

# the Practical Farmer

Practical Farmers of Iowa Newsletter

Vol. 15, #1  
Spring 2000

## PFI RECEIVES NATIONAL AWARD FOR ENVIRONMENTAL SUSTAINABILITY

Rick Exner, PFI's farming systems coordinator traveled to Washington D.C. in April to accept an award, on behalf of PFI and ISU, from Renew America. As the program notes for the ceremony explain "Renew America's 2000 National Awards for Environmental Sustainability honor those who have seized the opportunity to answer the question 'What is possible?' and with their inspiring work are helping to create a sustainable future for us all."

PFI first took honors from Renew America in 1992 for its partnership with Iowa State University. This year it was selected from award winners of the past decade. Again, from the program notes, "By taking sustainable agriculture out of the university research departments and into the fields of working Iowa farms, the PFI-ISU partnership is showing how farmers can reduce fertilizer and pesticide use, improve erosion control, maintain high yields and increase profitability. The key to the partnership's success has been its ability to engage farmers across Iowa in hundreds of scientific field trials of alternative farming methods and farm field days... The partnership is making sustainable agriculture a reality in Iowa and in states like Michigan, Pennsylvania, and Ohio, where elements of the initiative are being replicated."

Renew America honors PFI's partnership with Iowa State University.

(Award continued p. 2.)

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PFI members can take special pride in this encore honor for our commitment to a collaboration that narrows the gap between university research and practical applications. Congratulations all around—to the Ph.D.'s, and to the post hole diggers.

**Editor's note:** Renew America's objective is to spread the word about successful environmental initiatives and promote innovation through a range of educational programs. They also maintain the Environmental Success Index, an on-line resource describing more than 1600 model programs. For more information about Renew America, call 202-721-1545. To see the Environmental Success List, visit [www.crest.org/renew\\_america](http://www.crest.org/renew_america).

## ♪ Sorry about that!

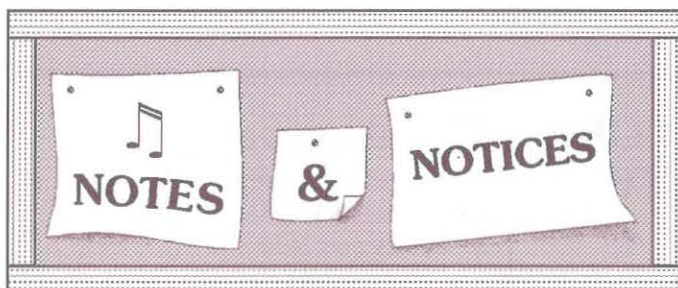
As many readers quickly figured out, the address for the PFI web page was incorrectly printed in some key locations in the last issue of the newsletter. Here is the correct information. Sorry for the confusion. If you're still wandering in cyber space, we hope this will get you home.



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[www.pfi.iastate.edu](http://www.pfi.iastate.edu)

## ♪ Ames Downtown Farmers' Market Grand Opening June 5

The new, improved Ames Downtown Farmers' Market will operate Monday nights on remodeled Main Street. Come on out and show your support for this Field to Family project when it opens on June 5<sup>th</sup> from 2 a.m. – 6 p.m. If you are interested in being a vendor, contact Robert Karp at 515-232-5649.

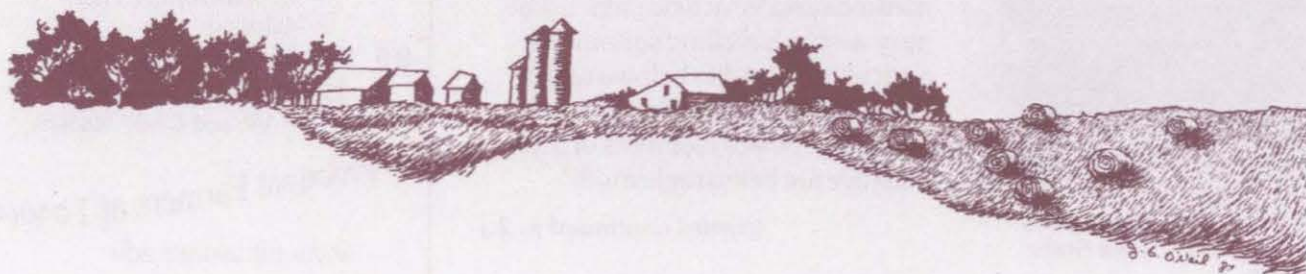


## Let the Wild Rumpus Start. Let the Field Daze Begin.

Once again PFI cooperators and Rick Exner have put together an impressive lineup of field days. This year nearly 40 cooperators will do replicated on-farm research on different farming practices. Trials often compare the cooperator's customary practice side-by-side with an alternative practice. The research is conducted with support from ISU Cooperative Extension and the Leopold Center for Sustainable Agriculture. Field days give everyone an opportunity to see the research as it progresses. They're also a great way to reconnect with people in your community and a fine excuse for fun.

The season gets off to a fast start with Joe Fitzgerald's field day at New Melleray Abbey near Dubuque on Tuesday, June 13. If the flame weeder demonstration isn't enough to attract you, you should come for the Dubuque County Dairy Queen. Gary Guthrie's field day is next on the docket. That's Saturday, June 17, in Nevada. Come for the sweet corn research if you must, but do try the strawberry pies! And then things really start poppin' with no slack till mid-September. Who knows what the summer will bring for weather or markets, but you can count on learning something valuable at every PFI field day.

We'll help get the word out to the public with abundant press releases. In fact, we've been spring cleaning our database of 450 media contacts to smooth the way for well-attended field days. You can lend your support by attending field days in your region. PFI members will receive in the mail a complete guide to the summer field days. For additional copies, contact Nan at the office, 515-294-8512 or [nanb@iastate.edu](mailto:nanb@iastate.edu). Also, keep your eye on the PFI web page for updates. That's [www.pfi.iastate.edu](http://www.pfi.iastate.edu). See you on the hayracks!



## 🎵 CSA Field Day

On Saturday, July 1<sup>st</sup>, from 10:30 a.m. to 5 p.m., Crossroads Gardens CSA will host a field day, at six growing sites in Warren County. The event features first-year vegetable, fruit and flower production. This congregationally-supported agriculture is a multi-producer operation. For more information, contact Jay Robinson, robinjl@storm.simpson.edu. or at 515-961-1520.



make a difference. We are open to new styles. Let Nan hear from you.

## 🎵 Beginning farmer ready to get hands dirty!

Jon Carlson, from Ankeny, is looking for an opportunity to farm in Central Iowa. He has been working with the Minnesota Land Stewardship Project through their Farm Beginnings Program since November and has decided that he is ready to take the next step, which is to work full-time on a farm.

Jon is interested in the following: beef cattle, hogs, sheep, or combination; organic production; grass based-livestock; direct marketing produce and meat. What Jon offers is experience gained on his own family farm; experience running his own business; classroom education in current farming practices and business; mechanical knowledge and experience.



**Jon and Julie Carlson, Ankeny**

Contact information: Jon Carlson, 1410 SW Kenworth Drive, Ankeny, IA 50021. (H)515-964-7458. (Cell) 515-681-8252.

## 🎵 North American Prairie Conference July 16-19

North Iowa Area Community College in Mason City is proud to host the North American Prairie Conference. To receive registration materials or for questions about the conference itself, please contact **Carol W. Schutte**, North Iowa Area Community College, 500 College Drive, Mason City, IA. 50401. Phone 515-422-4319, fax: 515-422-4115, email schutcar@niacc.cc.ia.us. Try their developing web site for more information, also: <http://niacc.com/prairie2000/>.

## 🎵 Still Looking for Volunteers

We are still looking for help with two projects, as listed in the last newsletter. One is overseeing the PFI library. This consists of quarterly phone calls to five "keepers of the books" across the state, followed by a spreadsheet update. Is someone else willing to take this on? It's a job you can do from the comfort of home. The next volunteer should also be willing to do some investigating of the effectiveness of the PFI library system and make recommendations to the staff and board for how it can be improved. Call Nan at the office, 515-294-8512, if you are interested in helping on this.

Also, the quest for a new PFI cap design at a reasonable price goes on. **Donna Bauer** has done some investigating, but we still need help. The goal is to determine a source for a moderately priced cap and report the results of your search to staff and board. Again, it's a job you can work on at home – access to the web would probably be a plus. If you've been complaining about the PFI caps, this is your chance to

## 🎵 PFI Camp 2000 Set for Early June



This year is our 6<sup>th</sup> PFI Camp! The dates are June 7-10 with counselor training beginning on June 6. This year's theme will emerge as camp becomes part of a year-long statewide "Iowa Earth Year

2000" celebration. Best wishes to **Shelly Gradwell** and her staff. Call 515-294-0887 with last minute questions.



## The Editor Muses

It's finals week here on the ISU campus as this spring newsletter goes to press. Signs of the season abound. Those students left in Agronomy Hall are huddled in corners, their noses pressed into text books. Outside, more coeds in less clothing dot the lawns each day. Parking places are easier to find. There's less frenzy and more frivolity as the academic side of life winds down.



