future. There are still plenty of tough issues to grapple with, such as

voting rights for associate members and best choices for investing our endowment. But a few tough decisions got made. Here are two biggies:

### Board votes to raise annual membership dues

As of September 2000, annual membership in PFI will go from \$20 to \$25. The board felt that this modest raise still kept PFI dues in the moderate category compared to other organizations but would increase operational revenues in a healthy way. Three year memberships are still welcome. They will cost \$75 and include a PFI cap as a thank you.

### Board will search for "Executive Director"

When the board looked back on fifteen years of PFI accomplishments, it found a great deal to be proud of. Much initiative for moving PFI forward has come from its dedicated staff. But now the scope of PFI's activities has become so broad, that the board felt singular, consistent leadership was required to keep the organization on track and keep it well funded. President Colin Wilson will lead the way in developing an appropriate title and job description, and then launch a search for an executive director. Initially, this post will be developed as an 18-month interim position.

### The next board meeting is September 12.

Who said "Nothing good happens fast?" Stand by for developments and stay in touch with your district director so that your viewpoint can be represented. ☺

## THE EDITOR MUSES



Angela Tedesco called to see if I could help her out with some extra sweet corn for her CSA delivery. I couldn't; the deer got ours long before our own customers began anticipating that sweet, summer treat.

Still, it was nice to chat with Angela on that sweaty August evening. About to hang up, she suggested, "I'll look forward to talking with you in the winter when we're not so busy." I suppressed a harumph. Live-

***NOW is the time to voice your suggestions for workshop topics and presenters...***

stock chores make winter just about as hectic as summer on this farm. Yet when I took a momentary mental transport to a snow banked barn full of warm, dark-eyed bovines, the effect was oh so soothing. And then there's the Annual Meeting!

Yes, get psyched. It's coming around again. With Fred Kirschenmann, the new Leopold Center director, lined up as keynoter, the planning is off to a quick start. It will all happen fast, folks. NOW is the time to voice your suggestions for workshop topics and presenters – not December, not November, not October, but NOW, September. All the key players and programs get lined up in early fall. So call me with your ideas at 515-294-8512 or talk with me at nanb@iastate.edu. The lines are open. I'm visualizing January. Thanks for your help.

Please note. The deadline for the fall newsletter is October 9, 2000.

*Nan Bonfils*

## FIELD TO FAMILY PROJECT UPDATE

Robert Karp

### Marketing Opportunity for PFI Members— Practical Farmers Partners with Local Harvest

Practical Farmers of Iowa has recently become a partner in a new national web site called Local Harvest. Local Harvest is a not-for-profit venture featuring a national database of direct marketing farmers, CSA's and farmers' markets. Local Harvest offers unique features for the farmer or market manager. By registering with Local Harvest you can:

- Publicize the Internet address (URL) for your farm listing (especially useful for those that don't have their own web site)
- Update your listing any time: when your CSA is full for the season, when you want to announce special events, etc.

- Receive and respond to consumer comments regarding your farm and, if you wish, post them to your listing
- Maintain your personal mailing list, and send mass-mailings. Customers who view your listing can add themselves to your mailing list. Watch it grow!
- Monitor the number of monthly visits to your farm's listing
- Participate in bulletin board discussions with other CSA farmers, nationally.

Farmers, CSA's and farmers' markets can register with Local Harvest for free for one year. After the first year the cost is \$20 for PFI members and \$40 for non-PFI members. To register with the Local Harvest web site go to [www.localharvest.org](http://www.localharvest.org) and follow instructions for farmers.

**Selling Direct to Local School Districts -a Farm to School Update**

The Field to Family Project of Practical Farmers of Iowa, in conjunction with Iowa State University Extension and the Department of Hotel, Restaurant and Institution Management at ISU, has been working on a project to explore increasing the use of locally grown foods in local school districts. This fall we will be begin working with the Nevada School District in Story County on a pilot effort which will involve about five or six growers providing fresh fruits and vegetables primarily for the school's salad bar. Efforts to incorporate this project into school curriculum will also take place.

In addition, a four-page Extension publication has been produced on linking farms and local schools. The publication is targeted to producers who are interested in selling to their local school districts. It provides a wealth of useful information on how school food service operates and recommends approaches that will make such an effort more successful. A web version is available at the following URL: [www.exnet.iastate.edu/Publications/PM1853A.pdf](http://www.exnet.iastate.edu/Publications/PM1853A.pdf). Hard copies are also available at no charge by sending a request to ISU Extension at [pubdist@exnet.iastate.edu](mailto:pubdist@exnet.iastate.edu) or by calling 515-294-

5247. Hard copy requests should include the publication number (PM-1853a) and a complete mailing address. Feedback or comments on the publication are welcome and can be directed to the PFI's Field to Family Project office or to the other authors listed at the end of the publication.

**Public Television Feature**

On July 14<sup>th</sup> and again on July 16<sup>th</sup> the PFI Field to Family Project was featured on "Market to Market" a Public Television show produced in Iowa but syndicated to over 30 states around the country. The segment featured interviews with Joe Lynch, Vic Madsen, Gary Huber and Robert Karp. It included information about a variety of projects we are involved in including Magic Beanstalk CSA, the All-Iowa meals, and our hunger work.

**New Program Assistant**

We have hired a new program assistant on a part-time basis to help with a variety of our projects. Rick Hartmann has a masters degree in plant pathology, has worked as a union organizer and is very involved in the ISU student organic farm. Rick is helping Gary with the All-Iowa meals

and is managing our farmers' market in downtown Ames. It has been great to have Rick on board. There's an article from Rick on our Downtown Farmers' Market on page 8.

**Brokering Expands**

So far in 2000, the local food brokering work of PFI has doubled over 1999 as measured by the number of events. By the end of July last year we had helped source foods for fourteen different events, whereas by the end of this past July the number was twenty-seven. Some of the 2000 events where we helped source local foods for the Governor's Conference on Environmental Education, the Tri-State Master Gardener's Conference, and the Ames High Class of 1955 Reunion. Many of the meals are a result of requests from the Leopold Center and the Vision 2020 project at Iowa State.



## New Grant Expands Local Direct Marketing to Iowa Institutions

A new one-year \$55,000 grant from the USDA's Federal State Marketing Improvement Program (FSMIP) to the Iowa Department of Agriculture and Land Stewardship (IDALS) will help develop institutional markets for local foods in Iowa. PFI will play a major role in implementing the project supported by this grant. The project's objectives are 1) help four existing institutional marketing projects expand, 2) develop informational materials on institutional marketing of local foods, 3) assist with the development of new institutional marketing projects, and 4) integrate the project with the activities of the Local Food System Task Force. For more information on the project, contact the PFI Field to Family office at 515-232-5649 or [ftf@isunet.net](mailto:ftf@isunet.net). 🍌

## BRIGHT FUTURE FOR AMES DOWNTOWN FARMERS' MARKET

Rick Hartmann

Three years ago, as part of its effort to create a local food system demonstration project in Central Iowa, PFI's Field to Family project started a new Farmers' Market in downtown Ames. In its first year, the market fulfilled its mission of providing a location for local farmers to market directly to local consumers fresh, locally produced fruits and vegetables and to help revitalize the downtown Ames community. Its success prompted an expansion of the market



**Rick Hartmann is the downtown market master.**

from one to two days per week during the 1999 season. But 1999 introduced a new vagary to the participating farmers – not drought or disease, but construction. During prime market season, the City of Ames undertook a major construction project downtown which all but shut down the market as most customers were either prevented or discouraged from coming downtown. The future looked dim.

So it was with some hesitation that growers, local merchants and PFI staff began planning for the year 2000 market. Back to one day per week, Mondays from 2 to 6 P.M., only five local growers had bought a seasonal location at the market by the time it opened. Behind the scenes, however, a lot of activity was occurring. PFI staff was working hard with local merchants, the media, and city council to revitalize the market. The merchant's association and grower volunteers were advertising the market's new time and grand opening, and arranging for musicians and performers to be at the market each week. New signs and banners for the market were printed. And finally, city council and local merchants were convinced to allow the market to be moved right on Main Street. In previous years the market had been held in the parking lot behind Main Street. This proved to be a decisive change.

