

# the Practical Farmer

Practical Farmers of Iowa Newsletter

Vol. 12, #3  
Fall 1997

## NEIL HAMILTON KEYNOTE FOR JAN. 10 WINTER WORKSHOPS

Think there's nothing new under the winter sun of January? How about a PFI annual meeting that's *not* in Ames? The annual Winter Workshops moves this year to the Adventureland Inn, in the Des Moines suburb of Altoona.

Expect the same timely workshops and posters, and some of the most interesting producers and most energized consumers in the

state. Heading up the event will be Neil Hamilton, founder and director of the Drake University Agricultural Law Center and a frequent contributor to the Des Moines Register. His keynote talk, *A Food System Vision for Iowa's Future*, will draw together the experiences of Iowa farmers and consumers into a portrait of the present and a vision for the future. Neil Hamilton will also receive the PFI Sustainable Agriculture Achievement Award (see sidebar on page 3).



Writer and ag law expert Neil Hamilton  
keynotes the Jan. 10 Des Moines meeting.

(Workshops continued  
on page 2)

### IN THIS ISSUE

- 1-6** Winter Workshops
- 2** Holistic Management Course
- 7** Shared Visions – Group Updates
  - Final Group Networking
  - CHARM Bus tour
  - Hassebrook at Neely-Kinyon
  - Ag Connect Expanding
  - Carroll County Grant
- 9** PFI USDA Food System Grant
- 9** Notes and Notices
  - Food Proj. Seeks Farmers
  - PFI Wildlife Federation Award
  - Specialty Meat Survey
  - Sustainable Projects 1998
  - Pork Industry ICN Conference
  - Advanced Graziers ICN Conf.
  - Organic Farming ICN Conf.
  - SARE Austin, TX Conference
- 13** Swine Tour Draws 150
- 14** Religion and Environment Conf.
  - Ron Brunk
- 14** Farmer-to-Farmer in Ethiopia
- 15** Loess Hills Bed & Breakfast
  - David Zahrt
- 15** PFI Library Update
  - Mark Runquist
- 17** *Steel in the Field* Review
  - Rick Exner
- 17** *Rollin' the Cob: Labor Needs*
- 20** P & K Placement in No-till & Ridges
  - Antonio Mallarino
- 23** 1996 On-Farm Trials, Part IV
  - Variety Trials
  - Planting Trials
  - Hazelnut Establishment
- 28** *Footprints of a Grass Farmer: Ear Corn and Efficiency*
  - Tom Frantzen
- 29** *From the Kitchen*
  - Marj Stonecypher

## Ag Industry and Sustainable Agriculture

In recent years the flurry of buy-outs and strategic alliances between seed and chemical companies has been exceeded only by the stir of attention to agricultural biotechnology. Some of the biotech products entering the market relieve farmers of the need to apply herbicides or insecticides. Does this mean that the agriculture industry is headed toward sustainable agriculture?

The Jan. 10 meeting will bring together three presenters well-qualified in both ag industry and sustainable agriculture: Raymond Forney, Sustainable Agriculture Project Manager at the Dupont® Chesapeake Farms Project; William Vorley, director of the Environment and Agriculture Program at the Institute for Agriculture and Trade Policy (IATP); and Glen Borgerding, an independent crop consultant. Under the title *Agriculture Industry and Sustainable Agriculture: Opportunities and Barriers*, these speakers will discuss initiatives industry is and could be taking to make agriculture sustainable and how technologies and business policy are being implemented locally.

Each panelist has a strong background in both ag business and sustainable agriculture. The farm managed by Ray Forney is devoted to researching environmental impacts of cropping systems. Bill Vorley, before joining the Minneapolis-based IATP, was an agronomist with Ceiba Geigy. Between those two posts he carried out research, in association with the Leopold Center, on Iowans' attitudes toward agriculture and the environment. An independent consultant in Freeport, Minnesota, Glen Borgerding works with producers trying to make their farms more sustainable and profitable, sometimes by investing in products and technology and sometimes by avoiding those expenses. Doubtless PFI members at the workshop will contribute their

(Continued on page 3.)

**The PFI Board of Directors has formulated a broad range of workshops, from the production side of the equation to the marketing and consumer end.**

## HOLISTIC MANAGEMENT COURSE SET FOR JANUARY 29-31

Practical Farmers of Iowa will offer a 3-day in-depth Holistic Management training course at the end of January. Holistic Management is a new way of making decisions for your family and business. You will be challenged to: define your values; set personal, family, and farm goals; and look at how to best use your resources to meet these goals.

Trainers will be Audrey Arner of the Land Stewardship Project in Minnesota and Bill Casey, an Extension Farm Management Specialist in Northeast Missouri. Members of the CHARM group (see article on page 7) will help participants learn how to develop local support teams.

Costs of the workshop will be shared among PFI, the Leopold Center, and participant registration fees. Fees are \$100 per person, with additional family members or farm partners charged only \$25 each. Fees include workshop materials and meals. Lodging will be at your own expense.

If you are interested in attending, please call either Gary Huber (515-294-8512) or Margaret Smith at the Hardin County Extension office (515-648-4850). Location will be decided after January 15th at a central location for registrants.



The Adventureland Inn, in the Des Moines suburb of Altoona, is off I-80 exit 142.

(Program, continued from page 2.)

**Sustainable Ag Achievement Award to Neil Hamilton**

Neil Hamilton is the Ellis and Nellie Levitt University Distinguished Professor of Law and Director of the Agricultural Law Center at Drake University Law School, in Des Moines. He is probably known to most Iowans through his *Des Moines Register* newspaper column, "The Food Chain." Hamilton, who was raised on a Century Farm in Adams County, has produced several producer-oriented books such as *a Farmer's Legal Guide to Production Contracts* and *a Livestock Producer's Legal Guide to Nuisance, Land Use Control, and Environmental Law*. In the last two years he has sought out around the country what he describes as the "seeds of a new agriculture." Many of these inspiring discoveries he has brought to his *Register* editorials, showing ways agriculture can be reintegrated into the community to the benefit of both people in the country and those in towns and cities. Neil Hamilton practices what he preaches too. He and his wife Kahn garden commercially, supplying restaurants and individuals near their Waukee farm with fresh vegetables.

own thoughts and experiences to this discussion as well.

**Workshops on Both Ends of the Equation**

The PFI Board of Directors has formulated a broad range of workshops, from the production side of the equation to the marketing and consumer end. David Schafer and Alice Dobbs, founding members of the Greenhills Farm Project, will describe how they market their "natural" meat. There will be workshops on cow-calf management, proactive approaches to swine production, holistic management planning, converting to organic crop production, and the rapidly growing consumer-supported agriculture (CSA) network in Iowa. Health effects of pesticides will be discussed, as will women's roles in sustainable agriculture.

**Producer Posters, Membership Elections**

PFI meetings are always great places to exchange views and news, and it is the members that give the organization its character. Some of the best exchanges take place in the hallways, but in addition, the "producer poster" session will again

**PLEASE PRE-REGISTER BY JANUARY 1!**

**(please print)**

Name \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Phone \_\_\_\_\_

Pre-registration Fee: \$5.00 per person or \$10.00 per family ..... = \_\_\_\_\_

(Registration at the door will be \$10.00 per person & \$15.00 per family.)

Annual Membership Fee: \$20.00 per person or family ..... = \_\_\_\_\_

(There will be the usual \$20 door charge for nonmembers and PFI memberships not current.)

Please pay in advance for the Iowa Bounty noon buffet at the Adventureland Inn (optional):

Sat. Noon Buffet: Adults \_\_\_\_\_ x \$9.00 + Children (4-12 years old) \_\_\_\_\_ x \$5.00 ..... = \_\_\_\_\_

CHECK TO PFI ENCLOSED FOR TOTAL ..... = \_\_\_\_\_

Send this form to: David Lubben, 24539 Hwy 38, Monticello, IA 52310-7882.

For more information call: Rick Exner or Gary Huber (515) 294-1923.

MotelReservations (by Jan. 1): Adventureland Inn (800) 910-5382 or (515) 265-7321. (Request PFI group rate.)

Check if interested in bringing a poster or display illustrating a sustainable agriculture idea or project: \_\_\_\_\_  
 if you will be bringing children, or you are interested in helping with youth activities, daycare, or other parts of the meeting, please see reverse side!

feature the projects of research cooperators and other members. This is always an intense information-sharing experience. No, you don't have to be a farmer (or an adult) to bring a poster! Indicate your interest and tentative poster topic on the form (no commercial promotions, please). You will be sent suggestions for putting together a poster.

Members will also get together at the general membership meeting. In the district caucuses you  
**(Program, continued on page 6.)**



**David Schafer and Alice Dobbs will discuss direct marketing meats and contribute to other workshops.**

**Winter Meeting Schedule**

- 7:30 – Registration Opens
- 8:30 – 8:45: Welcome – PFI President Dave Lubben
- 8:45 – 10:00: A Food System Vision for Iowa's Future, Neil Hamilton
- 10:00 – 10:20: Sustainable Ag Achievement Award
- 10:20 – 10:30: Break
- 10:30 – 11:30: Workshops I (select one)
- 11:30 – 1:00: Lunch
- 1:00 – 1:20: PFI General Meeting
- 1:20 – 1:45: PFI District Meetings
- 1:45 – 3:00: Workshops II (select one)
- 3:00 – 4:15: Posters & Displays (refreshments)
- 4:15 – 5:15: Workshops III (select one)

**CHILD CARE & YOUTH ACTIVITIES REGISTRATION / OTHER ASSISTANCE**

**Ages Infant through High School \***

\* Child care will be provided for infants and toddlers, 8:00 am – 5:00 pm.  
Parents are urged to spend some time assisting with child care or youth activities.

Name and ages of youth: \_\_\_\_\_

Name, address, and phone number of parents: \_\_\_\_\_

\_\_\_\_\_ I would like to help with youth activities and/or child care. (You need not be a parent yourself to help.)

\_\_\_\_\_ I could bring a camcorder to videotape one or more sessions.

