the Practical Farmer

Practical Farmers of Iowa newsletter Volume 3, #3
Fall, 1988

Winter Annual Meeting on Wed., Dec.14

Come one, come all! Bring your spouse, bring your Extension agent! Find out what PFI has been up to this past year and what there is to look forward to next year. And help shape our organization's future. Registration begins at 8:00 A.M., at the Ames Starlite Inn (near the 13th St. exit of I-35). The meeting is free to members. Ten dollars at the door makes you a member or renews your membership. Lunch at the Starlite, if you eat there, will cost $5.83.

A timely and useful program is scheduled. Dr. Dennis Keeney will speak on "Farmer Input to the Leopold Center." This will be one of his first addresses to farmers as director of the Center. It will certainly be a good chance for PFI members to question him about the direction of the Leopold Center and opportunities for farmer participation. Incidentally, Dr. Keeney and his wife recently became members of Practical Farmers.

Another informative presentation will be given by Trelan Wilson, who is Story County Roadside Biologist. Story County has moved away from the blanket spraying approach to roadside pest control. For example, spot spraying is now practiced, and prairie grasses are being used to choke out Canadian thistle. Trelan will speak on "A Practical, IPM Approach to Roadside Weed Management."

The afternoon session will be all about Practical Farmers of Iowa. Our on-farm cooperators will describe their experiences with the many field trials conducted this

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New PFI Coordinator Named

The PFI board of directors and Iowa State University have chosen the new PFI coordinator/extension associate. Rick Exner was selected to fill this new position, which is to begin in January. Rick's duties will include coordination of PFI on-farm trials and economic analyses. He will also serve as a liaison between Practical Farmers and ISU. By the nature of our contract with ISU, Rick will not become a book keeper, but he will free the PFI directors from many of the duties required for the on-farm research.

Rick is a graduate student in agronomy and has studied overseeding field crops with legumes to provide extra nitrogen, and strip cropping. He is familiar with ISU staff in agronomy, economics, and other departments

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summer. There will be cooperator panels on the nitrogen trials, on weed control, on manure management, and a miscellaneous panel for other cooperator demonstrations.

Leopold Center Director, Dennis Keeney

After the cooperator panels and a refreshment break, A a short business meeting will be held. Besides the annual report, there will be an election of officers. Districts 2 (North-Central) and 5 (Southeast) are in line to elect directors. Also, our president, Richard Thompson, has asked to step down in order to devote more time to keeping the PFI books and helping the on-farm cooperators. Consequently, at the winter meeting we will have the opportunity to select a new president from the board of directors.

Hope to see you there!

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PFI / Extension Coordinator, Rick Exner

who have expressed an interest in the work that PFI is doing. Rick will be able to help disseminate ISU research of particular interest to PFI members as well as to assist those ISU researchers who would benefit from the experience of PFI members.

We welcome Rick Exner to this new position.

—Rick Voland

Notes and Notices

Fall is Membership Renewal Time

In September, members of Practical Farmers of Iowa received a letter from PFI President Richard Thompson. The letter reviewed the organization's progress, talked about plans for next year, and asked members to renew. If you forgot, or you put it off, please remember that it's high time to mail in your $10 to: PFI, RR 2, Box 132, Boone, Ia., 50036. This will be the last newsletter for those who choose not to renew. Remember, you can update your membership by paying the $10 to attend the winter annual meeting on Wednesday, December 14, in Ames.

Let's Hear It For Oats!

Keith Carlson, of the American Oat Association, recently contacted PFI. This organization is encouraging farmers to think seriously of oats as a cash crop. The AOA wishes to contact farmers who grow oats or are interested in doing so. We sent their material to those PFI members who had listed oats or forages in their member questionnaire. If you did not receive this packet and would like to, contact PFI or the AOA, Box 456, 815 Shakespeare, Stratford, Ia., 50249.