We're pleased to report all this work has paid off. At the grand opening on June 5 eighteen growers and craft persons attended, along with droves of customers! But this wasn't a one-day phenomenon – the market has sustained its momentum, even requiring a petition to City Hall for a 12-space expansion. As of the last market, thirty-one spaces were utilized – almost three times more vendors attending than the average number of vendors that participated in the previously most successful market year of 1998.

The downtown market growers are also expanding their participation in the community and their knowledge. Almost all eligible growers are participating in the Healthy Food Voucher Program, a system for low-income Story County residents to gain access to fresh fruit and vegetables. Each week we are also learning about new techniques in farming, history of food production, current events in organic and sustainable production, or whatever else we may find interesting by passing out and trading articles on such topics. Best of all, the market has grown in a spirit of cooperation among local growers and craft persons and has maintained its integrity of selling only those products and items grown or made by the vendors themselves.

Through informal reports from vendors we have estimated that the market is bringing in about \$8,000 of income a month to local farmers. In addition it is providing an important draw to the Ames downtown business district. All in all, the future is looking bright again for the Downtown Farmers' Market! 🍌



## IOWA ORGANICS RECYCLING COUNCIL GETS ROLLING

Colin Greenan, Madrid



**Off to a windy start. Nan Bonfils sold strawberries and PFI memberships at the downtown farmers' market grand opening in June.**



**On a sunnier day Lonna Nachtigal, Onion Creek Farm, sells her special mix of greens and other produce.**



**The market on Main Street is open Monday afternoons from 2 to 6.**

It's no surprise that Jeff Geerts, Program Planner with the Waste Management Assistance Division of the DNR, invited PFI to a planning session for creating an Iowa Organics Recycling Council. With our roots in more sustainable living, attending a meeting about helping Iowans divert organic waste from landfills seemed like a good fit. I was glad to represent PFI. Others participants came from Fareway Stores, Cargill, recycling associations, compost producers, county landfill agents, and livestock feed additive companies. PFI was the only organization that actually played a role in the complete recycling of organic matter, while the other entities were interested in making a product that was marketable for sustaining a business.

Jeff opened the meeting with an update on Iowa's landfills. Currently, landfills are filling with organic materials ideal for composting and other viable waste management strategies. Meanwhile the ability to identify new landfill sites is increasingly difficult. The DNR has set a goal of 50% reduction in the volume of waste that enters landfills and currently 36% diversion has been met.

The conference attendees determined that a council should exist to help Iowa divert organic wastes. Making waste products profitable was also goal. A statement of purpose for the council was adopted. It reads, "To facilitate organics recycling efforts in Iowa through innovation, networking, education, demonstrations, and market development."

The next phase of the meeting addressed key concerns of handling organic wastes. These included: marketing; identifying stakeholders; education and awareness; governmental role; public vs. private organics recycling operations; and industry standards/special needs.

Working in small discussion groups, attendees grappled with questions based on these concerns. How do we get more relevant stakeholders involved and committed to organic efficiency? What roles/responsibilities should government assume in organics recycling? What issues need to be addressed to

**(Recycling continued p. 15.)**

## CUBA'S DECLARATION OF AGRICULTURAL INDEPENDENCE

Rick Exner

One good reason to travel to new places is to better understand the place that we come from. So when ISU offered us the chance to see Cuba's agriculture, we couldn't say no. In May, PFI Vice President Susan Zacharakis-Jutz, cooperater Gary Guthrie and I spent eight days with an ISU delegation touring urban gardens, farms and research centers in the region around Havana, the nation's capital. One objective of the trip was to explore long-term collaborations and exchanges in research and extension.

Cuba is shrouded in mystery for people in the U.S. Coming in on a night flight, I was almost surprised to see lights below, let alone a modern international airport. I knew Cuba had suffered hard times since the

***In this "special period," the country has completely redesigned its agriculture from high-input to sustainable and from export-based to community-based.***

loss of trade with the Soviet Union and because of the economic embargo imposed by the United States on the socialist Cuban government. But what we found was a country that is responding creatively to these challenges.

Imagine if the borders of Iowa were sealed from trade. That's an exaggeration of Cuba's condition, but it helps in thinking about the situation faced by that country. Iowa imports an overwhelming portion of the \$8 billion we spend annually on food, and most of our agricultural production is sold out of the state. Because of heavy production inputs, we use almost as much energy to raise corn as we get back in the crop. Without trade, how would this state feed itself? We have tremendous productive capacity, but our agriculture is based on fuel and other inputs imported into the state and agricultural products shipped out. Both what we grow and how we grow it would have to change radically.

Cuba's agricultural economy was centered on sugar and a few other export crops, which were grown with a high level of fertilizers, pesticides, and mechanization. Excluding sugar, however, the country was a net importer of food. That all changed with the collapse of the Soviet Union. No longer did Cuba have a source of cheap energy and agricultural inputs or a trade customer willing to buy sugar at a price greater than the open market. Beginning in 1989, Cuba's economy entered a crisis from which it is only now beginning to recover.

In this "special period," the country has completely redesigned its agriculture from high-input to sustainable and from export-based to community-based. Large state farms were broken up into cooperatives in order to give people financial incentives to be productive. Land in and around cities is being put into production, and Cubans now have access to food both at free market prices and in price-controlled government stores. Schools, businesses, the Cuban army, and many private citizens now maintain their own gardens and are self-supporting in vegetables. Farmers can presently earn incomes many times that of a



Cuba's low-input agriculture uses a mix of technologies - here oxen cultivate with irrigation in the background. Just out of the picture is a high-tech European "screenhouse" for vegetables.

teacher or doctor. In this way, Cuba's government hopes to encourage more people to go into farming.

Cuba's scientists have played an important role making the new agriculture sustainable. For example, producers can now purchase microbial seed treatments that are said to provide crops with much of their requirements for phosphorus and nitrogen. Other microbial treatments combat damping off of seedlings. These inoculants and a number of beneficial insects are produced in local facilities using fairly low-tech methods. This makes the materials readily available and builds skills in the communities. Other research facilities are carefully documenting the energy efficiency of farming systems based on different combinations of crops and livestock. Energy efficiency is more than a parlor game for Cuban agriculture, which has even revived animal traction to substitute for diesel fueled tractors.

Coming from a country which has fewer and fewer farmers and in which production is further and further removed from consumption, it was fascinating for us to see a country in which government policy is firmly in support of local food systems, sustainable agriculture, and increasing the number of people involved in farming. It is reasonable to wonder if Cuba's agricultural revolution is simply a response to circumstances rather than a philosophical preference for local food

**These inoculants and a number of beneficial insects are produced in local facilities using fairly low-tech methods. This makes the materials readily available and builds skills in the communities.**

systems and sustainable agriculture. What if fuel and other inputs became cheap in Cuba again? What if private capital investment flowed into agriculture on a large scale? What if the Cuban economy provided farmers with even more profitable opportunities outside of agriculture?

These are relevant questions, but they do not detract from what is being accomplished there now. For its own reasons and in its own way, Cuba is realizing many of the objectives for which supporters of sustainable agriculture strive here. Both the agricultural scientists and the farmers we met showed great pride in the accomplishments made in this effort. It's a moot question whether this is a case of necessity leading philosophy. As we know from our own experience, deciding what you *want* to do is made easier by discovering what you *can* do. 🐾

## EL ESPIRITU DEL AGRICULTOR (THE SPIRIT OF THE FARMER)

Gary A. T. Guthrie, Nevada

Six years ago I attended my first PFI annual meeting. I was living in Des Moines, working for an ecumenical peace organization but was feeling like I wanted to get back in touch with agriculture. Two people on separate occasions suggested I attend the meeting. I knew few people there, but what I experienced has left an indelible mark on my being. For the first time since my family's return from El Salvador in 1990, I experienced a sense, a spirit if you will, of community. I had spoken in countless churches all across Iowa, yet here with this group of strangers was a tangible sense of connectedness, relatedness that had been lacking in my life since our return from Latin America.