\_\_\_\_\_ Contact me if you need other kinds of assistance

## Winter Workshops

### **Agriculture Industry and Sustainable Agriculture: Opportunities and Barriers:**

Raymond Forney (Dupont®, Chesterton, MD), William Vorley (Institute for Ag and Trade Policy), Glen Borgerding (independent crop consultant, Freeport, MN)

Where is the common ground shared by farming, industry, and the environment? These three professionals have both ag business and sustainable ag in their backgrounds. They will share their thoughts and respond to audience comments.

### **Proactive Approaches to Changes in the Swine Industry:**

John Mcnutt (Iowa City), Steve Weis (Osage), Dennis Abbas (Hampton), Colin Wilson moderator

There is more than one route to profitable pork production. These producers have experience with both new and old production systems, and they will offer their insights on options that will be important in the years ahead. Mcnutt is a vice president of the National Pork Producers, and Weis, Abbas, and Wilson are PFI producers.

### **Direct Marketing Your Farm-Raised Meats:**

David Schafer & Alice Dobbs (founding members of Green Hills Farm Project, Trenton, MO)

Dobbs and Schafer have managed the 500-acre Schafer family farm for the past 18 years. Their focus has been purebred Gelbvieh cattle, forage management, species diversification, and direct meat sales. They are moving to a 64-acre farm, where they will concentrate on direct meat sales.

### **The HM workbook: A Sunlight-Harvesting Manual for Developing a Holistic Mgt. Business Plan:**

Tom Frantzen (Alta Vista), David Schafer (Trenton, MO)

You can't get there without a map, and you can't get there unless you're all going the same direction. Holistic management provides a planning process that involves the whole family and allows everyone to benchmark progress toward their goals. Find out how.

### **Community-Supported Agriculture in Iowa - What We're Learning:**

Angela Tedesco (Johnston), Susan Zacharakis-Jutz

(Solon), Gary Huber (Ames)

The dramatic growth of community-supported agriculture (CSA) efforts in Iowa has raised new opportunities, growing pains, and questions. How can success be duplicated in other communities? How can the CSA movement "scale up" without losing community and commitment? Tedesco, Zacharakis-Jutz and Huber are deeply involved in CSAs in their communities and will share their experiences.

### **PFI Field to Family Project: Iowa and the New Agriculture:**

Neil Hamilton, Robert Karp Hamilton and Karp will survey success stories, drawing from examples in Iowa and beyond. The Field to Family Project is a new and ambitious effort to address community and food system needs in central Iowa.

### **Acute and Chronic Health Effects of Pesticides:**

Dr. Charles Lynch (Department of Preventive Medicine and Environmental Health, U. of I.)

The connections between pollutants and human health are elusive. What do we already know about possible human health effects of agricultural pesticides, and what are the implications for those involved in farming? What is being done to find out more?

### **Making the Transition to Organic Production:**

Kathleen Delate (I.S.U. Depts. of Horticulture & Agronomy), Tom Frantzen (Alta Vista), and other farmers

Organic crop production offers both environmental and economic benefits, but it requires new skills and strategies. What do you need to know, and who do you need to know when you set out to "go organic?" Kathleen Delate, ISU organic specialist, will address these questions along with farmers who have made the change or are in the planning process.

### **The Dupont® Chesapeake Farms Project and Sustainable Ag:**

Raymond Forney (Chesterton, MD)

Chesapeake Farms includes four replicated cropping systems that are monitored for tillth, fertility, profitability, and nutrient and pesticide move-

(Program, continued from page 2.)



**Ray Forney, Director of Chesapeake Farms, will discuss the agriculture industry, technology, and sustainable agricultural systems.**

**(Workshops, continued from page 6.)**

ment. This Dupont-supported project includes advisors as diverse as the Potash and Phosphate Institute and the Rodale Institute. Dr. Ray Forney will describe what the effort is teaching and its importance for agriculture and ag business.

**Profitable Cow-Calf Management:** Dave Petty (Union), Greg Koether (Giard), Alice Dobbs (Trenton, MO), David Lubben moderator

When times are tough in the cattle business, making money means being good at all the individual skills – grazing, calving, records, etc. – and finding the unique resources at hand that can give you an edge. These three veteran producers will show how they have developed successful cow-calf enterprises.

**Women, Food and Agriculture:** Denise O'Brien (Atlantic), Rhonda Yoder (Iowa City), Danielle Wirth (Woodward)

Women are playing a major role in the new agriculture. This workshop is open to both men and women and will explore the environment in which we work and live.

can see who your PFI neighbors are and look forward to district events. The southeast and north-central districts are also due for board elections. Contact President Dave Lubben (319-465-2053) if you are interested in serving.

### **A Homegrown Event, so Pre-Register!**

Iowa producers are furnishing fresh and unique products to the noon buffet at the Adventureland Inn. Expect a mesclun salad mix of nippy greens from PFI members Bob and Diane Graaf (Palmer), roast pork from Audubon area producers, potatoes from PFI coordinator Gary Huber (Ames), squash from Dave and Donna Heacock (Bellevue), and free-range chicken from Wayne Ullerich (Atlantic).

Because the Adventureland Inn requires a guaranteed count for the noon meal, you are strongly urged to pre-register using the form on pages 3-4 to reserve your place at the table! In addition to the \$9 meal (\$5 children), a small registration charge (\$5 individuals, \$10 families, \$10/\$15 at the door) will go toward the cost of out-of-state speakers. Send your pre-registration and payment to PFI President Dave Lubben at the address shown on the form by Jan. 1. If you plan to spend the night, don't forget to reserve a room at the Adventureland Inn by Jan. 1 from the block reserved for the meeting: 800-910-5382 (Note: this number was incorrect on the poster mailed earlier!) or 515-265-7321.

Youth activities and child care are being coordinated by Donna Bauer and Shelly Gradwell, who request parents to preregister their children using the form on page 4. A \$5-per-child assessment will be collected at the meeting.

Meeting organizers are looking for your input, too. Would you be willing to bring your camcorder to videotape a workshop or two? Could you help with child care or meeting registration? Please include a note with your pre-registration. See you on the 10<sup>th</sup>!

# SHARED VISIONS



*farming for better communities*

## Final Group Networking

The Shared Visions program is nearing its end. The effort has netted many benefits, but funding to continue is running out.

One closing activity will be to invite members of the groups involved in Shared Visions to a discussion during the PFI winter workshops on January 10th. This networking opportunity will give interested group members a chance to reflect on their experience and hopes for the future.

Much has been tried over the last few years. There have been successes, challenges, and much learning. As well, friendships have been made.



Bringing group members together again will provide an opportunity to renew these friendships and look to the future. Details of the meeting will be sent to group members in the coming weeks.

## CHARM Bus Tour Report

by June Weis

On Wednesday, Sept. 3, twenty-eight people attended a bus tour with stops at three farm sites in Wisconsin. The trip was sponsored by CHARM (Coalition for Holistic Agriculture Resource Management) in cooperation with Shared Visions and PFI. People attending included PFI and North Iowa Organic Producers members, and area farmers.

Our first stop was at Turkey Ridge Orchard in Gay's Mills. The orchard has been producing organic apples since 1988. The orchard today consists of 250 acres with 16,000 trees of 25 different varieties. Most of the apple varieties they grow are not "familiar" names, but similar apples bred to resist "scab" without the use of chemicals. While walking through part of the orchard we learned many ways to control insect pests without using chemicals, and we saw the apple washing, sorting, and packaging operations in production. We also visited the cider making room. There were also many apple products available for sale.

Charlie Opitz's grass-based dairy was our next stop. The Opitz family milks around 1,100 cows. Their operation features a New Zealand style pasture milking parlor. Members of the Opitz family answered questions about production and operation of the parlor. Then Charlie led us on a pasture walk and explained how he uses different pastures for different situations. He discussed the use of legumes in the pastures along with grass and shared his experiences using animal impact to improve the pastures.

Our last stop was with the Rich Lange family. The Langes discussed how they chose to become organic producers, and their experiences with direct marketing, as

(Continued on next page.)

well as marketing their commodities through CROPP (Coulee Regional Organic Produce Pool).

CROPP was begun in 1987 to preserve dairy farmers in the area. Although it is still primarily a dairy product marketing co-op, CROPP also handles produce and some meat. Last year their gross sales were 20 million dollars.

The Lange family has been farming organically since 1991, and currently have three farms certified organic. They began with beef and pork in 1995. Other commodities they produce are milk products, sweet corn, popcorn, potatoes, and poultry. Following a discussion of organic production and experiences marketing organic farm products, the Langes served samples of pork bratwurst and organic milk and cheese.

This was a very rewarding and educational experience and CHARM hopes to be able to sponsor another tour in the future.



**Charlie Opitz led a pasture walk for those on the CHARM bus tour.**

## Hassebrook to Address Neely-Kinyon Annual Meeting

A Vision of Hope is the theme for the Neely-Kinyon Research Farm annual meeting slated for Thursday, January 15, at the Adair County Extension office in Greenfield. The public is invited to attend the morning program featuring Chuck Hassebrook, Program Director of the

Center for Rural Affairs. Hassebrook's speech, "Vision of Hope for Rural America: Reinvigorating Farm Families and Rural Communities," will proceed an open discussion. The meeting will begin 9:45 a.m. and conclude with a luncheon.

Advance registration is required by January 9. The program cost is \$10 and includes lunch. Those who can't stay for lunch may register for \$5. For complete registration information, contact the Adair County Extension office at 515-743-8412. The meeting is jointly sponsored by Shared Visions, Wallace Foundation for Rural Research and Development, Iowa State University, and the Leopold Center.

## Ag Connect Expanding

Ag Connect's statewide expansion is taking another step. This beginning farmer group started in an southwest Iowa and now has offices in the northwest and southeast parts of the state as well. They are in the process of establishing board for the north central region. Ag Connect has PFI member serving on two of their regional boards; they have again asked for suggestions of PFI members for this new board. PFI members who would like to receive Ag Connect's newsletter should call their Lenox office (515-333-4656).

## Carroll County Effort Receives Grant

Several leaders in group involved in Shared Visions from Carroll County had earlier this year developed and submitted a grant to the Iowa Department of Economic Development to start a manure brokering business. The group recently received word that the \$40,000 grant was approved. The grant will be used as seed money for the business. Plans are that the business will be headquartered in Carroll and be fully operational by March 1998. For more information, contact Tom Buman (712-792-6248; [agren@netins.net](mailto:agren@netins.net)).