But on my fifteen mile drive home there's a flurry of dusty planting on all sides. Once I reach the farm, I encounter more specific bio-indicators, good and bad - Howie, our bottle calf is thriving, but Big Curly Face lost her calf; another row of spinach is up in the south garden, but the deer have found the strawberries up

north; the ewes are glad to see me, but all the men in my life are grouchy. Ahh, spring.

All in all it's a great time to be out and about. It's also a great time to take advantage of some of the best gigs PFI has to offer. Field days are an excellent showcase for PFI's resourcefulness and accomplishments. Make it a point to attend as many as you can. While you're at it, take along someone who might not be acquainted with PFI. New members are always welcome.

We hope to see lots of you central Iowa folks at the grand opening of the Ames Downtown Farmers' Market (see p. 2) on June 5<sup>th</sup>. Look for Deb Cooper and I at the PFI stall. We'll be selling garden wreaths to support the PFI summer camp and spreading the good word about this fine organization.

What can you do to promote PFI? As our membership plateaus, broadening our reach becomes essential to the vivacity of the organization. You can

**The signs say "PFI and proud of it. Ask here or call ..." Am I crazy? Would you buy one?**

be sure that the board will be giving this issue plenty of thought. (See Board Business p. 6.) They want to hear your ideas, too. As always, their phone numbers and emails are printed on the back cover of the newsletter. Tell them about your brainwave, however outrageous it may seem.

How about this one? In my mind I keep picturing PFI signs marking hundreds of driveways across the state. The signs say "PFI and proud of it. Ask here or call 515-294-8512." Am I crazy? Would you buy one?

*Nan Bonfils*

Please note. The deadline for items for the summer newsletter is July 24th. Thanks!



## FIELD TO FAMILY REPORT

Gary Huber and Robert Karp

### USDA SARE Grant to Support Workshops on Local Food Systems

The PFI Field to Family Project will receive a North Central SARE Professional Development Program grant to organize five one-day training workshops across the state on local food systems and direct marketing. A training manual will be created to support these workshops and a four-page Extension publication will also be developed, printed and distributed statewide. Producers and organizers of successful projects in the region, including those funded by NC SARE, will also present at the workshops.



The target audiences for these training sessions and materials will be Cooperative Extension and USDA Natural Resource Conservation Service (NRCS) staff, along with a variety of other key agricultural professionals. Such professionals could be community college instructors in agriculture and culinary arts, economic development professionals, Farm Service Agency staff, Rural Development Council members, community organizers, farmers, retailers, distributors and processors, as well as consumer group representatives, and other non-profit staff.

The objectives of this project are to:

- increase knowledge and understanding of local food system concepts and direct marketing strategies by Extension, NRCS staff and other key agriculture professionals;
- increase the capacity and commitment of Cooperative Extension Service staff, NRCS staff and other key agriculture professionals to engage in partnerships and projects that support local food systems and direct marketing efforts;
- develop an effective local food systems training model and manual that can be replicated for use in other states in the North Central Region;
- share knowledge and experiences gained from existing direct marketing and local food system projects, including those that have been funded by NCSARE.

Other groups partnering with PFI on these training workshops include ISU Extension, the Iowa Network for Community Agriculture (INCA), ISU Department of Sociology, USDA Natural Resources Conservation Service, and the Leopold Center for Sustainable Agriculture. For more information please contact Robert Karp at 515-232-5649.

### Report Available on Food System Interviews

Part of a PFI project being funded by the Leopold Center for Sustainable Agriculture involved a series of personal interviews with contacts among food system participants. The purpose of these interviews was to determine the potential for grocery store and institutional markets to use local foods. Contacts interviewed represented industry associations, restaurants, grocery stores, food distributors and brokers, hospitals, and hotel/conference centers. A report describing the

***... the farmers involved agree that there is value to this [brokering] service, and they also agree that it is appropriate that they help pay for service.***

results of these interviews is now available. To request a copy, please call the PFI Field to Family office at 515-232-5649.

### Brokering Effort Takes Step Toward Self-Sufficiency

PFI's brokering work - which involves helping local conference centers find local foods for meals served to clients - has taken a step toward becoming self-sufficient. One component that has been put in place is a fee system for the farmers involved. Farmers who want to use PFI to help sell their foods to these conference centers must join PFI, pay an annual fee of \$10, and remit 5% of gross sales made through PFI back to the organization. The reaction to this system has for the most part been positive - the farmers involved agree that there is value to this service, and they also agree that it is appropriate that they help pay for the service. So far, about fifteen producers have formally signed up to be part of the supply network. If you are interested in learning more about what is involved, please call Gary Huber at 515-232-5649.

### Karp Named to Iowa Food Policy Council

Robert Karp, a PFI staff person working on the Field to Family Project, is one of nearly twenty people named by Governor Tom Vilsack to the newly formed Iowa Food Policy Council. The purpose of the Council is to identify new opportunities to increase profitability for Iowa producers through diversification, local processing, enhanced distribution, and direct marketing. The research, policy development, and publication activities of the Council will be coordinated through Drake University's Agricultural Law Center.

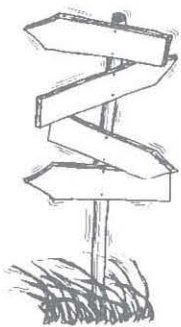




## BOARD BUSINESS

**Editor's note:** In the winter edition of this newsletter (Vol. 14, #4), there was inaccurate information printed about the PFI board on page 13. The correct information is that neither Larry Kallem, who currently serves as an advisory director, nor Dick Thompson, are eligible to vote on board matters.

If you've been keeping up with PFI's big picture, you know that in 1999 the board contracted with Martha Cline, a free-lance consultant, to conduct a feasibility study for our endowed campaign. Martha spoke at the Annual Meeting in Ames and many of you had a chance to interact with her and offer suggestions for donors. Thank you for your participation.



In March, Martha made her final report to the board. She had discovered a great deal about how PFI is perceived by not only its own members, but also the general public. She raised some thought provoking questions which she had uncovered in the course of her work. She advised that PFI was not in a strong enough position to launch a massive fund raising endeavor at this time. The factors guiding her recommendations were related to size of the PFI membership, quality of relationships with potential donors, and resources currently available.

The board may have been disappointed with Martha's conclusions, but in general they were not totally surprised. In immediate response, they initiated a series of email cob rolls to share reactions to Martha's key questions. In addition, they committed to a two day retreat on July 6<sup>th</sup> & 7<sup>th</sup>. The purpose of the retreat is to digest the information in Martha's comprehensive study and to draft options for the future.

***It's just time for some good head scratching. Time to be really imaginative about PFI's future. Time to ask ourselves "What next?" - then come up with some innovative responses.***

If you have any ideas to contribute to this think tank, please contact one of your district directors before July. Some topics to consider are: establishing a clear identity for PFI; expanding membership; cultivating relationships with potential donors; and evaluating organizational structures.

In conjunction with this last item, the board tabled discussion on associate members' voting status until the July meeting. Likewise, discussion of the appropriateness of the ISU Foundation as the endowment fund manager was postponed.

We all need to realize that the feasibility study does not send us back to square one. It's just time for some good head scratching. Time to be really imaginative about PFI's future. Time to ask ourselves "What next?" - then come up with some innovative responses. The endowed fund is alive and well, and additional gifts to support the operating costs of PFI or any of its special projects are always welcome.

Other topics covered at the March board meeting included the following: reports on district meetings (see p. 9); strategy for communicating with members whose renewals are overdue; updates on Field to Family projects and on-farm research; report on the Annual Meeting 2000 and plans for 2001; and announcement of the Renew America award (see p. 1).

The next board meeting will be in conjunction with the retreat described above on July 6<sup>th</sup> & 7<sup>th</sup>. Again, please communicate with your district director. Their contact numbers are on the back cover of the newsletter. The lines are open.

## KEEPING THE ROWS STRAIGHT: YOUR PFI BOARD OF DIRECTORS

In this issue of the newsletter, we complete the series of board profiles which began in the spring 1999 edition of this newsletter. If you weren't yet a PFI member back then and would like to read about ALL the current board members, call Nan at the office, 515-294-8512. She'll be glad to mail you the back issues you need.

Mark Tjelmeland and Dan Chadima were elected to the PFI board in January 2000. They wrote their own profiles.





**Mark Tjelmeland, McCallsburg, leads district 2 with Ron Brunk.**

**Mark Tjelmeland, District 2,  
North Central Director**

I was raised in central Iowa. Growing up on a small farm in the 50's and 60's was a wonderful and nurturing experience. Our farm had dairy and beef cattle, hogs, and chickens, all in small quantities, a few cats and a dog. These, along with the crops, garden and machinery all required tending by the whole family. From kindergarten through 12th grade, I was not much interested in school and, instead, day-dreamed about the work going on at home. I would jump off the bus in the evening ready to help my dad.