*(Espiritu, continued on next page.)*

**Cuba was a stark contrast to the El Salvador situation.**



Gary Guthrie and Susan Zacharakis-Jutz talk carrots with farmer Miguel Cruz.

Last March my family returned to El Salvador to visit our friends, who we had worked with during difficult times during the war. Working with the Mennonite Central Committee we administered fertilizer loans to displaced farmers. Now 10 years later there is no war with guns, yet there is an economic war that is crushing the farmers, because as here in the states, commodity prices for basic grains are very low and they can ill afford to take out loans for fertilizers and other inputs.

My recent trip to Cuba was a stark contrast to the El Salvador situation. In Cuba they are trying to become self-sufficient in agricultural production because of the blockade, have broken up many of the large state farms into small farms, and have given

financial incentives for the farmers to produce more food. I immediately connected with the Cuban farmers as we talked about our production systems, seed varieties, soils, composts and many other topics.

I have been asking myself what attracts me to these campesino farmers? What is it about their lives that I feel an affinity to? I farm the way I do, mostly by hand labor, in part because that is the way my friends do it. All by hand. It may be crazy and it is not easy work, yet I believe in the end it is more sustainable and will certainly keep me from getting too big.

I noticed at that first PFI meeting, and many since, that this was the first group of people I had met in the

## REMEMBERING CUBA

Susan Zacharakis-Jutz, Solon

One of the strongest impressions from my experience in Cuba that remains with me as I struggle to keep up with my daily chores here on the farm is the way in which the Cuban people and their institutions and governmental agencies have pulled themselves through the crisis that occurred due to the collapse of the Soviet Union. Using very limited resources they are working to develop a sustainable and viable system of localized agricultural production.

***Most of the vegetables raised in this urban agriculture were sold directly into the community from farm stands located right on their farms.***

We visited farms right in the city of Havana using raised beds to grow vegetables in a very intensive system of year-round production. Most of the vegetables raised in this urban agriculture were sold directly into the community from farm stands located right on their farms. We also visited more diversified farms in the "greenbelt" and surrounding area of Havana. They were involved in dairying and/or meat production as well as raising vegetable and fruit crops for distribution via the government system and for sales into their own neighborhoods and markets in Havana.



Photo by Jim Grieshop.

Goats are part of experimental systems at Cuba's Institute for Pasture and Fodder Research. They receive intensive care from Juan José Suárez (right).

We saw various methods of vermicomposting at every farm we visited. Their intensive year-round system of production requires a high level of soil fertility.

The amount of research and technical support for sustainable and organic production coming from government agencies and academic institutions was another aspect of the Cuban experience that stood out as being totally different from my own experience here in this country.

***I have been asking myself what attracts me to these campesino farmers? What is it about their lives that I feel an affinity to?***

states who could critically think. They could analyze their problems and were trying to do something about them. It is easy to complain and get down in the mouth about how bad it is, yet here was a group that was, and is, moving forward looking for solutions, not giving up – and on top of it, they talked about not just the business of farming but the quality of life and

family life. There was a sense of hope that I had also felt in El Salvador and more recently in Cuba. There was a tangible spirit of the group that attracted me in somewhat the same way that I am attracted to my friends in El Salvador, Cuba and previously in Bolivia.

At our last farm visit in Cuba, we were fed in a farmers' home located amidst a reclaimed mango grove. It is a cooperative with about six families now, and they were just starting the mango harvest. We drank fresh mango juice, ate pineapple, watermelon and another tropical fruit called zapote. The woman hosting us talked about when they first arrived at the site six years ago. They arrived with their two hands and "el espíritu del agricultor," the spirit of the farmer.

*(Espíritu, continued on next page.)*

***More Cuba pictures at [www.pfi.iastate.edu/photo\\_albums\\_page.htm](http://www.pfi.iastate.edu/photo_albums_page.htm)***



**Intensive lettuce production in the middle of Havana. Raised beds, compost, and irrigation make these gardens highly productive. The harvest is sold on site.**



**This bag digester turns swine waste into biogas for cooking on the farm of Ernesto González (facing, left).**



**Prices for vegetables and meats at this market fluctuate with the market. Certain staples are available at reduced rates in government stores.**



**ISU Extension swine specialist Jerry Weis consults with Cuban counterparts. An objective of the trip was to build educational and research collaborations.**

(*Espiritu*, continued from page 13.)

***They arrived with their two hands and “el espíritu del agricultor,” the spirit of the farmer.***

They lived in a shipping container for the first while, until they could build a small wood home. Now they live in a two story cement block home with tile floors. I asked her to describe for me what that spirit meant.

She replied, “It is the love for the land. It is the desire to feed the people in Havana. It is the joy of growing food.”

This was the common thread I had been looking for. For many in PFI, my friends in El Salvador,



Poetry at El Gigante Co-op.

Bolivia and now in Cuba, when it comes to growing food there is something very sacred about our relationship to the land, its fruits and the essential need all people have to eat the fruits of the land.

Right after our lunch one of the other farmers recited a poem for us. It is fairly common to do this in Cuba, but it is not just recited – it is shared so deeply that the poem is lived out. I was moved by this experience and the sincere hospitality and warmth of our Cuban hosts all week long. I had been trying to synthesize in words what my own farmer’s spirit would mean to me. What I realized was that the words would not come in English but in

Spanish. So I wrote this poem dedicated to all Cuban farmers but also to all farmers who love the land. The English version is a very rough translation of the original Spanish.

### **El Espíritu del Agricultor**

El Espíritu del Agricultor  
viene de las raíces del esplendor  
De los milagros que cuando las semillas nazcan  
Hasta las frutas cuando las cosechan  
El Espíritu comienza a volar  
con las brisas que calma el sudor  
Ayy, el Espíritu del agricultor  
conozca la profundidad del amor de su tierra  
No es dueña de ella  
por que sabe que volverá a serla  
La cuida con cariño  
por ser artista de la vista  
El Espíritu del Agricultor  
da comida al lo que no tenga  
por la experiencia en la balance entre la vida y la  
muerte  
El sangre corre del trabajo fuerte y laboroso  
pero por ella su corazon is grande y generoso  
Ame El Espíritu del agricultor y  
jamás conozca el hambriento del alma  
Si tenga sed por la vida  
que venga al pozo del agricultor  
y beber de su vida  
Cuando toma agua de esta vida  
no se vaya con vida vacía

### **The Farmer’s Spirit**

The Spirit of the farmer  
comes from the roots of splendor  
From the miracles when the seeds germinate  
until the fruits are harvested  
The Spirit begins to soar  
with the breezes that calm her sweat.  
Ayy, the Spirit of the farmer  
knows well the depths of love for her earth  
She is not her owner  
because she knows she will become the earth herself  
She takes care of the land with love  
because she is an artist of the panorama  
The Spirit of the farmer  
gives food to the one who has none  
for the experiences of knowing the balance between  
life and death  
The blood flows from the hard and difficult work  
but for that her heart is big and generous  
Love the farmer’s spirit  
and you will never know hunger of the soul  
If you are thirsty for life  
come to the farmer’s well  
and drink from his life  
When you drink water from this life  
you will never leave with an empty life

(Recycling continued from p. 9.)

Develop and increase sustainable markets for recycled organics? How do we develop partnerships and cooperation between the public and private sectors? What should be our educational focus given limited resources? What are the recommendations for classifying types of composts for specific uses?

After discussion, several goals were created for the Council to pursue:

- To decrease transportation costs
- To recruit more participants
- To identify stakeholders and involve them in the organics recycling process
- To develop a compost classification system
- To identify the role government can take to promote organics recycling
- To increase and enhance education of schools, government and the commercial sector with regard to organics recycling.

At the conclusion of the meeting the group asked Garth Frable Executive Director of Iowa Recycling Association (IRA), if the council could be a branch of IRA. [Since the meeting, IRA has decided to include the council as a branch of IRA.] How will the council be funded? Jeff Geert indicated there is DNR money earmarked for implementation of council ideas, but serving on the council would be on a volunteer basis.

