the Practical Farmer

Practical Farmers of Iowa Newsletter

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HOGS TO HAZELNUTS! FOUR MONTHS OF FIELD DAYS

PFI field days start earlier than ever this year, so the events booklet went to the printer before many farmers were even done planting. If you get the newsletter, you should by now have received the field day guide. As you would expect, there are plenty of pasture walks, deep banding and strip intercropping demonstrations scheduled. And the field days don't stop there.

These events reflect responses to weather, markets and the evolving goals of the producers. Pasture winterkill and high hay and corn prices are motivating a number of strategies for short-term feed – whether it's barley, berseem clover, turnips, "grazing maize," or Japanese millet. Barley and alfalfa are also being investigated as feed supplements for producing leaner hogs.

PFI cooperators are evaluating the economics and management possibilities of Bt corn, hoophouse hog production, the "Swedish-style" deep-bedded farrowing/nursery setup, the effectiveness of a soybean seed fungicide treatment, and new guidelines for the late spring soil nitrate test specific to manured soils. Integrated pest management (IPM) will be a part of at least half a dozen field days, thanks to two research grants and the initiative of ISU entomologists. These demonstrations take IPM to a new level for managing corn

(Field Days continued on page 2.)

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borer, alfalfa weevil, leaf hopper and stalk borer. Cooperators and scientists are using experimental biological controls for these pests.

Reflecting increasing awareness of the consumer, farmers around the state are growing for niche markets of one kind or another. Tofu beans, natto beans, pesticide-free or organic, blue flour corn, high-oil and high-lysine corn: these are some of the possibilities being explored. Another approach relates to marketing, and a growing number of producers are interested in learning what it takes to get their meats into the refrigerators of consumers.

Environmental soundness is a criterion for most of what PFI farmers do, and the field days reflect this with farm ponds, streambank projects, warm season prairie grasses, biodiversity plantings and windbreaks, and bird counts. These projects are not just "the right thing to do," they make life on the farm much more pleasant.

Below are the dates for PFI field days. Included besides cooperators are several producers who are carrying out on-farm research under special funding or are part of a *Shared Visions* community group. Call the individual cooperators or check the field day guide for details. Check with your local *Shared Visions* group for events that were scheduled after this newsletter went to press.

June 10 Davidson, Grundy Ctr., 319-824-6347

June 14 Olson, Mt. Pleasant, 319-257-6967

June 19 Rosmann cultivation field day, Harlan, 712-627-4653

June 20 Neely-Kinyon, Greenfield, 712-769-2402

June 23 *Magic Beanstalk* Community Supported Agriculture Project producer tour, Ames, 515-232-8961

July 8 McLaughlin, Cumming, 515-981-9684

July 9 Brunk, Eldora, 515-858-3239

July 12 New Melleray Abbey, Peosta, 319-588-2319 ext. 171

July 20 Dubuque Area Shared Visions group organic gardening field day, 319-925-2962

July 30 Klinge & Tidwell/Specht (Dan), McGregor, 319-536-2314/319-873-3873

July 31 Recker/Frantzen, Alta Vista, 515-364-6952/515-364-6426

Aug 1 Natvig, Cresco, 319-569-8358

Aug 5 Alert-Smith, Hampton, 515-456-4328

Aug 8 Lubben, Monticello, 319-465-4717

Aug 13 Stonecypher/Stonecypher, Floyd, 515-398-2417

Aug 15 Roose/Hughes, Pella/Searsboro, 515-625-4227/515-593-6378

Aug 23 Wilson/Mugge, Paullina/Sutherland, 712-448-2708/712-446-2414

Aug 29 Rosmann/Madsen, Harlan/Audubon, 712-627-4653/712-563-3044

Sept 5 Thompson, Boone, 515-432-1560

Sept 10 Zahrt, Turin, 712-353-6772

Sept 18 Stewart, Oelwein, 319-283-1337

Sept. 20 Musser/Cowles, Milton/Bloomfield, 515-656-4663/515-675-3414

Sept. 21 Rosmann (Ken), Harlan, 712-627-4217

Sept. 22 *Audubon Graziers* Shared Visions group pasture walk, 712-563-2464

Northeast Iowa Pasture Walks

The grazing momentum in the tri-state area hasn't slowed this spring. Again this year PFI, Extension, the NRCS, the Northeast Iowa Demonstration Project, and other groups have put their calendars together into one master listing of events (Table 1 on page 3). The Leopold Center has helped with the cost of mailing out the listing. If you received the schedule from an agency in northeast Iowa, note that some of the PFI dates have since changed. The Frantzen field day, for example, has been moved to July 31.

Table 1. Combined Northeast Iowa Pasture Walk Schedule

Date	Host	Location	Topics
ıne 19 PM	Greg Koether McGregor 319-873-3385	Across the road from the Methodist Church in Giard. Giard is 7 mi. E of Monona.	Grass management, forage mixes, watering, grazing and trees, handling stocker-feeder cattle, gates, lime on pasture.
June 19 1 PM	Jim Wolf Tripoli 319-882-3282	1 mi. W of Tripoli on Hwy 93, 3/4 mi. S on Oakland Ave (gravel), W side of road.	500 acre farm, 70 acres pasture, 55 dairy cows, 4 paddocks, Started intensive grazing in 1993, New Zealand type fencer.
June 20 7 PM	Dave Krapfl New Vienna 319-921-4255	From New Vienna go N 1 mi., then W 1 mi. on Klosterman Rd. 32555 Klosterman	Summer pasture management, streambank stabilization with controlled grazing.
June 26 1 PM	Jim Hageman Calmar 319-534-7985	2 mi. S of Calmar on Hwy 150, W side.	Improve pastures with interseeding, convert alfalfa and cropland to grazing, manage forage and grain intake to maintain milk production.
June 26 6 PM	Wayne Carous Waverly 319-276-4723	2 mi. N of Bremer on V-21, 1/4 mi. E on gravel, N side of road.	Started intensive grazing in 1994, 35-60 ac. rmanent creek pasture, 40 beef cows, 12 paddocks, woven, barb, electric fences.
July 2 6 PM	Westwood Embryo. Inc. Waverly 319-352-5905	1760 Dakota Ave., Waverly 50677	Holstein heifers, 10 paddocks, started intensive grazing in 1994, central water & feed bunks, pie shaped lots, combination of permanent and portable fences.
July 8 10 AM	Joel Kurtenbach Dubuque 319-582-6808	Located on the W edge of the town of Asbury. 14511 Asbury Rd.	Grazing Jersey heifers, baleage harvesting, stockpiling.
July 10 1 PM	Lew Schrandt Farmersburg 319-783-2473	4.5 mi. S of Monona on Clayton Co. gravel X-26.	Interseeding, clover seeding 1995 & '96, contour fencing, multiple lanes, cost-share, sudangrass, cattle health, and improved income from dairy.
July 10 1 PM	Stephanie Mitcham Tripoli 319-279-3270	Take Hwy 93 2 mi. W of Sumner to V-56, go S 2 mi. on V-56, go 1/4 mi. W on 160th St. (gravel).	150 Angora goats, 200 Ewes, started intensive grazing in 1989, Dorper sheep + Dorper cross & East Friesian dairy sheep will be exhibited and discussed. Dorper are meat-type sheep from Africa well suited for forages & grazing.
uly 17 PM	Gary Schutte Castalia 319-567-8440	1.2 mi. E of Castalia and 0.7 mi. S.	Grazing alfalfa, interseeding red & alsike clover, pasture in crop rotation, waterway crossing, soil-seed contact comparison with roller, high milk production.
July 17 2 PM	Mark Suckow Castalia 319-567-8423	1 mi S and 0.5 mi. W of Gary Schutte farm.	Grass and legume establishment into existing permanent pasture and nitrogen rate and timing alternatives on existing pasture, dairy herd.
July 24 1 PM	Charles Deering Jr. Postville 319-864-7361	Meet at the NE Demo Project office, 111 W Greene (by Pirates Den) in Postville, 864-3999.	Increasing rotation grazing intensity, strategy for summer feeding, cow condition, weaning weight, handling large beef cow-calf herd.
Aug. 1 10 AM	Don Klosterman Farley 319-744-3890	Approximately 5 mi. S of Farley on Y-13.	Pusture budgeting, Leopold Center project sampling data, eastern gamagrass.
Aug. 14 1 PM	Lynn Stock Waukon 319-535-7477	2 mi. NW of Rossville on Hwy 76, turn E go 1 mi., follow gravel Rd. N 1.3 mi.	Experienced grazing beef and dairy heifers, graze 230 acres. Seeded alfalfa, clover, orchard, timothy, brome, reed canary, two-day rotation.
Aug. 15 1 PM	Dennis Cline Decorah 319-382-3517	7.5 mi. E of Decorah on Old Stage Rd., or 8 mi. E of Decorah on Hwy 9 & 3 mi N. By Glenwood Luth. Church	Specialty grazing forages, season of calving study, multiple lanes, high milk production, dairy grazing economics, paddock and water layout
Aug. 21 1 PM	Don Baker West Union 319-532-9530	4 mi. S of Festina on Hwy 150, 1 mi. E on King Rd, N on Kale Rd to last farm.	Summer forage alternatives including field corn and bassicas, "mob" calf feeding, new milking parlor, cross breeding dairy cattle.
Sept. 4 1 PM	Dan Beard Decorah 319-382-2765	Locust Rd (W-38) 4 mi N of Decorah, E on Canoe Ridge 1.5 mi, straight on Middle Sattre Rd, 3rd farm on right.	Milking parlor, large verses small animal size, calf feeding, paddock layout, and pasture mixes
Sept. 4 1 PM	Larry Their Farley 319-875-7664	Y-13 N of Farley to Dyersville East Rd., go W about 3 mi. 13938 Hickory Valley	Seasonal dairy.
Sept. 12	Andrew Jackson Demonstration Farm Andrew 319-652-4923	N. of the town of Andrew, on Hwy. Y-61	Cow-calf grazing demonstration.
ept. 19 10 AM	Pat Freiburger Delhi 319-932-2933	S of Delhi on X-31, W on D42 about 3 mi., then S 1 mi.	Fall grazing, managing stockpiled pasture, preparing for winter.

ROLLING THE COB

Tom Frantzen, Alta Vista
Ron Rosmann, Harlan
Roger Schlitter, Mason City
Margaret Smith, Hampton

As promised in the last newsletter, this issue marks the appearance of a new column, *Rolling the Cob*, in which four PFI members share their thoughts on some timely topics. *Margaret Smith* farms near Hampton with her husband Doug Alert, and she's the new Extension director for Hardin County. *Tom Frantzen* and his wife Irene farm near Alta Vista, in northeast Iowa. *Ron Rosmann* farms with wife Maria near Harlan, in western Iowa, and *Roger Schlitter* works with Farm Credit Services in Mason City. They hope this can become a column to respond to *your* comments and questions. Meantime, they got the ball "rolling" with some ideas and information that came up in discussion. *They'd love to hear from you* (addresses below).

And what about "Rolling the Cob"? Ron Rosmann says that's when someone comes into the yard and a discussion gets going. While you're talking, maybe you've got one foot up on the bumper of the pickup, or you're tossing sticks for the dog. If there are a few corncobs lying around, you may absentmindedly toe them about during the conversation. And that, says Ron, is "rolling the cob." We appreciate the willingness of Tom, Margaret, Ron and Roger to roll the cob with you here.

Planning Now For Fall Forage Shortage

Ron Rosmann

The winter of 1995/1996 was harmful for forages of all kinds over the state of Iowa. Especially hard hit were alfalfa fields, and even some perennial grasses like orchardgrass suffered damage. The extremely cold temperatures, lack of snow cover, rapid temperature fluctuations, frost heaving, aspect and slope, degree of wind protection and height and date of last harvest all contributed to the problem.

With producers disking up headlands and putting some CRP ground into crop production, the poor growing conditions for much of this spring, and the present scarcity of affordable corn for feed, the stage is set for possible severe forage shortages later this season and into next winter.

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What options do producers have? For us – with 68 stock cows and 26 breeding heifers – this will be a challenge. Here are some options we're considering or will be taking, in addition to rotational grazing.

1) Patience. The orchardgrass crowns heaved by frost in our pasture were showing some very slow regrowth as of May 15.
2) Strip grazing or cutting for hay a portion of our 48 acres of oats.
3) Planting turnips on our 16 acres of barley after harvest in July.
4) We're lining up additional acres of cornstalks to rent from the neighbors later this fall and winter.
5) Stockpiling some of our cool season grass-legume pastures.
6) We have 11 acres of big bluestem and Indiangrass pasture for use later in July and August.
7) We interseeded 7-8 pounds of berseem clover and 2 bushels of oats per acre into bare spots of existing hay fields on May 6.
8) Chopping corn silage (10-15 acres). We have a very functional silo and corn chopping equipment.

9) Planting rye on corn acres chopped for silage in September for grazing later on.

Tom Frantzen

We grew Japanese millet for hay last year. Seeding cost was $8.00 per acre. The yield was very satisfactory and it dried very easily. When harvest was permitted on these diverted acres, we took 55 large square bales (800 lbs each) from 11 acres. In one strip I mixed berseem clover with the millet as I seeded it. The combination looked very promising. Seeding can be done as late as July 10.

Margaret Smith

We are still building our cow-calf herd and this spring seeded an additional 30 acres with a mixture of alfalfa; red, alsike, and ladino clovers; timothy; orchardgrass; and annual ryegrass for hay/pasture. We will cut the oats for hay and then graze the new seeding this fall. The seeding will remain for 2-3 years and then rotate back to corn. We were fortunate to have only a few small patches in last year's seeding suffer from winter injury.

We have a mixed bag of opportunities to increase our forage supply this year. We are trading our labor for the use of a neighbor's four acres of hay. It was seeded last year and should produce 4-5 tons per acre this year, although the cool spring is slowing hay development a bit. We have a couple of acres of crop ground along a railroad bed which has been under construction. We will plant sudangrass there when we are able to get in, and plan for 3-4 cuts for hay. We are also going to seed our cattle lot with Japanese millet and include that area in our summer rotation schedule.

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Peer Influence – Good or Bad?

Tom Frantzen

A holistic, three-part goal is the best way I know to decide whether I am thinking for myself or letting my peers do it for me. To develop that goal, we articulate 1) our values, describing 2) how we will achieve those values and 3) the resource base needed to sustain them far into the future. This is part of the planning process in holistic resource management (HRM). Every farmer needs a pickup truck, right? Well, we decided we only used ours to take stock to market, a function we can custom hire. We also off-loaded the gooseneck trailer, which we no longer have to clean out or pay for. Once we got over the mental barrier, life got a little more pleasant and we eliminated an expense.

Ron Rosmann

This brings to mind our small, rural community and the farmers around it. Many farmers gather for coffee and gossip – or is it coffee and support – about 7:00 every morning. All are pretty conventional farmers. Since our own farming methods are somewhat unconventional, the few times I've been there I've felt quite uncomfortable. Yet for them, I'm sure, it validates much of what they are doing. No doubt over the past years our own farming methods have been scrutinized a time or two. Unfortunately, I think now we are pretty much ignored, which is far worse.

The other thought on peer influence is that we ourselves have sometimes jumped on the "sustainable" bandwagon in little ways partly because of the novelty and because they were "in." We have learned that is not a good thing to do. Changes, even sometimes little ones, can throw you for a loop if they're not prepared for or thought out. Bigger changes – like remodeling our farrowing house to incorporate Swedish methods – require even more soul searching.