After completing high school and a junior college horticultural program, adventure beckoned. I went to Haiti as a volunteer with the Mennonite Central Committee. Living and working in one of the world's poorest nations had a deep emotional impact on me. It was akin to being in a war zone with global economic injustice as the enemy. During this time and subsequent travels in developing countries, I continued to understand third world poverty from a perspective

of colonial heritage and neo-colonial trade policies. I was a long way from home, but there was a connection.

Although my interest and passions in this area were great, the pull of the family farm was stronger. In 1982, I completed a bachelors degree at ISU and returned to join my parents in operating the family farm - hogs were the only remaining livestock and acres were expanded.

Shortly thereafter, I married Connie Klein and soon chickens were back on the place. We gradually increased the laying flock to over 400, while phasing out the hogs. We now sell free-range, brown eggs to grocery stores. The switch from hogs to chickens has turned out to be one of the best farm decisions Connie and I have made. Aside from the economic benefits, it provides safe and educational chores for our son Johnny, age seven.

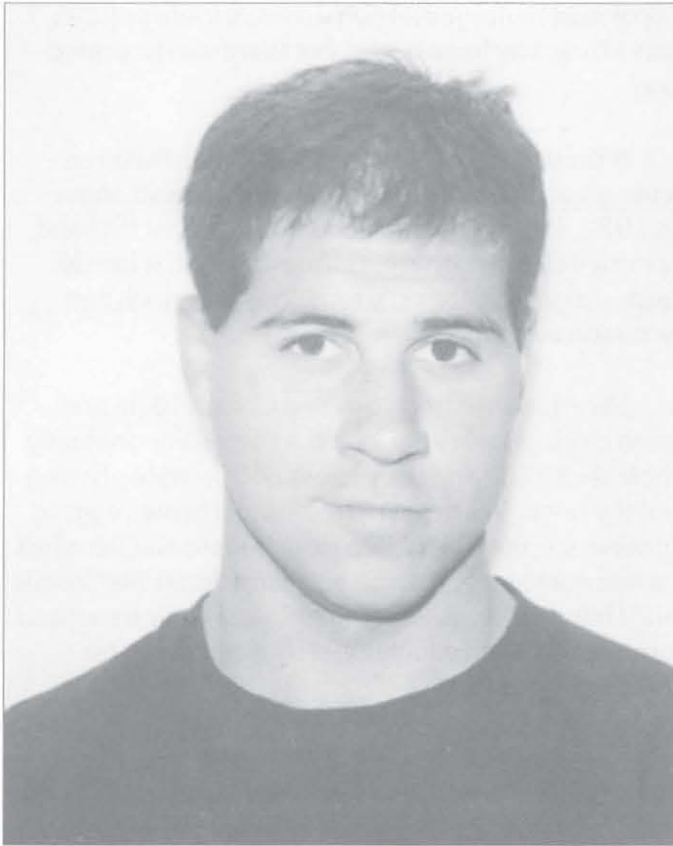
Recently we began production of local ecotype, mixed prairie seed. We have sown 10 acres of prairie and plan to add a little more each year if the market for seed continues to grow. After years of monoculture farming, it gives me a lot of pleasure to return land (albeit, a small patch) to diverse permaculture.

As Connie and I continue to shift some of our farm resources into sustainable practices, we become more aware of the many possibilities. PFI has played an important role in this process. We recognize PFI as a community of friends and like-minded people rich in experience and ideas. We value PFI as an organization that shapes public opinion.

***We recognize PFI as a community of friends and like-minded people rich in experience and ideas.***

**Dan Chadima, District 5, Southeast Director**

I grew up on our family farm near Fairfax, Iowa, southwest of Cedar Rapids. I earned an Ag Business degree from Iowa State University in 1993. After graduation, I worked on our farm for seven months. In early 1994, I took nineteen weeks and went on a



**Dan Chadima, Fairfax, leads district 5 with Susan Zacharakis-Jutz.**

self-guided, solo, backpacking trip through Southeast Asia to determine the Meaning of Life. ANSWER: Do my best.

When I returned from Asia, I went to Des Moines and interned with Farmers Commodities Corporation as a commodity broker's assistant until October. Wanting to put my mettle to the test, I applied to the Peace Corps (PC).

I served as an agricultural marketing extensionist with the PC in Guatemala, Central America from October 1994 through January 1997. I lived in a community of Mayan farmers that had a mini-irrigation project. I worked to link them directly with export companies that would buy their cool weather cash crops (snow peas, broccoli, cauliflower, brussels sprouts, lettuce, etc.) instead of selling through intermediaries. I also wrote a guide on how to figure cost of production with a return to labor calculation. I built solar showers as a sideline project.

Upon completion of service, I teamed up with a PC buddy and we took cash instead of the plane ticket home and struck out south. We traversed the Mosquito Coast of Honduras and Nicaragua where we

***I do not have all the answers, but will do my best to ask the right questions.***

experienced the awesomeness of what Mother Nature can do in a rain forest when we visited the Rio Platano Biosphere Reserve. As a species, we are usually OK until we become stronger than our environment (chain saw versus the stone axe). It seems like once we get over dead center on that, we always like to win and the environment always ends up on the short end of the stick.

We continued overland to Panama. Sugar cane, pineapples, coffee, and bananas. I overlanded it back to Guatemala. From there I hitched a ride on a sailboat to Isla Mujeres, near Cancun and then on to Key West. I drove back to the Midwest from there. Sometimes, the best way to get to a destination is not the most direct or the easiest.

While in Guatemala, I met my wife. She was serving as a small business volunteer. She grew up in the Des Moines and Sioux City areas. We were married in November 1998. We reside in Cedar Rapids.

After the PC, I came back to Iowa to work on our family farm with my brother and father. We raise about 1,200 acres of corn, soybeans, oats, hay, rye/wheat and have a small cow herd. During the winters of 1998 and 1997, I worked with the Iowa Farm Business Association branch of Murk-n-T in Swisher, IA compiling and entering the information for the farm income enterprise analysis. I learned a great deal from this. My goal is to run a well-managed business that produces, processes, and markets organic specialty crops.

I serve on the board of directors at Iowa Soy Specialties (ISS) in Vinton, IA. ISS processes commercial non-GMO and organic clear hilum soybeans into soy flour/meal and textured soy protein.

I am honored to be elected to the board of PFI. I do not have all the answers, but will do my best to ask the right questions. I love to get e-mail.

Gdchadima@aol.com







Lorna and Carla Wilson catch a chat with Mary Swalla Holmes at the District 1 meeting in March.

## DISTRICT MEETINGS KEEP PFI MEMBERS CONNECTED

### District 1 Finding Your Niche

Colin Wilson, Paullina

District 1 held their annual meeting on March 18, 2000, at the Lakeshore Cafe in Storm Lake. Our topic was "Niche and Alternative Markets."

**Mary Swalla Holmes**, ISU Extension Local Foods System Specialists was our discussion leader. She started with a little history on value added marketing and then led a good lively discussion on the opportunities and the pitfalls in niche markets. We covered quite a range of topics from CSAs to ethanol production. Even though our numbers were small it was a very good meeting and I think everyone learned something as well as enjoyed the fellowship.

### District 2 Try Something Different

Mark Tjelmeland, McCallsburg

Our district did not hold a meeting this past winter. Attendance at the 1999 district meeting was poor, and there were few suggestions from members for a program in 2000. The one response that comes to mind went something like, "Do we really need another meeting to attend?"

So in February, my wife Connie and I hosted a different kind of meeting in our home. We invited four

other PFI farm families to join us for a Sunday potluck dinner and afternoon of conversation. We asked each guest to come prepared to talk about the following: (1) the goals for your farm; (2) some things that are working out well; and (3) something you had high hopes for that did not work out.

Those three topics were enough for a full afternoon of freely flowing conversation about our farms and our lives on the farm. Here is what one family had to say about this kind of meeting. "We'd like to thank you for arranging the informal get-together this past weekend at your farm. It seems like there never is enough time to talk about the things that are important, and although five hours was a long time, it still wasn't long enough! We particularly enjoyed meeting new people and feeling the common thread we share of trying to 'make it' on the farm. It seems we don't often take the time to think, talk and listen to the things that are important to us and others. This afternoon was a good chance for that."

I am so thankful to have been a part of this kind of meeting. Perhaps small home gatherings could replace our district 2 winter meeting. Please let your District Directors know what you think. Ron Brunk is at 515-858-3239. My number is 515-434-2440.

### District 3 Travel by Gravel

Mike Natvig, Cresco  
Walt Ebert, Plainfield

District 3 of PFI held its annual meeting on a beautiful early spring afternoon on Saturday, March 4. The location was in northeast Iowa on the campus of Upper Iowa University in Fayette. The crowd of members and nonmembers alike came to hear from a lineup of progressive regional speakers. The wide-ranging topics of discussion were on the Iowa Organic Program, Community Supported Agriculture, Farmers' Markets, Agri-Tourism, Sustainable Forestry Co-ops, and local organic livestock processing.