## PRACTICAL FARMERS OF IOWA RECEIVES \$135,600 USDA GRANT

**Editors' note: This is a news release about a grant PFI received to build on the work of one of the groups involved in Shared Visions, the Magic Beanstalk CSA.)**

An effort to develop a local food system in the Ames area received a boost recently with the announcement that Practical Farmers of Iowa will receive a \$135,600 USDA Community Food Project grant. The grant is for the Field to Family Community Food Project, a three-year effort to create a more equitable and sustainable food system in the central Iowa area.

The Field to Family project will involve churches, social service organizations, agriculture groups, schools, government agencies, businesses and others interested in local food self-reliance. Project goals are: 1) increase markets for local, sustainably-produced foods; 2) develop skills among farmers to meet increased demand for locally-produced foods; 3) develop business skills and new opportunities for farmers, low-income families, and others; and 4) provide low-income families with access to locally-produced foods and nutrition skills education.

Gary Huber will co-direct the project with Robert Karp of Ames. Other collaborators include People Place, Wheatsfield Grocery, Mid-Iowa Community Action, Magic Beanstalk CSA, Iowa State University, Good Neighbor Emergency Assistance Cooperative, Lutheran Rural Institute, Bethesda Lutheran Church Food Bank, and the Iowa Network for Community Agriculture.

The Field to Family project grew out of the Magic Beanstalk CSA, which expanded in 1997 to include over 100 area families who bought vegetables and other foods directly from local farmers. With seed grants from the Leopold Center and Vision 2020, sixteen low-income families joined the CSA in 1997 and over 3,500 pounds of locally grown produce was delivered to local food banks.

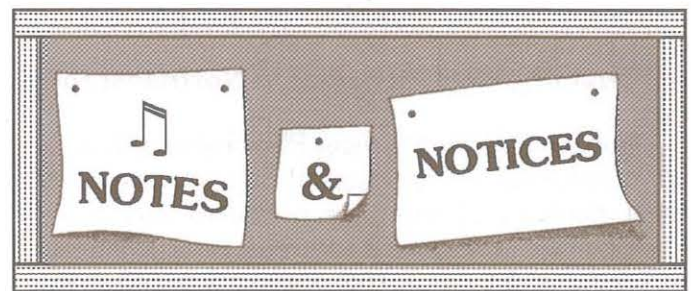
The Field to Family project will increase efforts to reach families in need through partnerships with agencies, churches, and others. The project will work closely with the Beyond Welfare partnership, which seeks to help families leave welfare safely and

permanently. Relationships are also being established with family development staff, nutrition specialists, and church leaders. Combining efforts to create a local food system with counseling services and welfare-to-work strategies will help decrease the dependence of low-income families on public assistance.

The Field to Family project will also use community and small business development approaches. Project features included in these approaches are:

- community building activities, like community meals and harvest festivals;
- leadership development as local citizens help design and shape the food system;
- microenterprise development based on local food production and processing; and,
- expanding the size of the existing CSA and creating additional area CSAs.

The Field to Family project has strong support from all collaborating organizations. "This is an insightful, concrete, caring effort," noted Lynn Engen, Director of the People Place Family Resource Center in Ames. "It will reconnect consumers to our food system, revitalize the rural underpinnings of our long held agrarian values, and extend these values to include families with fewer resources."



### Regional Food Project Seeks Farmers

Kamyar Enshayan, Cedar Falls

Rudy's Taco, a locally owned restaurant in Waterloo, switched from using ConAgra chickens to Bill Welsh's chickens, Iowa-raised without hormones or antibiotics. When we tracked down the former chickens, we discovered that they were raised in Alabama through ConAgra contract

growers who were provided feed by ConAgra and did not know what was in it (it's a long story for some other time).

The point is that now Rudy's Taco is investing directly in Iowa's farmers and businesses. Three institutional food buyers (UNI's Dining Services, Allen Hospital and Rudy's Taco) are working with the University of Northern Iowa's Regional Food Project to increase their purchases of Iowa-grown food.

The project is funded by the Leopold Center for Sustainable Agriculture, and the main goal is to identify practical pathways for linking institutional food buyers to local farmers and processors... and then do it! Farmers, processors or distributors interested in supplying locally-grown agricultural products can contact me, Kamyar Enshayan, at 319-273-6895.

### ♪ **PFI Receives Wildlife Federation Award**

The Iowa Wildlife Federation has awarded Practical Farmers of Iowa its Soil Conservationist Award. Federation President Joe Wilkinson referred to "a dedicated organization (with) a purpose of helping Iowans understand what 'stewardship of the land' really means." The recognition, one of the Federation's 1997 Conservation Achievement Awards, came with an attractive trophy – a realistic statuette of a prairie chicken!

### ♪ **Specialty Meat Potential in Northeast Iowa**

Northeast Iowa producer Phil Hueneke has compiled preliminary results of a survey of specialty meat marketing, primarily in northeast Iowa, through the Limestone Bluffs RC&D. The survey was done under a Rural Innovation Grant from the Iowa Economic Development Commission.

Fifty-four producers were contacted who had indicated some interest in direct marketing. Of these, 33 are already involved in this type of marketing. The number of livestock that would presently be available for a coordinated specialty meats marketing program: beef, 759 head; pork, 1980 head; fallow deer, 896 head; poultry, 514 head; and lamb, 73 head. If such a program were set up,

these producers could increase production by: beef, 370 head; pork, 300 head; fallow deer, 890 head; poultry, 198 head; and lamb, 42 head.

### ♪ **Sustainable Projects '98: Proposal Time!**

If you have an idea relating to ag and the environment you'd like a little financial help to pursue, check out Sustainable Projects (form right). PFI members Tom Frantzen and Mike Natvig used such a grant in their hazelnut trial, reported on page 24.

### ♪ **Iowa's Pork Industry ICN Broadcast Jan. 6**

Iowa State University will host a day-long broadcast on the ICN (Iowa Communications Network) entitled *Iowa's Pork Industry – Dollars and Scents*. The program is "designed to help pork producers, policymakers, agribusiness, environmentalists and the general public gain a clearer understanding of the issues surrounding Iowa's pork industry."

The \$20 registration covers lunch and support materials developed by ISU agricultural economist Registrations must be received by Dec. 31. Contact Phillip Baumel (515-294-6263) for instructions and a list of broadcast locations.

### ♪ **Advanced Graziers ICN Series**

The ISU Animal Science Dept. coordinates this 10-week series, *Technologies to Advance the Sustainability of Iowa's Grasslands: Special Topics for Advanced Graziers*. Broadcasts on the Iowa Communications Network (ICN) of the 7:00-8:30 pm Thursday sessions begin Jan. 22. There will also be a winter grazing field trip to the McNay Research Farm Sat., March 7, and a field trip to the ISU Beef Nutrition Ctr. March 28. Weekly topics scheduled are: year-round grazing; integrated use of the feed resource base; productivity and economics of MIG; forage budgeting; species selection for year-round supply; optimal corn residue use; stock-piled forages; nutrient balance of soils; and measuring improvements. Presenters include personnel from ISU, Purdue, and the Universities of Nebraska and Missouri. For ICN sponsors and locations in

(Notes, continued on page 13.)

# SUSTAINABLE PROJECTS 1998

## PROPOSAL FORM

### PRACTICAL FARMERS OF IOWA

*Sustainable Projects* is designed to help citizens of Iowa carry out activities that focus on agriculture and the environment. Sustainable agriculture has been described as preserving the soil and water resources as well as the people involved in agriculture. What could a Sustainable Project be? Maybe you want to undertake an on-farm trial like those used by the farmer cooperators in Practical Farmers of Iowa. Maybe you would like to create a specific program for the local school or FFA that teaches about the relationship of farming to the environment. Perhaps you are part of a group that needs some support to have an educational booth at the county fair. Maybe you could use some funding to bring your community leaders together on a related issue. Be creative!

Proposals for up to several hundred dollars will be accepted. (PFI cooperators, for example, receive up to \$400 for an on-farm trial.) It is legitimate to include in the proposal payment for your own time. Itemize labor and other costs in the budget you submit. Large equipment purchases will *not* be funded; however, equipment leasing may be used in proposals to defray equipment costs.

In return for funding your Sustainable Project, we ask that you agree to share both the results and the process that you went through carrying out the project. That will help us to build on past experience and share the successes of the program. A credible "feedback," or reporting plan is one of the criteria on which proposals will be evaluated! Plan on sharing your project with a poster or display at the PFI annual meeting.

Projects will be chosen by a committee consisting of PFI members and board representatives, the PFI coordinators, and representatives of ISU and the Leopold Center for Sustainable Agriculture. Proposals for 1998 are due by Feb. 1. Committee decisions will be announced in early March. Project reimbursement will be made upon receipt of a final report.

Please return this proposal form to: Practical Farmers of Iowa, 2104 Agronomy Hall, Iowa State University, Ames, Iowa 50011.

Name of Project \_\_\_\_\_

Name Submitting \_\_\_\_\_

Address \_\_\_\_\_

Zip Code \_\_\_\_\_ Telephone \_\_\_\_\_

(OVER, PLEASE)

Please print or type. Use additional paper if needed.  
Please include an itemized budget.

Please describe the problem that this project will address and why there is a need for the project.

Please describe what you will do in the planned project. Be specific.

How will you communicate to the public about the project? What kind of reporting to Sustainable Projects will you carry out?

What is the amount of money you need to carry out the proposed project? Please itemize.

(Notes, continued from page 10.)

your area, contact your Extension livestock field specialist or call Dan Morrill, at 515-294-2240.

### Organic Farming Workshops on the ICN

January 13 will see the first of six Tuesday evening training sessions in organic farming, distributed around the state via the ICN. Each meeting will take place 6:30-9:30 pm, with about half the period left for discussion. Invited presenters include farmers, university and agency scientists, and independent consultants. Topics include developing a farm plan, crop rotations, soil fertility, pest management, livestock, marketing, and more.