Once we got over the mental barrier, life got a little more pleasant and we eliminated an expense.

(*Rolling the Cob* continued on page 14.)

SHARED VISIONS

farming for better communities

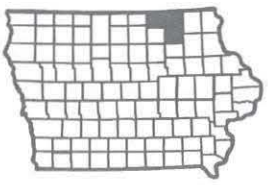
Community Group Projects

Six community group project applications were submitted and approved this past winter. Two of these were from groups that became involved in Shared Visions last fall, and the other four were from older groups that submitted reports on 1995 projects with their new applications.

People wanting copies of these project reports can call Gary Huber at 515-294-8512. Summaries of these groups and their projects follow.

New Groups

Coalition for Holistic Agricultural Resource Management (CHARM)



CHARM members are six farm couples, an NRCS district conservationist, a community college agriculture instructor, and a farm credit agency manager. The group's goal is "to achieve a high quality of life for our families and communities based on ecologically-sound and economically-viable farming operations."

Members work towards this goal by supporting each other in decision-making using the Holistic Resource Management (HRM) planning process. (See article starting on page 9 for a description of the group.) Shared Visions will provide $850 to support the group's first project, which will be a September HRM financial planning workshop for group members.

Contact: Mary Jane Recker
1260 Falcon Trail
Alta Vista, IA 50603
515-364-6952

Prairie Talk

Prairie Talk members are several farmers, a banker, a librarian, a fabric weaver, and a holistic health manager. The group's goal is to educate themselves and others about organic farming practices. Beyond the group's educational goal, members want to develop relationships between consumers and producers while supporting small family-centered farms that are diversified and ecologically sound.

Shared Visions is providing $2,400 for the group's first project, with this money being used to purchase a collec-

tion of videos, books, and audiotapes. These resources will be housed at the Solon Public Library and be available to all public library patrons through interlibrary loan. The group so far has acquired 14 videotapes, five audiotapes, and 14 books, manuals, and journals.

They are continuing to review other materials for inclusion in the collection, and they are also developing a system to assure these materials will be available to public library patrons in other locations. The group also hosted a March open house to introduce the public to the new collection. (See article on page 10 for a description of this open house.)

Contacts: Prairie Talk
PO Box 733
Solon, IA 52333
Susan Zacharakis-Jutz
319-644-3052
Jane Woodhouse
319-644-3291

Old Groups

Audubon Graziers

Members of the Audubon Graziers are ten farmers, a veterinarian, a feed company sales manager, and the County Extension Education Director. The group received $2,115 from Shared Visions for its 1995 project to collect data on member grazing systems, conduct pasture walks on member farms, develop a grazing library at the local Extension office, host a booth at the county fair, and hold a open house with a meal, mini-trade show, door prizes, and speaker.

Group members also attended field days last summer at the CRP demonstration farm near Corning and the Neely-Kinyon research farm near Greenfield. Two members also gave a presentation on the Audubon Graziers at this winter's management intensive grazing (MIG) symposium in Des Moines.

One lesson learned noted in last year's project report was that socializing and youth involvement were important to the success of the pasture walks. Another was that while collecting data on grazing systems is needed to determine profits, collecting these data can be complicated by extremes in weather and the more pressing needs of the farm.

Shared Visions is providing $2,315 for the group's 1996 project. Components of this project include conducting additional pasture walks, upgrading the grazing library, providing scholarship money for MIG training opportunities, and supporting record keeping to determine MIG grazing systems profits. These activities should help the group move towards its goal of demonstrating that alternative farming methods such as MIG can be profitable, sustainable, and improve the quality of life for their communities and their families.

Contact: Deanna Hansen
1618 Eagle Ave.
Audubon, IA 50025
712-563-4051

Farm Fresh CSA

The Farm Fresh CSA group includes four growers, the County Extension Education Director, and two other local residents. The group's goal is to benefit local farmers, consumers, and communities by helping local growers market fresh produce to members of their communities.

The group received $1,110 from Shared Visions for its 1995 project to established a CSA. These funds were used primarily for outreach activities and supplies. Group organizers were involved in local out-

Continued on next page.

reach through presentations to civic groups, an "open garden" day, and weekly newsletters to members. Press coverage included articles in the Cedar Rapid Gazette, the Waterloo Courier, and local papers. This outreach resulted in 23 CSA members receiving weekly deliveries of fresh produce over a 19-week period. Lessons were learned about growing produce and the importance of a convenient, efficient distribution system. Challenges included record keeping and developing connections between growers and members.

Shared Visions is providing $3,182 for the group's 1996 project. These funds will be used for marketing and outreach activities, a cold frame study, and the development of a common record-keeping system to coordinate activities and document the CSA's performance. As well, developing connections with interested people in Benton County and beyond will occur through a campout planned for the weekend of July 13 and 14 at Marion and Virginia Moser's eight-acre market garden near Garrison.

Contact: Jodi Bierschenk
2678 68th St.
Newhall, IA 52315
319-223-5193

Farms Forever

Farms Forever members include several farmers, a DNR district forester, an NRCS wetlands specialist, a retired high school ag teacher, the Geode RC&D coordinator, an ISU experiment farm superintendent, and several local residents. The group received $675 from Shared Visions for its 1995 project to conduct three evening farm tours that focused on berry production, chestnuts and timber management, and management intensive grazing. Attendance grew with each tour, and the interaction between participants extended each workshop beyond the original time frame of two hours. The tours also brought new members to the group.

Stan Tate, DNR district forester and Farms Forever group member, discussed agroforestry topics at one of the group's 1995 "evening entree" farm tours.

Shared Visions is providing $915 for the group's 1996 project. The group is using these funds to develop and distribute a brochure "detailing producers of Louisa County goods accompanied by a map of the locations and brief descriptions about the products and farms." One of the objectives of this project is to "help create a market for small local producers and help raise awareness about locally raised produce and other products." The brochure has been produced and is being distributed.

The group is also using unspent money from its first project to conduct three additional evening farm tours. The first was held on May 15th and focused on pasture-raised chicken (see article on page 11). The second was on June 11th and focused on agroforestry topics at the tree farm owned by Stan Tate, who is a DNR district forester and group member.

Contact: Kathy Dice
13882 I Avenue
Wapello, IA 52653
319-729-5905

Magic Beanstalk CSA

The Magic Beanstalk CSA group includes several local farmers and various interested community members. The group's goal is to create a local food system, build community ties, and expand awareness of the relationships between food, land and people. In addition to providing fresh produce to its members, the CSA links producers of beef, pork, broilers, honey, herbs, and fiber products with local customers.

The group received $2,988 from Shared Visions for its 1995 project. These funds were used for coordination purposes as well as field days and a harvest festival, supplies and printing, and some of the costs of a statewide CSA workshop. Outreach activities that included coverage by local papers and television resulted in 27 members receiving weekly deliveries of produce over a 16-week period. The project report notes that honey was delivered to 11 families and beef was supplied to approximately 16 families. The report also notes lessons learned, including the importance of having tasks clearly defined for organizers and opportunities available for members to be involved in the CSA's operation.

The May 1996 kickoff meeting for the Magic Beanstalk CSA drew nearly 60 people from the central Iowa area.

Shared Visions is providing $2,630 for the group's 1996 project. These funds are being used for outreach, fields days, and coordination aimed at developing the organizational structure and processes needed to sustain the CSA into the future. They have doubled the number vegetable shares from 1995, and a May 2nd kickoff meeting was attended by about 60 people. They will be having a tour on June 23rd of the farms of four of the seven producers involved in the CSA, and a member will be conducting workshops on topics such as cooking with vegetables and home canning.

Contact: Robert Karp
917 Burnett
Ames, IA 50010
515-232-8961

Coalition for Holistic Agricultural Resource Management (CHARM)

by Irene Frantzen, CHARM member

Six farm families and three non-farm individuals formed a management team in 1995. As a part of Shared Visions, our group meets once a month for daytime meetings to help better ourselves and our communities.

Our goal is a high quality of life for ourselves and communities based on ecologically sound and economically viable farming operations. To achieve this goal we support each other in making decisions using the Holistic Resource Management (HRM) process.

Meetings rotate among each farm with the host family preparing the agenda and chairing the meeting. The first Wednesday of every month we gather together and share our experiences, our strengths, our hopes and our struggles. We as a group have authored and use an improved version of HRM testing guidelines and then monitor our progress towards our goals.

Continued on next page.

CHARM group members at one of their monthly meetings, which this time was hosted by Robert and Mary Jane Recker.

With trust building and confidentiality, each one of us has grown personally, and we have built a real friendship among us. We have a commitment and great enthusiasm amongst ourselves in moving towards sustainable management practices through HRM.

To continue our education, we have relied on outside resources, and it is our hope that we will be able to make an impact beyond our group. Some of the ways that we hope to share our experiences are through newspaper articles, particularly the PFI newsletter, farm tours, and being available to speak to interested groups.

We've also discussed sponsoring an HRM course, holding an information night on HRM and our group, and also facilitating the bringing together of people in Iowa who are interested in HRM. We are currently preparing a brochure about CHARM which will be available soon at PFI field days and Shared Visions activities.

For more information, contact CHARM correspondent: Mary Jane Recker, 1260 Falcon Trail, Alta Vista, IA 50603. Phone: 515-364-6952.

Prairie Talk Hosts Open House

by Susan Zacharkis-Jutz, Prairie Talk membe

On March 12, 1996, Prairie Talk hosted an Open House at St. Mary's Auditorium in Solon, Iowa, that approximately 200 people attended. Prairie Talk held this event to introduce their group and their growing organic library collection to the community. The evening's activities included an organic supper, a panel discussion by area farmers and businesspeople, and an opportunity for open house guests to talk informally with panel members. The response to the evening's format as well as the event itself was enthusiastic and overwhelmingly positive.

The evening began with serving of an organic supper of sloppy joes, carrot sticks, corn chips, apple juice, coffee, and cookies. Every effort was made to buy locally grown and produced food for the meal. Following the supper a panel of eleven area farmers and four businesspeople discussed the opportunities in organic farming and experiences specific to their farming and business operations.

Farmers on the panel included those who have been organic for 20 years as well as those who are presently in the transition process. The types of farming operations were widely varied as well. Topics discussed by panel members included market

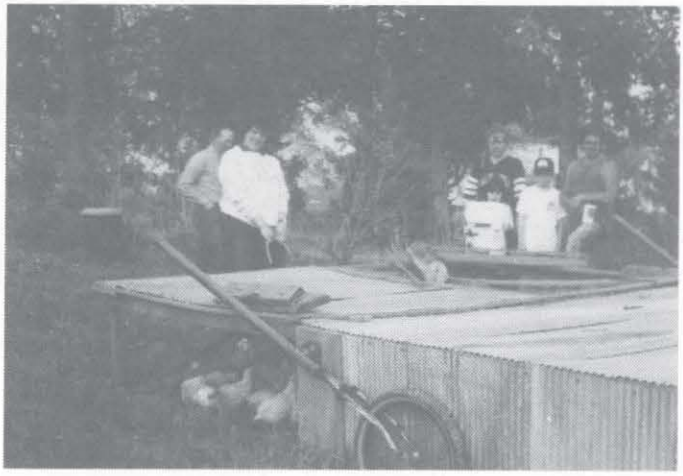
Around 200 people attended the March 12th Prairie Talk open house at St. Mary's auditorium in Solon.

gardening; soil fertility; beef, hog, poultry and dairy production; herd health issues; row crop production; controlled grazing; certification; marketing issues; and financing of alternative agricultural enterprises.

Farms Forever Workshop Report

Farms Forever's first 1996 evening workshop was held on May 15 at Chestnut Acres, which includes the farms of Bryan and Jill Hoben and Kathy Dice and Tom Wahl. The focus was learning how to raise chickens on pasture using movable pens. Techniques for processing were also discussed and some equipment was displayed.

Close to twenty people attended. Included were people who sold processing equipment and had received a lot of phone calls asking for information about this type of enterprise. Also attending were people who have used this type of system, and at least two attendees were going to give it a try. The event was a success, and the hosts were pleased.



Jill Hoben of Farms Forever demonstrates moving the pasture pen for chickens at the group's first 1996 "evening entree" farm tour.

Group Networking Meeting

Nearly 70 members of groups involved in Shared Visions attended a networking meeting in Ames the day before PFI's annual meeting. Prior to the meeting group members were asked what topics they wanted covered in workshops. Highest ranked topics in order were: 1) developing alternative markets; 2) current farming trends, needs and opportunities; 3) ag-based entrepreneurial skills; and 4) value-added opportunities. The meeting's content was designed to cover these topics.

Loren Kruse of Successful Farming magazine gave an opening presentation (see following article). Mary Foley and Betty Wells of ISU Extension led members in a session titled, "Group Dynamics: Getting the Job Done in Groups." Phil Hufferd, ISU Extension farm management specialist, discussed ag-based entrepreneurial skills, and Gayle Olson, ISU Extension community development specialist, led the group in a session where they discussed and analyzed entrepreneurial ideas. The meeting was capped-off with stories by the Minnesota farmer-storyteller Michael Cotter.

Summary of Loren Kruse's "Positioning Agriculture for the Future" Presentation

By Aaron Steele

(Editors' note: Aaron Steele, an ISU student, provided support to Shared Visions this past school year.)

Loren Kruse, Editor-in-Chief of Successful Farming magazine, gave the opening presentation at the January networking meeting for groups involved in Shared Visions. The title of his presentation was "Positioning Agriculture for the Future."

Kruse spoke initially about "unreality," which he defined as "something nearly every one of us in this room would agree simply could not happen." He continued with some examples:

"Who would have thought...

...in October of 1987 that the stock market could fall 45% in a matter of weeks?

Continued on next page.

...in August 1989 that the Soviet Union's domination of the Eastern Block countries would dissolve by Christmas?

...in August of 1995 that Iowa State would have a first team All American, Heisman Trophy candidate at running back who would rush for more than 2,000 yards?"

Kruse noted that "unrealities become realities" and "astounding positive changes are as possible as negative ones." He then said that "we ... must keep believing in our abilities to create significant, positive outcomes for ourselves, for our farms, for our communities and for the industry of agriculture we love."

Three groups of farmers were highlighted in Kruse's presentation. One group are farmers beyond age 50 "whose basic objective will simply be to hold the farm together until retirement." Another is made up of part-time farmers of all sizes that he feels is a "one-generational thing" because "Few children of part-time farmers aspire to be part-time farmers." The last group is composed of "people with an entrepreneurial spirit" who "can see opportunity amidst any conditions but also will make the commitment to earn their incomes full-time in farming."

Kruse noted that solutions and possibilities for success are many and can be found on peoples' farms and in their communities. He made several observations about success. These included, "The way to compete with the megafarms is to make your own farm as special as a business as it is special in your heart." Another was, "If we are going to stay in farming in a profitable way, it will be through our own sheer determination, initiative and perseverance. We cannot just hope for profit or improvement."

Kruse asserted that profit "is not automatically the result of intense effort," but that "profit is best earned ... by those with not only a passion for their work, but also and more importantly a passion for pleasing the end user or customer of what they produce."

Mindy Wolf of the Franklin County Rural Development Committee talks while members of other groups listen during the January group networking conference.

