

# the Practical Farmer

Practical Farmers of Iowa Newsletter

Vol. 9, #1  
Spring 1994

## 1994 PFI FIELD DAYS SET

Cooperators met February 9 and 10 to plan for 1994. There will be some new faces this year, with four families and a research farm coming on board. These are: Denise O'Brien and Larry Harris, Atlantic; Allen and Jackie Tibbs, Alden; Steve Hopkins and Sarah Andreasen, Decorah; Dan and Colin Wilson, Primghar, and the Neely-Kinyon Farm, Greenfield. Steve and Sarah participated last year through PFI *Sustainable Projects*. Both they and Denise and Larry are rotationally grazing dairy cows and either using or moving to seasonal milking.

Dan and Colin Wilson, taking up the torch from cousins Doyle and Lowell, will be cooperators this year, documenting the value of farm-produced barley in hog rations. The Neely-Kinyon farm is a satellite effort of the Wallace Foundation for Research and Rural Development. The demonstration farm will be dedicated at the field day June 17.



Cooperators preparing soil fertility trials met with Dr. Antonio Mallarino in March. Their long-term plan is to carry out some trials in common.

As crops go in, all the on-farm trials and demonstrations are not yet finalized. A booklet with full information will be mailed in June.

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Here are the dates for field days as they stand now, so mark the calendar.

June 17 — Neely-Kinyon Research Farm, Greenfield.  
— grazing beef, pasture improvement, row crops, fertility, strip intercropping

June 24 — Denise O'Brien & Larry Harris, Atlantic.  
— grazing seasonal dairy, small fruits

July 28 — Steve Hopkins & Sarah Andreasen, Decorah.  
— grazing seasonal dairy

July 29 — Lynn & Linda Stock, Waukon.  
— grazing beef, row crops, strip intercropping

August 11 — Jeff & Gayle Olson, Mt. Pleasant.  
— grazing beef, row crops, strip intercropping

August 17 — Mike & Jamie Reicherts, Tom & Irene Frantzen, New Hampton.  
— grazing beef, hogs, poultry, strip intercropping, berseem clover, manure management, amaranth, woody crops

August 18 — Mike Natvig, Cresco.  
— grazing beef, row crops, hazel nuts

August 19 — Matt & Diana Stewart, Oelwein (assisting members).  
— grazing seasonal & conventional dairy

August 22 — Don & Sharon Davidson/Pine Lake Water Quality Incentive Program, Grundy Center.

— row crops, tillage comparisons, strip intercropping

August 24 — John & Pam Cowles, Bloomfield.  
— grazing beef

August 26 — Paul & Karen Mugge, Sutherland; Dan & Colin Wilson, Primghar; Dordt College Ag Stewardship Center, Sioux Center.  
— row crops, strip intercropping, weed management, hog rations, grazing dairy

August 29 — Allen & Jackie Tibbs, Alden; Doug Alert & Margaret Smith, Hampton.  
— fertilizer placement, weed management, strip intercropping, turnips, berseem clover

August 31 — Dave & Lisa Lubben, Monticello.  
— tillage comparison, weed management, grazing beef, berseem clover

September 1 — Vic & Cindy Madsen, Audubon; Ron & Maria Rosmann, Harlan.  
— fertilizer placement, weed management, grazing beef, corn populations, fat as bale preservative

September 6 — Harlan & Sharon Grau, Newell; Mike Vosika (assisting member), Pocahontas; Allee Research Farm (assisting), Newell.  
— deep fertilizer placement, berseem clover, strip intercropping

September 8 — Dick & Sharon Thompson, Boone.  
— manure timing and purchased fertilizer for soybeans, night planting for weed control, rye cover crop 🌱





## JUNE FIELD DAYS START THE SEASON

Before the weather gets hot and the bluegrass stops growing, two PFI cooperators and another PFI member will hold farm field days.

### Matt and Diana Stewart, Oelwein

Matt and Diana Stewart are PFI members in northeast Iowa who graze their dairy cows and are moving part of the herd into seasonal milking. In cooperation with the Extension Service, they will host a field day from 10:00-3:00, Thursday, June 9. Jim Gerrish, grazing consultant from the Forage Systems Research Center in Linneus, Missouri, and Stan Potratz, grazing consultant from Washington, Iowa, will show how to lay out paddocks, watering systems, and lanes on the farm. A booklet on rotational grazing will be provided.

There will be a charge for attendance, which is limited to about 60 people, and pre-registration is required. Call Jack Dillon at the Bremer County Extension office (319-882-4275). On Friday, August 19 the Stewarts will hold a second field day, this one for free. Stan Potratz will be there, and the improvements planned at the June event will be underway. The Stewarts live one mile south of Oelwein, on Highway W-19 (Outer Rd.). The farmstead is on the northeast corner of W-19 and 25th Street. Call them at 319-283-1337 for more information.

### Neely-Kinyon Research Farm, Greenfield

On June 17, the Neely-Kinyon Research Farm near Greenfield will hold a field day and dedication ceremony. The farm is one of the local "satellite" projects of the Wallace Foundation for Research and Rural Development, a southwestern Iowa grassroots development effort.

Demonstrations will include pasture interseeding with berseem clover and pasture aeration, forage stockpiling, narrow strip intercropping of corn and annual legumes

(berseem in some strips, Nitro alfalfa in others), nitrogen rates for corn, and meadow interseeding using combinations of oats, annual ryegrass, berseem clover, and red clover.

The field day is set for 9:30-12:00, Friday, June 17. Directions are to take Highway 25 one mile south from Greenfield. The farm is on the east side of the road. For more information, call the Adair County Extension office at 515-743-8412.

### Denise O'Brien and Larry Harris, Atlantic

One week later, on Friday, June 24, PFI cooperators Denise O'Brien and Larry Harris will host a tour of their organic farm near Atlantic. Denise and Larry have a pasture-based dairy and will be moving to seasonal milking this year. They also run a commercial apple orchard and a pick-your-own strawberry operation.

The field day will begin at 1:00 in order to finish in time for milking. To get to the farm from I-80 at exit 54 (Elkhorn exit), go South 1½ miles (2nd gravel road), at the sign with the strawberry turn east, go ½ mile, first house on N side of road. Call them at 712-243-3264 for more information. 🐄



Lynn Stock took the field day crowd on a pasture walk last August.



# SHARED VISIONS



## *farming for better communities*

Beginning with this issue of *the Practical Farmer*, a section of the newsletter will be devoted to *Shared Visions: Farming for Better Communities*. The articles that follow provide information on community groups now involved in *Shared Visions* and describe a conference that will be held in Ames this summer for the projects involved in the W.K. Kellogg Foundation's Integrated Farming System Initiative. The final article explains how the PFI board of directors see the relationship between farming systems and rural community viability.



## Davis County Group

The Davis County group has formed as an ag committee of the Davis County Development Corporation. As part of the group's involvement in *Shared Visions*, they met four times beginning in late January to work through a process designed with the assistance of ISU Extension to Communities and Sociology Extension staff to help groups develop projects that would then be submitted to the PFI board for funding.

The chart on the next page shows the results of the process the group went through at their first three meetings. The first step in this process was to ask group members to describe scenes on post-it notes of what someone would see in the year 2005 given their community is successful in becoming a model for efforts to encourage systems of farming that are good for the environment and good for both town people and farm people.

These scenes were grouped into themes or topic areas by the group, which were then summarized into action statements that became the group's goals and objectives. The result of this process are the goals and objectives in the adjacent chart.

The group then voted on which objectives they wanted to focus on, and they chose "to increase livestock numbers using locally produced feeds and grains." The group then did some brainstorming on strategies, or programs of action, that could be used to help accomplish this objective. The resulting strategies are listed under the strategies heading in the chart.

From these strategies, the group came up with the components of a project, which are not contained in the chart. One component is to identify individuals in two categories: (1) young people in high school or their early 20s who are interested in livestock production; and (2) 35-45 year old farmers, either with or without livestock, who are good candidates for getting into livestock or expanding current

# VISION OF DAVIS COUNTY FARMING SYSTEM

## Goals

*A vibrant local economy - population growth, business expansions, new construction.*

*An exceptional quality of life - a good, healthy environment for families; a sense of community pride.*

*A superior county infrastructure - excellent churches, schools, and medical services.*

## OBJECTIVES

To encourage government policies that support the county's farming system.

To increase diversity or specialization of farms depending on the skills and resources of the operators.