Registration is \$50 for six sessions, \$60 after January 9. Individual sessions can be attended for \$10 each. To register or receive information about local broadcast sites, contact Shirley Frederickson, Golden Hills RC&D, 120 N. Main, Oakland, IA 51560, or call 712-482-3029.

### SARE 10<sup>th</sup> Anniversary in Austin, in March

SARE (the USDA Sustainable Agriculture Research and Education program), will be ten years old soon. A conference March 5-6, in Austin, TX, will showcase accomplishments of the program. SARE now includes farmer research grants (an innovation in our North Central Region), train-the-trainers, and research grants to institutions and organizations. A SARE grant is also helping support speakers at the PFI winter workshops.

People from around the country are currently planning more than 30 workshops on marketing, structure of agriculture, animal agriculture, on-farm research, and other topics. Other speakers will include North Dakota farmer Fred Kirschenmann, former Texas Commissioner of Agriculture Jim Hightower, and Margaret Krome, coordinator for the National Campaign for Sustainable Agriculture. The conference winds up with a field tour of Texas farms and community projects on March 7. Registration after December 12 is \$75 and includes two lunches.

The tour is an additional \$25.  
For information call 301-314-7884.



## ALTERNATIVE SWINE TOUR DRAWS 150

On Tuesday, Nov. 25, ISU Extension sponsored an event titled Alternative Swine Production Facilities and Management Field Tour, which visited facilities in northwest Iowa. The event was funded from the SARE PDP (Professional Development, or train-the-trainers) program. The tour was publicized to Extension personnel, colleges, PFI members and other farmers in the area; to the surprise of organizers, approximately 150 people signed up.

The tour visited deep-bedded facilities at the ISU Allee Research Farm, Newell, and the farm of PFI members Colin and Carla Wilson, Paullina. Both sites included "Swedish-style" group nurseries, where sows and young pigs establish stable social patterns. Participants also received reports of the



Allee Farm manager Lyle Rossiter (on tractor) talks while tour participants peer into the group nursery.



Caleb (l) and Jacob Wilson describe the different personalities of sows in their group nursery.

latest ISU research on related topics. Interest in the event was great enough that pork tours in other parts of the state are being considered. 🍷

## CEDAR FALLS CONFERENCE ON RELIGION AND ENVIRONMENT

Ron Brunk, Eldora

*If we make our seasons welcome here,  
asking not too much of earth or heaven,  
Then a long time after we are dead  
the lives our lives prepare will live here.*

Wendell Berry in *The Wisdom to Survive*

The opening keynote presentation for the Conference on Religion and Environment in the Upper Midwest brought Kentucky farmer and writer Wendell Berry to us as the speaker. Then we enjoyed quite a time of more informal discussion with him as a group. This conference, held October 3 and 4 in Cedar Falls, at the UNI center for the environment, sought to explore avenues open to us all in Iowa which could lead to a SUSTAINABLE COMMUNITY.

Biologist Wes Jackson spoke concerning ecosystems and preserving biological diversity. A number of presentations were given concerning sustainable community, eating closer to home (food in the U.S. travels on the average of 1,300 miles before being consumed), religion's niche in preserving the environment, simplifying our lives, and teachers' roles in developing attitudes of children concerning our environment. There were small group discussions on these topics, all of which would have been interesting to hear, but of course one can be only in one place at a time.

Paul Gorman's presentation on faith-based responses to the environment reported what he is doing in behalf of the Earthkeeping Movement. He had just come from a meeting with President Clinton and cabinet members concerning various efforts toward preservation of the environment. He generally works with and holds seminars for national leaders of the various churches in the U.S. in efforts to promote concern for sustainable communities, farms and environment.

The meeting was a great gathering of people from all walks of life interested in pursuing and promoting a sustainable life style. 🍷

## FARMER-TO-FARMER IN ETHIOPIA

The Farmer-to-Farmer Program at the Bureau of Applied Research in Anthropology (BARA), University of Arizona, is looking to expand its data base of highly qualified, short-term volunteer technical consultants to assist in improving agricultural production in Ethiopia. Project efforts will be on-going over a 5-year period, and organizers will be needing experts to work on assignments in sustainable land management, cooperative and agribusiness development, watershed and range-land management, dryland forestry, irrigation technology and water catchment systems.

Assignments range from 3 weeks to 3 months, depending on project needs and volunteer availability. For these assignments volunteers are preferred who:

- possess a high degree of technical expertise;
- have field experience, especially in the third world;
- can work comfortably with counterparts in less-developed countries;
- are in excellent health and able to travel extensively under developing country conditions;
- are citizens of the United States.

In accordance with the provisions of the Farmer-to-Farmer (FTF) Program, no salaries are offered, but sponsors will cover all trip and project related expenses. The FTF program has been a winner of the Presidential Hunger Award, and has a widespread reputation among members of Capitol Hill, previous volunteers, and projects that have received assistance as being a highly efficient and cost-effective form of foreign assistance.

Interested individuals may send a resume or curriculum vita to Kathy Thompson at:  
e-mail:kathleet@ccit.arizona.edu  
phone: (520) 622-5546  
FAX: (520) 798-3066  
mail: Kathy Thompson

BARA, Anthropology Building  
University of Arizona  
Tucson, Arizona 85721-0030



## LOESS HILLS BED & BREAKFAST - PFI STYLE

David Zahrt, Turin

In the Fall of 1996 I had an intuition on which I did not act. Perhaps you have had an intuition and failed to act on it. When Jan Libbey, and Tim Landgraf of Kanawha, IA, spent an evening with us at our bed and breakfast, I realized it was time to act on my intuition.

One of our profit centers is a bed and breakfast. After a field day in the fall of 1996, it occurred to me that I might regard the members of PFI as a target market and issue a standing 10% discount to PFI members who came to stay at our B&B. However, I did not act on the intuition!

Jan and Tim discovered us through the Iowa Bed and Breakfast Innkeepers Association (IBBIA). They registered for an overnight stay because they were interested in exploring the loess hills of western Iowa. On Saturday morning, they dropped their children off with grandparents in Odebolt and checked in at The Country Homestead Bed and Breakfast. They spent the afternoon exploring the loess hills.

In conversation that evening and the next morning we discovered that they were PFI members, and that they have initiated a venture in community supported agriculture (CSA). We were fascinated and invigorated by the conversations afforded us during their stay with us.

After breakfast on Sunday morning they asked if I would take them on a tour of our pasture. I willingly obliged. Of course I took the opportunity to show off the managed grazing system. We also observed a series of prairie plants near bloom, in bloom, or fruiting. We identified plants just getting a start - snow on the mountain, penstemon, prairie snip, prairie clover, prairie sage, and skeleton weed. In bloom we observed Indian paint brush, salsify, loco weed, lead plant, prairie smoke, prairie

*I appreciated the business they brought, but even more, I was sustained by the conversation with colleagues.*

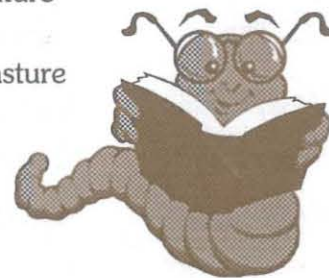
violet, hoary puccoon, prairie ragwort, and blue eyed grass. Fruiting was the prairie plum, a legume that is the size of a large grape and tastes like a fresh pea. And gone to seed were prairie dandelion, pasque flower and pussy toe.

I appreciated the business they brought, but even more, I was sustained by the conversation with colleagues. I am issuing a standing 10% discount at the Country Homestead Bed and Breakfast to all PFI members. For information please contact me, David Zahrt, 22133 Larpenteur Rd., Turin, IA 51059-8747; 712-353-6772 phone/fax; <http://elwood.pionet.net/~inns/loesshills.html>

## PFI LIBRARY UPDATE

One of the benefits of belonging to PFI is access to hundreds of books and videotapes in the virtual PFI library. Each district has its own library collection, but any member can request a resource from any district library. Here are some of the categories in the PFI libraries:

- Alternative Crops and Vegetables
- Agricultural Policy/Culture
- Equipment
- Forages, Grazing & Pasture
- Livestock
- Farm Management
- Soil Tilth
- Weed Control



On the following page are listed library holdings in the soil amendments, soil tilth, and weed management categories.

To request these or any other publications, contact the district directors, or to obtain a printout of the library holdings, please write or call Mark Runquist, 2860 Knapp Avenue, Melbourne, IA 50162 (515) 482-3185 ([highhopes@marshallnet.com](mailto:highhopes@marshallnet.com))

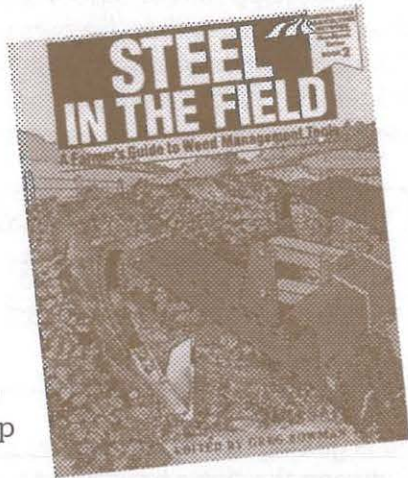
PFI Library Holdings: Soil Amendments, Tillth, and Weed Management			
Topic	Title	Author/Publisher	Library
Soil Amendments	A Little Phosphorus Goes a Long Way	New Farm	Northwest
Soil Amendments	A Practical Guide to Novel Soil Amendments	Rodale Press	Northeast
Soil Amendments	A Practical Guide to Novel Soil Ammendments	Rodale Press	Northwest
Soil Amendments	Nitrates: A Needless Danger	New Farm	Northwest
Soil Amendments	Potassium: A Case of Too Much, Too Often	New Farm	Northwest
Soil Amendments	The Farmer's Earthworm Handbook	Ernst	Northwest
Soil Amendments	The Farmer's Fertilizer Handbook	New Farm	Northeast
Soil Amendments	The Farmer's Fertilizer Handbook	New Farm	Northwest
Soil Amendments	The Farmer's Fertilizer Handbook	Regenerative Ag Association	North Central
Soil Amendments	Using Manure Resources Wisely	New Farm	Northwest
Soil Tillth	A Guide to Ridge Tillage	Huseby, Ed	Northwest
Soil Tillth	A Guide to Ridge Tilling	Huseby, Ed	Northeast
Soil Tillth	Better Land, Better Water (video)	NRCS (SCS)	Northeast
Soil Tillth	Intro to Soil Microbiology	Alexander	Lubben
Soil Tillth	More Profit with Less Tillage	Behn, Ernest	Northeast
Soil Tillth	More Profit With Less Tillage	Behn, Ernest	Northwest
Soil Tillth	Plowman's Folly and as a Second Look	Faulkner	Stonecypher
Soil Tillth	Ridge Till Hotline (back issues)	Lessiter	Southeast
Soil Tillth	Soils and Soil Fertility	Thompson and Troeh	Southeast
Soil Tillth	The Role of Legumes in Conservation Tillage Systems	J. F. Power, Conference Proceedings, SCCA	North Central
Weed Control	Controlling Weeds With Fewer Chemicals	New Farm	Northeast
Weed Control	Controlling Weeds with Fewer Chemicals	New Farm	Northwest
Weed Control	Controlling Weeds Without Chemicals	New Farm	Northeast
Weed Control	Cut Your Weed Control Costs in Half	New Farm	Northwest
Weed Control	Weeds, Control Without Poisons	Walters, Charles	Northwest
Weed Control	What Really Happens When You Cut Chemicals	Rodale Press	Northeast
Weed Control	What Really Happens When You Cut Chemicals	New Farm	Stonecypher