He suggested that family farmers remember "the needs of the consumer and end user of our products ultimately drive every dollar we spend and every decision we make from production through marketing. It involves more listening than talking."

"The way to compete with the megafarms is to make your own farm as special as a business as it is special in your heart."

According to Kruse there are three components that create perceived value by customers. They are quality, price and service. "Service is a component with which most of us in farming have had the least experience, especially as it relates to the marketing of the products off our farms. We are just now figuring out in farming how much the service component can contribute to perceived value to customers and therefore to business success."

Two examples of service cited were "loading hogs for the packer at 1 a.m." and "sending a Christmas tree tag to customers before the selling season at my choose-and-cut Christmas tree farm." Kruse's message about service is summed up in this quote: "to

be prosperous in consumer-driven farming will require a quick response, flexibility and sensitivity to changing end user and consumer needs and preferences."

Effectiveness is just as important for farmers when trying to remain competitive as efficiency. Kruse stated that, "Efficient means doing things right, while effective means doing the right thing."

Kruse pointed out that megafarms aren't very effective at filling various market niches. Family farms can come into a play by filling those niches "for a society that craves variety. With labor sometimes more readily available to replace higher cost inputs, family farms can supply the diverse needs of consumers from specialty vegetables to meat from animals raised without any drugs."

Kruse claimed to have developed his own rule of thumb for predicting which farm enterprises would have the greatest profitability in the long-run. "It will be those that require the greatest amount of hard physical work." He tells farmers that in order to have a profit edge in their farming careers, they should "choose enterprises that most farmers don't necessarily like to be in. And usually it is those that require more physical work."

Profitable enterprises in a consumer-driven market have as another characteristic, according to Kruse, that they tend to require higher people management skills and "a higher degree of marketing and communication directly with the customer or end user."

Kruse began to conclude his presentation by suggesting that members of the groups involved in Shared Visions "keep an open mind to all of the possibilities for creating prosperous farms and communities." He continued, "Each farm and each family has different circumstances. Each person has different God-given gifts and abilities. The ultimate measure of success is how we use those gifts and abilities to make the most of our resources and circumstances on our farms, within our families, within our lives and within our communities."

Kruse concluded by noting, "The challenge is tremendous, of course. But the biggest rewards will go to those farmers and communities that will do the things, and take the time to do the things, that the majority will not do. By being part of the Shared Visions program you have put yourselves in the minority willing to make a commitment to yourselves and your communities."

Carolina IFS Networking Conference

Every six months people from the 18 Kellogg-funded Integrated Farming Systems (IFS) projects attend networking conferences designed to further the goals of the IFS network. These goals include encouraging sustainable farming systems, developing leadership capacity, influencing public policy, empowering local communities, and fostering institutional change.

Each conference is hosted by an IFS project and has a particular focus. The conference held this past February in North Carolina focused on sustaining the network beyond the end of Kellogg Foundation support. In addition to the time that was spent developing a vision for the network's future and a roadmap for achieving this vision, field trips were made to various agricultural sites throughout the state.

Gary Huber presents a gift from Iowa to Erroll Quinn, a North Carolina farmer who hosted IFS networking conference participants.

(*Rolling the Cob* continued from page 5.)

Roger Schlitter

Peer influence is a strong factor in decision making. From a positive point I see it help farmers set production goals for crop and livestock enterprises. When someone else can reach certain levels of production, others are influenced and encouraged to do the same or to exceed them. Usually these results are easily observed and measured. There are numerous record services available for livestock and crop enterprises to assist the individual in knowing his own results and those of his peers as a group. I grew up in dairy country and observed the positive impact of DHIA records for many years. The availability of swine records in recent years has encouraged individuals to reach production levels they previously thought unattainable.

From a different perspective, peers often influence spending and farm or life-style choices, but without the proper information for decision making. Too often "wants" become more important than "needs" or "necessities." It is tough to differentiate between a "want" and a "need," but even tougher when peers are doing what we "want" to do. Usually, individuals are at a disadvantage in this area because they cannot know their peers' ability to pay for things. Sometimes the "blind are leading the blind," sometimes our peers really do have more money, and many times we fail to take into account the values that drive their decisions versus our own. These areas demand carefully screening out peer influence in our decision making to avoid negative choices.

When someone else can reach certain levels of production, others are influenced and encouraged to do the same or to exceed them.

Margaret Smith

Peer influence, peer pressure – we are concerned about its effects on our teens and try to convince them not to cave-in to outside influences; but are we adults immune? Don't we want our fencerows, pastures, outbuildings, yards, and homes to look as good or better than those in the neighborhood? Not to mention how clean we would like our row crop fields to look! I do often have to remind myself that how things look on our farm is less important in comparison to the neighbors than in the progress (albeit slow) that we see ourselves.

... my mother reminds me that "people won't judge you by how your home (or farm) looks, but will like you for yourself and how you treat others."

We find satisfaction in working toward our goal of a pleasant farmstead, good fences, and healthy crops and livestock. Our farmstead will eventually include a reconstructed prairie patch, windbreak trees not in straight rows, and brushpiles for the rabbits and birds. What looks good and is pleasing to me may not please a neighbor's eye.

Not that I'm oblivious to the "neatness obsession" prevalent on many north central Iowa farms. Ooooh, did I take some teasing after hurriedly spading out thistles from our pasture when I realized how many people would be driving by on their way to a neighbor's sale! (Well, they needed to be dug anyway!) When I sometimes get discouraged about our rate of progress, my mother reminds me that "people won't judge you by how your home (or farm) looks, but will like you for yourself and how you treat others." Trust a mother to put things in perspective!

Cob Rollers:

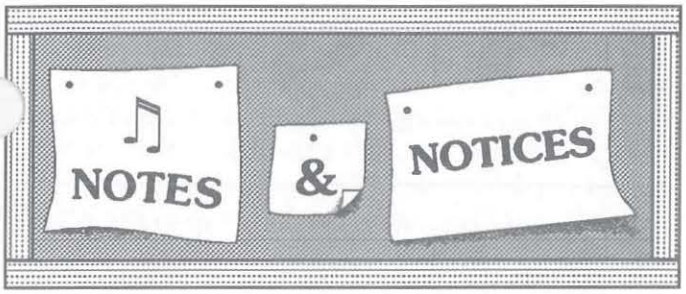
Tom Frantzen, 1155 Jasper Ave., New Hampton, IA 50659. 515-364-6426.

Ron Rosmann, 1222 Ironwood Rd., Harlan, IA 51537-4102. 712-627-4653, rrosmann@netins.net.

Margaret Smith, 972 110th St., Hampton, IA 50441. 515-456-4328, x1msmith@iastate.edu.

Roger Schlitter, Farm Credit Services, 3 Boulder Rd., Mason City, IA 50401. 515-423-3081 (home).

Rolling the Cob can also be reached through the PFI coordinators, 2104 Agronomy Hall, ISU, Ames, IA 50011. 515-294-1923.

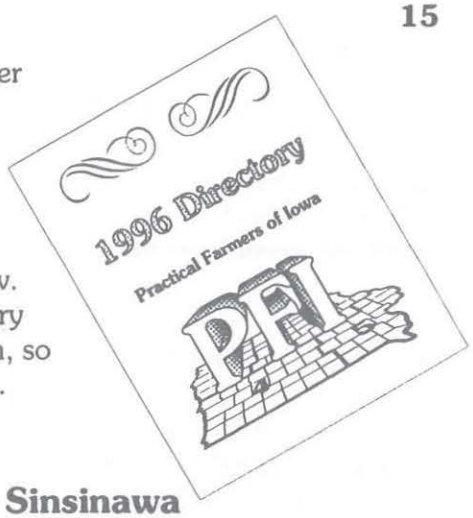


PFI 1996 Member Directory in the Works

Are you signed up for the 1996 Member Directory? The handy guide will include more than 300 PFI members who have asked to be part of the directory. The Member Directory is another way PFI encourages farmer-to-farmer information sharing – and another service members receive for their *very* reasonable $10 membership fee. It includes phone numbers but no mailing addresses, so members are protected from misuse of the listing for commercial purposes. You won't be included at all without your permission. And to *receive* the Directory, you must agree to take part in it yourself.

The Directory is organized into seven tables that allow you to focus on who has the experience to answer your questions. The tables are: Member Listing; By District; Interests and Skills; Crops; Tillage; Fertility and Strip Intercropping; and Livestock. The 1995 Member Directory ran to 80 pages.

When you renewed you membership, you were provided the opportunity to sign up for the Directory on the Member Agreement and Information Form. If you missed that chance, you can use the form below. The 1996 Directory will come out soon, so reserve yours now.



An Event at Sinsinawa

Pastoral Implications of the New Farm Bill: Thursday, July 11, 1996, Churches' Center for Land and People, Sinsinawa, WI 53824. For information contact Miriam Brown, 608-748-411, ext. 805.

A New *New Farm Magazine*?

Since the Rodale publication *New Farm Magazine* ceased publishing in May, 1995, several former editors of the magazine have been investigating the feasibility of a new publication under different auspices. Craig Cramer and Chris Shirley have received a planning grant from the Wallace Genetic Foundation to develop a business plan.

The new publication could face some of the same economic realities that brought down New Farm. For example, there are already a number of other information sources farmers can turn to in sustainable agriculture. And advertisers can be reluctant to spend money on a publication read by notorious penny pinchers!

Directory Request Form

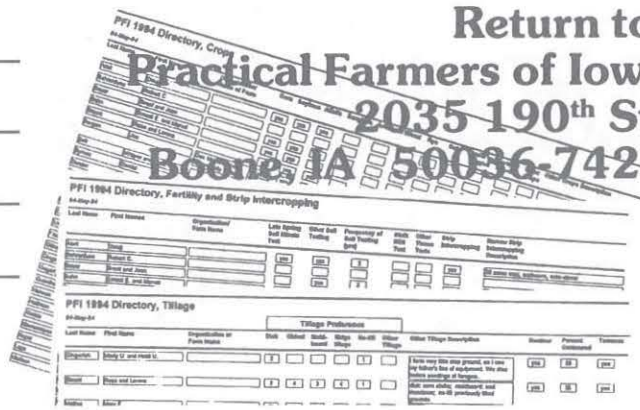
Name _____

Address _____

City _____

State, Zip _____

(Note: You must be a member of PFI to participate in the directory, and you must participate in the directory to receive the directory.)



Return to:
Practical Farmers of Iowa
2035 190th St.
Boone, IA 50036-7423

A further difficulty has surfaced recently – access to the mailing list of the old New Farm. Anthony Rodale has been unwilling to release the list, which could be crucially important to the fledgling publication. The dispute has become public and somewhat nasty.

New Farm Magazine was a unifying force, and it helped give readers the courage of their own convictions. Issue after issue, in interviews and farm profiles, the publication showed that there are real winners in sustainable farming. The need for that kind of journalism has not diminished.

Cramer and Shirley can be reached through the Committee for Sustainable Farm Publishing, 609 S. Front St., Allentown, PA, 18103, (610) 791-9683.

♫ Wanted: Ideas for the Winter Meeting!

It's not too early to be planning for the next annual PFI winter meeting, January 4, 1997. The tenth anniversary meeting was terrific because lots of people got involved. Your ideas and energy will help PFI discover what it wants to do – and *can* do – next time. In particular, we need a very organized person to coordinate! You are invited to an afternoon planning meeting, probably Saturday, July 20, at the Iowa 4-H Camping Center south of Boone. If you can't come to the meeting, talk to one of your board members beforehand. Thanks!

♫ Wanted: Composters!

The Waste Management Assistance Division of the Iowa Department of Natural Resources is compiling a list of producers involved in on-farm composting. They are interested in the types and amounts of material managed through composting, and they have funds that might be used to help producers expand or upgrade their composting. In case you're wondering, WMAD is a nonregulatory agency, and they assured us the information will not be used to make anyone "jump through hoops." Contact Chris Diggins or Garth Frable in the Waste Management Assistance Division, 515-281-3402.

They are interested in the types and amounts of material managed through composting, and they have funds that might be used to help producers expand or upgrade their composting.

♫ PFI Joins Iowa Environmental Council

Practical Farmers of Iowa recently became a member of the Iowa Environmental Council, a coalition of about 50 organizations working in agriculture, natural resources, and consumer issues. The IEC, which is only a few years old, reaches nearly one hundred thousand Iowans through its member organizations according to Executive Director Linda Applegate.

As some PFI producers have become more interested in direct marketing, there has been growing interest in communicating with consumers. The IEC will provide PFI potential links with Iowans interested in locally-raised food and enthusiastic about sustainable agriculture from an environmental standpoint.

IEC member organizations have received a special welcome to two of the PFI field days this summer: the July 31 field day of Robert and Mary Jane Recker and Tom and Irene Frantzen; and the August 29 field day of Ron and Maria Rosmann and Vic and Cindy Madsen. The July 31 event, north of New Hampton, will include direct marketing, diversified farming, and a streambank project. The August 29 field day, near Harlan and Audubon, will feature warm season prairie grasses, organic farming, and deep-bedding, hoophouse hog production.

The IEC will provide PFI potential links with Iowans interested in locally-raised food and enthusiastic about sustainable agriculture from an environmental standpoint.

♫ Free Booklet Helps Farmers and Land Owners Protect Natural Areas

The Iowa Natural Heritage Association is offering farmers a free booklet that will help them protect their woodlands, wetlands, prairies and natural areas. The updated edition of *The Landowner's Options* is a resource for rural landowners and the professionals who advise them.

The 64-page booklet features true-life examples and clear explanations of 18 legal methods of land protection in Iowa. Farmers who want to permanently protect their natural areas – whether they wish to retain ownership, pass it on to others or create a public area – will find methods of protection. Many of the options provide the owner with compensation or tax benefits.

Since it was first published in 1982, more than 11,000 copies of the booklet have been distributed. *The Landowner's Options* was partially funded by a REAP Conservation Education Program grant through the Iowa Department of Education. For a free copy of *The Landowner's Options*, contact the Iowa Natural Heritage Foundation at 515 Fifth Ave., Suite #444, Des Moines, IA 50309, 515-288-1846.

♫ Southern Iowa Cultivator Field Day June 27

The Three Mile Watershed Project will host a cultivator demonstration field day east of Creston on Thursday, June 27. Equipment manufacturers represented will include Hiniker, Fleishman, John Deere, Orthman, and Sukup. For details contact Jerry Neppel, 515-782-8426, x1neppel@exnet.iastate.edu.

♫ *A Better Row to Hoe* Wins Award

A year ago newsletter readers received the executive summary of *A Better Row to Hoe*, the report of a five-state study of sustainable agriculture in which Practical Farmers of Iowa and ISU were participants. (See also Karl Stauber article on page 22.) Many PFI members have also picked up the full report. *A Better Row to Hoe* recently won the Wilmer Rich Shields Award for Excellence in Reporting, sponsored by the Council on Foundations and the Communications Network in Philanthropy. The judges' comments noted the comprehensive dissemination strategy that accompanied the report's release, as well as the range, readability and organization of materials, and the large media response. "The foundation carefully considered its audiences and got the report out to them," wrote one judge. "The message is: sustainable agriculture works." *A Better Row to Hoe*, both the full report and the executive summary, can be obtained through the PFI coordinators, 515-294-1923.

"The foundation carefully considered its audiences and got the report out to them," wrote one judge. "The message is: sustainable agriculture works."