To encourage local value-added processing.

To develop educational initiatives that support the county's farming system.

To improve the quality of the environment.

*To achieve higher livestock numbers using locally produced feeds and grains.*

To implement a beginning farmer assistance program.

To encourage profitable family farms.

## STRATEGIES

Build skills in knowing costs of livestock production - leads to cash flows that work, which leads to expansions

Create a local review/mentoring group for producers interested in starting or expanding livestock production

Create a vision in youth of what is possible and how to do it (make farming an enjoyable, viable occupation).

Encourage interdependence of livestock producers, possibly with cooperative agreements between producers or with coop associations.

Help producers review potential for livestock diversification or specialization

Investigate public and private financing options

Create a mechanism for new livestock producers

## PROJECT(S)?





livestock production. The second component is to instill a vision in these individuals of what is possible with farming with livestock. The third component is to identify people to serve as mentors for the people who are identified as wanting to start or expand into livestock.

The group is now incorporating these components into a project application to submit to the PFI board for funding.

## Eldora Area Group

**(Editor's note: This group began from concerns among PFI members in the Eldora area about declines in farm population and the impacts of these declines on rural communities. These PFI members came together in January along with others from their communities to address these concerns by developing a community-based beginning farmer initiative. The group met five times to reach a point where they developed a project application for the beginning farmer initiative that was considered by the PFI board at their April 9th meeting. The board asked the group for some modifications of the application, and the group met once to address the board's request. The following article, which describes the beginning farmer initiative, was written by John Gilbert, a PFI member and one of the group's leaders.)**

Strengthening local communities by encouraging more opportunities for beginning farmers is the objective of a program now being organized in Grundy and Hardin Counties.

The purpose of the initiative is to attract people to farm who will support local businesses, schools, churches and organizations. This area's economy is rooted in agriculture, but that base was eroded by farm consolidations and the loss of most of a generation of young farmers during the farm crisis of the 80s. The increasing age of today's farmers means that without some intervention, farm population support of rural communities will continue to decline.

The project is being organized by members of the Grundy-Hardin



Practical Farmers of Iowa (PFI) group, with support from the Extension Service and a W.K. Kellogg Foundation grant. This project is taking the approach that farm population stability should be a community-development issue, not just a farm matter.

A variety of local resources are being sought, beginning with people. A steering committee has been formed, but everyone with an interest is invited to become involved in the discussions and planning.

For purposes of the project, a beginning farmer is not necessarily just a young farmer. "Community" is being used both in the general meaning of a town, and in the larger context of a group of people concerned about each other and their common well-being.

*This initiative, in essence, hopes to recreate the role of the parents, uncles and aunts or grandparents who throughout the history of agriculture, have intervened on behalf of the next generation family member who wanted to farm.*

How a beginning farmer will farm is up to the beginner and the needs of the landowner, but organizers feel it will initially be on a small scale and must focus on generating income rather than incurring debt. This will involve controlling costs by adding value to crops, most likely through integrated systems including livestock. Some off-farm income may well be necessary during the start-up period.

Organizers feel a critical objective is to find farmland opportunities. Landowners with an interest in helping a new farmer become established, and in supporting the community, are essential to making this program work.



The exact mechanism to align beginners with opportunities has yet to be determined. *Farm On*, the Iowa matching service for beginning and retiring farmers, has offered assistance in this area. Other avenues to find beginners will be explored during the discussion phase.

Approaches other than traditional leasing will also be considered. These might include an incubator program, an apprenticeship arrangement with an existing farmer, or start-up opportunities as an alternative to traditional hired-hand status.

Organizers believe support services will be needed to insure beginners have the best chance of success. These could include such things as:

- Helping arrange a machinery-use-for-labor swap.
- Orientation through a mentoring relationship with two or three neighbors.
- Introduction to sources of local financing (banks, Farmers Home Administration, the Iowa Beginning Farmer Loan program and suppliers).
- Assistance in preparing realistic business plans to help everyone understand what is involved. Also, an adequate system of record-keeping needs to be made available.
- Introduction to, and help in adopting practices to help keep input costs under control.

This initiative, in essence, hopes to recreate the role of the parents, uncles and aunts or grandparents who throughout the history of agriculture, have intervened on behalf of the next generation family member who wanted to farm. An established and known member of a community helped create an opportunity and provided instruction and other supports.

The focus of this project is to provide opportunities and does not involve financial inducements. Organizers hope that in time a

system of creating opportunities will evolve so that seeking new farmers for the area will become normal business.

## Poweshiek County Group

**(Editor's note: The following was developed by the group involved in Shared Visions from Poweshiek County for the PFI Board of Directors.)**

Our group members, individually and together, in formalized groups and as friends and neighbors, have long worked to strengthen our community on the solid foundation of diversified family farms. As members of Farm 2000, we practiced and demonstrated to the public controlled grazing, spring soil nitrate testing and crop scouting/integrated pest management techniques.

To Grinnell College students we provided classes, farm and pasture tours and speakers on sustainable agriculture. Many of us are active members of the Chambers of Commerce of Grinnell, Montezuma, and Brooklyn through which we hold annual Agriculture Expos to promote agricultural products and lifestyles.

***We realized that sustainable agriculture needs a sustaining community.***

We realized that some of the Midwest news stories of eroding land and dying towns was about to happen to us. We realized that sustainable agriculture needs a sustaining community. We came together – farmers, bankers, veterinarians, town business people, landowners – to look at what was actually happening, decide on something we could do about it, and begin taking action.

We decided that by working together we could interest more community members in developing a situation that would attract and support family farmers to our Poweshiek region, farmers who would steward the land





through a diversity of crops and livestock, and become part of our schools, churches and Main Street.

We have begun our work: 1) by obtaining the support of the local press, who are now printing our articles to let the readers know that our group exists and is in motion; 2) by planning a survey of our local CRP cooperators; and 3) by making arrangements for a series of town-farm potluck suppers and workshop presentations.

We expect our *Shared Visions* Project to be something specific related to attracting/supporting new farm families who will do something other than row-cropping on land coming out of CRP and who will include livestock in their farm plan.

### Neely-Kinyon Farm Project Committee

Last December, Wayne and Margaret Neely donated 160 acres near Greenfield to the Wallace Foundation for Rural Research and Development for use as a research farm. Since then a group of farmers and non-farmers from the Adair County area have been involved in planning how this farm, now known as the Neely-Kinyon farm, can best be used to support research on farming systems that have the same characteristics that are desired with *Shared Visions*. The group, known as the Neely-Kinyon Farm Project Committee, has since applied and been accepted by the PFI board for involvement in *Shared Visions*.

Initially, the Neely-Kinyon farm project committee will be a cooperator in the on-farm research network of *Shared Visions*. Support will be provided for some of the research planned for this year on the farm, as well as for the field day. The committee will then move from the on-farm research network into the community groups part of *Shared Visions*, with this move occurring sometime after the Neely-Kinyon farm field



Talking things over before a March field walk at the Neely-Kinyon Farm.

day in June. (See page 3 for information on this field day.)

### Integrated Farming Systems Networking Conference in Ames

*Shared Visions: Farming for Better Communities* is one of nine projects that the W.K. Kellogg Foundation initially funded through its Integrated Farming Systems (IFS) Initiative. In addition to *Shared Visions*, there are projects in California, Arkansas, Kansas, Idaho/Montana, Minnesota, Wisconsin, Ohio, and Pennsylvania. Also, the Foundation is currently adding approximately eight more projects to those already operating, which will bring the total to about nineteen.

Linking these projects for information sharing and leadership development is a part of the IFS Initiative. This linking occurs primarily through semi-annual conferences that rotate among projects, with each project sending three individuals to attend. Tom Frantzen, past PFI President, Gary Huber, project director for *Shared Visions*, and Jerry Hembd, Director of ISU Extension to Communities, have attended from Iowa.

The first conference was in Montana last summer and the second was in Washington, D.C., this past February. The third will be in





Iowa this summer from Sunday, July 30 through Friday, August 3. Each conference has a theme, and the theme for this summer's conference is empowering rural communities. The conference content will reflect this theme and will involve, among other things, visits to farms of PFI cooperators and communities with groups that are involved in *Shared Visions*.

Also, there will be an opportunity for PFI members to attend a reception on the evening of Thursday, August 4. The site of the IFS conference and reception will be the Gateway Center Holiday Inn in Ames. The reception will run from 6:30 to 8 pm and will be followed by a dance.