Sustainable Agriculture Teleconference

A sustainable agriculture satellite videoconference was held on October 26. The first part of the program featured pre-recorded talks by researchers from around the midwest on tillage, crop diversity, nutrient cycling, and other topics. The second part of the program featured a call-in with a 3-member panel including ISU Assistant Dean of University Extension Dr. Jerry DeWitt. The conference provided an encouraging view of the amount of interest in sustainable agriculture by midwestern universities. A VHS videotape of the conference "Sustainable Agriculture in the Midwest" is available for rental through the ISU Film Library. (Your local Extension agent should be able to arrange this.) Requests for purchase of the videotape should be directed to the University of Nebraska—Lincoln, where the program originated.

Sustainable Agriculture: Some Thoughts From the Farm

As one of the World Bank participants from the 1988 Sustainable Agriculture tour was getting off the bus to visit our farm this past summer, he asked me to give at some point on the tour my definition of what sustainable agriculture is. The following are some remarks made that day and some afterthoughts on the subject.

Sustainable agriculture is more than a set of environmentally sound farming practices although that is certainly a core part. We always have to keep in perspective the whole picture; by that I mean it has a lot to do with the fabric of our whole society and where we may be headed. Here is a partial list of what I think the ingredients of sustainable agriculture should be:

1. Diversified crop and livestock operation; 2. Lower fertilizer and pesticide inputs; 3. Fairly labor-intensive; 4. Not too large; 5. Utilizing "appropriate sizes and types" of technology; 6. Employs water- and soil stewardship principles; 7. Is family and community centered; 8. Relies more on self-ingenuity and experience for answers to farming problems; 9. Children partake in responsibilities on the farm; 10. There should be a closeness to God and Nature; 11. There should be a fair economic return for labor and production; 12. A large plant and animal species gene pool should be maintained.

Some of the intended results of these ingredients would include the following:

1. Widespread ownership of land and resources; 2. Better soil and water quality; 3. Would help farmers maintain control over their own lives; 4. Fosters a sense of rootedness both in the land and in the community; 5. Maintains and improves quality of life; 6. Is a system that will last.

I would like to elaborate on widespread ownership of land and resources and what role Practical Farmers of Iowa may or may not play in that goal. We can be totally successful as an organization in showing other farmers how to farm with fewer or even without any pesticides. We can show people how to cut their fertilizer needs. We can show people how to cut their input costs and do a better job of preserving their own health and the environment. We can do all the right research. We can be successful in all these things but in the end, how many of us will be in production agriculture to enjoy the fruits of our efforts? It is public policy, short-sighted economics, and technology that make the rules that most of us farmers and the rest of society as well are forced to live by. They have combined to place wealth and production of agriculture into fewer and fewer hands. The Office of Technology Assessment makes the bold prediction that there will be only one-half as many farmers by the year 2000 due to larger farmers primarily being the ones to efficiently implement new technology. I hope they are wrong. Control of the entire livestock industry by the major food and grain conglomerates through vertical integration and contractual arrangements is spreading like wildfire.

It is not just agriculture that is feeling the effects of uneven distribution of wealth; it is our whole society. According to a recent Des Moines Register article, in 1973 the top 1% owned 28% of the nation's wealth. Today that figure is 34%. The top 1% owns as much wealth as the lower 80% of American families. Most of that wealth has been far removed from rural society. More widespread ownership of land with smaller more diversified farms could do so much for our floundering rural communities. Encouraging labor instead of just capital could improve our rural economies. Our population base could be enhanced. This would help our tax base and school systems. It would have a snowball effect.

It is government farm policy however that must share much of the blame for not promoting a sustainable system of agriculture. Simply put, here in the Cornbelt, farmers have been financially rewarded for growing surplus corn on a large percentage of the acres on their farm. Marty Strange from the Center for Rural Affairs at Walthill, Nebraska sums it up very well as to what role government farm policy should play in promoting a sustainable system of agriculture. "Instead of tying programs to either people or to production, we should tie them to the *relationship* between people and production. What people do to the land, how they farm, and who has access to land ought to be at the foundation of farm programs. Farmers ought to be paid properly to farm well, encouraged to rotate crops, diversify crops and livestock, and reduce pollution. Stewardship and ownership of the land are more important than either production or privilege."