Maury Wills of the Iowa Department of Agriculture and Land Stewardship talked about updates on the new Iowa Organic Program. Maury said that they are now ready to accept applications from producers for certification. The processing and administration of the farmer's certification will be handled from their Des Moines office. A third party from the Iowa Indepen-



dent Organic Inspectors Association will do the actual on-farm inspections. Fees and standards have been worked out and an "Iowa Organic Seal" has been designed. It is to be used by the growers who certify to help them advertise their local organic products.

**John Stettler** of the Hiawatha Sustainable Woods Cooperative, located near Fountain City, Wisconsin, talked about the relatively new idea to the Midwest of sustainable forestry cooperatives. In our area there is a pressing need to help non-industrial private forest owners protect their forests from over cutting and mismanagement. John said that the purpose in forming a local forestry coop is to maximize the long-term aesthetic, ecological, economic and recreational benefits from our area forests. This is achieved through environmentally responsible forestry that includes education; professionally trained foresters and loggers; locally-based, value-added manufacturing of wood products; and third party certification of sustainable forestry practices by the Forest Stewardship Council. It is a way to return "whole economics" to the local community by harnessing the decision-making incentive of individual landowners, by placing the responsibility for environmental health back into the hands of local people and communities, and by improving and conserving a natural resource for this and future generations.

**Virginia Moser** reported to us about the status of the plans for a year round farmers' market in Waterloo. Although there has been a setback in those plans, when this venture gets started it will provide a market for a large amount of locally grown food.

**Peter Jorgensen** talked to us about the economic possibilities of "farm tourism." The world is in awe of the accomplishments of American agriculture and will pay to get a look at it. Many Americans' parents and grandparents farmed and they want to show their children their heritage and experience their own memories.

For example, the "Maize Maze" at Elgin, IA was a huge success where thousands of people paid to visit the maze last year. The story of a family from New York City who was visiting the maze gives us an idea of what the thinking of the visitors might be. The family was asked what they thought would be a fun thing to do while they were in Iowa. Their reply was, "We want to drive down a gravel road."

**Jeff Klinge, Dan Specht and Greg Koether** have been investigating the feasibility of establishing a plant to slaughter and process locally produced livestock. The processing would be done to strict standards to meet the requirements for marketing in the organic and niche markets. They were planning a trip to New Zealand to inspect these types of plants. This technology is far advanced there. At this writing, they have made the trip and they were very encouraged by what they saw there. It was reported that Dan, Jeff and Greg had a good time!

## District 4 Potluck

Donna Bauer, Audubon

District 4 members met at the "Bear Creek Unprogrammed Friends Meeting House" in Earlham on the evening of March 9. Following a wonderful potluck supper sprinkled with lively conversation, two speakers gave presentations. **Maury Wills**, Organic Program Administrator at IDALS, updated PFI members in regards to regulatory guidelines for organic crop production. Later, **Francis Thicke**, dairy farmer and direct marketer near Fairfield, gave a presentation which included slides of his production and processing operations.

## District 5 Got Milk?

Dan Chadima, Fairfax

Ahhhh, heavenly organic milk and cheese, tasty treats with Iowa grown nuts, and a meatless BBQ mix of non-GMO textured soy protein. Mmmmmm. These member-produced products fed a hungry group of about twenty people at the District 5 meeting on Saturday, March 25 at the Johnson County fairgrounds. In addition to the smorgasbord of food, topics of the day ranged from value-added personal hygiene and dairy products to financial analysis. For five jam-packed hours we ate well and discussed how

***The [New York City] family was asked what they thought would be a fun thing to do while they were in Iowa. Their reply was, "We want to drive down a gravel road."***



***For five jam-packed hours we ate well and discussed how PFI members are managing their businesses, improving the environment and their lives.***

PFI members are managing their businesses, improving the environment and their lives.

**Dan Chadima** led off with a discussion and handout about how to use enterprise analysis to calculate cost of production for different aspects of a farming business. Record everything and stop doing things that do not make money. **Tom Wahl** talked about nut and tree crops. Tree crops are great for conserving land and can have a satisfying payoff crop after a few years. **Donna Wisnousky** told us how she got started making homemade herbal soaps using her own herbs. What a great way to add value to products she is growing! **Regis Zwiegart**, an OCIA certified organic farmer, talked to us about organic certification and the outreach efforts of OCIA of Iowa, Chapter 1. **Ed Broders** shared his experiences with grazing feeder cattle on standing corn. He assured us if we could get over the mental anguish of seeing a herd of cattle cut loose in a perfect corn field in early fall, the financial returns are there. **Francis Thicke** gave a great overview, complete with slides, of his organic dairy operation and on-farm processing that put more of the retail price of dairy products back into the farm. **Rod Stevenson** talked about the progress of Iowa Farm Fresh Poultry. This group is evaluating the feasibility of a poultry-processing facility in Iowa. **Dave Lubben** showed great slides on how he manages his 150 head of beef cows in a rotational grazing system to maintain his land and bottom line.

Francis Thicke provided milk and cheese from his dairy. Dan Chadima brought a meatless BBQ sandwich mix of textured soy protein from Iowa Soy Specialties in Vinton, Iowa. The textured soy protein is made from non-GMO, clear-hilum soybeans that Dan's family farm grows for Iowa Soy Specialties. Tom Wahl and Kathy Dice were a-crackin' nuts and had some scrumptious walnut bars that quickly disappeared.

Special thanks to Joe Wisnousky for organizing the whole shebang. Thanks also to all presenters and attendees. Just remember, as Francis' T-shirt says "Have patience – in time grass becomes milk." 🐄

## HAMMOCK REFLECTIONS FROM EL SALVADOR AND IOWA

Gary A. T. Guthrie

Have you ever noticed that when you lie in a hammock your world view changes? Life slows down as you slowly rock back and forth drifting away. Your body relaxes and all of those immediate cares soon dissipate as you look up at the clouds passing by or you begin your nap. I have coined a name for a disease called hammockitis that can only be cured by laying in a hammock for a fair amount of time. The main symptom of hammockitis is a general feeling of being disconnected from our world and people.

(Hammock Reflections continued next page.)



They only WISH they were hammock swinging! Nancy, Eric, and Gary Guthrie.



Nancy, Eric and I had ample opportunities to cure our hammockitis when we returned to El Salvador in March this year. We had departed in March of 1990 leaving behind many friendships developed during the difficult times of the twelve year old civil war. From 1987 to March 1990, working for the Mennonite Central Committee, we had administered a fertilizer loan program to 180 families in San Jose Guayabal.

The purpose of our recent trip was to reconnect with our friends and for Eric to experience his mother country where he was born. We spent many days of our two weeks walking out to the villages visiting friends. You have to understand that when we visited it was not just for an hour or two. One man took us to his newly constructed home. In October of 1981 he had fled his community located on Guazapa mountain thinking he would be able to return in a couple of weeks. He left all of his beans and corn harvest in his home and fields. Sixteen years later he was finally able to return to his community. It was a joy to walk with him in a community that we could not visit before. We ate a lunch of thick white corn tortillas, beans and eggs. Their tortillas fill you up and stay with you all day long. It wasn't until late afternoon after harvesting some mangoes that we made our way back to town. It had been a long time since I had hung-out with a friend "doing" nothing all day long. Most of our two week trip was filled with these kind of visits, along with Eric playing soccer with his Salvadoran friends.

Lying in the hammock I reflected upon the changes that have taken place the past ten years. We arrived the day of mayoral and legislative elections. The FMLN opposition party that ten years ago was fighting against the government, won the election! It was unthinkable that this could happen a decade ago. It was good seeing the government investing in infrastructure such as improved roads, electricity to many villages, water projects and competition in the telephone business. Ten years ago there were five private phones in our town. Now there are 200 and at more affordable prices. We attended a meeting of a

group of families in one community where ten years ago there would have been tension in the air wondering if the Salvadoran military would pass by and interrogate us. Now the people can freely associate without fear.

I was struck, however, by the similarities between my friends' economic situations and those of my Iowan friends. The global "free" market economy is devastating to all farmers. The basic commodity prices for their corn and red beans are so low that it is nearly impossible for them to pay back their fertilizer loans. On a national scale the government has abandoned the ag sector because from my perspective they see it as a lost cause. Even coffee has been abandoned to some extent because of low coffee prices. It is difficult to make investments where there is little promise of return.

To make ends meet, many look for off farm income, not unlike Iowans. One friend's wife works in a garment factory in San Salvador working 12 hour shifts for 4 days on, 4 days off. We figured she was earning about 50 cents/hour. By the time you add up transportation, some rent where she stays with friends, and meals, they are not saving much.

It was sugar cane harvest time during our stay. Some farmers hire themselves out to harvest the blackened burnt canes. They burn the canes to burn off the leaves. This makes the harvest easier for cutting and piling. We encountered two friends coming home after a days work. They were black with soot from head to toe.