This will be a unique opportunity for PFI members and others to interact with people from across the country who are involved in the same kinds of work. People interested in attending should mark this date on their calendars and let the PFI coordinators know they want to attend so that more complete information can be sent later. (See back page for phone numbers of the coordinators.)

Also, note that Thurs., August 4, is the same day as the Leopold Center's annual conference in Ames and is the first day of a special youth camp at the 4-H Education and Natural Resources Center near Madrid, 20 miles southwest of Ames. (See page 13 for a description of this year's Leopold Conference and page 14 for a description and registration form for the youth camp.)

## Farming Systems and the Viability of Rural Communities

Dick and Sharon Thompson

*Shared Visions: Farming for Better Communities* aims to support the social and economic vitality of rural communities by working to encourage an atmosphere where systems of farming that are profitable and environmentally-sound can be investigated and used.

"Integrated farming systems" is the term used by the Kellogg Foundation for such systems of farming. Others simply call such systems "sustainable agriculture." Regardless of the name, understanding how such systems support the social and economic vitality of rural communities is important.

Data from five years of on-farm research on our farm helps provide this understanding. We keep careful financial records for each of our experiments so that they can be evaluated economically as well as agronomically.

Economics are evaluated by figuring management return per acre for the different systems. Management return per acre refers to profits after all out-of-pocket costs, interest, depreciation, labor, and land charges have been paid. Custom machinery rates are used for field operations so that the results of the economic evaluations can be compared to other farms.

From 1989 through 1993 we compared several farming systems. Two of these systems are described in Table 1. The "Central Iowa Ag" system is a corn-soybean rotation with pre-plant mulch tillage, broadcast applications of purchased fertilizers, and pre-plant herbicide applications. The "Integrated Farm System" is a five-year corn-soybean-corn-oats-hay rotation that uses ridge tillage, no herbicides, and applications of broadcast manure and in-row fertilizer.

Central Iowa Ag. C-SB	Integrated Farm Systems C-SB-C-O-H
Mulch Tillage	Ridge-Tillage
Broadcast Herbicides (Pre-plant)	No Herbicides
Broadcast Fertilizers (Purchased)	Manure + Row Fertilizer





Figure 1 gives five-year average management returns per acre for the two systems and shows that the Integrated Farm System outperformed the Central Iowa Ag system by \$60 an acre. (We did not include government subsidies in these calculations because we feel these subsidies are not sustainable.)

**Figure 1. Management Return \$/A -**

Central Iowa Ag. vs. Integrated Farm Systems

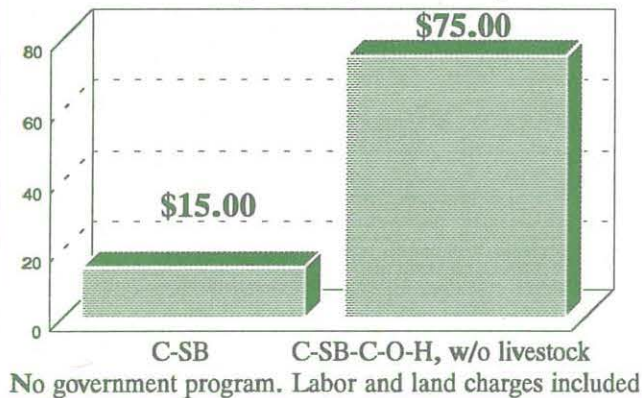
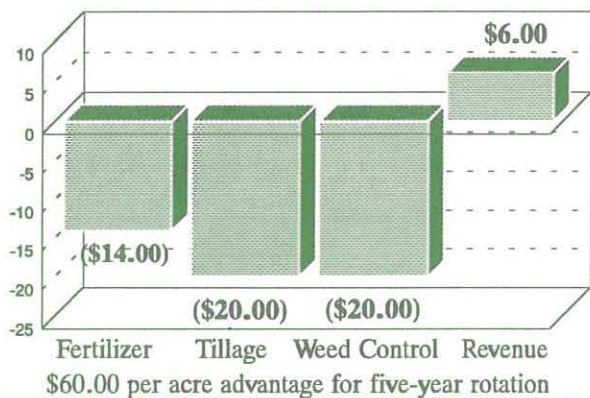


Figure 2 shows that the \$60 per acre advantage for the five-year rotation was achieved with savings of \$14 in fertilizer costs, \$20 in tillage costs, and \$20 in weed control costs, plus increased revenues of \$6.

**Figure 2. Management Return \$/A -**

C-SB-C-O-H Compared to C-SB Rotation

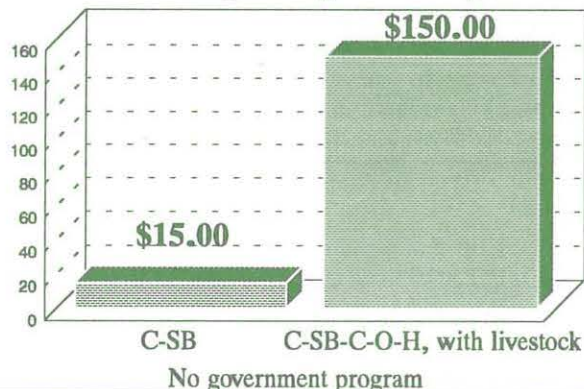


The management return per acre numbers were calculated based on selling the crops for



**Figure 3. Management Return \$/A -**

Central Iowa Ag. vs Integrated Farm Systems



cash. However, we have a farrow-to-finish hog operation and a beef cow-calf enterprise to add value to what we grow, and Figure 3 shows that livestock provided another \$75 management return per acre, bringing the total to \$150 per acre. Dividing livestock net returns by the number of acres on our farm, we calculated that the hog operation added \$60 an acre while the beef enterprise added \$15 an acre.

Using these numbers, Table 2 shows that the Integrated Farm System with livestock would provide our 300-acre farm with a management return of \$45,000, while 3,000 acres would be required to achieve an equal return with the corn-soybean system.

**Table 2. Acres Required for \$45,000 Net**

Central Iowa AG. C-SB	Integrated Farm System C-SB-C-O-H (with livestock)
\$15.00 Return/A. X 3,000 Acres	\$150.00 Return/A. X 300 Acres
Equals \$45,000.00	Equals \$45,000.00



**Table 3. Integrated Farm Systems Support Our Communities**

It takes people to make communities,  
not commodities.

It takes kids to have a school.

Boone County has 368,640 acres.

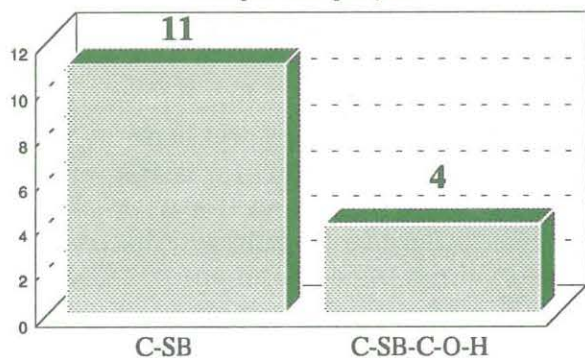
3,000 acre farm size = 123 farm operators.

300 acre farm size = 1,230 farm operators.

Table 3 uses these figures and the number of acres in Boone County to show that the Integrated Farm System with livestock would require 1,230 farm families while the corn-soybean system would require only 123 farm families.

**Figure 4. Soil Loss by System**

Tons per acre per year



Robert Dayton, Soil Conservation Service

Figure 4 compares the soil loss for the two systems using information from Robert Dayton of the Soil Conservation Service. It shows the Integrated Farm System to be superior in terms of protecting the environment by conserving soil resources.

That integrated systems provide higher per acre returns than less diversified systems has also been shown by Mike Duffy, ISU Extension econo-

mist. In a Winter 1992 (Vol. 4, No. 4) *Leopold Letter* article titled "The Role of Animal Production in Sustainability," Duffy examined the impact of a swine enterprise on the returns to farming. Data from this article, reproduced in Table 4 below, show that 400 acres with a 120-sow swine enterprise produces far larger returns than 1,000 acres without livestock.

There is little doubt that the structure of farming systems impact rural community viability. It takes people to make communities, not commodities. ISU Extension agricultural engineer Stewart Melvin put it another way on page 7 of a Winter 1993 *Leopold Letter* (Vol. 5, No. 4) article titled "Team Lends Framework to Animal Ag Debate." In this article Melvin noted, "There is simply not enough income from a corn/soybean agriculture for a community to survive."