♫ PFI-Sponsored FFA Environmental Science Proficiency Award Winners

For the last five years, PFI has sponsored an annual sustainable agriculture award. This past year the Iowa FFA Foundation asked PFI if it would change its sponsorship to the FFA Environmental Science Proficiency award, and the PFI board agreed. This year's first and second place winners of the award were Derek Miller of Marengo and Brian Steinlage of Jesup. Derek and Brian received their awards at the state FFA convention in April.

PFI coordinator Gary Huber with FFA Environmental Science Proficiency award winners Derek Miller and Brian Steinlage.

Scenes from the 1995 PFI camp:

Building Bridges
Farms, Towns, and Nature

1996 PFI Weekend Camp for Youth and Families

FOR WHO? PFI youth from towns and farms, friends, and others, ages 8 and up

- parents & families welcome, activities for all ages!!!
- children under 8 are welcome with parents
- parent helpers would be appreciated
- teen counselors 15 years and up attend free and receive a $20 stipend (Counselors will come the morning of Aug. 16 for a training workshop to learn skills in working with youth.)

WHAT? A chance for youth and families to have fun and learn from each other.

- *Hike across the swinging bridge for an overnight campout*
- *Share with each other (nature studies, music, crafts, animals, photography, art, writing and other activities and projects)*
- *Campfies and storytelling*
- *Explore ponds, prairies, and forests with naturalist Mike "Marsh" Havlik*
- *Group challenge course*
- *Swimming, canoeing, archery and rapelling*

WHERE? The Iowa 4-H Education and Natural Resources Center near Madrid, Iowa

WHEN? August 16 - 18 (Friday afternoon - Sunday afternoon)

COST? $40 per participant

PLEASE REGISTER BY JULY 1, 1996. COMPLETE, CLIP, AND MAIL THIS REGISTRATION FORM AND A CHECK MADE OUT TO *IOWA 4-H CENTER* TO:

Dick Thompson, 2035 190th St., Boone, IA 50036. If you have questions, please call Gary Huber at 515-294-8512. More information will follow receipt of the registration.

Names and ages of campers _____

_____

Names of Parents _____

Address and Phone Number _____

Check if interested in helping as a teen counselor _____; as a parent helper ____.

Please indicate projects or activities you would be willing to share with the others at the camp and materials needed:

_____

Indicate any special needs or requests (ie activities, meals, health) _____

PFI WOMEN'S 1996 WINTER GATHERING

Margaret Smith, Hampton

Women of PFI gathered this late winter at the Iowa 4-H Camping Center near Madrid to share experiences, ideas, and philosophies about sustaining land, sustaining communities, and sustaining ourselves. Twenty-five women from all corners of the state and from various backgrounds and professions came together on March 16. Those arriving early that Saturday had the opportunity to go hiking with a naturalist from the Center and enjoy the nearly spring-like weather.

Linking farm, food and community at the Women's Gathering. For this group a paper chain served the purpose.

(Semi)formal introductions were made by people sharing three things about themselves, one of which was *not* true. It was amazing how much we learned about each other, including the fact that Jeri Neal (from the Leopold Center for Sustainable Agriculture) does NOT have a husband named Coco! Our first workshop, "Designing a Sustainable Community," was led by Betty Wells, Extension Sociologist from Iowa State University. Small groups proposed some great ideas about linking farm, food, and community, and they developed excellent symbolic graphic representations of these social interactions and community growth. After a candlelight dinner Saturday night, we shared favorite writings by women authors.

There was pleasant spring weather Sunday morning, perfect for early morning hikers. There was also time for spiritual reflection, reading, and friendly conversation. A mid-morning discussion began with a reading from Virginia Woolf's *A Room of One's Own*. Regina Streigel, doctoral student in psychology from the University of Iowa, shared personal and professional insights into women's psychological health and moderated the discussion on "Sustaining Ourselves."

The weekend Gathering closed with a discussion of Practical Farmers of Iowa – what we are, where we are going, and what roles may women assume. Participants shared their written comments about the Gathering including, "This is the best thing I've done for sustaining myself in fifteen years!" and "This should be a regular event."

Plans for next year's Women's Gathering have already begun. Deanne Hansen and Donna Bauer from Audubon have shared that PFI District 4 (Southwest) will host next year's event at the Education Center near Springbrook State Park in Guthrie Center, March 8 and 9. Anyone interested in joining the planning committee please call Deanne at 712-563-4051 or Donna at 712-563-4084. Donna would also like input from women about what they would like to see on next year's program. Write Donna at 1667 Hwy. 71, Audubon, IA, 50025.

(Semi)formal introductions were made by people sharing three things about themselves, one of which was <u>not</u> true.

The weekend Gathering closed with a discussion of Practical Farmers of Iowa – what we are, where we are going, and what roles may women assume.

NORTHWEST DISTRICT MEETING COVERS ENERGY ISSUES

Paul Mugge, Sutherland

"Contrary to popular wisdom, there is no trade-off between the economy and the environment, at least not where renewable energy is concerned. Rather, a well-designed strategy to boost renewable energy development will boost employment, and strengthen the region's industrial base as well. In the Midwest's search for new strategies to rejuvenate its industrial base and secure its economic future, renewable energy is a good place to start."[1] That statement from *Powering the Midwest*, the report of a Union of Concerned Scientists (UCS) study, introduced the subject at the Northwest District PFI winter meeting in Cherokee, on March 9.

Following a meal and conversation, Lara Levison, energy program field representative from the UCS Washington, D.C. office and Heather Rhoades of Des Moines with the SEED campaign presented information and led discussion with approximately 60 people. Some additional facts:

1. Iowa's energy bill is $2.3 billion per year, and $^2/_3$ of it leaves the state.
2. The sun delivers enough energy to the Midwest in 15 hours to power the region for an entire year[1].
3. Eleven Midwest states have wind energy potential to supply more than the total current electricity consumption of the entire United States[2].
4. Sulphur dioxide emissions from Midwest power plants alone may result in $25 billion a year in health-related costs[1].
5. Under the most aggressive scenario (50% of the nation's total energy needs from renewable sources by 2030) – net monetary savings to consumers would equal $2.3 trillion over the next 40 years[1].
6. With current technology[1]:
   a. electricity can be produced from wind for as little as 4¢/kWh;
   b. electricity can be produced from biomass for as little as 6¢/kWh.
7. "Global energy markets are beginning a rapid move to more efficient, decentralized, and cleaner systems, echoing the shift from Mainframe to personal computers during the 1980s."[3]

Obviously, there is tremendous potential for providing some of our energy needs with renewable sources. There is also a tremendous accompanying potential, perhaps not so obvious, to provide much needed economic development in rural areas. Unfortunately, realization of that potential depends to a large degree on the extent to which government (especially state government) encourages or squelches it's development. The SEED (Sustainable Energy for Economic Development) campaign has been organized to influence policy regarding renewable energy. If you are interested in becoming involved in this effort, they can be contacted through Heather Rhoades at 515-277-5077.

With good reason, there is currently considerable interest in renewable energy development in Iowa and surrounding states, and several projects are in progress. The northwest district PFI library is accumulating information and resources in this area, available through Paul Mugge at 712-446-2414. Also, if you missed this meeting, another, larger one is being contemplated in conjunction with UCS and several other organizations for later this year. Your PFI newsletter will provide notice of that and other events as they approach.

[1] Powering the Midwest, Union of Concerned Scientists, 1993.

[2] Landowner's Guide to Wind Energy, Izaak Walton League of America, 1995.

[3] Power Surge, World Watch Institute, 1994.

STAUBER RETURNS TO NORTHWEST AREA FOUNDATION

Karl Stauber will be returning to the Northwest Area Foundation of St. Paul as its new president, effective June 17, 1996. Stauber, currently Under Secretary for Research, Education, and Economics, U.S. Department of Agriculture, and a former vice president for programs of the Northwest Area Foundation, will be the Foundation's fourth executive officer since its creation in 1934.

During his time at USDA, Stauber's work has focused on the 1996 Farm Bill, refocusing federal agricultural research and education policy, and the community development portion of the President's Northwest Timber Initiative. As the first Under Secretary for Research, Education, and Economics, Stauber has overseen the consolidation and integration of USDA's "knowledge producing agencies." Before being nominated by President Clinton for the Under Secretary position, Stauber served as the Deputy Under Secretary for Rural Development at USDA. In this role he was chief strategist for implementing the rural component of the Empowerment Zone/Enterprise Community Initiative.

As vice president for programs of the Foundation from 1986 through 1993, Stauber was responsible for developing new approaches to economic development, focusing particularly on rural and other low-income communities. Under his direction, the Foundation launched programs to provide technical assistance and expand access to capital as a means of creating businesses in low-income communities, and to examine the economic, environmental, and social impact of sustainable agriculture. At Stauber's invitation, Practical Farmers of Iowa participated in a region-wide study of sustainable agriculture and its economic and environmental impacts, a project that Stauber personally guided.

At Stauber's invitation, Practical Farmers of Iowa participated in a region-wide study of sustainable agriculture and its economic and environmental impacts, a project that Stauber personally guided.

In 1988, Karl Stauber (left, with Cornelia Flora) engaged farm groups and universities from five states in the foundation's sustainable agriculture initiative.

"I'm excited about the opportunity to rejoin the Foundation at this important time in the life of both the organization and the region it serves," Stauber said. "Northwest Area Foundation is one of the leading foundations in the U.S. addressing rural development. We should build on this success. At the same time, the Foundation needs to be open to new approaches as circumstances change."

"For example," Stauber added, "as authority and responsibility flow away from Washington toward state, tribal, and local governments, the roles and relationships between government, the for-profit sector, and nonprofit organizations are being reexamined. Northwest Area Foundation can help in the creation of new types of partnerships and work to turn problems into opportunities that benefit all parts of a community."

ILLINOIS SOIL QUALITY INITIATIVE UNDERWAY

Rick Exner

Farmers, scientists, and representatives from public and private organizations are working on a project dealing with soil quality in Illinois. The Illinois Soil Quality Initiative has three parts: the Soil Quality Dialogue, a Planning and Pilot Study, and the Participatory On-farm Research Project.

The Soil Quality Dialog formally began with the Soil Health conference held in Decatur, Illinois last December. The project's board, which includes farmers, scientists and others, organizes Dialog events. The Dialog discussions are really where participants build consensus on the meaning of soil quality and how to study it.

The Planning and Pilot Study, now in its second and final year, is the preliminary stage of a statewide soil quality inventory. At six sites around the state, measurements are being made on adjacent soils: 1) not in use, 2) under non-tilled management, and 3) farmed with tillage. This disturbance gradient will allow researchers to compare natural and managed soils and will help them learn what to measure.

The Participatory On-farm Research Project is examining the effects of tillage on the farms of 30 cooperating producers practicing a range of tillage types on a variety of soils. Twice-yearly measurements include biological activity, infiltration, bulk density, aggregation, pH, available nitrogen, conductivity, and soil organic matter. At the end of each year, scientists and farmers jointly review these data to decide the usefulness, reliability, and practicality of the different tests.

By the conclusion of this project, farmers and scientists in Illinois will have a better understanding of soil quality, how to measure it, and how it is affected by soil type and management. Scientists and administrators will have a clearer picture of the soil resource throughout Illinois. And by working through this project together, the parties will have achieved understanding and trust that could lead to more collaborations in the future. ❦

SOIL QUALITY WORKSHOP JULY 17-18

What is *good* soil, what is *bad* soil, and how do you recognize them? The concept of soil quality brings in both practical experience and scientific research into underlying biological, physical and chemical principles. In recent years both producers and scientists have found soil quality a useful term by which to communicate about productivity, sustainability, and management issues. A national conference in mid-July will bring together scientists, conservationists, educators, and farmers for hands-on training and to learn the "state of the art" of soil quality.

The workshop *Soil Quality – A Guide to Conservation* will run from 1:00 pm Wednesday, July 17 through 1:30 pm Thursday, July 18. It will take place at the Starlite Village Best Western Motel, in Ames. The Northwest Area Foundation is sponsoring the meeting along with the USDA National Soil Tilth Laboratory, the NRCS Soil Quality Institute, the Soil and Water Conservation Society, and North Dakota State University.

Organizers for the event include scientists who have worked with PFI in the past: John Gardner (Carrington Research Station, North Dakota); John Doran (USDA-ARS Lincoln, Nebraska); and Doug Karlen (Tilth Lab). Doran is inventor of the soil health test kit featured in New Farm Magazine several years ago. Also on the program are Paul Johnson, Chief of the Natural Resources Conservation Service, and Karl Stauber, departing USDA Under Secretary for Research, Education, and Economics. (See article on page 22.)

A group of Illinois farmers from several sustainable agricultural organizations also plan to attend the workshop and hope to visit with PFI members. They are involved with the Illinois Soil Quality Initiative, an effort to document and better understand management effects on soil quality. (See previous article.)

Workshop registration is $50 until July 1, $75 thereafter, and includes proceedings, luncheon, refreshments, and a field trip to the Walnut Creek Watershed Project. To register contact John Gardner, NDSU Carrington Research Extension Center, Box 219, Carrington, ND 58421 (701-652-2951). A block of sleeping rooms is reserved at a somewhat reduced rate at the Starlite until July 1. Participants are responsible for making their own reservations (515-232-9260). Workshop brochures are available from the PFI coordinators (515-294-1923). ❦

SOIL LIFE: THE HEART OF SUSTAINABLE FARMING

Ray Weil, PhD

(Editors' note: Ray Weil is professor of soil fertility at the University of Maryland. This article is condensed from an article that appeared in The New Farm Magazine, January, 1992. Reprinted by permission of the author and the Rodale Institute, 611 Siegfriedale Rd., Kutztown, PA, 19530-9749, 610-683-1400.)

Most farmers have a special affinity for getting their hands in the soil. There's something almost spiritual about climbing down from the tractor to feel and smell rich, loamy soil that crumbles in your palms and tumbles through your fingers. Everyone who works the soil can recognize that it is a living system, one to which we are inextricably bound.

The living organisms in the soil and the organic matter upon which they feed are at the heart of sustainable farming. The community of soil creatures that break down crop residue is exceptionally diverse. Almost any organic compound we add to soil will be decomposed by some organism that can use it for food. This holds for proteins, cellulose and even most pesticides. Most organic material is recycled to the atmosphere as carbon dioxide and water – much as our own bodies produce carbon dioxide-enriched breath from our digestion of food and respiration.

We often speak about soil organic matter (OM) as if it were a single substance. In reality, approximately 25 percent of the soil organic matter is what we call the "active fraction." It is made up of partially decomposed plant and animal residues and many of the compounds produced by microbial metabolism. Generally, active-fraction materials have a half-life (the time it takes for half of the mass to be lost to decomposition) of a few weeks to several decades. Soil organisms use active-fraction materials as their food source, releasing mineral nutrients for crops through metabolism.

Most of the soil OM is in the passive fraction, made up of compounds so highly resistant to microbial breakdown that their half-lives are measured in centuries. This means that much of the OM in our soils today is derived from forests or grasses that grew on them long before Europeans set foot on this continent.

We know that readily decomposable organic matter, and lots of it, encourages large and diverse populations of soil organisms that give the soil biological resilience, making it an ideal medium for the support of healthy plants.