## STEEL IN THE FIELD: A FARMER'S GUIDE TO WEED MANAGEMENT TOOLS

Rick Exner

This 128-page book on mechanical management of weeds is packed with information and diagrams, producer profiles and other resources. Sure, you already know more than you'll find here about the equipment you now use, but how about the equipment you *might* use, plan to buy, or didn't know existed? Are you familiar with all half-dozen types of cultivator guidance system? At a glance, this guide gives you an equipment overview, a drawing, design features, graphics indicating optimum crop and weed height for using the equipment, a typical model for comparison (with size, PTO HP, speed, and list price range), size range, manufacturers, farmers who use the item, and maybe a tip for best use.



*Steel in the Field* is divided into sections for agronomic row crops, horticultural crops, dryland crops, and a "toolshed" for additional kinds of information. There's also a mail-in evaluation in the back. Each section includes farmer comments (nine in the row crop section), and PFI members Dick and Sharon Thompson (Boone) are among those profiled. These cameos convey how the tools are used in some real-life situations. My only complaint is that phone numbers are not provided for these producers, but I can understand why that was done. A list of contacts in the Toolshed section does include phone numbers for a couple of the producers.

Funded by SARE (Sustainable Agriculture Research and Education program of the USDA), this book was in process for several years before Greg Bowman took on the editing job. Bowman is a freelance agricultural writer who served at the time as editorial director at the Rodale Institute. He developed the document in consultation with a wide range of producers and agronomists, including

several in PFI. Steel in the Field is available for \$18 (includes shipping) from the ISU Extension Distribution Center, 119 Printing and Publications Building, ISU, Ames, IA 50011 (515-294-5247).

### Row-Crop Flamer

(Standard U.S. LP-gas, liquid feed)

**CROP height range estimate**

0"	2"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"	30"	36"
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**WEED height range (annuals) estimate**

unsuitable	less suitable	unsuitable
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Match tillage timing, depth and location to crop root growth. Weed control varies with soil conditions and weed density.

\*Postemergent heights for crops with a heat-resistant stalk, such as corn or cotton, that allow cross-flaming in row. Flame contacts stalks. Optimum stages for in-row flaming corn are up to 2", 6" to 12", then 18" to 24".

**Overview:** Flames from LP-gas burners kill plants by rupturing cell walls, not burning plant tissue. Flaming is most effective on broadleaf weeds as small seedlings. It is less effective against grasses, and least effective on sedges and weeds that branch at ground level. Broadcast flaming can cover an entire bed or toolbar width prior to crop emergence. Directed flaming targets a specific zone between crop rows or in-row beneath plants after they develop a heat-resistant stem.

**Design Features:** LP gas flows as a liquid that vaporizes in high-BTU burners. This arrangement avoids the "freeze-up" potential of vapor-withdrawal systems, caused when gas is burned faster than it can vaporize directly from the main tank. Burners can be mounted on steel-frame skids or on cultivator toolbars. Tanks must be motor-fuel rated. Do not use stationary propane tanks.

► **Model for comparison:** 15' with gauge wheels  
 Rec. PTO HP: 70 Speed: 3 to 5 mph List price: \$2,200 to \$5,000  
 † Lower price for add-on kits to adapt cultivators: \$2,200 for kits assembled with used cultivator frame and used tank; \$5,000 for entire new unit.

**Width range (all makers/all models):** 4' to 30'

**Operating cost:** 3 to 14 gallons per acre per application, depending on tractor speed and gas pressure, which are in turn influenced by crop, field and wind conditions. Code-complying tanks range in price from \$275 (used 110 gal.) to \$550 (new 250 gal.). Tank rental \$25 to \$60 per season, where available from LP-gas or crop-protection material companies. Two or three applications per season are normal; more may be necessary, depending on weed pressure.

Sources: 33, 61, 98  
 Farmers: de Wilde, Foster, Harlow, McKaskle, Thacker Also: See hand flammers on p. 63.

Note: Fueling renewed interest in flaming are herbicide-resistant weeds and regulations on worker pesticide safety and water pollution. Flammers pose no threat of carryover or runoff but do require a thorough understanding of LP-gas safety.

AGRONOMIC ROW CROPS STEEL IN THE FIELD • 29



**Editor's note:** When we talked in late October about this column, the harvest was still on everyone's mind. Our writers decided to discuss getting through those busy times that bring greater demands for labor. Margaret, Tom, and Ron are actively involved in the family farms, and Roger works in Farm Credit Services with different producers who bring a variety of philosophies to the question of labor.

### Margaret Smith: Dealing with Labor Needs on our Farm

I seem to remember from my Iowa history that Midwestern agriculture has always been characterized by a shortage of labor. This still is true. Stories of my Dad's childhood wouldn't be complete without Van Fox, the hired man. In addition to Van, who was employed full time, there were traveling men who could be hired during the farm's busy seasons. Neighbors shared work as well.

**Part of our challenge is in determining and eliminating unnecessary work.**

Our farming operation today doesn't require a full-time employee, but there are days (seasons) when we certainly could use an extra pair or two of hands. Neither of our families lives close enough that parents can easily lend their hands to necessary tasks. Part of our challenge is in determining and eliminating unnecessary work.

In the past, we would schedule days to work cattle on the weekend when I am home. When our son, Robert, arrived in April this year, Doug lost his second pair of hands! He and a neighbor are now sharing livestock handling chores, with Doug helping sort and load hogs; and Leonard helping process, weigh, and load cattle. We also 'lost' our best occasional hired man when he went to college this fall. This will force us to large bales of hay rather than putting up a majority of small bales, which will complicate winter calf feeding. We also have our cornstalks custom baled. If all goes well for our young employee, he'll be back in the neighborhood in four years.

We haven't yet achieved an optimum use of hired labor, hired services, and shared labor. There are still soil samples to pull and fence posts to drive before the ground freezes. We hope that the weather cooperates.

### **Tom Frantzen: Pay the Family!**

The accountant who prepares our income taxes advised us to "hire" our three children (ages 17, 14, and 9) as seasonal help. The older ones are paid an hourly wage competitive with starting wages at local employers like Sara Lee or TriMark Corporation. They are paid either quarterly or monthly. The kids have decided to save most of this for future education expenses. We intend to do this as long as our children are available for help.

My *Footprints* article on page 28 also contains some thoughts on "efficiency," which touches on labor issues.

### **Ron Rosmann: Getting the work done during harvesting - different labor arrangements**

Because of our diversity with oats, barley, alfalfa, pasture, etc., much of our harvesting is done by the time soybeans and corn rolls around. Still, it is a time when our whole family pitches in. Our "hired" help has been limited during the past four years or so. My wife Maria works off the farm during the morning so she contributes in the afternoons by unloading corn or beans or by being the designated "go for."

Our oldest son is now sixteen. Music and band activities keep him at school until after 5:00 PM most days. After that, he puts in a lot of night-time hours during harvesting. The next two boys, ages 14 and 11, do the evening chores. Our 14 year old started hauling in corn this fall for the first time so

***One of the most satisfying aspects of diversity is not feeling over-whelmed during any one season.***

he is getting some valuable tractor experience. Between the three boys and Maria, usually at least one or more can be counted on. It's usually a matter of coordinating busy schedules. Some times I help one of the neighbors for a few days and that person helps back in return. We have also had a high school vocational agriculture student some years to help out in the afternoons. Much of his time has been spent working with the livestock and grinding feed, etc.

One of the most satisfying aspects of diversity is not feeling overwhelmed during any one season. Springtime is probably the most hectic with calving and field work. Still, usually everything falls into place and the work is more often a joy than not.

**What the heck is "Rollin' 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 "rollin' the cob." Your response to this column is welcome. Contact the contributors directly or the PFI/Extension coordinators (address on back of newsletter).**

## Roger Schlitter: No Magic Answers

Farmers continue to struggle with meeting the labor needs on the farm on a timely and economic basis. One of the main issues for many farms is the dramatic need for more labor at peak times of the year. Those peak times vary from enterprise to enterprise, but all present challenges. The traditional wisdom of having one or more livestock enterprises to keep the farmer fully employed and allow for the hiring of non-family help to ease the labor load often simply means everyone works more than before. Also, the additional demand of managing people may make this a less than ideal solution for many farmers. They simply do not like training and supervising other people.

What can farmers do to meet their labor needs? I do not have any magic answers for this problem. However, I will share with you some simple ideas that I see being used and maybe some new directions to consider.

One of the easiest things to do is see what we can do differently with the labor available. That may mean spending more money on capital to allow you to do more work with the time available. A bigger tractor, a faster dryer, a better planter. Maybe a different tillage system can save time. These are all capital-intensive things that can work. Many more established farmers use this option. I also find that well run livestock operations can justify bigger equipment because they have less time available for field work.