The information in these tables, figures, and *Leopold Letter* articles provide an understanding of how the PFI directors see integrated farming systems helping support farm families and rural communities while protecting the environment.

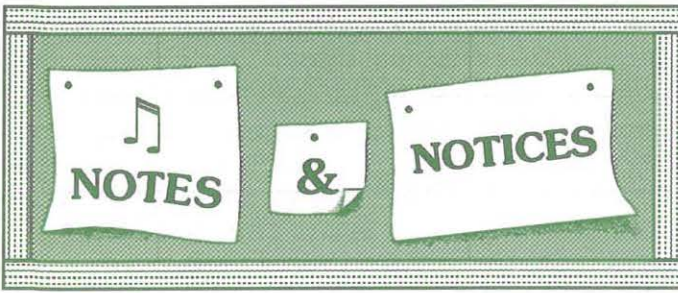
**Table 4. Return to operator for up to 3,000 hours of labor**

(Note: Cash-grain operations do not include extra labor. Operations with swine have over 3,000 hours, and the difference is charged at \$6.50 per hour. Values in parentheses are for the hours of operator labor; scenario 1 = 1,200 and others = 3,000.

	Low Yield	Medium Yield	High Yield
400 acres corn/soybeans	\$832 (\$1.57)	\$9,159 (\$7.63)	\$14,292 (\$11.91)
1000 acres corn/soybeans	\$4,710 (\$1.57)	\$22,897 (\$7.63)	\$35,729 (\$11.91)
400 acres continuous corn with 120 sows	\$38,710 (\$12.90)	\$46,207 (\$15.40)	\$50,560 (\$16.85)
400 acres corn/soybeans with 120 sows	\$44,902 (\$14.97)	\$54,939 (\$18.31)	\$60,287 (\$20.10)







♪ **Donald Reese Missing!**

Do you know Donald Reese? He joined PFI with a \$10 check that was cashed at the end of December. We have no record of his mailing address, and the bank was not able to help. If you know Donald, please help PFI give him his money's worth! Call a PFI coordinator (515-294-1923) or notify your district's board director. Thanks!

♪ **PFI Directory: Last Call!**

The first-ever directory of PFI members will be mailed this summer. With tables of cropping, tillage, fertility and other practices, it will be a quick reference for who's doing what and who has information you may want. The directory will identify members by district, county, and phone number. It will not give mailing addresses, so members won't have to worry about showing up on some business' direct mail list!

How can you get your own copy of the PFI directory? By agreeing to be in it. No one will appear in the directory without their consent. Likewise, you need to be part of the directory to receive it. And you don't have to farm to take part. There will be a listing for anyone with a skill or idea to share.

Here's your chance to climb on the wagon. The tear-off form on the next page is for you to use to be part of the PFI Directory, and you can use the other side to indicate interest in the

*Ponds, Prairies & PFI* summer youth camp. Fill out one or both sides and return.

♪ **Lending Libraries Busy**

District libraries reported brisk use over the winter. Tom Frantzen, who manages the Northeast District library, says the video by Joel Salatin, *Polyface Poultry Production*, is a particularly hot item right now. Also, PFI member David Helle has donated to the northeast library a copy of the book *One-Straw Revolution*, by Masanobu Fukuoka. Tom can be reached at 515-364-6426, and he will lend out-of-district. Other PFI lending libraries are located with the district directors.

♪ **Rural Mental Health and Sustainable Agriculture Conference**

The National Association for Rural Mental Health will hold its 1994 conference from Friday, July 1 through Monday, July 4 at the University Park Holiday Inn, Des Moines. PFI is a conference sponsor. Sessions will cover rural mental health issues, such as "Community Dynamics in the Flood Crisis" and "Physical and Psychological Health Hazards of Industrialized Agriculture."

On Saturday there will be three presentations under the title "Definition of Sustainable Philosophy and Environmental Consciousness." John Piper of the Land Institute will speak on nature as a model for sustainability. Milan Wall of the Heartland Center for Leadership Development in Lincoln will discuss sustainable communities. PFI members Dick and Sharon Thompson will describe their vision of the sustainable farm. ISU sociologist Gordon Bultena will lead a session titled "Sustainable Agriculture and Its Implications for Rural Community Viability." Panelists will include Cornelia Butler Flora (Virginia Polytechnic Institute), John Allen (Univ. of Nebraska), and Paul Lasley and Eric Hoiberg of ISU.

Registration is \$50 for students and \$75 for farmers. After June 1 these costs rise \$20. To see about a farmer scholarship, contact Michael Rosmann, Prairie Rose Mental Health Clinic, 1220 Chatburn Ave., Harlan, Iowa, 51537 (712-755-5056). For a registration form contact NARMH, P.O. Box 570, Wood River, IL, 62095. For more information call Sandy Murray at 618-251-0589.



**♪ Poweshiek County CRP Field Day  
June 22**

As an outgrowth of the Poweshiek County *Shared Visions* project, a demonstration of cropping on CRP land will take place the evening of Wed., June 22 at the Rick Swanson farm north of Malcolm (Hwys. 63 and 6). See no-till, plow with chemicals, plow without chemicals, and herbicide plots. For information call Cal Johannes at 515-623-5188.

**♪ Winrock International Seeks Farmer-to-Farmer Volunteers**

Winrock International, a private, non-profit, scientific and educational agricultural development organization, is looking for volunteers to lend technical assistance to farmers, farmer organizations, and agricultural institutions in various developing countries. The Farmer-to-Farmer Program is funded by the U.S. Agency for International Development and pays travel, meals, and lodging, and arranges for visas, passports, medical exams, etc.

Assignments last approximately one month, including briefing and debriefing at the Winrock headquarters in Morrilton, Arkansas. The program is now focused on Mexico and countries in Central America, Eastern Europe, and the former Soviet Union. Information and an application form are available by contacting: Winrock International, Farmer-to-Farmer Program, Rt. 3, Morrilton, AR, 72110, or phone 501-727-5435, extension 264.

**♪ Marty Strange Talk Available**

Thanks to Donna Bauer, who typed Marty Strange's talk at the PFI winter meeting Jan. 6! The transcript is available on request. Audio and video tapes of the event are also available. Contact the PFI coordinators.

**♪ Fourth Annual Leopold Conference**

This year's annual Leopold Center conference offers diverse perspectives on the relationship of people, products, and profits in a sustainable agriculture. Titled "People, Products, and Profits," the conference will be held August 4, 1994 at the Scheman Continuing Education Center in Ames.

Speakers will include: Amy Barr of the Good Housekeeping Institute in New York, who will discuss consumer perceptions of farming and the impacts this all-encompassing group will have on agriculture in the future; Neil Hamilton, Director of the Drake University Ag Law Center, who will discuss how industrialization is restructuring food production in Iowa; and Bill Heffernan, professor of Rural Sociology from the University of Missouri, who will speak on where the profits in agriculture are going and how changes in profit structure may impact rural communities.

A variety of informative, interactive breakout sessions will also be featured. Registration is \$25 with lunch and \$15 without lunch if received before July 29. For information, write the Center at: 126 Soil Tilth Building, ISU, Ames, IA, 50011-3120, or call them at 515-294-3771. 🌱

**Yes! Include me in the PFI Directory.  
Send me a copy and include me in the  
directory listings.**

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

Name \_\_\_\_\_

Address \_\_\_\_\_

City, State, Zip \_\_\_\_\_

**Return to:  
Practical Farmers of Iowa  
2035 190<sup>th</sup> St.  
Boone, IA 50036-9632**

The image shows three overlapping forms for the PFI 1994 Directory. The top form is titled "PFI 1994 Directory, Crops" and includes fields for Name, Address, and various crop-related data. The middle form is titled "PFI 1994 Directory, Fertility and Strip Intercropping" and includes fields for Name, Address, and fertility-related data. The bottom form is titled "PFI 1994 Directory, Tillage" and includes fields for Name, Address, and tillage-related data. The forms are partially obscured by the return address text.



# Ponds, Prairies, and PFI

1994 Youth Summer Camp  
at the Iowa 4-H Education and Natural Resources Center

**FOR WHOM?** Any interested PFI youth, their friends, and others, ages 8 and up  
(parents are welcome)

**WHAT'S HAPPENING?** A fun camp that gives youth a chance to get together and  
learn about how agriculture and people fit into the natural world around us.