What does the formation of an Organics Recycling Council have to offer PFI? As I saw it, most attendees of the meeting felt that marketing the recycled organic product, transportation and overall lack of awareness of products derived from wastes were major barriers to making the diversion of wastes profitable. I observed that many of the organic wastes used in making products would never get back to the farm. Many of the companies represented at the meeting market their product to suburbia, landscaping and home gardening. Not once was the "Farm" mentioned as an endpoint for organic products. Yet, many of the wastes generated from consumers are derived from the lifeblood of a farm – the soil.

One of the questions that I posed to the attendees of the meeting was "Do farms count?" Of course I got a lot of looks for this, but, I never did get an answer. If



**A man of word and deed – Colin at work composting food waste for Camp Hantesa, Boone County.**

diverting wastes from the landfill is a goal of the DNR, where should it go? In the meeting, many participants were in an industry trying to make a profit. The market they were after did not include the farmer. Rather, they targeted the suburban sector with landscaping and home gardening needs. Many organic waste products would fit nicely into sustainable farms, yet, the products never reach these farms.

Currently, farms do play roles in organic waste diversion. Community wastewater treatment plants often sign contracts with farms for land application of their biosolids (or, if you prefer, sewage sludge). Some universities are sending food waste from dining halls to on-farm composting operations for application on fields.

Farms do count, and they should be represented on this council. Although PFI was the only invited farm organization to attend the meeting, its presence needs to be recognized. Recycling nutrients, be it carbon, nitrogen, calcium etc., will not only decrease spatial pressure on landfills, but relieve the need for virgin nutrients as well.

***PFI plays a vital role in influencing how nutrients return to the farm. Until this loop runs full circle, our food system will continue to be unsustainable.***

PFI members may benefit from the council in the form of small demonstration/educational grants. Since the DNR has earmarked money for council projects, PFI members may be able to apply for on-farm demonstration projects. Several attendees urged openness to trying new ideas in the field of organic waste management. Too often grant applications have been turned down because of their risky nature. The council wishes to help those who have valid ideas pursue a more sustainable environment for organic wastes.

The formation of an Organics Recycling Council in Iowa is a start to increasing the awareness of organic wastes disposal. Recycling nutrients back onto the land from where they were derived completes "The Loop." This council forms a network of groups interested in organic waste issues. PFI plays a vital role in influencing how nutrients return to the farm. Until this loop runs full circle, our food system will continue to be unsustainable.

## SLUGS WANTED \$5,000 REWARD

**Editor's note: Bet that got your attention! Scientists at Ohio State University have asked for PFI's help in getting the word out on their slug collection project. If you wish to participate, the contact information is at the end of the article.**

Professor Parwinder Grewal, of Ohio State University, is looking for slugs. In particular, slugs infected with a species of nematode called *Phasmarhabditis hermaphrodita*. This project got started because this species was found in Europe and is now commercially produced there. Organic farmers and gardeners use it to control slugs in Europe. This product, unfortunately, can not be brought into North America unless it is proved that this nematode is also native here. Thus Dr. Grewal's project purpose is to examine slugs from all over North America to try and find this nematode. Once it has been found, then this nematode can be made available, offering a safe biological and organic method of controlling slugs.

Organic farms and gardens are likely to be one of the best sites to look for this nematode. Land where pesticides have never been used, particularly old pastures or grassy areas are expected to be the most likely habitat. Slugs can be trapped relatively easily just by placing a roofing shingle or small board out in

grassland. Leave it for a day or two, and slugs will very often accumulate underneath.

These slugs can then be sent by Fedex on a freight-collect basis to Dr. Grewal. Incidentally, there is a cash reward of \$5,000 being offered to whomever sends in a slug that contains this particular nematode. So please be sure to include your name and contact details.

Shipping details: Send by FEDEX on a freight-collect basis to Slug Collection Project, Dept. of Entomology, OARDC Ohio State University, 1680 Madison Avenue, Wooster, OH 44691-4096. Questions? Call Dr. Grewal - 330-263-3963  
grewal.4@osu.edu or Tom Hinks 519-767-3188,  
thinks@netcom.ca

## FIELD DAYS EXTEND INTO FALL

Rick Exner

PFI has contact with a large part of the Iowa farm population through field days, and every year we get a little bit better at getting the word out to those folks. There are now 130 PFI members who have said they'll help PFI communicate. So before each field day, I ask some of these members to phone non-members who have been coming to that event or others in previous years. A personal invitation to attend the field day and to join PFI says more than a dozen letters in the mailbox.

PFI cooperators keep thinking of new ways to add fun to their field days. Ice cream is always welcome on a hot day. On Sept. 16, Susan and Jeff Zacharakis-Jutz will combine their field day with a potluck and a barn dance. Gary and Nancy Guthrie held a weeding contest and got a little free labor!

As usual, the field days offer great variety, from crops to compost, from paddocks to potatoes. Several members are jazzed on farrowing hut designs, with intense discussions and modifications flying back and forth. I expect more of that at the Sept. 2 field day at Dan and Lorna Wilson's. Designs from Dan and Tom Frantzen, along with photos from Mike Natvig's field day can be found at [www.pfi.iastate.edu/OFR/Practices\\_and\\_Research.htm](http://www.pfi.iastate.edu/OFR/Practices_and_Research.htm). This year, PFI field days run to October 11, when Matt and Diana Stewart hold a "barn meeting" to cap the grazing season. See you on the Web or at a field day.



## 2000 Summer Field Days Out and About



Variations on the "E-Hut" are everywhere this summer! Mike Natvig shows a removable pig barrier.



Angela Tedesco's field day sparked discussion of weed management approaches in vegetable production.



The winner of the weeding contest at Gary and Nancy Guthrie's field day took home a pie.



Presentation counts - Lonna Nachtigal shows how Onion Creek Farm displays veggies and information at Ames farmers markets.



Two hundred head of beef move into a new paddock as Dave Lubben describes the rotational grazing system.



## CAMP 2000

Bryce Bauer, Audubon

Camp 2000 was held at the YMCA camp near Boone. This year I was a teen counselor. Counselors arrived a day early to prepare for the campers. Counselor training was one of my favorite times. Activities included games for building trust and getting to know each other. The next morning we woke up early to decorate the cabin and work on projects for the campers.

As kids arrived from all across Iowa, there were many excited yet nervous faces. Some of them saw friends that they had met at camp last year or the year before. Campers signed up for activities that included horseback riding, climbing, swimming, archery and more. While there, we also had many nature programs hosted by different people. One day Shelly surprised us with a canoeing trip which was a lot of fun. This year, campers had the choice of sleeping in the cabin or in tepees.

I think all the kids had a great time and plan to return next year. We all thank Shelly Gradwell and her crew for a great camp 2000! 🐾



**Pond ecology study: What are all those critters?**



**Reuben Zacharakis-Jutz, Jacob Otten, and Morgan Mays gather cut willows for stream bank restoration.**



**Anna Smith, Martina Mays, and Maria Darrow paddle away.**



**Andrew Smiths, Chan Liebman, and Zachary McAndrews plant the willows.**



**Habitat games for campers of all ages and sizes!**

# PFI 1999 ON-FARM TRIAL RESULTS - III

(Editors' note: On-farm research results for 1999 appeared in the program for the Jan. 15 Winter Workshops. Those trials are being featured over the course of 2000, while cooperators are hard at work on new trials. Weeds got your goat this year? Here are trials on flame weeding and cover crops. Also a couple of tillage trials for your consideration. Jan Libbey and family provide some indicator statistics by which to evaluate CSA vegetable operations. (Their field day is set for September 9.) Finally, Matt and Diana Stewart offer observations on the future of intensive rotational grazing in dairy operations. (The Stewarts hold a "barn meeting" field day October 11.)

## Weed Management Trials

The flame cultivator is a tool for weed management that has received interest in recent years. On August 3, 1999, **Dennis and Eve Abbas**, Hampton, counted weeds in corn that had been flamed on July 1 (Table 1). The flaming had significantly reduced weeds, and to Dennis' surprise, had also affected quack grass and Canada thistle. Even if these perennial weeds are still surviving underground, Dennis is happy he has fewer to look at.