The opposite of this may be to cut back on livestock and specialize on crops and use your own labor in a more specific area. A livestock farmer may have some of his cropland operated on a crop share basis and save his labor for the livestock operation. It is usually easier to find a good crop producer than qualified help for livestock production. This option may even improve your yields because of better equipment and timeliness. It may also forestall major investments in field equipment that your acreage or financial position may not justify.

I see many farms where the spouse runs the combine in the fall and does tillage work in the spring and fall. Timeliness and a good job of crop

production may mean as many dollars in your pocket as some of the low wage jobs available. I see this being done more frequently. In other cases I see farmers hiring retired farmers or off-farm workers who just like to get out and work in the field.

I recently heard a presentation on value-added cooperatives. I think these hold a lot of potential for farmers to expand or change their farming operation and solve their individual labor problems. This may be a new way to be in the livestock business that will allow you to farm and deal with labor for the livestock operation in a professionally managed situation that has the potential to be a

***A livestock farmer may have some of his cropland operated on a crop share basis and save his labor for the livestock operation.***

win-win situation for all involved. There are certainly opportunities in this area, and the concept may fit the needs of some farmers. This has been done in other areas of the country with good results. There have also been cases where the results have not been good. This approach is not for everyone and like most new ideas needs to be pursued with caution.

I regret that I do not have any new or easy answers. Finding a solution to farm labor problems is like all other problems you deal with. You need to find something that works for you and fits the circumstances available. This means looking at as many options as you can think of and being bold enough to try something new or different.

Finally, I find that timeliness for either crops or livestock is one of the most critical factors for success. The dollars not spent for the right amount of labor may be more costly than actually spending money for quality labor when it is needed. 🐾

## Placement of Phosphorus and Potassium For No-Till and Ridge-Till Corn

Antonio P. Mallarino

**(Editors' note: This article is, we hope, the first of several on Antonio Mallarino's research with fertilizer placement and starters, research that has involved several PFI members. It's always a struggle to summarize complicated research in a popular format like a newsletter. If this report isn't enough for you, a more detailed report can be obtained directly from Dr. Mallarino, at 515-294-6200.)**

This article summarizes results for corn of a research project initiated in 1994 to study fertilizer placement for phosphorus (P) and potassium (K) in no-till and ridge-till systems. A later article will describe results for soybeans. When we began, there was considerable uncertainty about cost-effective methods of fertilizer application and soil test interpretations for corn and soybeans grown with these systems. Broadcast fertilization is less costly than banded fertilization, but it could be inefficient because fertilizers are not incorporated (no-till) or are incorporated too late for early plant needs (ridge-till). Furthermore, banding of fertilizers into the root zone seems effective in reducing potential nutrient losses with water runoff.

We established ten long-term trials (five with P and five with K) with no-till corn-soybean rotations at five research farms. Twenty-four short-term trials (with P and K combinations) with no-till (11 trials) and ridge-till (13 trials) corn were established from 1994 to 1996 in producers' fields with their cooperation. Five PFI members were among these cooperating farmers. Treatments were placements and rates of P and K granulated fertilizers. At the research farms, fertilizers were 1) applied broadcast, 2) banded with the planter approximately 2 inches beside and below the seeds, or 3) deep-banded to a depth of 5 to 6 inches. At the farmers' fields, the fertilizers were applied broadcast or deep-banded. Fertilizer rates were 0, 28, 56, and 112 lb  $P_2O_5$ /acre and 0, 35, 70, and 140 lb  $K_2O$ /acre. The broadcast and deep-banded treatments in 1994 were applied in spring three to five weeks before planting and in 1996 were applied the

previous fall. Nitrogen fertilizer was applied at rates 25 to 50% higher than local recommendations.

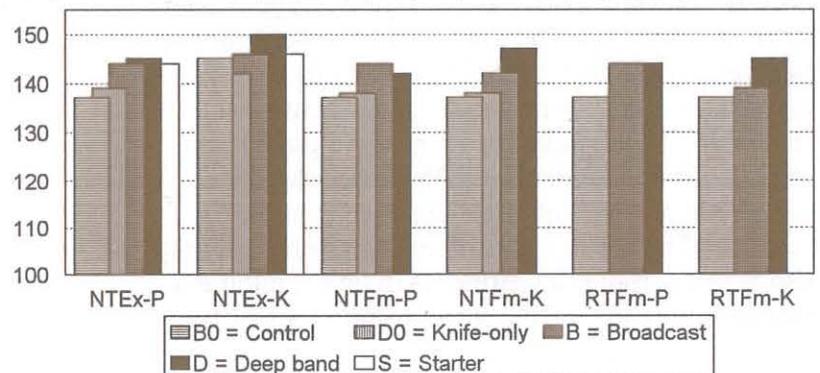
The study encompassed a wide variety of growing conditions, and mean yields for the treatments across sites ranged from 77 to 215 bu/acre. Study of yield responses at each site showed no statistically significant differences among P rates or among K rates and no significant interactions among nutrients, rates, and placements. Because of these results, and to simplify the data, only average responses to fertilization and placement are shown.

### No-till, P

Phosphorus fertilization increased no-till corn grain yields significantly at several sites that tested very low or low in soil-test P (0-6 inch depth) but at no site that tested optimum or above. When there was a yield response, statistically maximum yields were achieved with the lowest nonzero rate at all sites and for all placements. Yields from the placement treatments did not differ at any of the 26 trials, although in a few trials the band treatments produced slightly higher yields. Unfortunately, a planter-band P placement was not evaluated on farmers' fields. The soils differed in the stratification of soil-test P. On average, the soils had 75% more P in the 0-3 inch depth than in the 3-6 inch depth. Responses to P placement, however, were

Fig. 1. Banded, Deep-banded, and Starter P and K

Experiment Station (Ex) & Farm (Fm), No-till (NT) & Ridge-till (RT)



Significance	NTEx-P	NTEx-K	NTFm-P	NTFm-K	RTFm-P	RTFm-K
Fertilizer	*	*	*	*	*	*
Placement		*		*		

not observed even in soils with large stratification. The lack of grain yield response at sites with soil-test P optimum or above coincides with previous results for Iowa fields managed with chisel-plow or ridge tillage and broadcast fertilization. The results suggest that soil-test P stratification, P placement, and sampling depth for P are not major issues for no-till Iowa soils and weather conditions similar to those included in this study (Fig. 1).

### No-till, K

Potassium fertilization increased grain yields of corn at several sites, although statistically maximum yields were always achieved with the lowest non-zero rate used. These responses were not expected because all soils tested optimum or higher in soil-test K. The K placements differed statistically at only two sites. When data from all sites were combined, however, responses to both K fertilization and placement were significant. The deep-band placement produced higher yields than other placements. The significant response to placement in the analyses over sites can be explained by small but frequent yield advantage for the deep-band placement at many sites. The small but frequent responses to K fertilization in soils that tested optimum or above in K contrast with results for P and with previous research on Iowa soils managed with chisel-plow or ridge tillage and broadcast fertilization. Although responses to deep-banded K (compared with broad-

cast or planter-banded K) often were small, they occurred at many sites. Relative yield responses to deep-banded K and soil test K at various depths across all sites were not significantly correlated, however. Moreover, the sites in which the response to K placement was largest did not always have the largest soil K stratification. Although the K stratification was less than for P, on average the soils had 40% higher K in the 0-3 inch depth than in the 3 to 6 inch depth. Responses to deep-banded K were better related with low rainfall in late June or early July than with soil-test K. It is likely that plant K uptake from shallow soil layers was

reduced by dry conditions during this growth period and that the deep-banded K alleviated the problem.

### Ridge-till, P

Results for ridge-till trials conducted at farmers' fields are also summarized in Fig. 1. The results were similar to those for no-till corn. Phosphorus fertilization increased grain yields significantly at four sites and statistically maximum yields were achieved with the lowest rate used. The yields from P placements did not differ at any trial. One responsive site tested very low, one low, and one optimum when values were averaged for samples collected from a 0-6 inch depth from ridges and valleys. The lack of grain yield response to P at most sites that tested optimum or above coincides with previous results for Iowa fields managed with chisel-plow or ridge tillage and broadcast fertilization. There were several sites that tested low where responses were not observed and this is not

#### In a Nutshell

- Enhancements of early growth can be achieved by banding P fertilizer with planters or deep-banders but will seldom increase yields compared with broadcast fertilization. The deep banding of K, however, will seldom increase early growth but will often increase grain yields.
- Broadcasting K or banding it with the planter often (but not always) is inefficient for no-till corn. Similarly, broadcast K for ridge-till corn often (but not always) is an inefficient practice.
- Although the K placements did not differ statistically over all ridge-till sites, the deep-band placement produced on average 6 more bu/acre than the broadcast.
- Contrary to expectations, responses to deep-banded K (both ridge-till and no-till) were poorly related to soil-test K or stratification.
- Planting on the fall-applied coulter-knife-only track often increased early growth of no-till corn but did not increase early growth of ridge-till corn.
- Soil sampling depth, soil-test interpretations, and fertilizer recommendations for P based on chisel-plow tillage also apply for no-till and ridge-till system. In ridge-till, soil sampling of ridges seems more appropriate.

surprising because other growth factors could have limited yields. However, soil-test P (0-6 inches) for the ridges was almost always higher than for the valleys. Studies of correlations between yield responses to P fertilization and soil-test P measured at different locations are not completed at this point. The results do suggest, however, that soil-test P from the ridges may be more important for predicting responses to P than soil-test P from the valleys.

### Ridge-till, K

Potassium fertilization increased grain yields of ridge-till corn significantly at two sites, and statistically maximum yields were always achieved with the lowest rate used. These responses were not expected, because most soils tested high or very high in soil-test K when data from both ridges and valleys were averaged. Moreover, soil-test K for the ridges was even higher. The K placements differed statistically at the responsive sites, and the deep-band placement produced the highest yields. Although the K placements did not differ statistically over all sites, the deep-band placement produced on average 6 more bu/acre than the broadcast. The lack of sites with low soil-test K and the small yield responses to K prevents a significant correlation study across sites. Observations of the responses show, however, that yield responses to deep-banded K were not directly related to soil-test K, soil K stratification, or differences in soil-test K between ridges and valleys. Contrary to results for no-till corn, responses to deep-banded K in ridges were not clearly related to rainfall in late spring or early summer.