**Activity ideas:** Investigations of ponds, prairies, forests, streams, and wetlands;  
Native American history, agriculture, and living skills;  
Traditional crafts - wool shearing, carding, spinning, knitting;  
leather working;  
butter, candle, and soap making; and more!  
Canoeing, hiking, swimming, campfires, music, storytelling;  
Community Building - group challenge course and task sharing  
activities;

**WHERE?** The Iowa 4-H Education and Natural Resources Center - 20 miles SW of  
Ames near Madrid, Iowa.

**WHEN?** August 4-7, 1994 (Thursday-Sunday)

**COST?** \$45 per participant

PLEASE COMPLETE, CLIP, AND MAIL THIS REGISTRATION FORM AND A CHECK MADE OUT TO *IOWA 4-H CENTER* TO:  
Gary Huber, 2104 Agronomy Hall, ISU, Ames, Iowa 50011  
If you have questions, please call Gary Huber at 515-294-8512.  
More information will follow receipt of the registration.

## PONDS, PRAIRIES, AND PFI YOUTH FIELD DAY REGISTRATION FORM

Names and ages of campers: \_\_\_\_\_  
\_\_\_\_\_

Name of Parents \_\_\_\_\_

Address and Phone Number \_\_\_\_\_

Please include ideas and suggestions for activities. We want to tailor this camp for you!

\_\_\_\_\_  
\_\_\_\_\_



## FARM APPRENTICESHIP PROGRAM

*Kamyar Enshayan*

(Editors' note: Kamyar Enshayan is a PFI member who lives and works in Cedar Falls.)

Wendell Berry writes, "After a century of industrial agriculture, farmers ... have become a tiny minority — To farm our land in the best way, to conserve it and keep it permanently productive, we need many more farmers than we have. Given the best of conditions, it would take a long time to get them. The best way to get farmers is to raise them on farms, but the seed stock has been drastically depleted. And for those who wish to come into farming from the outside, there are critical educational problems and few teachers."

Iowa Organic Growers and Buyers Association (IOGBA) is initiating a regional Farm Apprenticeship Program to link interested host farmers with potential apprentices. Some PFI members may wish to participate as host farmers.

***"The best way to get farmers is to raise them on farms, but the seed stock has been drastically depleted."***

The whole idea is learning to farm by doing it. There are many college students and others who wish to learn how to farm through physical and mental work. Of course, there are so many types of farms, and there is a wealth of ecological farming skills among many farmers in our region.

Perhaps the most meaningful part of my education was the year I worked as an apprentice on a 60-acre mixed vegetable farm, after years of desk work at graduate school. I lived with a farm family; they provided room, board and their knowledge, and I worked along with them. I learned about every aspect of the operation during the growing season: starting the seedlings, greenhouse management, care of chickens and hogs, field preparations, field

planting of all kinds of vegetables, hoeing and cultivation, harvesting, marketing, and delivering to buyers and farm markets. It was hard work and it was extremely enjoyable and rewarding.

The apprenticeship process provides apprentices with agricultural and homesteading skills while helping host farmers improve their operation through extra help. On-farm training that leads to the transfer of ecologically-sound farming skills benefits the farm families while providing the apprentices with a summer alternative that will have a lasting impact.

To learn more about the Apprenticeship Program contact: Kamyar Enshayan, P.O. Box 981, Cedar Falls, Iowa 50613. 319-266-5468. ☺

## IPM PROJECT FUNDED, SEEKS COOPERATORS

The Leopold Center for Sustainable Agriculture has funded year one of a proposed two-year effort to develop new options for integrated pest management of insect pests in alfalfa and corn. The proposal, written in collaboration with ISU entomologist Dr. John Obrycki, will work with farmer cooperators who will serve as the center for local "IPM interest groups."

Obrycki's team will work with group members to try both experimental and conventional IPM methods, including scouting, evaluating alfalfa weevils and corn borers for parasites and disease, inoculating fields with parasites and diseases, strip harvesting of alfalfa, and establishing farm reservoirs for beneficial insects and insect pathogens.

The project will begin in earnest in 1995. Two cooperators growing alfalfa and two raising high-value corn will be supported. PFI members Glen Draper, Eldora, and Phil Specht, McGregor, have agreed to form the nucleus for alfalfa IPM clubs in their re-





gions. There is still room for one or two corn IPM cooperators. The focus will be on "high value" corn – popcorn, sweet corn, or corn for some other specialty market – because the cost of integrated pest management practices can be more easily justified under this pricing. If you have an interest and you think some of your neighbors might too, please contact Rick Exner at 515-294-1923. 🌱

## 1994 FFA SUSTAINABLE AGRICULTURE WINNER ANNOUNCED

The FFA sustainable agriculture award was started by the PFI Board of Directors in 1991 to recognize Iowa youth who have made significant contributions to developing sustainable systems of farming. Brenda Cousins is the winner of the 1994 award, which she received on April 15 at the FFA Leadership Conference in Des Moines.

Brenda lives with her brother, Brent, and her parents, Robert and Sharon, on a 600-acre farm near Anamosa. About 400 acres is cropland and the rest is pasture. Brenda and her family use a variety of sustainable practices, such as crop rotations, feed testing, Integrated Crop Management, farmstead improvement, grass waterways, contouring, and shredding newspapers for livestock bedding. Furthermore, Brenda keeps track of all of her records on a computer program at her home.

Brenda started using newspaper for bedding for their beef cattle as an Earth Day project in 1990 and was featured on a local television news program. By using newspaper for bedding for their beef cattle, Brenda is able to dispose of old paper in a practical way. In return, she is given a product that lasts longer than normal bedding, is less expensive, and is cycled back to the land as fertilizer.

Through the use of these sustainable practices, Brenda has been able to improve the environment, and she takes great pride in the fact that she is making a difference. "It is important



Gary Huber presented the PFI-sponsored FFA Sustainable Agriculture award to Brenda Cousins of Anamosa.

that we each do our part to protect the earth," Brenda said after receiving the award, "and recycling newspapers is one of the ways I am helping make a difference." Brenda also noted that her interest in helping protect the earth came primarily from her brother and her dad.

Brenda is active in 4-H, and she is in band and on the yearbook staff and Anamosa High School. She is also active in a peer group at her high school that provides counseling to youth in need. After high school Brenda plans to attend Kirkwood Community College in an agriculture transfer program. She intends later to enroll at Iowa State University as an Agriculture Education major with possibly a minor in computer science. Her ag education instructor and FFA advisor is Ms. Barbara Lemmer. 🌱





## PFI PROFILES: JASON BROWN AND JAMIE RETZINGER

Gary Huber

**(Editor's note: In 1992 an effort was made to pair youth with "mentors" who were either PFI members or Soil and Water Conservation District Commissioners. The youth and adults in these pairs worked together on projects that focused on some aspect of sustainability. In this PFI profile, the mentoring pair of Jason Brown and Jamie Retzinger is profiled.)**

Jamie Retzinger has been an associate PFI member since 1991. A senior field research agriculturalist with American Cyanamid, Jamie incorporates his concerns for agricultural sustainability into his work by researching topics such as allelopathy, or the growth inhibiting impact some plants have on others.

Jamie sees this kind of research as an important part of the role people like himself have in helping farmers find safe ways to produce food while protecting the environment. "We need to work together," Jamie noted recently. "We are all part of what it takes to produce food, and everybody loses when it's an us versus them situation."

Jamie responded to an appeal that was extended to PFI members at the beginning of 1992 for people interested in being mentors for youth. "Young people are the future," he said. "Those who stay on the farm need the encouragement to be stewards of the land, and I want to help them." Jamie was particularly interested in finding a young person who wanted to learn about how to do research related to agricultural sustainability on plots near Mingo, just northeast of Des Moines.

Jason Brown is a graduating senior at Colfax/Mingo High School. Jason responded to an inquiry made by Bill Edgar, a science teacher at the Colfax-Mingo school, who was asked to help locate a student who would like to be involved with Jamie. Jason noted some fairly typical interests, such as baseball cards and riding bikes, but he also expressed some interests that were not so typical, such as



**Jason Brown records soybean populations in the research plot.**

science, wildlife, and nature. His favorite subject in school is biology.