I returned to Iowa with a deeper conviction that PFI and INCA are on the right path. We need one another, we need to look for ways to make the local and international connections. We need more farmer to farmer programs where we can learn and be inspired by one another's lives and nourished by our friendships. Food security issues are and will be critical in the years to come. National governments have a right to protect their own food security, yet with the new treaties we are allowing the multi-national corporations to establish economic serfdoms around the world where the farmer is basically serving as a slave to the corporations and if they don't participate then essentially they are expendable social capital. It is not

***I was struck, however, by the similarities between my friends' economic situations and those of my Iowan friends.***





***I returned to Iowa with a deeper conviction that PFI and INCA are on the right path. We need one another, we need to look for ways to make the local and international connections.***

a comfortable sight seeing your close friends covered with soot.

Yet I was encouraged to hear about some projects working with organic agriculture in El Salvador. We ate some organic produce one evening in San Salvador at a friend's home. I heard that a Christian Base Community has hired someone full time to work on permaculture in their communities. They also have developed a campesino to campesino program, encouraging farmer to farmer contact. I was amazed to see that a farmer, who I had worked with building ditches on the contour on his land, had expanded the ditches just last year. A seventy-five year old man named, Joseph Mary Joy, building for the future. I thought for sure he would have abandoned the work I had started with him.

Is anyone interested in a delegation trip to El Salvador say in January some year?

So the next time you are feeling disconnected or feel a little hopeless, you are welcome to come visit Growing Harmony Farm. We'll set out our hammocks, I'll serve you some home grown and home made pie, and we'll see if we can make some connections and cure your hammockitis. Call 515-382-3117 to reserve your spot under a tree! 🌳

## **"INTERNSHIPS IN SUSTAINABLE FARMING: A HANDBOOK FOR FARMERS" BY DOUG JONES**

Review by Nancy Grudens-Schuck, Department of Agricultural Education and Studies, ISU

**Editor's note:** This booklet is available from Northeast Organic Farming Association of New York (NOFA-NY), \$6. P.O. Box 21, South Butler, NY 13154. Phone: 315-365-2299.

This 1999 booklet goes right to the heart of the matter of attracting and hosting interns and apprentices on organic and sustainable farms. The introduction to this compact booklet suggests that the valuable information inside its covers was produced only from a 'study,' but that's not quite true. The book is also the product of more than 30 years experience by the farmer-author Doug Jones. Doug has hosted countless young people on his small-scale organic farm in New York's North County, and has steadfastly supported other farmers trying to do the same thing.

I first met Doug because he recruited me as a recent ag college grad to work on developing an organic farming cooperative. I also met my husband-to-be because Doug had helped him to apprentice on a nearby farm. Sustainable ag internships are anything but impersonal to me!

Over the years, the farming internships sometimes went well; sometimes ended badly. The advice contained in this booklet is informed by practical and seasoned experience with the real life of young people on farms. The booklet covers important issues like: systems for attracting and selecting interns; clearly communicating expectations and arrangements; getting feedback on an ongoing basis from everyone involved; and dealing with labor and tax regulations. The text also shares ideas about living arrangements, recruitment, and ways to augment the on-farm experience through learning experiences on neighboring farms.

One big idea to be clear about is whether you believe the intern relationship is primarily educational (mentor/intern), or primarily economic and production oriented (employer/employee). This booklet fits situations where there is a sincere commitment on the part of the farmer to provide an educational experience, in addition to receiving work as part of the trade.

***...special problems...farmers have faced include interns from urban areas, with non farm backgrounds who bring along a romanticized view of farming and then have difficulties making the transition from urban to rural.***



***... the importance of figuring out eating arrangements beforehand. ...what can you and your family support in the way of scheduled meals, cooking and food choices?***

Most of their interns are novices in sustainable farming, whether experienced with farming or not. Some of the special problems Doug and other farmers have faced include interns from urban areas, with non farm backgrounds who bring along a romanticized view of farming and then have difficulties making the transition from urban to rural. Other problems include health and safety issues that arise on the farm; unclear health insurance; and conflicts that seem to arise from personality clashes. Over the years, former interns have also levied complaints about some hosts who, at various times, ordered them around, seemed to give only negative feedback, or failed to provide accommodations or compensation that the intern was led to expect.

This booklet faces these and other challenges honestly, and provides ideas on ways to prevent or handle such occurrences. Some unexpected topics are addressed, such as the importance of figuring out eating arrangements beforehand. For example, what can you and your family support in the way of scheduled meals, cooking and food choices? Does this work with the person you anticipate hosting?

Also, Doug discusses ways to enhance an intern's educational experience that may not occur to many farmers. These ideas seem to be within the framework provided handily by many PFI farmers. They include the following: visiting other farms in your area; attending conferences, field days and workshops; keeping a lending library of books, magazines and videos; and hosting intern gatherings. These events can certainly be as much fun for the farmer as for the intern.

In preparation for writing this booklet, Doug conducted systematic research through two small grants, so this book is special indeed. It combines careful study and checking with his peers as well as many years experience and a dedication to personally educating people who care about sustainable farming.

## **FOOTPRINTS OF A GRASS FARMER** **Busy with the Hammer and Screwgun**

Tom Frantzen, Alta Vista

Pasture farrowing dates back to the 1930's on this farm. My father raised hogs this way because he could not afford to build any buildings. In late March Dad would have the first litters of the year born in portable 12X16 buildings. During the summer and fall months he used wood frame tin covered huts for farrowing in the pasture. His huts were a very simple design and light enough that one person could carry them around. They actually were two half shelters nailed together. Nothing about their design was fancy or really durable. However they probably meet the definition of the ideal hoghouse: they paid for themselves in three years and self destructed in five! When I started farming in 1974 they were mostly junk.

***...the ideal hoghouse: they paid for themselves in three years and self destructed in five!***

I built ten new huts that year. I used the roof metal from a manufactured corn crib. This was bolted to 4X4 wood runners. The ends were wood as well. They worked well enough but they were prone to wind damage. I bought 15 A frame huts from a retiring neighbor a few years later. They were far less likely to be damaged by winds. About ten years ago I bought 20 used Port-A Huts at a sale yard. I had the local lumber yard build me 8 new A frame huts at the same time. These were carefully designed to be durable. I used this combination of hut designs over a 24 year period.

When I wanted to try farrowing in hoop buildings, I went to an ISU-PFI sponsored tour to see how they did it. I was impressed enough to build 21 huts similar to the Illinois Modified A frame that they used. My design improved the roof and allowed for a rear ventilation-access door. My door design allows for easy movement of the hut with a loader, especially with a tine bucket. I used oak, specially cut, to build a strong roof frame. In two years of use I have come to really appreciate this feature. Compared to the other huts this design is the most durable. I have had no



wind damage. It is far warmer in the cold and it is cooler in the heat. There is no question about the operator safety that it provides when one is working with little pigs. I think that it reduces death loss but I am unsure as to how much.

I remodeled both of my indoor farrowing facilities. I eliminated the pen arrangement that I used since I tore out the crates in 1991. New doors were built for both buildings to allow for these huts to be put inside. One building holds 9 huts and the other has room for 12. This is my second year of farrowing indoors in huts with auxiliary heat. These huts go from the pasture to these rooms in November and remain there until May. One distinct advantage of this system is that I get a full 12 months worth of use from huts that usually had a 6-month use before. Theoretically this should shorten the payback period and lessen the life expectancy as well. Remember the ideal hoghouse definition?

Last November I built 5 modified A frame huts of a new design. I wanted to improve the indoor space utilization, improve visibility and lessen death loss. The new hut has the exact frame dimensions as the other Modified A frame. The roof is entirely different. This design sheds all of the water to the rear. The access door is to the front instead of the rear. It is a full access door of the same dimensions as the other hut but this design lock securely shut or locks half open. The door can also be fully opened. All of the characteristics of this door are stronger and more flexible than the first hut. Since the door is to the front I have eliminated the 8" spacing needed on the other hut to keep it away from the wall. The doors will not open all of the way and you cannot step behind that hut without that space. This gives the sows another 16" of alleyway when two rows of huts are in a room. The front door sheds full light into this hut. I have used a flashlight to check pigs with the first design. The

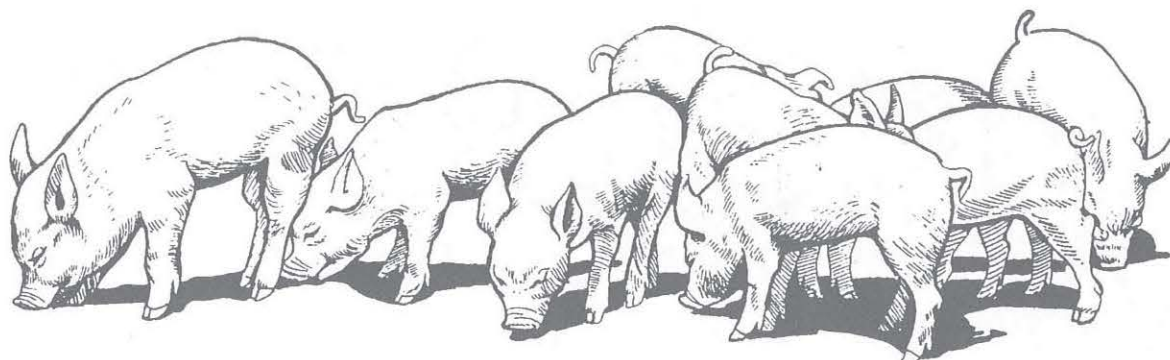
***This is a simple design and I will have it on the PFI web page soon...when compared to any other farrowing setup that I have used, it is the lowest in labor requirements.***

single sloping roof allows more space for the pigs and less for the sow. I was hoping that this would reduce death loss but I am not convinced that does at this point. I have a front door insert that prevents little pigs from leaving the hut for a week. This is a simple design and I will have it on the PFI web page soon.