The roles of the passive OM in maintaining soil productivity are more chemical and physical than biological. Passive OM provides most of the cation exchange capacity (CEC) in organic matter. This is the property of soils that allows them to hold nutrients such as potassium and calcium in a form that saves them from being washed away by leaching water, but still keeps them readily available for plant uptake. Pound for pound, OM contributes about ten times as much CEC as does clay. Additionally, sponge-like humified organic matter in the passive fraction soaks up several times its weight in water. This effect is especially noticeable in sandy soil, where an OM level of one to two percent can make the difference between crop failure and a profitable yield in a droughty season.

The active fraction plays a very different role in soil productivity. Under good OM management, the active fraction provides many benefits:

Nutrient cycling. As soil organisms metabolize, they cycle nitrogen, phosphorus and sulfur as well as micronutrients such as iron and copper. Even in fields treated with synthetic fertilizer, most of the nitrogen taken up by a crop is from the soil OM, not the fertilizer.

Micronutrient chelation. Organic acids produced by living plant roots and soil microorganisms help eat away at soil minerals, unlocking a storehouse of nutrients.

Soil tilth. Soil becomes soft, fluffy and crumbly because of certain bacteria that serve as a waterproof glue to bind tiny particles of silt, sand and clay to make soil aggregates. When soil has good "tilth," it is easier for roots to penetrate the soil, for rainwater to infiltrate and for tillage implements to prepare a seedbed.

Ecological balance. A soil well-supplied with active OM teems with bacteria, fungi, earthworms, and other organisms. Although most of the actual metabolism in the soil is microbial, the larger organisms substantially enhance this activity by physically chewing the organic particles and providing, in their guts, an ideal environment for the microbes to work.

Our knowledge of the ecological balance of this living world within the soil is sketchy. We know that readily decomposable organic matter, and lots of it, encourages large and diverse populations of soil organisms that give the soil biological resilience, making it an ideal medium for the support of healthy plants.

Managing Organic Matter

A soil's current OM content reflects a balance between gains and losses. The two great enemies of soil OM are erosion and excessive tillage. Water or wind can physically remove OM, or the OM can oxidize (biologically, ed.) back into the carbon dioxide in the air from which it was formed. Minimizing tillage and maximizing vegetative cover are keys to controlling both processes.

Tillage exposes soil to eroding raindrops. It also speeds decomposition of organic matter by stirring oxygen into the soil, stimulating microbial activity and exposing the surfaces of organic particles for oxidation. On sandy soils these losses may run as high as three or four percent of the soil's organic matter per year, a rate that crop residues can hardly replace.

Sustainable farming practices emphasize the addition of new organic matter to replace the raw material needed for soil life in the active fraction. Crop root systems offer the best and most practical source of new OM. Root systems of perennial grasses and woody plants also contribute as new

Sustainable farmers need an awareness of crops and livestock and how they relate to the living nature of the soil.

roots excrete organic compounds and older ones die and slough off.

Aboveground crop residue can make a major contribution to soil OM, either on the surface as a mulch or mixed in by tillage. About 50 to 60 percent of the aboveground dry matter produced by a grain crop is in the straw. Your decision to bale straw or harvest silage, and then remove it from the field, has a significant impact on the OM and mineral balance of the soil.

It is always better to have a growing crop in the soil than to leave it bare. Cover crops add plant material on the surface and below ground. For maximum OM benefit, the cover crop should be killed and left in the field. In addition to enhancing the active OM cycling in the soil, cover crops protect the soil from erosion, conserve mineral nutrients that would otherwise leach away and provide a moisture conserving mulch. In the case of legumes, they add considerable quantities of nitrogen to the soil.

Conventional farming tends to regard soil as a nearly inert medium. Sustainable farmers need an awareness of crops and livestock and how they relate to the living nature of the soil. Managing soil life gives you long term agronomic stability – as well as some of the fertility for next year's crop. As you weigh market prices against production costs, remember the microbes.

PFI LIBRARY UPDATE

The PFI lending library has a new coordinator. He is Mark Runquist. Mark stepped forward in response to the call in the last newsletter. Since then he has been in touch with the district libraries around the state getting the list of new

acquisitions. Mark also contributed a book review of his own for this issue.

All of these books and tapes are available free to PFI members. Nonmembers get one free checkout as well. Contact your district directors, listed on the back of this newsletter.

Family Farming: A New Economic Vision by Marty Strange

Mark Runquist

Marty Strange is a cofounder of the Center for Rural Affairs and is in high demand for his presentations on farm policy. His book, *Family Farming: a New Economic Vision* explores many of the reasons for the decline and resurgence in sustainable, profitable family-centered farms.

He begins by placing family farms into a cultural and historical context. He compares the characteristics of industrial agribusiness versus the traditional family farming system. Marty asks "Who will own land, how will they pay for it and who makes the rules about using it?" He sees little discussion about these important topics in current public policy.

Strange investigates the prevailing myth of two types of farms – people living on farms with primarily non-farm income and very large farms. He critiques the structure of agriculture that only measures volume of sales. Marty brings evidence to the table that an increase in acres managed does not equate to increased efficiency. Ultimately, Marty believes that one system of agriculture will prevail over the other – the smaller family centered farm, or the larger corporate agribusiness structure. He believes the answer, in part, will be a result of one set of values triumphing over another.

MANURED SOILS IN NEW LATE SPRING NITRATE TEST GUIDELINES

Rick Exner

ISU continues to refine the late spring soil nitrate test for corn. This spring the first recommendations specific to manured soils were released. In 1995 the university published recommendations for corn following alfalfa. The original guidelines lumped together all field histories.

The new model, presented in terms of *expected net profit*, includes adjustments for rainfall and the cost/price relationship of corn and nitrogen fertilizer. ISU agronomist Alfred Blackmer believes focusing on net profit saves producers a step translating from yields to dollars and makes it easier to understand the effects of market forces on the optimum N rate. It can be difficult to decide the point on a graph where yield ceases to respond to additional fertilizer, but it is hard to miss the point where profit starts to decline.

The rainfall adjustment calls for less additional nitrogen where rainfall has been excessive prior to taking the test. This is because: 1) rainfall may have leached nitrate-N below the one-foot depth of the soil sample *but not* completely out of the rooting zone, and; 2) testing a leached soil may underestimate its ability to release nitrogen.

Over four years, a total of 148 trials were carried out by Blackmer on manured fields, including those of some PFI members. "Manured fields" were defined as those receiving an application since the previous harvest or at least twice in the previous four years. Plots received no N besides manure before the late spring test was taken. Immediately after the test, plots received either 90, 60, 30, or zero pounds N per acre.

Crop response, expressed as dollars net return to fertilizer and plotted against soil nitrate, is shown in Figure 1. The translation into net return comes out differently depending on the cost of fertilizer and the price of corn. The "critical range" is where these curves cross the line of zero net return to fertilizer. At soil test levels below the critical range, fertilizer paid dividends, but N applied to soil that tested higher than the critical range was a waste of

The rainfall adjustment calls for less additional nitrogen where rainfall has been excessive prior to taking the test.

(N Test continued on page 30.)

Table 2. Practical Farmers of Iowa District and Personal Lending Libraries – page 1		
Title	**Author**	**Home Library**
$100,000 on 25 Acres	Whatley	Northeast
1991 ISU Controlled Grazing Clinics	ISU	Northwest
20 Questions About the Amish	Good, M	Northeast
50 Farming Techniques from the Americas	White, Richard	Northwest
A Guide to Quality Oat Production	MN Ext.	North Central
A Guide to Ridge Tillage	Huseby, Ed	Northwest
A Guide to Ridge Tilling	Huseby, Ed	Northeast
A Little Phosphorus Goes a Long Way	New Farm	Northwest
A Livestock Producer's Legal Guide to Nuisance Land Use Control and Environmental Law	Hamilton	Northeast
A Practical Guide to Novel Soil Amendments	Rodale Press	Northeast
A Practical Guide to Novel Soil Ammendments	Rodale Press	Northwest
A Sand County Almanac	Leopold, Aldo	Northwest
A Thousand Acres	Smiley, Jane	Northeast
Adapt 100 (Ag Diversification Ideas)	Successful Farming	Northwest
Agricultural Equipment Operator Safety Series (video)	ISU	Southeast
Agroecology: The Scientific Basis of Alternative Agriculture	Altieri, Miguel	Northwest
Agroecology: The Scientific Basis of Alternative Agriculture	Altieri, Miguel	Southeast
Agroecology: The Scientific Basis of Alternative Agriculture	Altieri, Miguel	Southwest
Alfalfa Science and Technology	ASA	Northeast
Alternative Agriculture	National Research Council	Northeast
Alternative Agriculture	National Research Council	Lubben
Alternative Agriculture	National Research Council	North Central
Alternative Agriculture: Scientists Review	CAST	North Central
Alternative Approaches to On-Farm Research	SARE	Northwest
Amaranth: Perspectives on Production	MN Ext. Service	Northeast
Amish Horsefarming Across America	Zielinski	Northeast
Amish Houses and Barns	Scott	Northeast
At Nature's Pace	Logsdon	Northeast
Avoiding the Storage of Unwanted and Unusable Pesticides (video)	ISU	Southeast
Award Winning Farm Energy Projects	IA Energy Policy Council	Northwest
Basic Herding (video)	Smith	Northeast
Basic Herding (video)	Smith	Stonecypher
Behavioral Methods for Accident Prevention (video)	Behavioral Science Technology, Inc	Southeast
Better Land, Better Water (video)	NRCS (SCS)	Northeast
Breaking the Pesticide Habit, Alternatives to 12 Hazardous Pesticides	Gips	Southeast
Broken Heartland: The Rise of America's Rural Ghetto	Davidson	Northeast
Butterfly Against the Gale	Alfred, N	Northeast
Chicken Little, Tomato Sauce and Agriculture	Gussow	Northeast
Committee	US Congress	North Central
Controlled Grazing	Kingsbury	Northeast
Controlled Grazing Booklet	Land Stewardship Project	Northeast
Controlling Weeds With Fewer Chemicals	New Farm	Northeast
Controlling Weeds with Fewer Chemicals	New Farm	Northwest
Controlling Weeds Without Chemicals	New Farm	Northeast
Cradled by the Hand of God (video)	Nat Catholic Rural Life Conference	Northeast
Cut Your Weed Control Costs in Half	New Farm	Northwest
Deming Quality Concept	Deming	Northeast
Dollars and Sense: Handbook for Seasonal Grass Dairying	Tranel	Stonecypher
Dr. Twisted Visits a Farm	Enshayan, Kamyar	Northeast
Dr. Twisted Visits a Farm	Enshayan, Kamyar	North Central

Practical Farmers of Iowa District and Personal Lending Libraries – page 2		
Title	**Author**	**Home Library**
Encyclopedia of Organic Gardening	Rodale Press	Northwest
Encyclopedia of Tractors	Wendel, C.H.	Northeast
Entomology and Pest Management	Pedigo	Southeast
Environmental Management in Animal Agriculture	Curtis	Southeast
Establishing a Nut Grove (video)	Univ. of Guelph	Northeast
Everyone a Teacher. Everyone a Learner	SARE	Northwest
Family Farming, A New Economic Vision	Strange, Marty	Northwest
Family Farming, A New Economic Vision	Strange, Marty	Southwest
Farm and Ranch Electrical Safety (video)	WA State Univ Ext	Southeast
Farm Animals in the Making of America	Johnson, Paul C.	Northeast
Farm Inventions in the Making of America	Johnson, Paul C.	Northeast
Farm Power in the Making of America	Johnson, Paul C.	Northeast
Farmers for the Future	Looker, Dan	Northeast
Farming in Nature's Image	Soule and Piper	Northeast
Farming Systems for Iowa: Seeking Alternatives	1990 Conference Proceedings Leopold Center	North Central
Forage Management in the North	Smith	Southwest
Forages	Heath, Metcalfe, and Barnes	Northeast
Free Range Poultry	Thear	Northeast
From the Ground Up: Wisconsin Sustainable Farmers Tell of Their Practice and Vision	Irwin, Mike	North Central
Future Perfect	Davis	Northeast
Grass Dairying: An Introduction to Rotational Grazing (video)	?	Southwest
Grass Productivity	Voisin	Northeast
Grass Productivity	Voisin	Stonecypher
Greener Pastures	Murphy	Northeast
Hands on Agronomy	Walters	Northwest
Holistic Resource Management	Savory, Allan	North Central
Holistic Resource Management (book and workbook)	Savory, Allan	Northeast
Holistic Resources Management Workbook	Savory, Allan	Northwest
How to save $42 an Acre	?	Northwest
IFM Demonstration Program, 1991	ISU	Northwest
Intensive Grazing Management	Smith	Northeast
Intensive Grazing Management	Smith	Stonecypher
Interdependencies of Agriculture and Rural Communities in the 21st Century	The North Central Region 198 Conference Proceedings	North Central
Intro to Rotational Grazing (video)	DATCP Sustainable Agriculture Program	Northeast
Intro to Soil Microbiology	Alexander	Lubben
Introduction to Permaculture	Mollison	Northeast
Landowner's Guide to Wind Energy	Izaak Walton League	Northwest
Leopold Center Progress Report - 89, 92, 93, 94, 95, 96	Leopold Center for Sustainable Ag.	Northwest
Life and Energy in Agriculture	Anderson, A.	Northeast
More Profit with Less Tillage	Behn, Ernest	Northeast
More Profit With Less Tillage	Behn, Ernest	Northwest
Moving Toward Sustainability (video) Machinery Management		Southeast
Moving Toward Sustainability (video) Pest Management	ISU Extension	Southeast
Native American Testimony	Nabokov	Northeast
Native Grasses, Legumes, and Forbs	Phillips Petroleum	Northeast
Nature's Ag School: The Thompson Farm	Regenerative Ag Association	North Central
Nature's Silent Music	Callahan, P.	Northeast
New Dimensions in Rural Policy: Building upon our Heritage	Subcommittee on Agriculture and Transportation of the Joint Economic Committee	North Central
New Roots for Agriculture	Jackson	Northeast