*The flaming had significantly reduced weeds, and to Dennis' surprise, had also affected quack grass and Canada thistle.*

At the **New Melleray Abbey**, farm manager **Joe Fitzgerald** flamed corn on June 20. The flaming significantly improved crop yield and cut the number of broadleaved weeds and grasses (Table 1).

## Reading Numbers, Knowing Terms

When you see the outcome of a PFI trial, you also see a statistical indication of the strength of the difference observed. The following information should help you to understand the reports of the trials contained in this report. The symbol "\*\*\*" shows that there was a "statistically significant" difference between treatments; that is, one that likely did not occur just by chance. We require ourselves to be 95% sure before we declare a significant difference. If instead of a "\*\*\*" there is a "N.S.," you know the difference was "not significant" at the 95 percent confidence level.

**Comparing Two Practices** Many on-farm trials are of a straightforward "A versus B" type. These trials, which are easy to design and analyze, correspond to the typical experimental question "Is alternative 'B' better than, worse than, or the same as my customary practice 'A'?" This approach can be used to evaluate individual practices or whole systems of practices.

There is a handy "yardstick" called the "LSD," or "least significant difference," that can be used in a trial with only two practices or treatments. If the difference between the two treatments is greater

than the LSD, then the difference is significant. You will see in the tables that when the difference between two practices is, for example, 5 bushels (or minus 5 bushels, depending on the arithmetic), and the LSD is only, say, 3 bushels, then there is a "\*\*\*" indicating a significant difference.

**Multiple Treatment Trials** The LSD doesn't work well in trials with more than two treatments. In those cases, letters are added to show whether treatments are statistically different from each other. (We usually use a statistical test called a Duncan multiple range grouping.) The highest yield or weed count in a trial will have a letter "a" beside it. A number with a "b" next to it is significantly different from one with an "a," but neither is statistically different from a result bearing an "ab." A third treatment might produce a number with a "c" (or it might not), and so on.

**Economics** Average 1999 statewide prices for inputs were assumed in calculating the economics of these trials. Average fixed and variable costs and time requirements were also used. These can vary greatly from farm to farm, of course. The calculations use 1999 prices of \$1.65 per bushel for corn, \$4.55 for soybeans, and \$1.10 for oats. Labor was charged at \$9.00 per hour.

**Table 1. Weed Management Trials**

COOPERATOR	LOW RATE TREATMENT					HIGH RATE TRT
	DESCRIPTION	TREATMENT COST	YIELD	BROADLEAF WEEDS/ACRE	OTHER WEED INFORMATION	DESCRIPTION
ABBAS	ROW CULTIVATION ONLY	\$0.00	139.1	2,656	WEEDS COUNTED ON 8/3	FLAME CULTIVATED
NEW MELLERAY	ROW CULTIVATION ONLY	\$12.00	135.5	20,300	GRASS RATING SIGN. GREATER	FLAME CULTIVATION
MUGGE	CONTROL – NO COVER CROP	\$0.00	41.9	—		SPRING RYE ON RIDGE



Set it on 'sear'! Getting ready for a flaming demonstration at the New Melleray field day.

Each producer will decide whether and where flaming fits in the operation. Flamers, just like chemical burndowns, are not the answer to every weed problem. On the other hand in a spring like that of 1999, with conditions too wet to use the rotary hoe, a flame weeder could look like a magic wand.

### Strip Intercropping – Taking Advantage

It has been nearly a decade since the rise in interest in strip intercropping, led in part by PFI. A reason many producers later discontinued intercropping was the system's failure to consistently deliver the yield benefits inherent in that form of multiple cropping. One of the hidden drags on yields was root-

worm larvae that migrated underground from strip to strip, a fact discovered by USDA/ARS entomologist Mike Ellsbury, working on the farm of PFI members Paul and Karen Mugge, Sutherland.

***In the jumping strips, though, the border rows yielded on average nearly 40 bushels more than the strip interiors.***

So if the rootworms are migrating, what do you do? Give 'em further to crawl! At least that was the



Single- and double-width strips allow corn to "jump" from year to year on the Mugge farm.

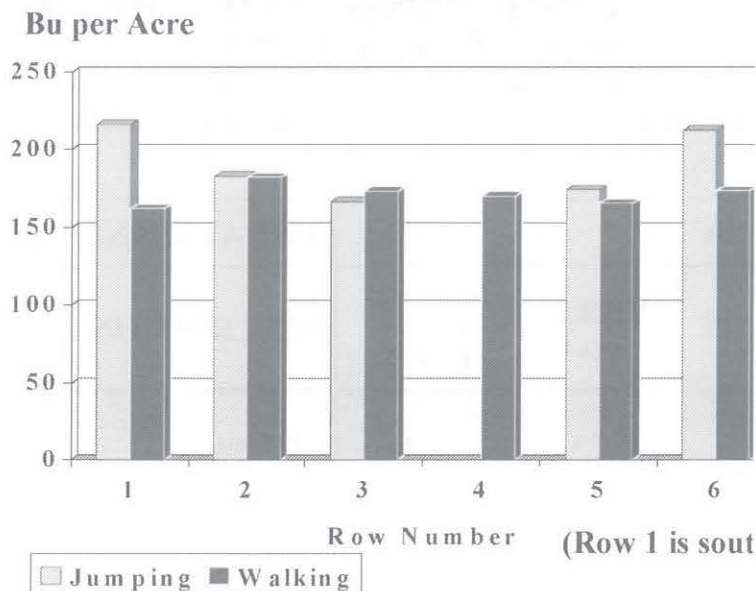
## Weed Management Trials

HIGH RATE TREATMENT				TREATMENT DIFFERENCES					COMMENTS
TREATMENT COST	YIELD	BROADLEAF WEEDS/ACRE	OTHER WEED INFORMATION	YIELD DIFF.	YLD. SIG.	YLD. LSD	BRDL. WEED SIG.	LOW RATE \$ BENEFIT	
\$5.05	136.6	1,557		2.5	NS	12.3	*	(\$5.05)	FLAMED JULY 1. REDUCTION IN CANADA THISTLE AND QUACK
\$17.41	143.8	7,700	BROADLEAF RATING SIGN. LESS	-8.3	*	7.4	*	(\$19.15)	FLAMED JUNE 20
\$16.74	39.2	—	LESS GRASS, BUT NOT SIGNIFICANTLY	2.7	NS	17.4	NS	\$16.74	THREE REPS ONLY. TREND FOR GRASS REDUCTION AFTER RYE.

plan when we set out two kinds of systems, “walking” and “jumping” strips, on the Mugge farm. In the traditional, walking strips, each crop moves over by a single strip every year. In the new jumping strips, corn moves one-and-a-half strips each year. The two systems were established in 1998, and '99 was the first year we could expect to see a difference – if any – between the two systems.

The border rows of the corn strips are where the big potential lies in strip intercropping – *yield* potential because of the extra sunlight and *damage* potential because of rootworms visiting from the strip next door. So when the corn was threshed this fall, the yields told the story (Figure 1 and Table 2). In the walking strips, border rows yielded no more than rows in the strip interiors. In the jumping strips, though, the border rows yielded on average nearly 40 bushels more than the strip interiors.

## Walking & Jumping Strips Mugge, 1999



Stand counts suggest that plant population played an important part in the yields. All rows were planted at the same population. However in the walking strips border row stands trended lower than in strip interiors, while in the jumping strips the outside row populations were greater than in the strip interior. In the first instance, rootworms may have taken their toll on stand as well as crop growth; in the case of jumping strips, less competition in outside rows may have allowed a few more plants to survive and bear ears.

If jumping strips prove to be a key to productivity, that will be important to their use on Iowa farms. Fitting them into practical systems will be the next challenge after that.

Figure 1. Yields by row in walking and jumping strips.