Overall I like the new design and consider that it is an improvement over the other huts. I am greatly interested in internal changes that could be made to lessen crushing. I will mount some rail guards in some of these huts and see what happens. I intend to write down the number of pigs born and the number alive in a week inside the roof of the new huts. This should give some sense of direction when we wonder what to do to improve the death loss.

One observation that I have of this system is that when compared to any other farrowing setup that I have used, it is the lowest in labor requirements. Farrowing, moving pigs and cleaning out are all easier than before.

If you are interested in the concept of low labor, non confinement crate farrowing please visit that PFI web page. Send in pictures of what you have done or would like to do. There is a lot to learn and we can do so much if we work together.





## IOWANS TODAY WILL PAINT THE FUTURE PORTRAIT OF OUR LAND

New Book Available from DNR

**Iowa - Portrait of the Land**



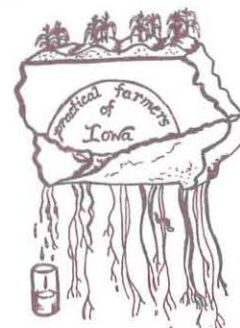
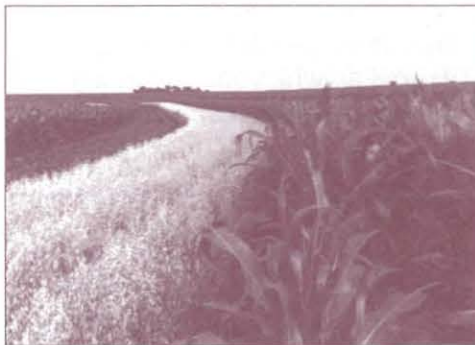
In celebration of Earth Day's 30<sup>th</sup> anniversary, the Iowa Department of Natural Resources published **Iowa - Portrait of the Land**. This

92-page book provides a look at Iowa's natural resource history, the status and trends of those resources and a challenge for all Iowans to pass a healthy land ethic to those who follow.

In his forward, Paul Johnson, DNR director, states **Iowa - Portrait of the Land** is a story about this land we call Iowa and our place in it. "It is now our turn to help paint our portrait on the land. We will add color everyday as we make personal and community decisions on how we live. Let's paint a landscape in which our children and all of creation can thrive."

**Iowa - Portrait of the Land** offers a combination of enlightening reading and a beautiful array of color illustrations, in a format designed to make it both a quality keepsake and valuable reference tool. Copies can be purchased for \$5 by writing the Iowa DNR, Wallace State Office Building, Des Moines, Iowa 50319-0034, or by calling 515/281-5918. Or try [www.state.ia.us/dnr/portrait/portrait.htm](http://www.state.ia.us/dnr/portrait/portrait.htm) for a full electronic preview.

**Editor's note:** The photos on this page are not from the DNR book, although they certainly deserve to be part of the Iowa portrait. They are gems from the PFI files. I selected them to remind us of the designs we impose on the land in the choices we make every day.





# PFI 1999 ON-FARM TRIAL RESULTS – II

(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. As we go to press, the corn is coming up and producers are making final fertility adjustments. Here are nitrogen trials from 1999, featuring cooperators from PFI's collaboration with the Iowa Farm Bureau. Organic livestock operations face special challenges with internal parasites. Susan and Frances Zacharakis-Jutz report on their investigation of several alternative treatments. And as you enjoy your spring scallions, take a look at Angela Tedesco's discoveries on growing onions.)

## Nitrogen

The PFI on-farm research program has seen a resurgence of nitrogen trials with the addition of cooperators associated with the Iowa Farm Bureau. Not that we have nitrogen all figured out with the first 70 replicated trials! Yes, the late spring soil nitrate test saved people over \$6 per acre, and the fall stalk test now provides a good end-of-season snapshot of nitrogen status. But what do you do in a year like 1999, where for most producers (stop gloating,



Dave Struthers compared two nitrogen rates in 1998, three in 1999.

## 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. Two-Treatment Nitrogen Rate Trials in Corn**

	LOW RATE TRT			HIGH RATE TRT				
COOPERATOR	YIELD (bu)	N RATE (lbs N)	STALK NO <sub>3</sub> -N	YIELD (bu)	N RATE (lbs)	STALK NO <sub>3</sub> -N	RATE DIFF.	LSNT (ppm)
(AFTER SOYBEAN)								
HARVEY	171.4	120	2,820	170.3	200	4,775	80	—
LUBKE	153.8	38	53	160.1	70	58	32	15
SIEVERS	194.9	154	2,737	197.4	204	2,670	50	42

northwest Iowa) the rain stopped just long enough to get the corn planted?

In 1999, **John and Joan Lubke**, of Ridgeway, worked with IFB rep Ron Fairchild to compare nitrogen rates for corn following soybeans. The late spring soil nitrate test was 15 ppm. The critical level of 25 ppm left John 10 ppm, or about 80 lbs fertilizer N short. He compared late-June sidedressings of 32 and 64 lbs of N as 28% UAN, so both rates fell short of what the late spring soil test suggested. As it turned out, 1999 was not the year to underestimate corn N requirements, at least not in northeast Iowa. In July Lubke recorded 9.8 inches of rain, and it is likely that additional nitrogen was leached out of the root zone. Even though yields were respectable, at the end of the growing season, stalk nitrate-N levels in both treatments were far below the 700-2,000 ppm optimum range (Table 1). John now wishes he had tried a higher nitrogen rate, and he hopes to do so in 2000.

At the other end of the sufficiency spectrum, **Brad and Chris Harvey**, Akron, fall-applied what he calculates as 120 lbs N in 5,000 gallons of liquid manure in the fall of 1998, then came back in 1999 and sidedressed an additional 80 lbs of N as 28%

UAN in strips (Table 1). The fall stalk test showed both the low and high rate treatments to be well over the target range of 700-2,000 parts-per-million (ppm) nitrate-N. In fact the high N treatment measured nearly 4,800 ppm. This was a demonstration of "what not to do," and Brad hopes that his northwest Iowa neighbors will get the point and use their manure to best advantage.

**Bryan and Lisa Sievers**, New Liberty, sidedressed an additional 50 lbs of N as anhydrous ammonia on top of 154 lbs N from preplant and planting operations (Table 1). This was another demo of what not to do when your late spring soil nitrate test says 42 ppm (25 ppm is sufficient). The two-and-a-half bushel yield difference wasn't close to being statistically significant, but even if it were real, it wouldn't pay for the fertilizer and application.

**Dave and Becky Struthers**, Collins, bit the bullet and included a zero-N treatment in their 1999 nitrogen rate trial. Table 2 shows that there was no yield difference between 100 and 140 lbs N, which isn't surprising given the late-spring soil nitrate test of 27 ppm. The zero-N rate did average significantly lower than the 100-lb and the 140-lb rates. But

**Table 2. A Multiple-Treatment Nitrogen Trial**

COOPERATOR	CROP	PREVIOUS CROP	YIELD SIGNIFICANCE	TREATMENT "A"				
				DESCRIPTION	YIELD (bu. or T)	STAT.	TRT COSTS	\$ BENEFIT
STRUTHERS	CORN	CORN	*	0 NITROGEN	112.9	b	\$0.00	



## Two-Treatment Nitrogen Rate Trials in Corn

STALK N SIG.	YIELD DIFF.	YLD SIG.	YLD LSD	LOW RATE \$ BENEFIT	GAL. DIESEL EQUIV.	COMMENT
*	1.1	NS	—	\$15.94	19.1	SIDEDRESSING MAY HAVE CUT STAND, BUT NOT SIGNIFICANTLY
NS	-6.4	*	3.4	-\$5.51	7.7	RECEIVED 9.8" RAIN IN JULY
NS	-2.5	NS	4.1	\$14.27	11.9	ONLY THREE REPS OF STALK AND SOIL NITRATE

consider these yields from replications of the zero-N treatment: 80.0, 130.4, 147.4, 144.9, 108.5, 65.9. As you can see, the zero-N treatment did fine in the middle of the field. This is not revealed in the overall averages. Is this an argument for precision agriculture? Is there a more location-specific way to take the late spring soil nitrate test? Would it be economical? The truth is out there.