Practical Farmers of Iowa District and Personal Lending Libraries – page 3		
Title	**Author**	**Home Library**
Nitrates: A Needless Danger	New Farm	Northwest
One Straw Revolution	Fuquoka	Northeast
Outdoor Pig Production	Thorton	Northeast
Pasture Poultry (video and book)	Salatin, Joel	Northeast
Pasture Poultry Profits	Salatin, Joel	Stonecypher
Pasture Primer (video)	Pratt and Ingram	Northeast
Pasture Profits with Stocker Cattle	Nation, Allan	Northeast
Pastured Poultry Manual	Salatin, Joel	Northeast
Pastures for Profit: A Guide to Rotational Grazing	Univ. of Wisconsin	Northeast
Perils Amidst the Promise - Ecological Risks of transgenic Crops	Union of Concerned Scientists	Northwest
PFI Annual membership Meeting - 89, 90, 91, 92, 93, 94, 95	Practical Farmers of Iowa	Northwest
Plant Relations	Coulter	Northeast
Plants: What They Are and What They Do	Seward, A.C.	Northeast
Plowman's Folly and as a Second Look	Faulkner	Stonecypher
Potassium: A Case of Too Much, Too Often	New Farm	Northwest
Power Fencing (video)	Galagher	Northeast
Power Surge - Guide to the Coming Energy Revolution	Flavin & Lenssen	Northwest
Powering the Midwest	Union of Concerned Scientists	Northwest
Prairies, Forests, and Wetlands	Thompson, Janette	Northeast
Profitable Farming Now	New Farm	Northwest
Profitable Farming Now	Regenerative Ag Association	North Central
Quality Pasture	Nation, Allan	Northeast
Report and Recommendations on Organic Farming	USDA	North Central
Reshaping the Bottom Line: On Farm Strategies for a Sustainable Agriculture	Granatstein, David - LSP	North Central
Ridge Till Hotline (back issues)	Lessiter	Southeast
Rodale's Garden Problem Solver	Ball, I	Northeast
Salad Bar Beef	Salatin, Joel	Northeast
Science in Agriculture	Anderson, Arden	Northeast
Science in Agriculture	Anderson, Arden	Northwest
Shattering: Food, Politics, and the Loss of Genetic Diversity	Fowler and Mooney	Northeast
Soils and Soil Fertility	Thompson and Troeh	Southeast
Spotlighting Alternative Crops	Steel, Sam	Northwest
Square Foot Gardening	Bartholomew, Mel	Northeast
SSE Fruit, Berry. and Nut Inventory	Seed Savers Exchange	Northeast
SSE Garden Seed inventory	Seed Savers Exchange	Northeast
SSE Yearbook	Seed Savers Exchange	Northeast
Sustaining Civilization (speech on video)	Savory, Allan	Northeast
Swine Production	Bundy	Northeast
Swine Production	Krider & Carroll	Northeast
Swine System Options for Iowa	ISU/Leopold Center	Northwest
Taking Stock: The North American Livestock Census	?	Northeast
Textbook of Botany	Transeau, Sampson, & Tiffany	Northeast
The 7 Habits of Highly Effective People	Covey	Northeast
The Albrecht Papers	Albrecht, W.	Northwest
The Albrecht Papers, Vols I and II	Albrecht, W.	Lubben
The Complete Book of Composting	Rodale Press	Northwest
The Corporate Reapers: The Book of Agribusiness	Krebs, A. V.	Northeast
The End of Corn Rootworm	New Farm	Northwest
The Farmer's Earthworm Handbook	Ernst	Northwest

Practical Farmers of Iowa District and Personal Lending Libraries – page 4		
Title	**Author**	**Home Library**
The Farmer's Fertilizer Handbook	New Farm	Northeast
The Farmer's Fertilizer Handbook	New Farm	Northwest
The Farmer's Fertilizer Handbook	Regenerative Ag Association	North Central
The Farming Game	Jones	Northeast
The Future of the Iowa Soybean Industry	ISU	Northwest
The Iowa Cattle Industry: Vision for the Future	ISU	Northeast
The Land Remembers	Logan, B.	Northeast
The Miracle of Corn (video)	ISU MRC	Southeast
The Never-Never Land of N	New Farm	Northwest
The Organic Way to Plant Protection	Rodale Press	Northwest
The River of the Mother of God	Leopold, Aldo	Northeast
The Role of Legumes in Conservation Tillage Systems	J. F. Power, Conference Proceedings, SCCA	North Central
The Sheep Raisers Manual	Kruesi	Northeast
The Sheep Raisers Manual	Kruesi	Stonecypher
The Thompson Farm On-farm Research	Rodale Press	North Central
Thompson on-farm Research Reports - '84, '90, '91, '93, '94, '95	Rodale, Thompson	Northwest
Touch the Earth (Video)	Kellog	Northeast
Tree Crops	Smith, J.	Northeast
Tree Crops	Smith, J.	Stonecypher
Using Manure Resources Wisely	New Farm	Northwest
Valley Farmer: Pastured Hogs Video	BBS Canada	Northeast
Voisin Video #1	Murphy	Northeast
Walking the Journey (video)	ISU Extension	Southeast
Walking the Journey: Sustainable Agriculture That Works	ISU Extension	Northeast
Walking the Journey: Sustainable Agriculture that Works	ISU Extension	North Central
Weeds, Control Without Poisons	Walters, Charles	Northwest
What are People For	Berry, Wendell	Northwest
What Really Happens When You Cut Chemicals	Rodale Press	Northeast
What Really Happens When you Cut Chemicals	New Farm	Stonecypher
Your Profitable Farming Checklist	New Farm	Northwest

(Soil Test continued from page 24.)

money. Figure 1 also shows that when high rainfall sites are separated out, the profitability curves shift left, to a lower (critical level) threshold.

Based on these trials, ISU has made the following recommendations for manured soils.

"Manured fields" were defined as those receiving an application since the previous harvest or at least twice in the previous four years.

1) For soil nitrate-N concentrations of 0 to 10 ppm, apply 90 pounds N per acre;
2) For soil nitrate-N concentrations of 11 to 15 ppm, apply 60 pounds N per acre;
3) For soil nitrate-N concentrations of 16 to 25 ppm, apply 30 pounds N per acre ***if*** rainfall was not excessive before taking the test. If rainfall was excessive, apply no additional N fertilizer;
4) For soil nitrate-N concentrations greater than 25 ppm, apply no fertilizer.

The translation into net profit comes out differently depending on the cost of fertilizer and the price of corn.

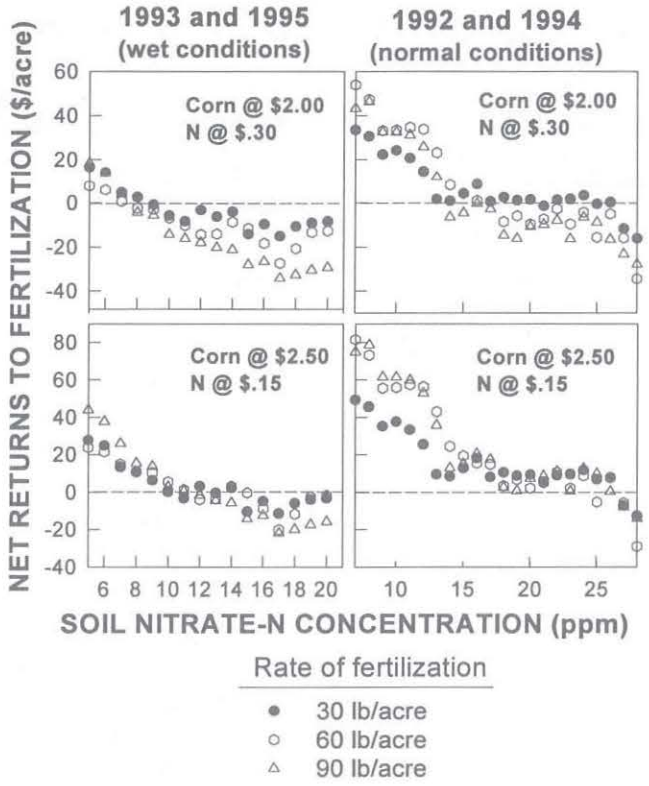


Figure 1. Net returns to nitrogen fertilizer given two cost/price scenarios and two rainfall situations.

Figure 2 shows 1) the standard ISU sidedress recommendations, 2) those for corn following alfalfa, and 3) those for corn on manured soil.

Sidedress recommendations for corn on manured soil are generally more conservative than the standard recommendations for using the late spring test. That is consistent with the experience of PFI cooperators who use manure and who often find they can undercut the standard recommendation. The new guidelines are a first step at quantifying one of the long-term effects that manure has in cropping systems.

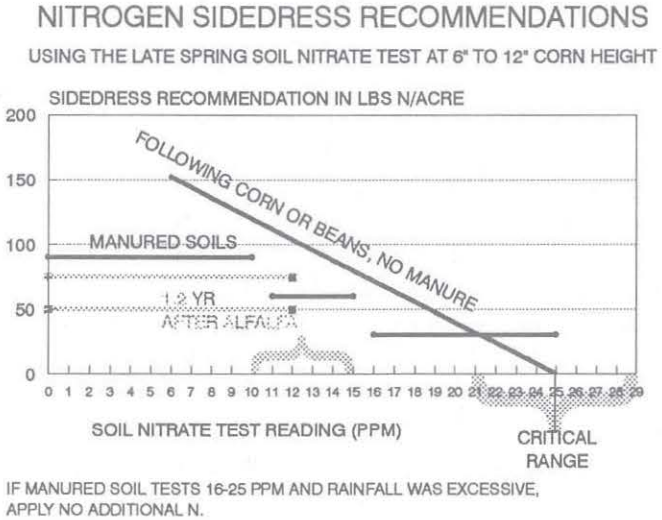


Figure 2. N sidedress guidelines based on the late spring test for different field histories.

This fall the ISU Extension bulletin Pm-1581 will be updated to reflect the change. In the meantime, you can request a free summary of the trials on manured corn fields from Alfred Blackmer, Agronomy Department, ISU, Ames, IA, 50011.

JEFFERSON INITIATIVE TASKFORCE CALLS FOR CROP DIVERSIFICATION

What's wrong with agriculture today? Four agronomists and one ag economist have published a report, *Diversifying U.S. Crop Production*, that relates many of agriculture's ills to the lack of crop diversity. Publishing under the auspices of CAST, the Council for Agricultural Science and Technology, the authors cite soil erosion, energy dependence, price fluctuations, and the need for federal price supports as symptoms that could be relieved if there were a greater choice of crops.

The report states that U.S. agricultural policy has focused excessively on increasing the yields of a few favored crops. New-crop research, it maintains, has been a political orphan subject to the needs of established commodity groups and occasional election campaigns. State funding has been fragmentary and short-term, and "support from agricultural experiment stations in all states has declined greatly as these institutions have focused on basic research and biotechnology funded by national grant programs and private industries."

...the authors cite soil erosion, energy dependence, price fluctuations, and the need for federal price supports as symptoms that could be relieved if there were a greater choice of crops.

The report calls for a sustained, national effort to develop new crops for food, fiber, and industrial purposes. It proposes as a focus of the campaign the name *Jefferson Initiative*, in recognition of Thomas Jefferson's belief in the importance of new crops. Such a focus is necessary, write the authors, because any effort to develop a new crop will require the participation of government, industry, and producers. The report is embellished with examples of crops that have – or may – become established in U.S. agriculture (see accompanying article on the soybean in the U.S.). The most recent successful example is canola, the low-erucic acid varieties of rapeseed (and the accompanying industry) developed in Canada.

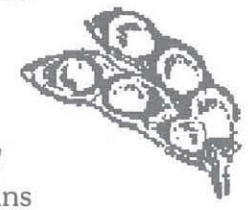
A summary of the issue paper *Diversifying U.S. Crop Production*, is available for $3 from CAST, 4420 W. Lincoln Way, Ames, IA, 50014-3447, 515-292-2125 ❦

SOYBEAN: A CASE STUDY IN NEW CROP DEVELOPMENT BY WILLIAM LOCKERETZ

Rick Exner

The recent call for crop diversification, the *Jefferson Initiative*, brought to mind a conversation I had with William Lockeretz on the same topic. Lockeretz is a professor at Tufts University who writes about and studies sustainable agricultural issues. He is editor of the American Journal of Alternative Agriculture and a member of PFI.

We were discussing the difficulties in achieving greater crop diversity. Willie remarked that I might be interested in something he had written describing the journey of the soybean from an agricultural curiosity to the major commodity it is today. I recently re-read that article, which appeared in the May 1988 issue of the magazine *Food Policy*. The soybean story contains some useful pointers for successfully encouraging any new crop. It also shows the unexpected turns that can occur. Here is some information contained in that article.



These and other pioneers were dedicated to the public exchange of information and seeds.

Development of any new crop is a "chicken-and-egg" situation. Many different players must be involved and coordinated. These include plant breeders, processors and food technologists, agricultural advisors, marketers, and, of course, producers. Farmers won't grow a new crop if they can't profit from it, processors won't invest in facilities if there is no assured supply of product or marketers willing to buy, etc.

According to the article, all these elements came together in a remarkable way for the soybean, which until this century existed in the U.S. as a minor forage crop. Importantly, there were early champions who drew attention and enthusiasm. These included: David Fairchild, first head of the USDA Office of Seed and Plant Introduction; Charles Piper, head of the Office of Forage Crops; and William Morse, who collected thousands of seed samples in China and founded the American Soybean Association. These and other pioneers were dedicated to the public exchange of information and seeds. The article contrasts this approach with that of England, where soybean research information was proprietary and where development stagnated.

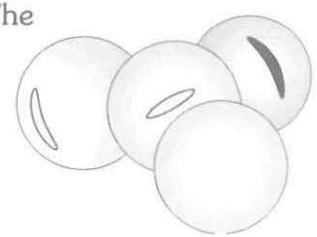
Along the way, the soybean benefited from some of agriculture's economic and agronomic problems. Two World Wars deprived the U.S. of imported soybeans and soy oil, prompting replacement efforts. In 1921, the war-stimulated export boom for cereal grains collapsed, prompting interest in new crops that were not in surplus. In the inter-war period, boll weevils were decimating cotton in the South. In the Midwest cinch bugs ravaged corn and small grains, and the European corn borer was just coming on the scene. Soybeans seemed exempt from insect attack. Finally, with farm tractors displacing draft horses, oats were in oversupply. Soybeans were seen as a compatible substitute for oats in the crop rotation, and they did not deplete the soil of nitrogen as rapidly as corn or the small grains.

Compatibility was key to the soybean's acceptance. It fit into the crop rotation, originally as a farm-produced livestock feed.

Compatibility was key to the soybean's acceptance. It fit into the crop rotation, originally as a farm-produced livestock feed. The crop was shocked with a binder and threshed in a separate operation. In 1924, some Illinois farmers first modified combine harvesters for soybeans. Illinois in the '20s was also the scene of a pivotal effort in the established of the soybean industry. This was the *Peoria Plan*.

The Staley Company had established a soybean processing plant in Illinois as early as 1922, but the facility lost money due to lack of supply. In 1928, Funk Bros. Seed Company, the American Milling Company, and the Grange League Federation Exchange (a farmer cooperative) came together under a plan developed with the help of the Illinois Farm Bureau, Prairie Farmer Magazine, and the Agronomy Department of the University of Illinois. The so-called *Peoria Plan* guaranteed producers a price of $1.35, considered reasonable but not exorbitant, and growers had the option of marketing elsewhere if they could get a better price. Protected from price swings, farmers had the confidence to raise 42,000 acres of soybeans for the program. This was the supply that processors and marketers needed to justify investing in soybeans.

An important factor in the Peoria Plan was that the Grange League Federation Exchange agreed to take all the soybean meal for use in dairy cooperatives in New York State. The meal was considered a by-product at the time. That situation changed with feeding research undertaken by universities and the USDA. The economic picture for soybeans is particularly complex because the crop is fractionated for so many uses. The processing industry was stimulated when national soybean grades were established in 1926, followed by grades for soy oil.



The soybean was at one time expected to increase crop diversity in the U.S., not contribute to the marginalization of other crops.

In 1930 the American Soybean Association succeeded in establishing a stiff tariff on imported soybeans, further encouraging domestic production. Helping to stabilize prices, a futures contract in soybeans was established in 1936. Incidentally, the soybean benefited from not being put under the acreage restrictions of the AAA in the 1930s (by the choice of the producers). This helped allow the new crop gain at a time when established crops were suffering under surpluses.

Along the way public and private sector research has played a critical role. Plant breeders, working with a genetic base of thousands of accessions, have doubled and tripled soybean yields and improved other agronomic traits in varieties adapted to regional conditions like photoperiod. Processors have increased extraction efficiency and found ways to process soy oil to improve its palatability in food products. Some of this technical base grew with the industry, and some of it preceded the industry.