**TABLE 2. Strip Intercropping, Row Yields and Stands – “Jumping” vs. “Walking” Strips**

EAST-WEST STRIPS	MUGGE			
	“JUMPING”		“WALKING”	
ROW	YIELD	STAND	YIELD	STAND
	BU/ACRE	PLANTS/ACRE	BU/ACRE	PLANTS/ACRE
(S)	(OATS)		(SOY)	
1	216.2	32,670	161.8	28,096
2	183.0	30,056	182.1	30,056
3	166.6	30,056	173.3	26,572
4	—	—	170.1	27,225
5	174.2	30,710	165.4	27,225
6	212.3	31,799	173.5	26,354
(N)	(SOY)		(SOY)	
STRIP AVG.:	190.5	31,058	171.0	27,588



## Tillage

**Steve and June Weis** were interested in supplying potassium to their crops. In addition to trying deep-banded K, Steve looked for a tillage effect on potassium absorption. Richard Thompson, Boone, believes that moldboard plowing once in his five-year rotation helps yields by allowing plants to take up potassium better. The tillage that Steve examined was the paraplow, a horizontal blade that he pulled through the soil at a depth of 20 inches beneath the ridges in the fall of 1998. Maybe 1999 wasn't the year for the paraplow. Steve feels the plowed plots didn't take in precipitation well, leading to problems when the weather turned dry in late summer. For whatever reason, paraplowed yields trended lower, although the difference was not statistically significant (Table 3). As for the potassium hypothesis, leaf tissue showed no differences in nutrient concentrations.

**David and Lisa Lubben**, Monticello, also examined deep tillage. Dave pulled a shank ten inches deep through alternating inter-rows when corn was three inches tall (Table 3). There was no statistically significant difference in crop yields due to the spring ripping.

*The tillage that Steve examined was the paraplow, a horizontal blade that he pulled through the soil at a depth of 20 inches beneath the ridges in the fall of 1998.*

**Table 3. “A/B” Tillage Trials**

COOPERATOR	CROP	TREATMENT “A”			TREATMENT “B”
		DESCRIPTION	YIELD (bu.)	TREATMENT COST	DESCRIPTION
LUBBEN	CORN	DEEP-RIPPED 3" CORN IN ALTERNATE ROWS	172.3	\$4.14	CONTROL
WEIS	CORN	FALL PARAPLOW	175.6	\$18.39	CONTROL

## Grass-Based Dairy Farming in the Upper Midwest – Where do we go from here?

Matt Stewart, Oelwein

The grazing movement is at the end of its first stage of development. The “introduction” stage has brought fencing, watering systems, and grass-based animal systems. An infrastructure has been developed to supply farmers with fencing and watering supplies. Extension and NRCS have become fairly proficient at helping farmers institute managed intensive grazing

**Grass-based dairying has grown in spurts associated with periods of financial stress on dairies.**

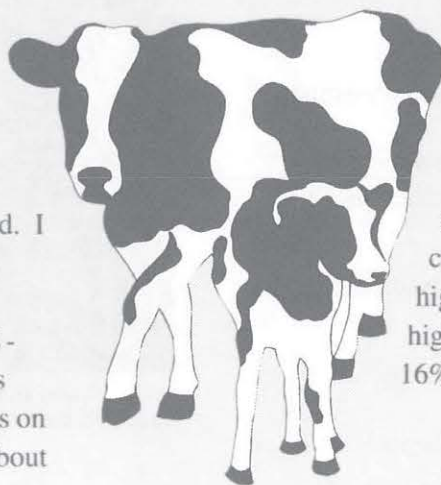
systems and organizing pasture walks and grazing conferences. Grass farming has been embraced by sustainable agriculture groups, as grazing has the potential for a reduction of soil erosion and relies less on chemicals and petroleum. But the movement has stalled. I think we need to investigate the reasons.

**LACK OF FINANCIAL INCENTIVE -** Grass-based dairying has grown in spurts associated with periods of financial stress on dairies. The first leap of interest came about

between 1987 and 1989. Many of Wisconsin’s first grazing groups started after a drought in 1988. The second wave of interest in controlled grazing came in 1993-1995; dairy farmers experienced six years of low profitability between 1990 and 1995. \$5 corn and \$8 soybeans slowed the influx of new graziers and made row cropping look like a rosy alternative to pasture. At the same time, graziers anxious to profit after seeing good returns from their first efforts, expanded grass acres and herds. Then they had trouble keeping pastures from growing too mature. The widespread “gospel of grass” stated that no purchased seed, chemicals, or fertilizers would naturally yield lush pasture if farmers would just use managed intensive grazing.

But pasture production of high quality feed has not grown in terms of more meat or more milk per acre as many believed. Both confinement and grass-based

dairies have had very profitable years in 1998 and 1999 as a result of milk prices. It’s important to realize that those profits have come from selling milk, not necessarily from the production of grass. The toughest years in agriculture often follow a period of high commodity prices. Look at corn after the high prices of 1973-1974, milk after the high prices of 1989-1990, or hogs after a 16% return on investment between 1990-



*(Where to? continued on page 26.)*

### “A/B” Tillage Trials

TRT “B”		DIFFERENCE				COMMENT
YIELD (bu.)	TREATMENT COST	YIELD DIFF.	YLD LSD (bu.)	YLD SIG.	\$ BENEFIT OF TRT “A”	
170.9	\$0.00	1.5	6.6	NS	(\$4.14)	RIPPED 10" DEEP
183.4	\$6.51	-7.8	9.8	NS	(\$11.88)	NO LEAF NUTRIENT DIFFERENCES, BUT PARAPLOW TRT .5% MOISTER

## CSA FARM ECONOMIC ANALYSIS

Farm: One Step at a Time Gardens, 1465 120<sup>th</sup> St., Kanawha, IA 50447

Farmers: Jan Libbey & Tim, Andrew, and Jessica Landgraf, One Step at a Time Gardens

Year: 1999

### **Tool: Standardized Analysis of Farming Economic Benefits †**

*developed by David Washburn of Red Cardinal Farm, Stillwater, MN*

Washburns' tool involves using eight "economic facts" to generate 11 "economic ratios". A selection of these figures is provided along with what we think they mean

**Goal of economic analysis project:** evaluate the economic condition of our direct marketing operation.

In this **first season**, we

- established a record-keeping format that is fairly easy to use, covers appropriate categories and is transferable to other farms
- used a series of economic ratios developed by David Washburn of Red Cardinal Farm in Stillwater, MN
- will follow the number analysis with subjective evaluation of the results and identify specific changes to implement in the next season.

Labor records (hours/task):

- Daily work log for field records
- Permanent logs - field records transferred daily, maintained in central notebook
  - general categories
  - crop specific categories
- Hired help maintains daily records in separate notebook  
(Field records are transferred to a basic spreadsheet for calculations and analysis.)

Financial records:

- A basic spreadsheet form to keep track of income and expenses

In a **subsequent season**, we would like to

- repeat the data collection
- compare results between several farms

### **1999 Findings:**

We have compared data from, our farm, One Step at a Time Gardens (OSTG), with the same from Spring Hill Farm (SHF) and Common Harvest (CH). The data for the SHF and CH was provided at a workshop session in February where we were first introduced to Washburn's analysis tool. Do note the following:

*CSA share scale differs - As of 1997, SHF - 85 shares and CH - 171 CSA shares.  
In 1999, OSTG - 21 shares.*



**Jan Libbey discussed cropping analysis as part of the last PFI field day of the 1999 season.**

† David has developed this tool so farms have a standardized measure of their financial health. He has copyrighted this tool and requests that copyright be honored. If you are interested in running your farm numbers through this tool, he would like you to con-

sider sharing your data with him to be used as part of an expanded study he is doing with the Minnesota Department of Agriculture.

David can be reached at: 651/653-8038 or by email: redcardfarm@earthlink.net



Experience differs - SHF and CH have been in operation for between 7 and 10 years. 1999 was OSTG's 4<sup>th</sup> CSA season.

**Initial observations**

The use of the ratios allows common ground for comparing the different farming operations.

The labor being used at One Step at a Time Garden, the total dollar income off the operation, and the payroll expense to gross farm income is consistent with data for SHF and CH.

Ratios	OSTG	SHF	CH
Gross Income to # Acres Farmed	\$10,808	\$13,714	\$10,429
Total Person-Days to # of Acres Farmed	99.8	114.3	82.6
Payroll Expense to Gross Farm Income	13.5%	14.0%	12.5%

We have observed that there are greater efficiencies to be gained through increase in scale and maturity. Comparison between the three farms on farmer income/# acres farmed, net farm income to gross income, and farmer income to length of farm season indicate striking differences between the farms. Our past four years of farm records indicates that as size increases, the cost per share decreases. Comparison with SHF and CH, both larger and more mature, may support this observation.