***The zero-N treatment did fine in the middle of the field. This is not revealed in the overall averages.***

### Alternative Parasite Control in Dairy Goats, An On-going Study

Frances Zacharakis-Jutz, Blazing Stars 4-H Club,  
Solon IA

(Editors' note: These reports from Frances Zacharakis-Jutz and her mother, PFI board member Susan, are reproduced here at some length. This on-farm research is the first of many PFI trials with alternative worming practices, and we want members to have



Frances Zacharakis-Jutz prepares a fecal sample for egg examination while her mother Susan chats at the field day.

some idea what the issues are and how this research can work. If you would like to get involved with this research, contact Rick Exner, 515-294-5486.)

### Introduction

When I was five years old we got our first dairy goat. As soon as I was old enough, I started showing goats in 4-H shows. Three years ago we started a goat dairy. Now we have 47 milking does and 35

## A Multiple Treatment Nitrogen Trial

TREATMENT "B"					TREATMENT "C"					OVERALL COMMENTS
DESCRIPTION	YIELD (bu. or T)	STAT.	TRT COSTS	\$ BENEFIT	DESCRIPTION	YIELD (bu. or T)	STAT.	TRT COSTS	\$ BENEFIT	
100 LBS N	137.4	a	\$16.92		140 LBS N	138.7	a	\$21.80		AVG. STALK NITRATE ADEQUATE IN ZERO- N, BUT 2 REPS YIELDED POORLY



kids. We also have 50 ewes, 75 lambs and 30 pigs, all of which we are trying to raise organically. Because, at this time, organic standards do not allow the use of chemical wormers, we are always looking for alternative ways to deal with parasites.

At the beginning of this year my mom and I decided to do a research study on alternative wormers with Practical Farmers of Iowa (PFI). Our plan is to make this an on-going research project until we have found an herbal wormer that works and is reasonably easy to give to the animals.

## Parasite Cycle

It is normal in nature to find internal parasites in animals and humans. However, internal parasites (worms) can be very destructive, especially in young animals. Worms can affect growth, development and performance. Worms can also cause tremendous economic loss, poor health, discomfort, and sometimes death.

Under most conditions it is impossible to have a worm-free herd, so it is important to have a program that reduces worms to a safe level in your animals. A healthy diet, a clean environment, an understanding of the parasite cycle, and the monitoring of internal parasites through regular fecal sampling are important factors in developing a good internal parasite management program.

There are several different kinds of internal parasites in ruminants. Nematodes and Cestodes are two of the major internal parasite classes. A third is the Flukes, which can cause serious damage. However, they are more commonly seen in areas with high snail population levels. The most common kind of parasite egg we found in our study was that of the *Haemonchus* Nematodes (roundworms).

## Treatments

Most wormers are designed to decrease the amount of eggs in the animal by killing the adult worm and/or killing the eggs. Reducing the level of eggs will reduce the level of re-infection and therefore reduce the worm level in your animal. Before the use of synthetic wormers became a common

practice, many types of plants were used. Some of those most frequently mentioned in books on herbs are garlic, wormwood, tansy and tobacco. These have been used individually and in herbal mixtures. There are also homeopathic preparations available, which are made from plants as well.

When we began to look for alternative wormers, we found that there are several commercial, "natural" wormers for goats and sheep available through various catalogs and web sites. However, we found that many of these herbal mixtures have not been tested in a reliable way. The companies could tell us about people with small numbers of animals who reported that a certain brand of "natural" wormer had worked for them, but we were unable to locate any comparison studies done with commercial dairy goat herds or flocks of sheep over 50 ewes.

We decided to use a liquid herbal mixture of black walnut, cloves, Echinacea, hyssop, and wormwood along with a vitamin and mineral extract developed by Groff Brothers Farm, in Pennsylvania. Although they had not researched the use of the herbal wormer on goats, they had a study in progress using it with horses, and some neighboring farmers were reportedly using it successfully with their dairy herds.

For the chemical wormer we needed something that is approved for use in dairy animals. There are only two – Panacur and Ivomec Pour-On (Eprinex). We decided to use Panacur, since we had used it successfully in the past.

I decided that I would collect the fecal samples, and Dr. Allan Beyer, at the West Branch Animal Clinic, agreed to read the samples for us. In each case, the individual fecal sample was collected fresh from the goat, sealed in a plastic Ziplock snack bag, and refrigerated until delivery to the vet the next morning.



On April 22, we took composite fecals on each group of milking does and on the penned group of sheep. The milking does in the big barn were positive for roundworms, so we decided to do the study with the older does in our big barn rather than the younger does, which continued to sample negative for worm eggs. Originally when we designed our study we had planned to use a control group (no wormer), but once we saw the



level of eggs present in some of our does we decided we could not take the risk of compromising their health. The composite fecal on the ewes showed a high positive for worms, and we decided to withdraw them from the study because we were not confident we could monitor their health as closely as we could that of the does.

***A healthy diet, a clean environment, an understanding of the parasite cycle, and the monitoring of internal parasites through regular fecal sampling are important.***

From the does in the big barn we randomly selected 12 individuals and took a fecal from each on April 29. We split this group of does in half and treated one group of six with the herbal wormer from Groff Brothers Farm and the other group of six with Panacur. The does were weighed individually and treated according to the following recommended dosage level:

Herbal wormer – 30cc for a 175# doe once daily for 10 days

Chemical wormer – 7cc for a 175# doe one time (1cc/25#)

All the does were given the prescribed dose of wormer on the morning of April 30<sup>th</sup>. The does in the herbal wormer group continued to receive their appropriate daily dose each morning for ten consecutive days. All the does in this study lived in the same pen and received the same feed and hay ration. They were milked twice daily.

### Results – Study #1

On May 20, fecal samples were collected from each of the 12 does. Much to everyone's surprise, ours and our vet's, all 12 does had a significant number of worm eggs present in their feces. Overall, the herbal does showed slightly fewer worm eggs than the chemical does (a nonsignificant difference, Figure 1).

Because we were concerned about the health of these does, we decided to do another herbal-vs.-

chemical comparison, but this time we would use Ivomec Pour-on as our chemical wormer. We did not take additional pre-test fecals before this second trial. Instead we used the post-test fecals taken May 20. The does were weighed on the morning of May 27 and dosed according to the following recommended dosage level:

Herbal wormer – 30cc for a 175# doe once daily for 10 days

Chemical wormer – 8cc for a 175# doe once (1cc/22#)

The does in the herbal wormer group continued to receive their appropriate daily dose each morning for ten consecutive days.

A post-test fecal sample was taken on June 17. This time there was a significant difference between the number of eggs found in the herbal group and in the chemical group (Figure 1). Five of the six does in the chemical group showed a reduction in eggs, while four of the six does in the herbal group had an increase in the number of eggs found. One of the does in the chemical group that showed a 4+ on the post-test following the Panacur chemical wormer trial was treated with Ivomec but died soon after that, probably due to worms.

### Conclusion – Study #1

In the first comparison using Groff Brothers herbal wormer and Panacur as the chemical wormer, the herbal wormer group showed a slightly lower number of eggs than the chemical wormer group. However, neither was effective in reducing the parasite egg load to a level that we considered acceptable.

In the second comparison using the Groff Brothers herbal wormer and Ivomec, the chemical wormer group showed a significant reduction in the number of eggs while the herbal group remained the same or in some cases got worse.

From this study we have concluded that the Groff Brothers wormer was not effective in reducing the parasite egg load in our milking does to an acceptable level. We will continue to try other herbal wormers as well as looking at other alternative parasite control methods.



(Parasites, continued from previous page.)

## Second Wormer Trial

Susan Zacharakis-Jutz, Solon

After reviewing the results of the fecals from Study # 1, we decided to try another herbal worming product, which the seller said was designed specifically for goats and sheep. The name of the product is Restore and Sustain, produced by Farmstead Health Supply, P.O. Box 985, Hillboro, N.C. 27278. Product ingredients are as follows.

**Restore:** Wormwood, garlic, gentian, fennel, psyllium, centaury. "...a pure, botanical anthelmintic compound..."

**Sustain:** Coltsfoot, coriander seed, fennel seed, Irish moss, juniper berry, yarrow herb, rosehips, rhubarb root, sea kelp. "...a rich botanical supplement for livestock that is used along with Restore to build resistance to parasites and promote enhanced overall health."

We used a procedure similar to the one used in Study # 1. We were able to use the same six does for the herbal alternative but had to substitute 2 does in the chemical group because two of the does we had

used previously had been sold. For this study we decided that Frances would read the samples at home and randomly select several samples to take to Dr. Beyer to cross check for accuracy.



Reuben and Frances Zacharakis-Jutz at milking time.

Pre-test samples were collected and read on the twelve does on September 7, 1999. The six does in the chemical group were treated with Ivomec Pour-on for the chemical wormer and the six does in the herbal group were treated with Restore and Sustain from Farmstead Health Supply. They were dosed according to the following recommended dosage level.