The soybean was once thought of as a forage for on-farm use, not a cash-grain crop. As a grain crop, it was first grown for its oil. Soybean meal, once considered a by-product, now accounts for more than half the value of the grain. The soybean was at one time expected to increase crop diversity in the U.S., not contribute to the marginalization of other crops. It was expected to improve the soil because it does not deplete soil nitrogen, but soybean ground is now seen as vulnerable to soil erosion. Twists and turns like these may be characterize our next new crops. The success that the soybean now enjoys is a tribute to the flexibility and dedication of those farmers, scientists, and business people who were early proponents of this crop.

If Lockeretz is correct, the soybean became an industry here because there were early vision-

aries, publicly shared seeds and information, and a coordinated approach that included plant breeders, extensionists, farmers, government bureaucrats, processors, and marketers. Soybeans benefited from economic cycles and changes in agriculture when they occurred, but a steady, long-term effort put the crop in position to take advantage of those circumstances. That may help put in perspective the *Jefferson Initiative*, coming as it does at a time when high grain prices have eased many of agriculture's chronic worries. ❦

HAY! THAT'S MY NEST!

Rick Exner

Many graziers value songbirds for their aesthetic value and as indicators of a diverse agroecosystem. They often express the opinion that their farming is assisting those birds, but proof has been lacking. The latest issue of *Pasture Talk* (May, 1996) reports research on this topic. *Pasture Talk* is a grazing-oriented newsletter published in Middleton, Wisconsin by Greenbull Press (800-831-3782).

The article, by Laura Paine, a University of Wisconsin agronomist, describes a two-year project observing birds in various kinds of farming systems. Birds were much more attracted to grass-based farms – whatever the grazing style – than they were to grain farms or drylot livestock operations. There were more than twice as many nesting pairs of grassland songbirds in rotationally grazed pastures as in continuously grazed systems, partly due to the different grazing style and partly because rotational pastures tended to be larger and further from human habitation.

PFI farmers using strip intercropping found strips may attract birds only to subject their nests to cultivation or predation. Likewise, birds in pasture are in danger from grazing, unintentional trampling, and haying equipment. To remedy this situation, four of the graziers in this study included in their pastures "refuges" of 10-40 acres. Grazing was delayed in these refuges for four to seven weeks in order to miss the peak nesting season.

In undisturbed prairie, reports Paine, about 60 percent of nests are successful. In the study, nest survival ranged from five percent in some continuously grazed pastures to 40 percent in some refuge areas. Nest survival averaged 25 percent in continuously grazed pastures, which is still much better than nest survival in alfalfa hay or row crops.

Producers did not suffer a great loss from leaving refuge areas unharvested for at least six weeks. While forage quality declined somewhat, crude protein remained in the mid-teens and relative feed value was around one hundred. Pasture with significant legume content held its quality better. Orchardgrass presented problems because it headed out quickly. Laura Paine suggests that paddocks of warm season grasses may be ideally suited to use as nesting refuges. These prairie species normally reach the harvestable stage only after the May-June peak nesting season. ❦

OREGON ON-FARM STUDY OF PESTICIDE RESIDUES

Rick Exner

The West Coast organic farming organization Oregon Tilth recently collaborated with the Oregon Department of Agriculture and the Organic Farming Research Foundation in a study of pesticide residues in fruits and vegetables. Tilth and some non-organic organizations like California Clean Growers routinely monitor produce for pesticide residues for the benefit of consumers. But why would organic farmers need to worry about pesticide residues?

Most of the agricultural land in Oregon has a long farming history. Some of the early pesticides used in these fields are very persistent in the soil. This study focused on the class of materials known as organochlorine pesticides. That includes the insecticides chlordane, aldrin/dieldrin, and DDT, all of which were once used in Iowa agriculture as well.

Some of these pesticides slowly evaporate into the air, but in general they do not move into ground water. Instead, they are strongly adsorbed to soil. Held tightly by soil particles, some of the organochlorines are still detectable in soil 10-20 years after their sale in the U.S. ceased. These products were withdrawn because of concerns about long-term health effects. The U.S. Environmental

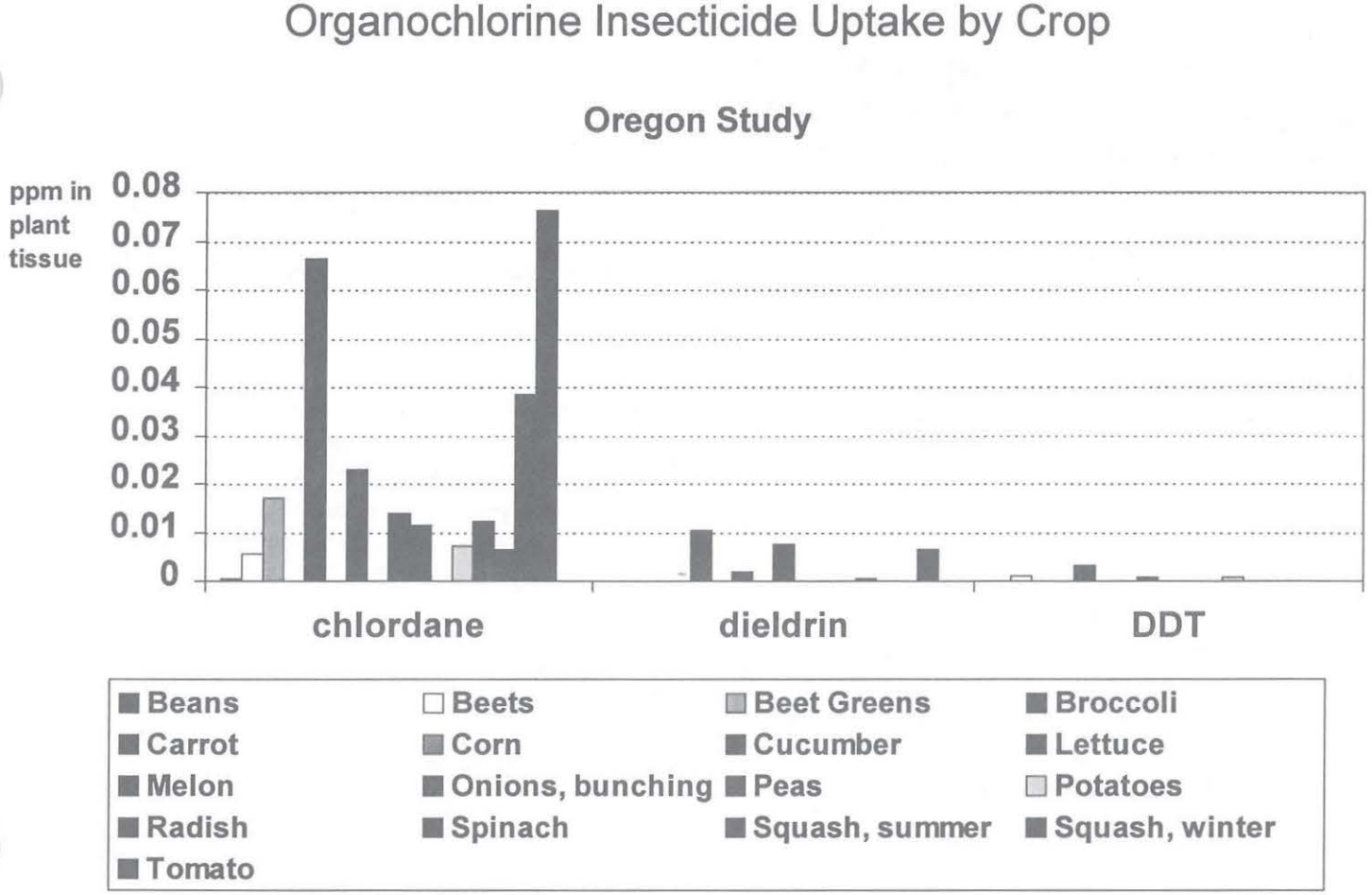


Figure 3. Organochlorine residues in vegetable crops. Some crops concentrated dieldrin in their tissues much more than chlordane, but soil concentrations of dieldrin were much less to begin with than soil chlordane concentrations.

Protection Agency views chlordane, aldrin, dieldrin, and DDT (with its breakdown products DDD and DDE) as probable carcinogens.

In the Oregon experiment a variety of fruits and vegetables were grown over a two year period in a sandy loam soil using a randomized complete block design with four replications. The soil and the harvested crop were tested for organochlorines and their breakdown products (Figure 3). Different crops were grown each year. Soil test levels in the soil itself varied considerably from year to year, and overall levels were sometimes at the level of sensitivity of the instrumentation and research design (around one part-per-billion).

The Oregon researchers were able to conclude that the crops varied in uptake of different organochlorines.

The exceedingly small concentrations of environmental pollutants in such studies is a potential argument against their importance. Consider, for example, the ambient water concentration of DDT at which the Environmental Protection Agency places the lifetime cancer risk at one-in-one-million for a person drinking 2 liters of water and consuming one-quarter ounce of fish or shellfish per day: 0.024 parts-per-trillion (Agency for Toxic Substances and Disease Registry Public Health Statement: DDT, DDE, and DDD).

While individual tissue samples sometimes exceeded the Food and Drug Administration action levels for pesticide contamination, on average no crop contained a contaminant at these levels. Oregon state organic standards are set at 10 percent of federal action levels, and Oregon Tilth

"Soils with a clean bill of health one year may produce crops with levels of contaminant exceeding organic standards." They suggest that organic growers restrict the kinds of crops grown on some problem fields.

standards are only five percent of federal levels. These more strict criteria were exceeded in some of the crops such as beets and spinach (the caryophyllales).

The Oregon researchers were able to conclude that the crops varied in uptake of different organochlorines. Carrots and squash contained significantly more chlordane than other crops; cucumbers, melons, and carrots contained more dieldrin; and carrots and potatoes contained more DDT than the others. Broccoli, corn, peas, tomato, lettuce, and beans contained little or none of the chemicals measured. Uptake for trace residues differed dramatically from the established literature, indicating that rates of concentration for trace residues is greater for many crops than recent applications, and less for others – such as legumes, which were expected to be large accumulators.

Overall trends within families of plants: cucurbits (cucumbers, squash) and caryophyllales (beets and spinach) were sensitive to organochlorine traces in the soil; solanaceae (potatoes and tomatoes) and leguminaceae (beans and peas) were not sensitive.

Many of the organochlorine pesticides are known to strongly bioaccumulate; that is, they make their way up the food chain, increasing in concentration as they go. Plant tissue concentrations in this study were sometimes greater than organic standards even though instrumentation did not detect the pesticide in the soil that year. Thus, concluded the researchers, "Soils with a clean bill of health one year may produce crops with levels of contaminant exceeding organic standards." They suggest that organic growers restrict the kinds of crops grown on some problem fields.

The report *Plant Mobilization of Trace Organochlorine Residues*, by John E. Haapala, Jr., is available from Oregon Tilth at 503-620-2829, jhaap@pond.net.

SUSTAINABLE PROJECTS REPORT: "*PORK MIX* PASTURE SYSTEM – JUST ADD SALT AND WATER"

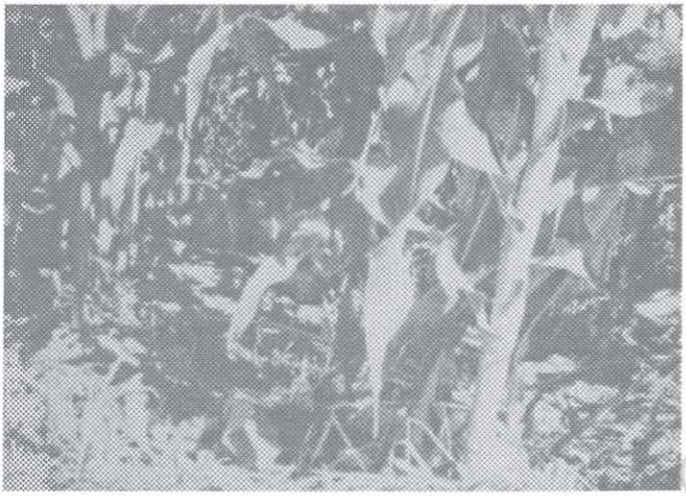
John and Beverly Gilbert, Iowa Falls

(Editors' note: It's always interesting to read reports from PFI Sustainable Projects just to see what people learned. We have preceded this report from John and Beverly Gilbert with portions of their original proposal. The proposal describes the goals and methods for this experiment in low-investment hog production.)

Proposal

A low investment system matching growth stages of crops and hogs is needed – for producers with limited finishing facilities, for existing producers who wish to expand production, as a means for beginners or hobby farmers to generate income in the hog business seasonally, or to produce a specialty meat product.

The purpose of this project is to experiment with crop mixes in defined paddocks and use the principles of rotational grazing to provide a long enough feeding season so the last half of a hog's growth is made primarily on self-harvested feeds.



Peekaboo! Young pigs in the corn paddocks eventually consumed their shade.

For this project we will use two groups of 20-25 litter mates divided as closely as possible by weight and gender. They will be spring-farrowed in huts and fed in confinement until division, at about small grain harvest or brown silk. After weighing, one group will return to confinement to be finished using a ration of high-lysine corn, soybean meal, minerals, salt and vitamins. The other group will be ringed and rotated between two paddocks with standing crops. (Pigs should be 80-125 pounds.)

This project is an attempt to mesh pigs instinctive foraging behavior with crop development and weather patterns using controlled grazing techniques.

Paddocks will be planted in the spring as follows:

Borders of 20-36 feet will be sown with a succotash mix (oats, wheat and barley), undersown with alsike clover, alfalfa, timothy, brome and perennial ryegrass.

The interior will be planted three-fourths to three varieties of Crow's Hybrids high-lysine corn (97, 104 and 110-day maturities), and one-fourth to the succotash mix undersown with berseem and alsike clovers (one in each grass seed box on the drill) to compare suitability of each.

Pigs will be rotated between the two paddocks to keep feed available without damaging the still growing crops. Pigs should eat the small grains and weeds in the corn the first time through. Subsequently they should eat ripening corn, lower corn leaves and clover-grass regrowth. Times of rotations will be recorded.

Report

This project is an attempt to mesh pigs' instinctive foraging behavior with crop development and weather patterns using controlled grazing techniques. It was inspired by the performance and behavior of pigs who got free from previous drylot feeding groups. The "sneaky" pigs that were out a lot didn't do badly at all. And another group cleaned up a weedy field of small grains in preference to the feed we provided them.

Feeding market pigs with standing grain and forage crops is feasible, however results in our first year feeding trial primarily helped define questions needing further attention,

General observations include: (1) pigs like green feed and given a chance will eat a wide variety of plants, including most weeds; (2) growth rates will be slightly slower making this a moderate intensity management strategy suitable for raising breeding stock, or as a grower phase (similar to the backgrounding used with feeder cattle); (3) current quick fencing systems combined with modern fence chargers facilitate rotating paddocks to keep feed utilization high; (4) crop and grazing rotations need to focus on maintaining high protein forages; (5) disposition of the pigs is probably as important as genetics or body type; and (6) the economics of such a system comes from using a perpetual rotation, minimizing crop production and feed processing costs.