### Knife Action

Planting on the fall-applied, zero-fertilizer coultter-knife track increased yields of no-till corn significantly only at four of 41 P, K, or P-K trials. Planting on ridges that received a fall-applied coultter-knife pass without fertilization did not affect yields at any of 13 trials (data not shown). These results are of practical significance for two main reasons. First, they show that planting on a coultter-knife track without deep banding K will seldom increase yields and second that grain yield responses to deep-banded K were not due to the effect of the coultter-knife pass.

***The K placements differed statistically at the responsive (ridge-till) sites, and the deep-band placement produced the highest yields.***

### Early Growth

The results of treatment effects on early corn growth (not shown) contrasted markedly with results for grain yields. Banded P fertilization (deep or with the planter) often increased early plant growth more than broadcast fertilization did on low-testing soils and occasionally on high-testing soils. This result is in contrast with the lack of P placement effects on grain yield at any site. Potassium fertilization and placement, on the other hand, seldom increased early growth of corn. It is important to remember that most sites tested optimum or above in soil-test K. The few sites in which banded K increased early growth did not coincide with sites in which banded K increased grain yield. This general lack of K placement effects on early growth is in contrast with often small but frequent positive effects of deep-banded K on grain yields. Planting on the fall-applied coultter-knife-only track often increased early growth of no-till corn but did not increase early growth of ridge-till corn.

### Concluding

In conclusion, the results suggest that some problems perceived by producers did not exist or were unimportant whereas others do exist. Perceptions about major yield losses because of broadcast P fertilization of no-till and ridge-till corn were unfounded. Phosphorus fertilization often increased yields in low-testing soils but the P placements did not differ at any site. Further enhancement of early growth due to banded P compared with broadcast P did not translate into increased grain yields. Also, soil sampling depth, soil-test interpretations, and fertilizer recommendations for P based on chisel-plow tillage also apply for no-till and ridge-till system. In ridge-till, soil sampling of ridges seems more appropriate. On the other hand, the results showed that broadcasting K or banding it with the planter often (but not always) is

inefficient for no-till corn. Similarly, broadcast K for ridge-till corn often (but not always) is an inefficient practice. Contrary to expectations, responses to deep-banded K were poorly related to soil-test K or stratification. The results also show that judging potential effects of fertilizer placements on grain yields based on effects on early crop growth is misleading in soils that are not extremely deficient.

Enhancements of early growth can be achieved by banding P fertilizer with planters or deep-banders but will seldom increase yields compared with broadcast fertilization. The deep banding of K, however, will seldom increase early growth but will often increase grain yields. The cost-effectiveness of deep-banding K will be largely determined by the costs of application.

## PFI 1996 ON-FARM TRIAL RESULTS - IV

**(Editors' note: Results of PFI 1996 on-farm research have appeared in *The Practical Farmer* over the course of this year instead of just the winter issue. We hope this has given readers more chance to absorb these cooperator reports. This issue focuses on trials comparing planters, planter attachments, planting populations, and varieties. Also included is the summary of a two-year evaluation of establishment methods for hazelnuts that was carried out by Tom and Irene Frantzen and Mike Natvig.)**

### Variety Trials

Comparisons of crop varieties in 1996 addressed two topics: specialty markets and biotechnology. The Neely-Kinyon Farm, near Greenfield, compared a popular "tofu"-type soybean cultivar, LS201, to a standard variety from DeKalb (Table 1). Seeding costs were sixty percent greater for the large-seeded LS201, and the 2.3 bushel yield advantage for the DeKalb variety was statistically significant, but this was a trial of economics as much as yield.

The DeKalb soybeans sold locally for \$6.84 per bushel, but the tofu beans were contracted for \$1.20 per bushel over the \$7.15 Chicago Board of Trade price on the day they were delivered to Southwest Iowa Specialties, in Atlantic. These were not organic or pesticide-free soybeans. In fact, because of the distance from the Armstrong Farm, more than \$60 per acre was spent on weed control. Certified organic soybeans were typically contracted for \$14 per bushel in 1996. Ken Rosmann, of the Heartland Organic Marketing Co-op also demonstrated edible soybean variety plots at his field day in 1996.

In 1996, "Bt corn" was first released to the public. The corn carries a bacterial gene for a protein toxic to the corn borer caterpillar. Corn Belt producers are receiving mixed messages about the technology. They may hear the corn borer will

build resistance to Bt just as many insects have evolved resistance to chemical insecticides. Also in its first year, Bt cotton was "overwhelmed" by pink budworms and bollworms in 1996 (*Science*, 7/26/96). On the other hand, producers hear about hidden losses associated with European corn borer.

We don't yet know how to manage resistance to Bt, but several PFI members have begun to look at the economics of Bt corn. New Melleray Abbey, Peosta, hosted observation plots in 1996, and down the road Dave and Lisa Lubben, Monticello, carried out a replicated trial (Table 1). They compared a Bt hybrid (Max21) to a hybrid (CIBA 4394) reportedly identical except for the Bt gene. The 4.6 bushel yield difference was statistically significant, and it was great enough to overcome the \$5.33 difference in seed cost, giving the Bt corn a \$6.23 advantage in this trial.

### Planting Trials

In past years, PFI cooperators have carried out a variety of tillage comparisons. Ted and Donna Bauer, Audubon, have done several trials of 19-inch versus 38-inch-row soybeans. In 1996, because of planting delays, they custom hired a drill for most of their beans. Ted compared the drill to 19-inch rows that he created himself with a double pass of the planter. This was a "proof of concept" trial, since double planting would be impractical on a large scale. Using average fixed and variable costs for

***This was a “proof of concept” trial, since double planting would be impractical on a large scale.***

owned equipment, and counting the expense of the second planter pass, the two practices come out virtually equal, given that there was no significant yield difference (Table 1). Calculating expenses as a single pass of a 19-inch-row planter, the row beans would come out better by about \$6.39. Ted used custom planting rates for both treatments and came up with little difference in total costs between the systems.

Dave and Lisa Lubben, Monticello, tried a seedbed firmer planter attachment for the second year in 1996 (Table 1). Again there was no significant difference in yield, but yields with the firmer averaged somewhat lower.

### Hazelnut Establishment

Many creative Iowa farmers are interested in adding value to their production and in seeking markets for entirely new products. Hazelnuts are one such new product on the horizon. Sparked by

Minnesota nut breeder Phil Rutters, several north-east Iowa farmers are planting productive, disease resistant hybrids of this native Midwestern plant. While these plantings have yet to come into production, current demand for hazelnuts far outstrips domestic supply.

But establishing a nut orchard is a considerable investment in money and time. How can producers efficiently and reliably start hazelnut plantings? PFI cooperators Tom and Irene Frantzen, New Hampton, and Mike Natvig, Cresco, set out in 1995 to answer this question. With funding from PFI *Sustainable Projects* and the Organic Farming Research Foundation, they set out an on-farm trial of hazelnut establishment methods.

There were two approaches to establishing hazelnut transplants that these producers wanted to evaluate; protective tubes and ground maintenance. Tubex® tubes are made of plexiglass and are used to protect young trees and bushes from extremes of weather and browsing deer and rabbits. Elevated humidity inside the tubes reduces stress on the plants during the growing season, and the tubes give some winter protection as well. Traditional methods of establishing transplants have reduced competition from weeds by keeping an area of bare ground around the plants. Sometimes a mulch has

**Table 1. “A/B” PLANTING AND VARIETY TRIALS**

COOPER- ATOR	CROP	TREATMENT “A”			TREATMENT “B”
		DESCRIPTION	YIELD (bu.)	TREAT- MENT COST	DESCRIPTION
BAUER	SOYBEANS	10" DRILL	47.7	\$32.77	19" ROW PLANTER
NEELY- KINYON	SOYBEANS	LS201 TOFU BEAN	43.5	\$29.17	DEKALB CX278
NEELY- KINYON	SOYBEANS	175,000/ACRE LS201	40.5	\$23.94	225,000/ACRE LS201
LUBBEN	CORN	SEED FIRMER ATTACHMENT	136.1	\$0.25	NO SEED FIRMER
LUBBEN	CORN	MAX 21 (BT CORN)	168.2	\$33.00	CIBA 4394 (NON-BT)



been used to accomplish the same thing. Mulch also buffers changes in soil moisture and temperature, and it requires less total labor than maintaining the bare ground.

The Frantzens and Mike set out a "two-by-three" factorial experiment. Three methods of ground preparation were included: bare ground, wood chip mulch, and no ground preparation at all. Each of these three methods was tried with and without the Tubex tubes. Each farm had six replications of these six combinations. Table 2 gives results overall for each farm, and it shows the two factors (one a two-level factor and the other a three-level factor) rather than the six individual treatments.

In late June, 1995, these cooperators transplanted their hazelnut seedlings into rows deep-ripped with a single shank chisel. At the end of the 1995 season and again in the autumn of 1996, they measured several growth parameters, including plant height (in centimeters), plant diameter (in millimeters), and the number of bud nodes. Results for 1996 confirm the value of the protective fiberglass tubing, which produced bigger plants with more leaf nodes.

**Second-year data also contain information about plant survival through the winter of 1995-1996. Here is where the two farms begin to look different.**

The second-year data also contain information about plant survival through the winter of 1995-1996. Here is where the two farms begin to look different. Mike Natvig lost only one plant out of 72 to winterkill. The Frantzens lost four of 36 where Tubex was used and 29 out of 36 without tubing. The cause of this difference between farms is not clear. The Frantzen planting is in a somewhat poorly drained spot, while Mike's hazelnuts are in well-drained soil. What's more, hazelnuts grow wild around Natvig's planting. There could be native mycorrhizae or other soil microbes at the Natvig site that are contributing to hazelnut health.

The effect of ground maintenance was also different at the two farms. At the Frantzens' there was a tendency (not statistically significant) for healthier plants with the bare ground treatment,

(Continued on next page.)