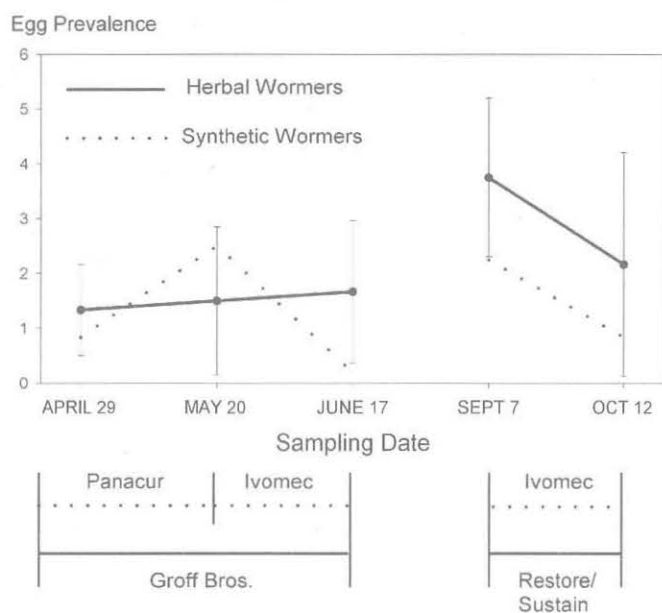
Chemical wormer – 8cc for a 175# doe once (1cc/22#)

Herbal wormer – 1 T. of Restore and 1 T. of Sustain for each worming. To be fed AM and PM for 10 days and then weekly throughout the year.

All the does were given the prescribed dose of wormer on September 9. The does in the herbal group continued to receive their appropriate daily dose AM and PM for ten consecutive days and then weekly beginning September 26. We initially tried feeding the powdered wormer to them in their feed, but when they refused to eat their feed we began mixing it with water and administered the wormer as a drench for the 20 recommended doses. As indicated, these does all live in the same pen, receive the same feed and hay ration, and are milked twice daily.

## Zacharakis-Jutz 1999 Parasite Trials

### Dairy Goats



**Figure 1. Infestation levels and treatments over the course of the experiments. Vertical bars show LSDs at each date.**

## Results – Study # 2

On October 12, fecal samples were collected and read from each of the twelve does. Four of the six does in the herbal group showed a reduction in the number of eggs in their fecals, with two of them



## A Vet Responds

ISU veterinary parasitologist Julie Jarvinen is a resource in PFI's parasite research. Julie was very impressed with the goat trials but had these comments for improving future trials:

1) There were no untreated control groups to monitor natural changes in parasite populations unrelated to the treatments, and having them might not be as dangerous as you'd think (see #4).

2) There needed to be a sample at 7-10 days (possibly 14 days) post-treatment because the life cycle of the parasites can be completed within 21 days. Because the samples were obtained from 21 to 33 days after treatment, even though treatment might have been effective, you would be unable to tell because the goats could have acquired new infections by eating larval stages in the environment, and these larvae would have matured to egg-laying adults before post-treatment samples were taken.

3) Reinfection might have been harder on the Panacur-treated group than the herbal group if the latter animals never lost resistance to the parasites. (This resistance is called premunition.)

4) Sampling a control group at 7-10 days, you could find out if parasites were getting out of hand and treat if necessary.

showing a marked reduction in egg count. The other two showed no change in the number of eggs in their fecals. Five of the six does in the chemical group showed a reduction in egg count, with four of them showing a significant decrease. One doe's fecal egg count went from a moderate to a high level in this group.

## Conclusion – Study # 2

In this comparison using Farmstead Health Supply's Restore and Sustain as the herbal wormer and Ivomec pour-on as the chemical wormer, the chemical wormer showed a marked reduction in fecal egg count in four of the six does, while the herbal wormer showed a marked reduction in egg

count in two of the six does and a slight reduction in egg count in one doe, although the chemical and natural groups were starting from different infection levels. From this study we have concluded that this herbal wormer may have potential, and we intend to use it in another trial, probably augmented with another herbal product from the same company.

## Mulch Ado about Onions (and Potatoes)

It always pays to repeat the trial! In 1998 it looked so clear. **Angela and John Tedesco**, Johnston, looked at the effect of mulching the onions that go to feed members of Angela's Turtle Farm CSA. The experiment also examined the value of planting single onions or multiples in cell-packs of four at a time. In 1998 both mulching and multiple planting were winners – but that was then.

This was a new year and also a new site. Angela is buying some gently sloping land on Highway 17 at Granger. She also got her onions off to a better start before planting them out in 1999. And then there was the spring and early summer weather, which you couldn't exactly call dry. So how about mulch in 1999? As Table 3 shows, the top yield of onions came from the *unmulched* plots where *single* onions had been planted! Overall, single-vs.-multiple planting was not a statistically significant factor in yields, but mulching definitely was (Table 4).

Mulching also had a negative effect on transplant survival, and it significantly increased the total labor in 1999. In 1998 the weeds were bad enough that mulching saved as much weeding time as it took to

**Table 3. Tedesco Onion Trial – Mulch and Planting Pattern 1999**

FACTOR	LBS/ 100' BED	LBS/ ONION	% SURVIVAL	HRS LABOR/100'
MULTIPLE /MULCH	292.2 ab	0.25 a	96.1% a	3.29 c
MULTIPLE NO MULCH	322.4 ab	0.27 a	98.6% a	2.45 d
SINGLE/ MULCH	271.0 b	0.25 a	91.4% b	5.74 a
SINGLE/ NO MULCH	350.7 a	0.30 a	97.2% a	4.55 b



**Table 4. Two Years of Tedesco Onion Trials – Multiple-Seedling Planting & Mulch**

	LBS/100' BED		LBS/ONION		SURVIVAL %		HRS/100' BED	
	MULTIPLE	MULCH	MULTIPLE	MULCH	MULTIPLE	MULCH	MULTIPLE	MULCH
1998	+ **	+ **	+ **	+ **	+ **	NS	- **	NS
1999	NS	- *	NS	NS	+ *	- **	- **	+ **

\* effect significant at 95% confidence level. \*\* effect significant at 99% confidence level.

distribute the mulch. In 1999, the stronger transplants competed better with the weeds – and maybe there are fewer weeds at the new site. Mulching saved precious moisture in 1998, but there was plenty of moisture during most of 1999. So the word on mulching may be: know when to use it. On the other hand, planting multiple onions instead of singles did reduce the total labor hours in both years. And in the more stressful conditions of 1998, multiple planting also benefited yields.

### ***So the word on mulching may be: know when to use it.***

Some on-farm research just doesn't work out, and that was never clearer than in the mulching experiment attempted by **Virginia and Marion Moser**, Garrison. Virginia tried mulching potatoes with coffee bean hulls, a local resource she can get from Frontier Herbs. Here is a portion of her report.

*June 5<sup>th</sup> – Applied mulch. It blew away in the night.*

*June 6<sup>th</sup> – Tried application again and it was too windy.*

*June 19<sup>th</sup> – I applied it again and it blew away. At this point we were soon going to be digging the first potatoes to sell, so I didn't try it again. I learned that the coffee bean hulls can't be used for mulch. They are like working with chicken feathers... I'm not going to give up on the coffee bean hulls, partly because they are free, but mostly because of the 2% nitrogen. I would like to use them in compost.* 🐔



Angela led an onion tour at the July field day.







## 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.

## Let Them Eat Local

By Vic and Cindy Madsen, Audubon

Serving a meal featuring locally raised products can be a challenge on April 10, but it is possible. Audubon County Family Farms was given this opportunity when nine members of the World Bank and three Iowa State people came to Audubon for a visit. Catering for this group, after all, was like fixing a meal for a chopping or haying crew.

The items on the menu from Audubon were as follows:

Pork roasted with garlic and black pepper - from the Dan and Barb Smith family farm

Homemade applesauce and apple crisp - apples from the Madsen's apple tree, frozen last fall

Cinnamon Creamed Honey - from Prairie Song Apiary, Charles Carpenter and David Tousain

Bread baked in Audubon County

The meal was served buffet style at the Audubon County ISU Extension Office.

The first trip through the food line was a cautious one. However, the second and even some third trips through proved to be an enjoyable eating experience for our visitors.

We hoped that eating a friendly home style Iowa meal would be remembered. One member of the group commented that it was nice to be treated like family and enjoy a good meal in an informal and friendly country atmosphere.

We invited them to come back to Audubon County for a visit sometime with friends or family. Let's promote local food systems with every opportunity we get.



David Tousain and David Carpenter at the State Capitol. The event was a partnership with the Audubon County Economic Development Corporation and Southwest Iowa. Each booth served samples of food produced in their county.

## PFI Membership Application and Renewal Form

Name \_\_\_\_\_  
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 County \_\_\_\_\_  
 State \_\_\_\_\_  
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 Phone # ( ) \_\_\_\_\_

This is a \_\_\_\_\_ new membership  
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Do you derive a significant part of your income directly from farming in Iowa?

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

Individual or family membership: \$20 for one year, \$50 for three years.

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**



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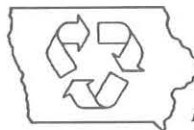
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### Acknowledgment:

*The Practical Farmer* and the PFI on-farm demonstrations are supported, in part, by Iowa State University Cooperative Extension, and the Leopold Center for Sustainable Agriculture.



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