Ratios	OSTG	SHF	CH
Farmer income to # acres farmed	\$2,145	\$7,429	\$5,286
Net farm income to gross farm income	36%	68%	68%
Farmer income to length of farm season	\$4,853	\$32,190	\$45,810

Washburn compares Payroll Expense + Farmer Income to Gross Farm Income (GFI) as one measure of sustainability. The comparison between the three farms indicates that we have a lot of room for improvement. Increased sustainability is one of the goals of our operation. The records we've kept will be used to target improvements for the 2000 season.

Ratio	OSTG	SHF	CH
Payroll expense + farmer income to GFI	33.5%	68.1%	63.2%

**So what?**

This is still a relatively new tool that's been used on approximately 5 farms. As such, there is little in the way of benchmarks at this point. The presentation of information from the two larger, more experienced farms and OSTG offers some insight. However, this information may prove even more helpful as successive seasons of records allow us to develop our own benchmarks and track the impact of decisions we make. It is also a tool for farm-to-farm support and problem solving.

**One final comment**

The process of record keeping involved with this analysis serves as a powerful awareness tool for reviewing the operation's efficiencies and profitability and we recommend it to others farms.

(Stewart, continued from page 23.)

1995. Dairy graziers will face a problem caused by the *low* cost of concentrates. My feed cost per cwt. of milk is \$2 less this winter as a result of purchasing a year's supply of corn at \$1.55 and a winter's supply of hay at \$55 per ton. Grass farmers need to realize that low feed prices will actually benefit confinement dairies more than grass based producers.

***The toughest years in agriculture often follow a period of high commodity prices.***

**LACK OF INFRASTRUCTURE TO INCREASE PASTURE PRODUCTION** – Two main topics are included here: 1) grass and legume genetics, and 2) balancing soils and pasture fertility. The next ten years of the grazing movement will be devoted to the development of these needs, I believe. The technical expertise for these two areas will have to be developed together. The nutrient puzzle for perennials is more complex than the fertility needs for annuals like corn and soybeans. It appears that the overwintering abilities of the most productive grasses and legumes may be linked to soil fertility. Cool-season grasses and legumes each have different nutrient needs at differing times of the year and seem to respond to more frequent applications of some fertilizers and calcium. Availability of these nutrients seems to be more of a problem than most of us have experienced in our previous lives as corn, soybean and alfalfa producers. The distribution system in place is structured around conventional producers. In my area, the fertilizers available are anhydrous ammonia, urea, diammonium phosphate, and potash. Even the pricing methods are set up to encourage large, one-time applications of these products in either fall or spring. Alternative products like ammonium sulfate or gypsum have to be purchased in semi-load lots and/or spread with your own equipment.

Our on-farm research will have to be aimed at improving the amount of energy and protein that we produce per acre.

## FOOTPRINTS OF A GRASS FARMER Draining the Land

Tom Frantzen, Alta Vista

1974 was my first year of farming. I rented my dad's 240 acres with high hopes. What I remember best about that year and the next one was the stark contrast between the crops on ground that had drainage tile as compared to the near total failure of cropping undrained land. I raised a lot of hogs in 1975 and hit a good market for them. Living at home, single and with few living expenses, I had money to invest. Dad had installed 5-inch clay tile on about 30% of the farm. I bought enough clay tile to drain another 60% of the farm. The only place where we did not tile was the Saude and Lawler soils. These soils have gravel subsoil and are naturally well drained. All of this tile were laid out on 80- to 90-foot line spacing. The 80-foot patterns were used on the Clyde soil areas. When this task was finished I thought that drainage was taken care of. It is interesting to note that in 1980 I had 4,000 feet of plastic 4-inch tile plowed in *between* some of the clay lines that were 90 feet apart.

I am very satisfied with the five-year organic rotation that we use. There are significant differences in the texture of my organic soils when compared to the last of my chemically treated soil. I thought that this rotation would improve the infiltration and general drainage of the soil. I am sure that it does, but I am observing large differences on the crops and soil conditions in between the tile lines. Could crops be even more sensitive to drainage in organic systems than in conventional ones? I think that they are.

Timing of field operations is critical to organic row crop weed control. Rotary hoeing, harrowing and cultivation all have narrow timing windows. All of these tools are sensitive to soil conditions. Lumpy, crusted soil with poor tilth from standing water makes cultivation difficult. Soil in poor condition cannot flow uniformly around the base of the crop to cover small weeds. Flame weeding is an exception here. The compounding factor is that an organic farm cannot fall

***Could crops be even more sensitive to drainage in organic systems than in conventional ones?***

back and use herbicides for weed control if these mechanical weed control practices fail. One of the reasons for the higher value for organic crops is this inherent risk involved in growing them. Would the value of these crops justify additional investments in more subsurface drainage? How can a value be placed on the likelihood of better weed control? What about the long-term consequences of increasing weed pressure? These are tough but demanding questions. I am going to put an economic value to this factor when I calculate the return per dollar invested.

**Wet years with significant periods of standing water provide the conditions for denitrification.**

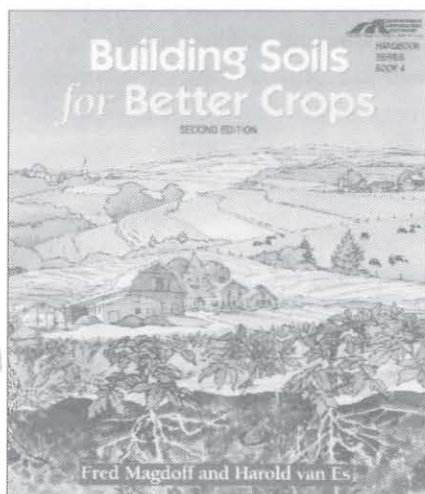
Maintaining enough available soil nitrogen to grow a good corn crop is another difficulty organic farmers face. Wet years with significant periods of standing water provide the conditions for denitrification. This causes some problems for chemical farmers, who can rely on available and cheap nitrogen. But we organic operators face a really tough situation. We lose available nitrogen too, and any organically approved replacements are very expensive. Again, as with weed control, the value of the crop is higher and the risk of failure is also elevated. Here drainage is even more important. Research work in Minnesota looking at the losses of available nitrogen in the soil profile concluded that close spaced tile lines (40 feet) and shallow placed lines three feet deep significantly reduced denitrification. This is not a big influence in crop yields every year. The years when we have

really wet May and June weather, the stage is set for yield loss in the poorly drained soils. As I write this I am observing the differences in the color of my organic corn. One spot in the field has 60-ft spaced tile. The corn looks really good. In another area the lines are spaced at 90 ft, and the corn in between these lines is stunted and has that poor yellow color. In an organic situation what choices do I have to replace the nitrogen lost by these wet conditions? What other than tile prevented the other corn from showing lack of available nitrogen?

The five-year rotation provides a good diversity of crops. I enjoy this because it is a lot easier to get 40 acres of corn cultivated on time than it is to do 165 (half of the farm). The pressure in the spring now comes from the need to get the oats in as soon as possible. Any delay in planting this crop usually results in low yields and poor quality. Tile greatly improves the odds of early planting. What would I do if I were prevented from planting them because of wet conditions? The planting date window here is smaller than either corn or soybeans.