The project Jamie and Jason worked on involved comparing the performance of a soybean variety with a very upright growth habit to one with a wide branching growth characteristic using three different row widths. The idea behind the project was that soybeans with certain growth characteristics may provide more early season ground cover, which in turn could decrease weed pressures by reducing the amount of sunlight penetrating the crop canopy.

The research results were inconclusive because the two varieties ended up with an average difference in plant populations of about 18,000 plants per acre. Jason and Jamie thought this could have been due to differences in seed size. However, the results of the mentoring relationship fared better.

Here is how Jason described the experience. "Prior to doing this project I had no idea about the work and thought that goes into testing and researching crops, but as the project took place I began to gain new insights on popular farming concepts and ways to improve farming. Today when I drive by a field of corn or beans, I can almost see what the farmer was thinking when he did something. This project has enlightened me and I am now considering pursuing farming sometime in the not too distant future." 🌱



## THE TRANSITION TO SUSTAINABLE AGRICULTURE IN IOWA, PART I

Rick Exner

A study of sustainable agriculture begun in 1988 is bearing fruit in 1994. More than five years ago the Northwest Area Foundation, of St. Paul, Minnesota, approached Practical Farmers of Iowa with a plan to gather information about the social, economic, and agronomic impacts of sustainable agricultural systems and the transition to sustainable agriculture.

PFI and sustainable agriculture organizations in four other states were charged with designing a project in cooperation with researchers whom they would select at their respective state agricultural universities. That collaboration has been, in general, a very successful one and a whole story in itself. PFI board members Ron Rosmann, Harlan, and Dick Thompson, Boone, provided valuable consultation in the Iowa part of the project. There were other benefits to PFI as well, such as the financial support to launch the *Sustainable Projects* grants program.

Some time ago this newsletter reported on information about farmer attitudes gathered in the project ("Transition Study Releases First Results," Vol. 5, #3, Fall 1990). This article focuses on the soils and cropping information. In the next issue of the newsletter, we will look at costs, output, and returns in corn production for farmers categorized as "sustainable" and "conventional." Because "conventional" might be considered a derogatory expression, the term "production maximizer" has been used to reflect that approach to farming.

We started with a telephone survey of two groups of Iowa farmers farming at least 50 acres and raising some corn: 1) a random sampling of 1,067 producers, drawn approximately equally from five enterprise regions of the state (See Figure 5); 2) 169 Iowa members of four farmer organizations – Practical Farmers of Iowa, Farm 2000, the Organic Crop

## Farm Enterprise Regions

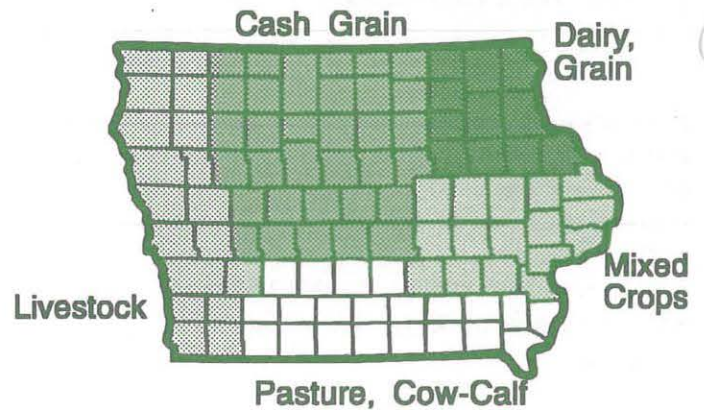


Figure 5. The state was divided into five regions based on soils, climate, and farming enterprise.

Improvement Association, and the Organic Growers and Buyers Association. No attempt was made to sample these four organizations randomly; these individuals were included to provide additional examples of sustainable agriculture. The telephone interviews were followed with a mail survey, which was returned by 74 percent of farmers. The phone interview and mail questionnaire asked about people's views on farming and collected detailed information about production methods they used on a "typical" corn field in 1989.

Farms were classed on a scale from "conventional" to "sustainable," based on eleven criteria relating to attitude and to practices used on the field:

- 1) Nitrogen fertilizer – amount of crop-available nitrogen (includes all sources);
- 2) Purchased N – percent of all crop-available nitrogen that was purchased;
- 3) Herbicides – cost per acre of herbicides;
- 4) Insecticides – cost per acre of insecticides;
- 5) Crop diversity – percent of cropland in crops other than corn and soybeans;
- 6) Crop rotation – number of different crops in five years on that field;
- 7) Livestock – number of different livestock enterprises;



- 8) Crop production – kilocalories per acre used in field operations and purchased nitrogen fertilizer;
- 9) Corn drying – cost per acre to dry that corn crop;
- 10) Self-classification – self-classification of farming operation;
- 11) Practice assessment – evaluation of farming practices used in sustainable agriculture.

## Soil Phosphorus for 95 Farms

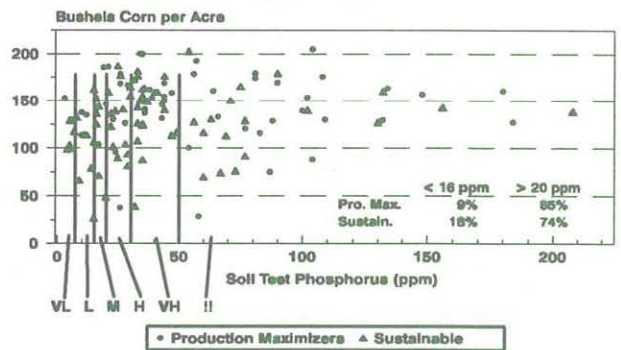


Figure 7. 1991 corn yields and soil test phosphorus for sustainable and production-maximizing farms.

precipitation received in the critical June-July period, and 2) estimated corn yield of the soil mapping unit where the harvest was made. This helped put all fields and yields on a common basis.

**The first thing that probably strikes you is that there were a lot of fields that showed excess available potassium and phosphorus.**

Figures 6 and 7 show corn yields plotted against soil test potassium and phosphorus, respectively. Vertical markers on these figures show the range of soil test levels: very low, low, medium, high, and very high. A “!!” range is shown beyond very high. The first thing that probably strikes you is that there were a lot of fields that showed excess available potassium and phosphorus. A long term study at the Kanawha Research Station has shown that P and K fertilization seldom paid when soil test levels were above the medium range (“Phosphorus and Potassium Fertility – How Much is Enough?”, *the Practical Farmer*, vol. 7, #1, Spring 1992). There are roughly equal proportions of sustainable and production-maximizing farmers showing excess soil P and K. This is evidently an area of potential savings that many producers could take advantage of.

Based on these scores, 95 of the “most sustainable” and “most conventional” (production-maximizing) farmers were chosen for field study in 1991. ISU soil scientist Dr. Alfred Blackmer, with (then) postdoctoral fellow Antonio Mallarino evaluated soil fertility and crop growth on these sites. Extension weed specialist Dr. Mike Owen, with graduate student Ken Pecinovsky, obtained weed seed counts from soil samples taken in these fields as well. On these 95 farms, a total of 127 fields were sampled.

Much of the project focused on corn production – simply because corn is something that is grown on almost every farm. In comparing 1991 yields from around the state, it was necessary to adjust measured yields for both 1)

## Soil Potassium for 95 Farms

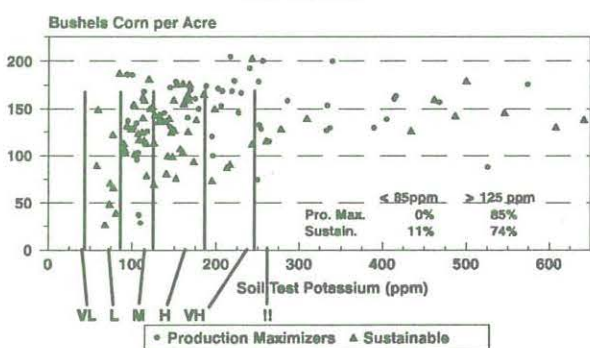


Figure 6. 1991 corn yields and soil test potassium for sustainable and production maximizing farms.

At the same time, there were three or four sustainable farmers’ fields that showed both low soil test potassium and low corn yield. It is possible there was a connection.