"A/B" PLANTING AND VARIETY TRIALS						
TRT "B"		DIFFERENCE				COMMENT
YIELD (bu.)	TREATMENT COST	YIELD DIFF.	YLD LSD (bu.)	YLD SIG.	\$ BENEFIT OF TRT "A"	
46.8	\$26.38	0.9	1.8	N.S.	-\$6.39	TRT 1 BENEFIT = \$0.28 WITH 2ND PLANTER PASS
45.8	\$22.89	-2.3	1.7	*	\$43.30	\$8.35 VERSUS \$6.84 PER BU SELLING PRICE
40.7	\$30.79	-0.1	1.3	N.S.	-\$6.85	
140.0	\$0.00	-3.9	9.6	N.S.	-\$0.25	
163.6	\$27.67	4.6	3.9	*	\$6.23	4394 AND MAX 21 ARE ISOLINES DIFFERING ONLY IN THE BT GENE

TABLE 2. HAZELNUT ESTABLISHMENT TRIALS

COOPERATOR	FACTOR DESCRIPTION	YIELD	STATISTICS	COSTS
FRANTZEN	TUBEX TUBING TO PROTECT TRANSPLANT			\$4.55
	HEIGHT (CM, Divide centimeters by 2.54 for inches)	43.1	a	
	DIAMETER (MM)	5.3	a	
	NUMBER OF NODES	9.5	a	
	PERCENT SURVIVAL	89%		
	WOOD CHIP MULCH AROUND TRANSPLANT			\$4.35
	HEIGHT (CM)	33.1	a	
	DIAMETER (MM)	5.2	a	
	NUMBER OF NODES	8.8	a	
	PERCENT SURVIVAL	50%		
NATVIG	TUBEX TUBING TO PROTECT TRANSPLANT			\$4.55
	HEIGHT (CM)	55.8	a	
	DIAMETER (MM)	6.4	a	
	NUMBER OF NODES	25.7	a	
	PERCENT SURVIVAL	100%		
	WOOD CHIP MULCH AROUND TRANSPLANT			\$4.35
	HEIGHT (CM)	50.2	a	
	DIAMETER (MM)	6.3	a	
	NUMBER OF NODES	24.4	a	
	PERCENT SURVIVAL	100%		
ESTABLISHMENT METHODS FOR HAZELNUTS				
TRT 1: WEED CONTROL=NONE, TUBE=YES				
TRT 2: WEED CONTROL=BARE GROUND, TUBE=YES				
TRT 3: WEED CONTROL=WOOD CHIPS, TUBE=YES				
TRT 4: WEED CONTROL=NONE, TUBE=NO				
TRT 5: WEED CONTROL=BARE GROUND, TUBE=NO				
TRT 6: WEED CONTROL=WOOD CHIPS, TUBE=NO				

(Continued from previous page.)

and the least vigorous plants were found under mulch. Mulched plants did best of all at Natvig's, with the poorest performance shown by plants

receiving no ground maintenance at all. Good research always answers some questions and raises others, and this project is no exception. Still, producers now have some good tips to help them enter into a hazelnut enterprise. 🌱

**HAZELNUT ESTABLISHMENT TRIALS**

FACTOR DESCRIPTION	YIELD	STAT.	COSTS	FACTOR DESCRIPTION	YIELD	STAT.	COSTS
SEEDLING WITHOUT TUBEX			\$4.00				
HEIGHT (CM)	23.5	b					
DIAMETER (MM)	4.5	b					
NUMBER OF NODES	7.7	a					
PERCENT SURVIVAL	17%						
BARE GROUND MAINTAINED AROUND TRANSPLANT			\$4.50	NO MULCH OR BARE GROUND			\$4.00
HEIGHT (CM)	40.8	a		HEIGHT (CM)	43.4	a	
DIAMETER (MM)	5.5	a		DIAMETER (MM)	4.7	a	
NUMBER OF NODES	9.0	a		NUMBER OF NODES	9.6	a	
PERCENT SURVIVAL	58%			PERCENT SURVIVAL	54%		
SEEDLING WITHOUT TUBEX			\$4.00				
HEIGHT (CM)	29.2	b					
DIAMETER (MM)	5.1	b					
NUMBER OF NODES	16.8	b					
PERCENT SURVIVAL	97%						
BARE GROUND MAINTAINED AROUND TRANSPLANT			\$4.50	NO MULCH OR BARE GROUND			\$4.00
HEIGHT (CM)	39.3	b		HEIGHT (CM)	38.0	b	
DIAMETER (MM)	6.0	a		DIAMETER (MM)	5.1	b	
NUMBER OF NODES	21.8	ab		NUMBER OF NODES	17.6	b	
PERCENT SURVIVAL	100%			PERCENT SURVIVAL	96%		
	<b>TREATMENT COSTS:</b>						
	TRT 1:	\$4.55	/ACRE				
	TRT 2:	\$5.05	/ACRE				
	TRT 3:	\$4.90	/ACRE				
	TRT 4:	\$4.00	/ACRE				
	TRT 5:	\$4.50	/ACRE				
	TRT 6:	\$4.35	/ACRE				

## FOOTPRINTS OF A GRASS FARMER

### An Earful On Ear Corn

Tom Frantzen, Alta Vista

Allan Savory, a renowned wildlife biologist, once observed that the greatest barrier to learning is existing knowledge! I want to challenge some "common knowledge" and possibly remove some learning obstacles.

Large combines are the only "efficient" way to harvest corn. They cover a lot of ground in a day, leave little corn waste, and are easy if not fun (newer ones) to operate. Since everyone uses one, this must be the way to go. Is this entirely true or is there a dark side to the efficiency? Could large harvesting equipment be efficient but not economical? Hint: I'm defining economy as the harmonious use of a region's resources.

Let's compare harvesting ear corn on a (resource efficient) farm to combining. Used, pull-type ear corn pickers in excellent condition sell for around \$2,000. We use a self-propelled 4-row New Idea Uni-system that is worth about \$10,000. The equipment cost to harvest corn will vary, but it is generally less expensive to pick ear corn. Combines cost more to operate, but this is justified

***While no one likes to see corn on the ground, this loss is again only a food source when sows or developing gilts can glean fields.***

because harvest loss is reduced. Ear dropping or stalk breaking is considered total loss. The answer to this problem is to buy better varieties or harvest even earlier with higher drying costs.

Compare this modern method to "outdated" ear corn harvest done on an integrated livestock farm where fences are appreciated. Harvest time is busy like any other operation. But there is no reason to rush for an extra early harvest or to work on Sunday fearing that the crop will fall down and lose ears. Any ears on the ground are feed for the beef

***The combination of fences, diversified livestock, and ear corn harvest lowers harvest cost, reduces operator stress, and provides opportunity for beginning farmers.***

cow and brood sow herd. This significantly lowers stress levels and reduces grain loss to near zero.

Pull-type ear corn pickers utilize snapping rollers instead of the stripper plates most combines have. The fault of rollers is their tendency to lose shelled corn over the row. While no one likes to see corn on the ground, this loss is again only a food source when sows or developing gilts can glean fields.

Combine stripper plates are very rough on corn stalks as they pass through the corn head. Stalks are either broken off or completely broken over. The snapping rollers pass stalks through with far less damage. Most stalks are intact and stand nearly straight after harvest. This may sound insignificant unless you have a stock cow herd and a lot of November snow. The winter blast buries the combine-harvested corn residue, but where the corn stalks stand upright from the snapping roller harvest, plenty of feed is available in spite of the deep snow! Now, who is really efficient?

As we cribbed our ear corn this fall, and as our combining neighbors waved, I had the extra satisfaction of yet another feature of this "outdated" practice. When I closed the lids on our cribs, not only did I have stored, dry corn, I also had stored, dry cobs and husks! Even if bad fall weather would prevent baling cornstalks, I had dry cobs to use for bedding in our deep-bedded hoop houses where we raise hogs. Another stress was reduced!

Combines are fast, and easy to operate, and if the crop is standing, a low loss will result. Yet all of this "efficiency" comes with a high price and a lot of investment risk. The combination of fences, diversified livestock, and ear corn harvest lowers harvest cost, reduces operator stress, and provides opportunity for beginning farmers. 🌽

**FROM THE KITCHEN**

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

Crops out, field work done (last year did not get that done), and cattle yards all cleaned. Tony took over the hogs last spring, which has really helped us. Been keeping busy with Ray's mom in the hospital and my dad just out. At least they waited for crops to get done. Now I'm spending time at the computer trying to get the farm accounting up to date. Ray's busy drawing plans for adding a double garage, office, bath and remodeling our big house, where the cattle are, 3½ miles from here. So we can move there and Johnny and Karen (Ray's youngest son) can move here. They got married May 20<sup>th</sup>. My youngest son got married September 20<sup>th</sup>. Both married in Texas. Those two trips along with farming kept us busy this summer.

Almost Thanksgiving and not sure what the day will bring. Maybe we will have the soup below or chicken noodle soup to take to our shut-in parents. See one at dinner and one for supper?



½ Cup or more chopped onions  
 2 minced garlic cloves chopped  
 Add to meat and simmer all together until onion is cooked.

ADD:  
 3 Cups beef broth  
 4 med. chopped carrots  
 4 stalks sliced celery  
 3 potatoes, peeled & cubed  
 1 qt. tomatoes (or large can)  
 ¼ Cup minute tapioca  
 1 tsp. each: basil & thyme  
 ½ tsp. each: sage & cinnamon  
 1 bay leaf  
 1 tsp. Worcestershire sauce  
 ¼ tsp. each marjoram & thyme  
 (you can add 1 Cup noodles)

Simmer, covered, over low heat 2 to 2½ hours on top of stove, or ...  
 Crock pot: 3 hours on high, 3 to 5 on low, putting meat on top.

(For stew decrease water. In place of beef broth, 2 beef bouillon can be used with water.)

**RAY'S FAVORITE VEGETABLE BEEF SOUP**

2 lbs. sirloin, cut (or stew meat) Brown in oil.

A Very Merry Christmas and Happy New Years from our house to yours. 🍷

**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: \$20 for one year, \$50 for three years.  
 Please enclose check or money order payable to "Practical Farmers of Iowa" and mail to:

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

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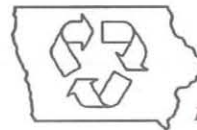
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PRACTICAL FARMERS OF IOWA  
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**Address Correction Requested**