Artificial drainage is a massive transformation of the landscape. I am not suggesting here that all of the drainage projects were good practices. We need wetlands and the natural diversity they provide. Tile lines that drain directly into streams (all of mine) are a major contributor of nitrate in surface water. It would be great – although a huge public expense – to have these tiles drain into created wetlands before they enter their water into streams. My consensus here is that adequate subsurface drainage in appropriate soils improves the profitability and environmental soundness of farming practices. 🌱

## TWO NEW PUBLICATIONS FROM SARE



The USDA's Sustainable Agriculture Network, the national outreach arm of SARE, has added two new items to its vast list of helpful resources. Building Better Soils for Better Crops, second edition, is far more comprehensive than its predecessor. It explains how soil management boosts fertility and yields while reducing environmental impacts and pest pressures. It shows how ecological soil management works with, rather than against, the built-in strengths of your plant/soil system. Topics include: increasing soil organic matter, managing soil tilth; using appropriate tillage; incorporating animal manures; making and using composts; integrating cover crops into rotations; reducing erosion; nutrient management; methods to avoid and decrease soil compaction; and ways to evaluate soil health. The 240 page book is available for \$19.95 per copy plus \$3.95 shipping and handling from Sustainable Agriculture Publications, Box 90, Hills Building, University of Vermont, Burlington, Vermont 05405. Call 802-656-0484.



'Naturalize' Your Farming System - A Whole Farm Approach to Pest Management outlines ecological principles for managing pests and suggests how to apply those principles to real-life farm situations. Written for producers and the agricultural professionals who work with them, this informational bulletin has

anecdotes from farmers using such strategies, as well as a page of additional, more in-depth resources on the topic. You can download it at [www.sare.org/san/htdocs/pubs/](http://www.sare.org/san/htdocs/pubs/). Call 802-656-0484 to request a complimentary copy through the mail. 🐾



Denise O'Brien and her husband, Larry Harris, welcome visitors to a PFI field day at their farm in 1994.

## O'BRIEN NAMED TO IOWA WOMEN'S HALL OF FAME

Not enough people are aware of the extent of women's contributions to society, whether past or present. To highlight women's heritage and recognize their contributions, the Iowa Commission on the Status of Women (ICSW) established the Iowa Women's Hall of Fame in 1975. Each year the ICSW and the Governor welcome four women into the Hall of Fame, paying tribute to them and setting them forth as role models for others.

On August 26, 2000 Denise O'Brien and three other Iowa women, Betty Jean "BeJe" Clark, Margaret Boeye Swanson, and Adeline Morrison Swain, were inducted into the Iowa Women's Hall of Fame. The ceremony took place at the Iowa Historical Building. The induction is held annually as close to August 26th as possible. August 26, 1920 is the day that women were given the right to vote.

Denise O'Brien is a self-employed farmer from Atlantic who uses organic practices. She is cofounder and coordinator for Women, Food and Agriculture Network, an organization that seeks to link and amplify women's voices on issues of food systems, sustainable communities and environmental integrity. Through her work as a past president of the National Family Farm Coalition, she lifted the concerns of farm families and rural communities on international, national, state, regional and local community levels. She spoke before the United Nations General Assembly as the representative of the world's farmers in June, 1997.



Here they are at Rosmann's field day four years later.

An extensive lecturer, O'Brien has shared her expertise in rural development and farming with thousands throughout the United States and world. She serves on the Secretary of Agriculture's Local Foods Task Force. She and her family have been regular hosts to international delegations. She was the 1997 recipient of the "Gloria Steinem Award" and the Iowa Farmer's Union "Young Leadership Award" in 1990. Denise and her husband Larry Harris are members of Practical Farmers of Iowa. They have three children, Briana, Trevor, and Caia.

Congratulations to Denise. Her personal reflections about the award appear on the next page. 🐾



### BITS OF SUSTENANCE

The Bits of Sustenance pages are a place where PFI members can share their writing - stories, poems, letters, book reviews, experiences. Hopefully, Bits of Sustenance will give every reader something to ponder.

### PRIVILEGE TO FARM

Denise O'Brien

Upon being informed of my induction to the Iowa Women's Hall of Fame, I have been reflecting over the years of my farmer/activist/parent/spouse "career." First and foremost, I feel that my time as a farmer has been a time of privilege. Sure, it's hard to get bills paid when prices are low. It's hard to keep an optimistic outlook when hail has just destroyed your crop. But the fact that my husband Larry Harris and I have been able to raise our children together as two full time parents, has given me great joy. Our children are now adults and are finding their way in the world with the confidence and skills they learned working side by side with their parents. The working included farm work mainly, but it also included going to the capitol in Des

Moines to attend a rally or a protest. It included volunteering in the community at the domestic violence shelter or the food pantry. It takes work to be a citizen of a community and Larry and I feel confident

that we have taught our children to participate in and work in the larger community of humanity.

I must say that it is unfair that only my name will appear on the plaque that will be awarded during the induction ceremony because it was all of my family that made it possible for me to achieve this honor. Larry's commitment to farm and family while I traipsed off to all parts of the world. The commitment of my daughters and my son to helping their father while I was gone. The commitment of my mother-in-law and father-in-law to filling in when needed. The commitment of my father and siblings to checking in during my absences. All of these people deserve to have recognition for the role they played on my journey to leadership.

### Tri-state Fall Harvest Retreat for Women in Sustainable Agriculture

This event for women in Iowa, Minnesota, and Wisconsin is co-sponsored by the Women, Food & Agriculture Network. It's November 10-12 at the Good Earth Village in Spring Valley, SE Minnesota. \$65 for great programs and networking. Contact Stacey Brown or Denise O'Brien at 712-243-3264 or wfan@nishna.net or 59624 Chicago Rd. Atlantic, IA 50022 for more information.

### PFI Membership Application and Renewal Form

Name \_\_\_\_\_  
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County \_\_\_\_\_  
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Zip Code \_\_\_\_\_  
Phone # ( ) \_\_\_\_\_

This is a \_\_\_\_\_ new membership

\_\_\_\_\_ renewal

Do you derive a significant part of your income directly from farming in Iowa?

\_\_\_\_\_ yes \_\_\_\_\_ no

Individual or family membership: \$25 for one year, \$75 for three years plus a PFI cap.

Please enclose check or money order payable to "Practical Farmers of Iowa" and mail to:

**Practical Farmers of Iowa  
2035 190<sup>th</sup> St.  
Boone, IA 50036-7423**

## CORRESPONDENCE

Correspondence to the PFI directors' addresses is always welcome. Member contributions to *the Practical Farmer* are also welcome and will be reviewed by the PFI board of directors.

District 1 (Northwest): Ken Wise, 2820 Wadsley Ave., Sac City, IA 50583-7637. (712) 662-7716.  
Colin Wilson, PFI President, 5482 450<sup>th</sup> St., Paullina, 51046. (712) 448-2708. c.c.wilson@juno.com

District 2 (North Central): Ron Brunk, 12789 240th St., Eldora, IA 50627-7518. (515) 858-3239. brunks@adiis.net  
Mark Tjelmeland 12461 650th St. McCallsburg, IA. 50154-8026 (515) 434-2240.

District 3 (Northeast): Michael Natvig, 20074 Timber Ave., Cresco, IA 52136. (319) 569-8358.  
Walt Ebert, 1273 120th St., Plainfield, IA 50666-9647. (319) 276-4444. wngebert@netins.net

District 4 (Southwest): Steve Williams, 2937 102nd St., Villisca, IA 50864-8525. (712) 826-2107. valview@netins.net  
Donna Bauer, 1667 Hwy. 71, Audubon, IA 50025. (712) 563-4084 phone and fax, tdbbauer@juno.com

District 5 (Southeast): Susan Zacharakis-Jutz, PFI Vice President, 5025 120<sup>th</sup> St. NE, Solon, IA 52333. (319) 624-3052. zjfarm@ia.net  
Dan Chadima, Broadmoor Farms, 1097 Echo Ave. NW, Fairfax, IA. 52228. (319) 363-9361. gdchadima@aol.com

PFI Executive Vice President & Treasurer: Dick Thompson, 2035 190<sup>th</sup> St., Boone, 50036. (515) 432-1560.

Coordinators: Nan Bonfils, (515) 294-8512, nanb@iastate.edu,  
Rick Exner, (515) 294-5486, dnexner@iastate.edu, Room 2104,  
Agronomy Hall, ISU, Ames, Iowa, 50011.

Gary Huber, (515) 232-5649, fff@isunet.net, Robert Karp,  
robertfff@isunet.net, Field to Family, 300 Main St., Suite 1, Ames  
50010.



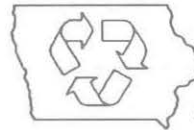
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