**Nitrogen Management for Different Types of Producers**  
(percent of 127 fields)

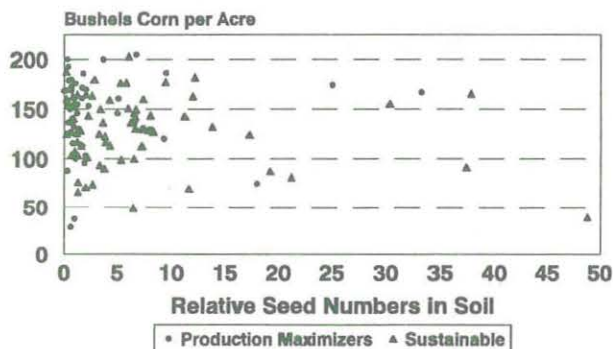
	Production Maximizers	Sustainable
<b>12-in Soil Nitrate N</b>		
< 21 ppm	40%	51%
21-26 ppm	27%	33%
> 26 ppm	33%	15%
	100%	100%
<b>Corn Stalk Nitrate N</b>		
< 700 ppm	27%	50%
700-2,000 ppm	15%	14%
> 2,000 ppm	58%	36%
	100%	100%

**Table 5. 1991 late spring soil nitrate and late season stalk nitrate in sustainable and production maximizer corn fields.**

Blackmer and Mallarino also measured late spring soil nitrate levels in these corn fields, and they analyzed corn stalks at the end of the season for excess nitrate N (Table 5). Forty percent of the Production maximizer fields and 51 percent of sustainable fields had spring soil nitrate levels less than 21 parts per million (ppm), suggesting the need to sidedress additional nitrogen. Fields of 33 percent of production maximizers and 15 percent of sustainable farmers showed soil nitrate N over 26 ppm, indicating the corn already had sufficient nitrogen when the crop was at the 6-12-inch stage.

The late season stalk test shows whether the crop actually had enough nitrogen. The target

**Soil Weed Seed Numbers by Site**  
93 Farms / 113 Fields



**Figure 8. 1991 corn yields and total soil weed seeds for sustainable and production maximizer fields.**

range, 700-2,000 ppm nitrate N, is difficult to hit in practice. Readings below 700 ppm indicate yield *may* have been limited by nitrogen. The test is actually more reliable at detecting excess N, defined as greater than 2,000 ppm nitrate N. Fifty-eight percent of production maximizer fields were in the excess range, as were 36 percent of sustainable fields.

Owen's team found that, on average, there were more weed seeds in the soil of fields on sustainable farms than on those of production maximizers (Figure 8). However, there was not a statistically significant relationship between weed seed numbers and corn yield (at the 95% confidence level). Other research has shown that factors such as tillage strongly affect the relationship between the soil weed seed bank and numbers of weeds actually found growing.

In summary, farms categorized as sustainable had corn fields with reduced average levels of soil test potassium, phosphorus, and late spring nitrate N compared to farms classed as production maximizing. At the same time many farmers of *both* kinds could improve their efficiency and profitability by recognizing excesses of these nutrients. A small number of sustainable producers may have lost corn yield due to potassium deficiency. There were more weed seeds in the soil of sustainable farm fields than on production maximizer fields, but there was not a significant relationship between seed number and corn yield in the year of the field study.

In the next issue of the newsletter, we will compare yields, costs, and net returns. 🌱

**CORN ROOTS ROT LESS IN ROTATION**

Rick Voland

(Editors' note: As a graduate student in 1987, Rick Voland served on the provisional board of directors of Practical Farmers of Iowa.)

"Out of sight; out of mind." Plant roots lie covered by soil and rarely attract attention.



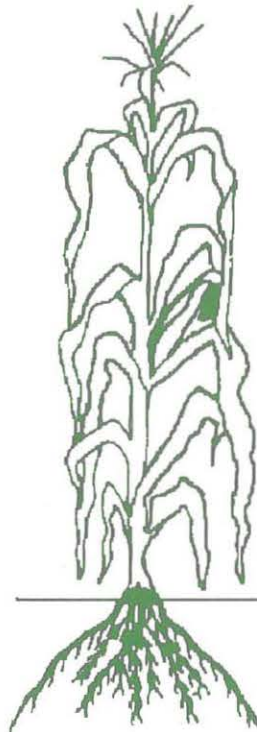
Still, roots can become diseased even when we don't look for the symptoms. Diseased roots are less effective for taking up water and nutrients. In addition, diseased roots may act as a conduit for organisms that attack above ground parts of plants.

Roots of corn following corn during 1992 in Wisconsin had noticeably more discoloration than corn in rotation. During July and August, it was almost possible to identify which plots the roots came from by the amount of dark root surface. The corn plants were collected from continuous corn and corn following soybeans and wheat/red clover located at both sites of the Wisconsin Integrated Cropping Systems Trial (near Madison and southwest of Milwaukee).

Roots collected in early June showed no differences in discoloration, but the soil was unusually dry. Rainfall in May and June was 30% of normal. July was cool and wet. At both sites, the above-ground parts of the corn plants looked similar.

Iowa farmers might consider digging a few corn plants in late-June to July to compare root discoloration among their on-farm experimental treatments. Roots can be soaked in warm water and then washed with the spray from a hose to remove the soil. Healthy corn roots are white. Diseased roots appear brown.

This project was funded by the Kellogg Foundation, and involved the collaboration of plant pathologists Rick Voland with Michael Fields Agricultural Institute and Doug Rouse at the University of Wisconsin-Madison.



## ECONOMIC IMPACTS OF CONTRACT HOG PRODUCTION IN MISSOURI – AN ALTERNATIVE VIEWPOINT

(John Ikerd)

**Editors' note:** This article by University of Missouri agricultural economist John Ikerd is reprinted with permission from the March-April *Issues in Sustainable Agriculture*, a publication from The Center for Sustainable Agricultural Systems, in Columbia, Missouri.

*Contract hog production is a sensitive political economic, and social issue in Missouri. Any comment on this issue will likely be perceived as biased and adversarial regardless of how unbiased and objective it may be. However, a report claiming that each \$5 million invested in contract hog production in Missouri might be expected to generate 40 new jobs in the State has been distributed widely in northern Missouri. This issue of SAI is a summary of a review of that impact assessment report.*

Something is almost always better than nothing, at least in economic terms. Any level of new investment, assuming no foregone alternative investment and no offsetting disinvestment, will result in greater economic activity and an increase in employment. The estimate that 40 new jobs could be created in Missouri through a new \$5 million investment in contract hog production is not unreasonable when viewed in isolation. However, the questions unasked, and thus unanswered, are: what are some logical alternatives to new investments in contract hog production, and what are the alternative consequences for Missouri's rural economy?

The impact assessment report begins with the following statement; "The State of Missouri is poised at a crossroads with respect to pork production." Recent trends in hog production show that "Missouri has fallen from fourth to seventh in production of swine nationally." The decline in rank is attributed to "a large



number of small producers retiring and the new generation of swine producers willing and able to construct twenty-first century pork production processes (being) slow to emerge." The study concludes that "if this trend continues

**Large-scale confinement hog operations reduce total costs by using production methods which allow fewer people to produce more hogs.**

through the 1990s, Missouri stands in danger of losing its very significant share of national hog production." The report also states that "because of direct and indirect economic linkages of the swine production sector to ag and non-ag business throughout the state and region, the economic impact of reversing this significant decline could very well prove pivotal to the economic survival of many towns and regions of the state."

The report points to "some hopeful signs" in that multi-state producers such as Cargill Swine Products, Murphy Farms of North Carolina, Premium Standard Farms, Tyson Foods and others are now considering increasing hog production in Missouri.

The report implies that Missouri's drop in national ranking, or market share, is the major problem confronting Missouri's hog producers and rural communities. A proposed solution to this problem is to encourage large, multi-state corporate hog producers to come to Missouri

The purpose of this "alternative viewpoint" is not to challenge the earlier assessment of potential employment and economic impacts associated with contract hog production. Instead, the more relevant questions are whether "loss in national rank" is the real problem confronting Missouri hog farmers and rural communities, and consequently whether "increased contract swine production" is a logical

economic development strategy for rural Missouri.

The fundamental problem in Missouri's rural communities is a declining availability of quality employment opportunities. More hogs may or may not result in more quality employment opportunities. A recent Special Report prepared by the Center for Rural Affairs in Walthill, NE, points out that between 1986 and 1993, the state of North Carolina more than doubled its hog numbers. North Carolina's national ranking in hog production rose from seventh in 1986 to third by 1993. However, during this same period, the number of North Carolina hog producers dropped by nearly one-half.