In early August, 50 pigs were divided into two groups with as even a split as possible. One group (average weight 124 pounds) was left in confinement to provide a baseline on feed consumption. The other group, at an average weight of 121 pounds, was put in a 1.7-acre field divided into four parts by electric fence. The field had been planted to Crow's Hybrids high lysine corn and small grains with clover (see Figure 4). A feeder was provided in the common area with the same ration as pigs left on cement. The first rotation was 5-7 days per section. The two subsequent rotations were shorter, based on feed consumption and damage to standing corn.

After the third rotation (late September), little remained of any crop, and the pigs were essentially dry lotted with processed feed. Some gilts from each group were retained for breeding. The remainder were sold on a grade and yield basis to Farmland Foods.

Economics are a function of feed and slaughter prices. Processed feed cost in August and Septem-

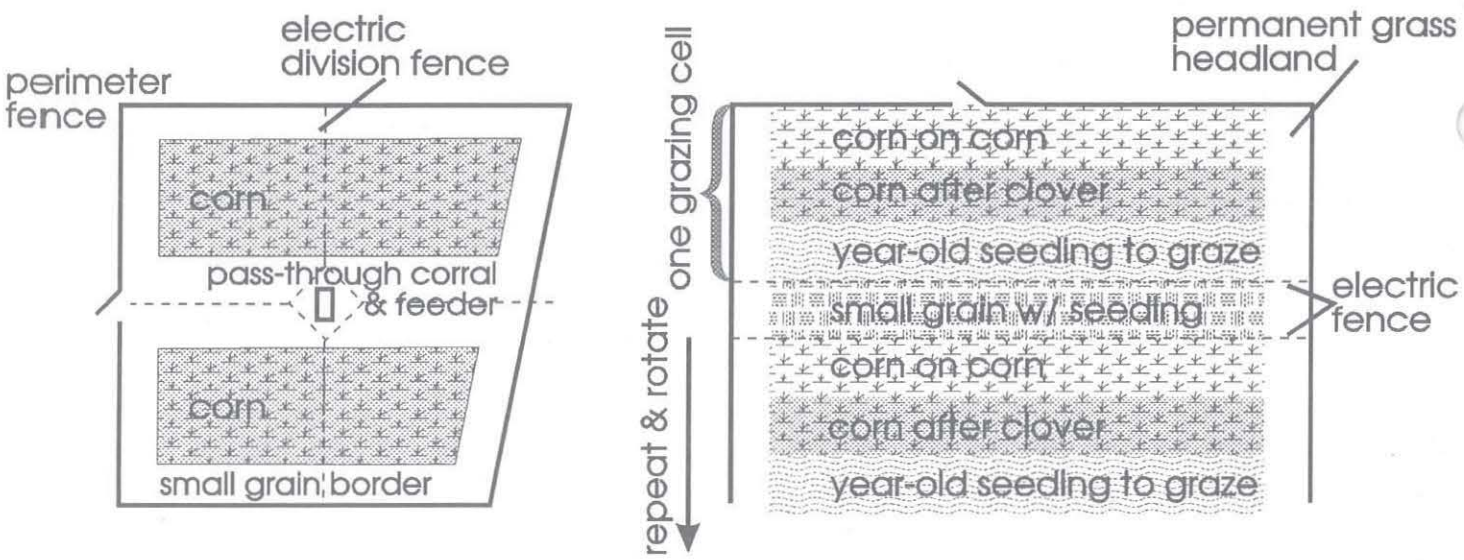


Figure 4. At left is the paddock layout that the Gilberts used in their project. The system shown at right could provide long-term outdoor feeding and allow mechanical harvesting of hay, small grains, and straw.

ber averaged about 6¼ cents per pound. Consumption 'till standing crops were exhausted was about 2,900 pounds. The confined group ate about 7,100 pounds. Weight gains average 83 pounds per head on pasture and 96 pounds per head each for those on cement. Using an average price of $41.25 per cwt. for hogs means the pastured group increased in value by $856 with $181 purchased feed. Confined hogs increased $991 with $444 feed. Gross after feeding cost: ($856 – $181) – ($991 – $444) = $128 in favor of foraging. Value harvested per acre: $856 – $181 = $675, divided by 1.7 acres = $397 gross per acre.

Pigs quickly learn to forage and consume everything green. Stocking rate of 12-15 head per acre is a good target. Electric fence (1 polywire and 1 Maxishock) was effective in holding trained pigs even when battery was removed for charging. Toppled cornstalks were a problem. Small grains as a standing feed mature before the corn is developed enough to stand up to pig traffic. Parallel strips, with one year idled to establish a forage strip, would require mechanical harvesting of a small grain nurse crop, but would probably provide better overall feeding results.

Small grains as a standing feed mature before the corn is developed enough to stand up to pig traffic.

Feed provided should be more of a supplement than a complete ration.

Feed provided should be more of a supplement than a complete ration. Ground feed was provided free choice and was used as an indicator of when to move pigs. Providing optimum nutrition levels in such a system will require careful forage monitoring or some other strategy, because given a choice between green vegetation and dry feed, pigs choose the greens first.

Time and labor for the two systems were comparable. Fencing and water hauling were about equal to manure removal of those confined. However, the type of work and the amount of help required favored grazing. There was no odor and few flies in the field. After the first move, switching paddocks through the feeder/waterer area was no problem. Pigs actually became more friendly, less excitable and easier to handle as time progressed.

Pigs finished a little slower in pasture, but growth was more uniform. Three of the 25 in the dry lot suffered slow growth and weren't market

weight even after all of pastured group were marketed.

Savings in grain harvest, transport, storage, feed processing, and manure handling costs are big pluses. Also, preparation for next crop will require little primary tillage. Ringing of pigs is highly recommended.

Meat from pigs slaughtered for personal use would be saleable as a specialty product for people wanting humanely grown pork. There is basis for the old saying "happy as a pig in clover." Grade and yield information showed little difference between the groups, probably because both groups were finished with the same dry ration.

Pigs quickly learned to take refuge from the heat in cool soil and shade between corn rows. Stalk breakage was not a problem until lower corn leaves and other green forage were gone or pigs reached about 150 pounds. Smaller pigs might be able to enter this system earlier, delaying the point at which serious crop damage would occur. No man-made shelter was provided until the stalks had all been knocked down and fall weather turned cold and wet.

Applications for this system might include:

producing specialty locker pork;

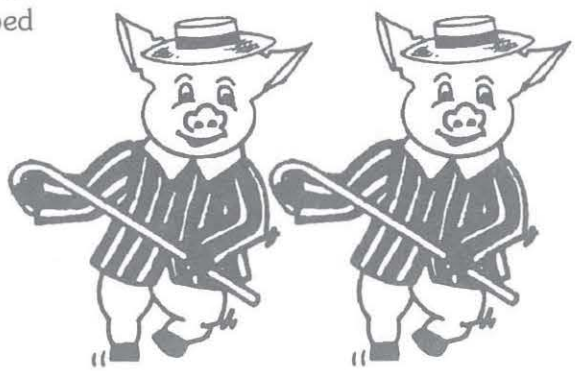
raising gilts for replacements;

4-H or youth projects where facilities are limited;

overflow production;

to rest or repair existing facilities.

Areas needing attention to refine the management of this feeding strategy include: (1) developing a sustainable rotation providing high-protein forages (alsike/ladino type clovers and perennial ryegrass?) on undisturbed soil; (2) determining a better understanding of when to move pigs to fresh feed; (3) examining ways to lengthen grazing time and feed production: (4) exploring specialty markets; and (5) finding the best way to deal with pests (herbicide grazing restrictions?) and worm, mange buildups.



Pigs finished a little slower in pasture, but growth was more uniform...Savings in grain harvest, transport, storage, feed processing, and manure handling are big pluses.

The left drawing in Figure 4 shows the layout of the 1995 project. Three varieties of Crows Hi-lysine corn were planted (early SL10, mid SL20, and full season SL48). Plant standability and size of the SL10 made it too easy for the pigs to knock down. Population needs to be heavy enough for good yields, but low enough to get good stalk development (26,400 were planted in '95). Nitrogen fertility levels returned to the soil will be analyzed with the late spring nitrate test in 1996. The small grain portion was planted using a shotgun approach including oats, barley, wheat, berseem and medium red clovers, and perennial ryegrass. Although these lodged and were overgrown with weeds before pigs were introduced, many of the small grain kernels were eaten. Those missed grew and were consumed as new growth on the second rotation. The clovers did not survive well with heavy overgrowth.

A plan for perpetual feeding strips (Figure 4 at right) uses a seeding year to establish forages for growth the second year. This system would leave seeding strips to minimize erosion, would provide mechanical harvests of hay, small grains, and straw, but would mean half the corn would be following corn. At its best, this system would require inputs of minimal tillage, seed, and early season weed control (mechanical or chemical), and machine harvesting of hay small grains and straw, all of which are saleable or usable in hog production.

FOOTPRINTS OF A GRASS FARMER

Practical Ideas for a Roller Coaster Year

Tom Frantzen, Alta Vista

The early 1970s were known as "gung ho" days for agriculture. Prices fluctuated wildly, land values rose, and many farmers became zealously optimistic. Unfortunately, we know that few farmers ever really benefited from those wild price rides.

I remember those years very well. In 1973, I rented my dad's sow herd as an initial step to begin farming. We built a hog finishing facility the following year. Nineteen seventy-four was a true roller coaster year. As we finished the 128×88-foot hog facility, I was informed by some local experts that there was no future in hogs and that both grain and land prices would stay high. Three years later the facility was paid for and corn was $1.00 a bushel.

Nineteen ninety-six has the markets flexing their muscles. Land prices are rising, and at least grain farmers are bullish. Livestock profits are under pressure. Does this sound like an old record? Whether you feel zealous or gloomy, the fact is that good management will be rewarded this year.

What kind of alternative practices would respond with profits in these circumstances?

Cutting gestation sow feed cost with good quality pasture is an obvious opportunity. Eliminating the protein and cutting the amount of corn fed by 50% will save 24¢ per sow per day. With a 10-sows-per-acre stocking rate and a 5-month grazing season, this practice can net an additional $300 an acre.

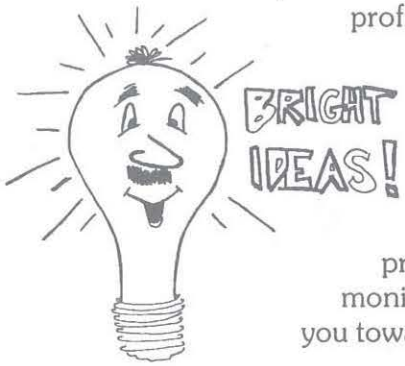
Profits from pasture farrowing will be elevated as well this year. Again, good legume pastures offer opportunities to eliminate protein feeding and cut grain use. I usually feed $^1/_3$ less grain to pastured lactating sows.

After harvest last fall, I gleaned cornstalk fields with my sow herd. Modern electric fencing made the job easy. Three weeks of free sow feed made the task a very profitable one. This year I am strategically planting corn varieties, planning for a staggered harvest and immediate post harvest grazing availability. Electric fencing, underground water systems and strategic planting are key ingredients for profitability. Currently we are restoring an old well, installing electric service, and repairing line fences. When these improvements are in place, the rest of the work will be minor.

When profits return, prudent farmers should invest money in capturing the sun's energy efficiently. They should avoid investments that rust, rot, or depreciate.

Last fall we moved a six-foot-wide wooden corn crib to a site along a pen where our sows are kept during the winter. The crib was filled with high-lysine ear corn. Sow mineral, oats, and whole ear corn fed both developing gilts and gestating sows last winter. The gilts grew normally, the sows farrowed the finest litters in the best condition that I have observed for years. The protein savings and elimination of handling and drying expenses made this a very profitable move. The crib worked so well that we will move another one near a different floor this fall.

Like it or not, farm profitability goes in cycles. This is a direct contrast with the ever-increasing financial demands for living expenses. A good management principle is to realize the inevitable nature of fluctuating profits and to learn from their impact. When times are tough, learn to cut operating costs and eliminate overheads. It is difficult to predict when profitable times will return. Who predicted $8.00 beans this past year? When profits return, prudent farmers should invest money in capturing the sun's energy efficiently. They should avoid investments that rust, rot, or depreciate.



For a farmer to be sustainable long term, strategic investments during profitable times, combined with routine monitoring of cash expenses, will advance you toward your goals.

FROM THE KITCHEN

Marj Stonecypher, 1321 March Ave.
Floyd, IA 50435-8058
515-398-2417

Spring is here??? Still feels like winter to me! I've mowed the lawn three times. None of my garden is in (May 16). Only one baby calf due. Should arrive any day.

Do any of you have a favorite recipe you would like to see in the newsletter? Send it to me and I will include it. I also will try it. I *know* some of you have some good recipes to share. Here is one from our daughter-in-law Kelly. And rhubarb is ready, so here is one from my kitchen.

MEXICAN CHICKEN CASSEROLE (from Kelly Stonecypher)

3 cups precooked shredded chicken
8-oz Cheese Whiz or Melted Velveeta
1 Medium size bag Cheese Doritos
1 10-oz can Rotel Chopped Tomatoes
1 10-oz can Cream Mushroom Soup
1 10-oz can Cream of Chicken Soup
Grated Cheddar Cheese (optional)

In a mixing bowl combine soups, cheese and tomatoes. Cook in microwave until thoroughly heated. In a greased 9×13 oblong pan, layer Doritos in bottom and sides. Alternate a layer of cooked chicken, cheese mixture, and repeat. Bake 45 minutes at 350 degrees preheated oven. Add grated cheese last 5 minutes. Let set 10 minutes.

RHUBARB MUFFINS

2½ cups flour
1 tsp. soda
1 tsp. baking powder
½ tsp. salt
1¼ cups brown sugar
½ cup oil
1 egg
2 tsp. vanilla
1 cup buttermilk/sour milk
1½ cups chopped rhubarb

Topping:
1 Tbsp. butter
½ cup sugar
1 tsp. cinnamon

Mix topping ingredients first. Blend brown sugar, oil, egg, vanilla and milk. Add rhubarb and mix well. Add dry ingredients and mix only to blend. Put in ungreased muffin tins or muffin bake cups. Spoon topping on top of muffins and press down with a spoon. Bake 25 minutes at 350 degrees in preheated oven. Makes about two dozen.

PFI Membership Application and Renewal Form

Name _____
Address _____
City _____
County _____
State _____
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: $10 for one year, $25 for three years.

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

Practical Farmers of Iowa
2035 190th St.
Boone, IA 50036-7423

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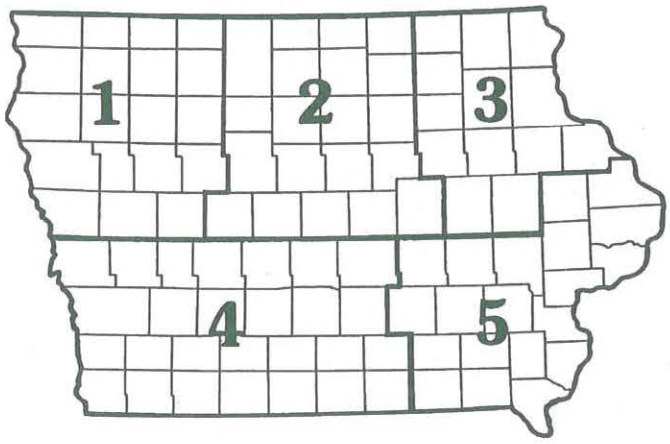

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