Opposite trends in production and employment should come as no surprise. Large-scale confinement hog operations reduce total costs by using production methods which allow fewer people to produce more hogs. In fact, substitution of capital and mass-production technologies for labor and management is the primary advantage that large, specialized hog production units have over smaller, diversified operations.

The economic impacts of contract production were compared with two alternative systems of Missouri hog production for purposes of illustration. The first was based on hog farms that provide farm records to Missouri's Management Information Records (MIR) program. A total of 25 MIR farms were classified as hog farms in 1992. A comparison of MIR hog farms with contract hog production indicates that well-managed existing hog farms may employ up to three times as many people

**...well-managed existing hog farms may employ up to three times as many people as would contract production units producing the same dollar value of hogs.**



as would contract production units producing the same dollar value of hogs. Compensation levels or income per person employed were comparable for both types of operations.

MIR hog farms and contract production units are different in many respects. Most notably, many of the MIR farms produce some or most of their own feed and utilize depreciated hog facilities. The contract units were assumed to purchase all feed and make payments on new hog facilities. However, contract production was also compared with a small-scale, low investment hog production system. The low investment system was budgeted based on purchased feed and new facilities, as was the case for contract production. But, low investment feeder pig systems were estimated to employ about three-times as many people as would be employed by contract units producing the same number of pigs.

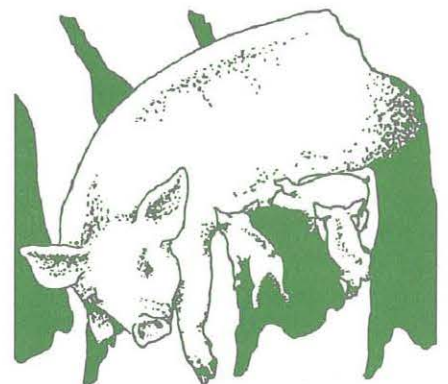
These comparisons indicate that if new contract hog units were to replace existing hog farms producing the same number of hogs, approximately three hog farmers could be displaced and two might well be left without jobs for each new job created in contract production. A new \$5 million investment in contract production could generate 40-50 new jobs on farms and in rural communities but might displace as many as three times that number of people who currently have jobs in Missouri's rural communities. Regardless of the specific numbers, the basic nature of the trade-offs between more contract hogs and more hog related jobs is clear.

**.....there is clear evidence that independently-owned, modest-sized, family-operated hog farms can be commercially competitive with current contract production units. The evidence is equally clear that successful, modest-sized, family-operated hog farms contribute more to the economic and social well being of rural communities than do their corporate counterparts.**

Rural Missouri cannot retreat to an earlier time when cost competition was less keen, full-time family farms were the norm, and agricultural communities were strong and growing. However, there is clear evidence that independently-owned, modest-sized, family-operated hog farms can be commercially competitive with current contract production units. The evidence is equally clear that successful, modest-sized, family-operated hog farms contribute more to the economic and social well being of rural communities than do their corporate counterparts.

It would seem that more intensive management, and not increased size, of independent hog farms should be given as high a priority as contract hog production as a rural economic development strategy. A greater emphasis on management intensive farming could create quality employment opportunities in rural areas by enhancing the productivity of rural people rather than replacing people with capital investments and large-scale, mass-production technologies.

(For a copy of the complete *Alternative Viewpoint* paper, contact John Ikerd, 200 Mumford Hall- UMC, Columbia, MO 65211 or call 314-882-2668)





## FOOTPRINTS OF A GRASS FARMER

### Time for Guerilla Warfare

Tom Frantzen, Alta Vista

Since 1980, over 65 percent, of the hog farmers in this country have gone out of business. If that statistic isn't enough to turn your stomach, the current emphasis on industrialized, vertically integrated pork production surely is. I could easily dedicate this article to the lack of vision from our agricultural policy makers and our political leaders. How dare they encourage the pursuit of short term economic gain for a few, while ignoring the horrible social and ecological long term effects of industrialized agriculture!

Existing and newcomer traditional hog farmers need encouragement. It is very important that they not fall into seeing themselves as victims. They should join the grass farming revolution. By adapting a "take charge" attitude, they can seek out positive alternatives.

Allan Nation provides his *Stockman Grass Farmer* readers with excellent advice on economic survival. He recommends avoiding direct confrontation with superior forces. Obviously the "livestock industrialists" have superior economic resources compared to small, independent operators.

It will be economic suicide for small hog operations to initiate what the large integrators are doing. What can we do? We know we are correct in the social and environmental soundness of small, diverse livestock operations. We need to use economic strategies that will ensure our survival. Few of these strategies can be found in the conventional wisdom of modern pork production. The time is right for guerrilla warfare economic strategies.

At a recent grass farming conference, Alan Henning (grazing consultant from Madison, Wisconsin), emphasized how important it is to eliminate expenses. "An expense one eliminates never rises!" Good advice. What expenses can we eliminate with alternative strategies for hog production?

In previous *Footprints* articles, I detailed my experiences with eliminating commercial



Ear corn for the Frantzen sows - from a recent *Market to Market* feature on the Iowa Public Broadcasting Network.

protein in pasture-gestating and farrowing sows. Savings in reducing the corn fed and skipping the protein was over \$300 per acre. What other expense items can be axed in swine production? I keep detailed records of my equipment expenses. The variable cost of operating my three aging "20"-series John Deere tractors amounts to \$8.40 per hour of use. This variable tractor expense and the cost of owning a mixer mill brings the cost of grinding feed to \$7.00 per ton. Each ton of feed that could be fed without grinding would save \$7.00.

This winter my breeding, gestating, and pre-farrowing sows were fed whole, wet ear corn and cubed sow supplement. I shoveled the corn over the fence daily and gave the cubes on alternative days. The sows maintained an excellent, uniform condition. This move cut winter sow feeding costs by \$7.50 per sow. The lack of storage, drying, shelling, handling and grinding expense all contributed to the total savings. Remember Henning's advice, "An expense once eliminated never rises!"

I am so satisfied with the change back to whole ear corn for winter feed that I intend to erect some ear corn storage next to my sow winter lots. Used materials that I have on hand will keep the cost very low.

Can other ways be found to reduce or eliminate expenses? Let's keep looking!



# FROM THE KITCHEN (and GARDEN)

Marj Stonecypher, Floyd

Spring is supposed to be here!!!! It's a little cold out today and rainy. A good day to spent in front of the computer and dream of my garden. Haven't got a thing done yet. How about you? Some of my dreams are an "Edible Flower Garden" of Herbs.

Here are some tips on making an "Edible Flower Garden." It can be planted in a nice straight row, tucked into borders, or even set in tubs or pots on a patio or deck. I pulled out some bushes in front of the house, under the office window that is a 2 x 20-foot area. Perfect place for this. House on one side and sidewalk the other side. Some of the plants I am suggesting cannot spread there, and they will, if you let them, like a weed.



Here is a list of some you can plant, along with a few flowers to mix with them: basil, chives, garlic chives, rosemary, sage, coriander, dill, fennel, marjoram, oregano, thyme, nasturtiums, daylily, lavender, gem marigolds,

violets, violas and pinks. Most grow best in full sun. Some for partial shade are sweet woodruff or mint, which do spread. Garden soil should be well drained and fertile. Add fertilizer or manure to enrich less-than-perfect soil, but avoid adding too much nitrogen, which might inhibit flower formation. Mulch makes a garden look tidy and finished. It also helps retain moisture so that less water is required and, best of all, keeps the weeds to a minimum. Be vigilant about removing faded blooms to encourage your garden to produce more flowers. Then try some of your herbs in the following:

## "BASIL-GARLIC BUTTER"

- 4 T. fresh basil leaves, chopped
- 2 cloves garlic, peeled & finely minced
- freshly ground white pepper to taste
- 1/2 cup butter, softened
- 1 tsp. fresh lemon juice

Place all of the ingredients in a small mixing bowl or food processor bowl. Beat on medium speed or process till smooth. Chill at least 24 hours before serving.

Note: For a milder version, use 1 clove garlic and 2 tablespoons fresh basil leaves. (Delicious on home made bread.) "Just try to keep Tom Frantzen's gorillas out of your flowers." 🐼

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Please enclose check or money order (\$10 for one year, \$25 for three years) payable to "Practical Farmers of Iowa" and mail to:

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 Boone, IA 50036**



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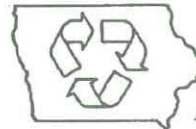


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