I would like to encourage our organization to keep these broader concerns in mind as we try to implement

our goals of lower inputs, on-farm research, and preservation of health and environment. Yes, we have a particular niche to fill in the larger effort, and yes, as the saying goes, let's clean up our own back yards first. However, the even larger questions of who will be able to share in the benefits from our work remain unanswered. I would like our children and grandchildren to be some of those sharing in those benefits. I'm sure you would too.

— Ron Rosmann, Harlan

A "How-To" Book for Sustainable Farming

For many years farmers have been trying (without a concise, inexpensive guide) to find out how to maintain yields with fewer purchased inputs, protect natural resources, and try new crops or management methods. With the publication of *Reshaping the Bottom Line: On-Farm Strategies for a Sustainable Agriculture* by David Granatstein, the information problem has been greatly helped. Granatstein is an agronomist at the Land Stewardship Project in Minnesota.

This 63-page book has practical information and creative ideas on managing soil fertility, manure, weeds, insect pests, pasture, and some alternative crops and cropping methods. Granatstein has gathered and interpreted information from a broad range of sources, especially Extension Service publications, textbooks, *The New Farm* magazine, and results from farmers' experimental trials and practical knowledge. This last source is often ignored in scientific literature, and its inclusion makes this book quite unique. Granatstein names specific farmers and the various techniques which they have used on their farms to deal with particular problems. There are many tables, such as: the nutrients in various manures; the pounds of nitrogen fixed by different legumes; the nitrogen loss from different application methods; and the costs of different weed control practices. Unfortunately the book was written before enough data was available about spring soil nitrate tests, which soon may be very important for helping corn farmers predict accurately how much nitrogen their crops will need. Granatstein is now using this nitrate test with L.S.P. farmers.

This book encourages farmers to try on-farm research themselves but doesn't explain how to randomize or replicate the treatments, which is important to give validity to the results. In a book of this size it is impossible to explain each topic in great detail and thus some of the subjects receive a synopsis treatment.

While the information in "Reshaping the Bottom Line" tends to be about Midwestern crops, there are plenty of facts and concepts that can be used in any region. This is a book aimed at farmers and others interested in current information about farming in a practical, sustainable manner.

The book is available for $9.00 (postage paid) from: Land Stewardship Project, Main Office, 512 W Elm St., Stillwater, MN 55082 or call 612-430-2166.

— Sue Jarnagin

PFI Represented at World Ag Expo

"Water Quality and How Agriculture Affects It" was the subject of a forum presented at the World Ag Expo, on September 8. Moderating the forum was Dr. Richard Fawcett, ISU Extension Weed Specialist. Participants in the forum were: Dan Frieberg, who is manager of a retail ag chemical business and president of the Ag Chemical Retailers Association; and Richard and Sharon Thompson, PFI members who have farmed in Boone County since 1958. After 10 years of high-input farming, the Thompsons changed to low-input farming. They are now nationally recognized for their contribution to the sustainable agriculture movement.

Dr. Fawcett for the past two years has been the coordinator of an Extension effort to reduce ground water and surface water contamination by pesticides. Ground water protection is controversial and political, he said. "But why should ground water protection be controversial? Everybody is for it. The public certainly wants safe drinking water and a clean environment. The farmer wants to protect ground water quality because his family is the first to be affected ... and he has to be concerned about the long-term productivity of his farm. And the ag chemical companies ... are concerned about ground water ... they have a sense of responsibility ... and

if for no other reason but legal liability they can't afford to let ground water contamination occur." Despite concerns about high nitrate levels in Iowa wells, the public is most clearly concerned about pesticides in ground water, Fawcett said.

The Thompsons speaking at the World Ag Expo forum

Dr. Fawcett stated that all 853 public water supplies in Iowa's cities and towns have been tested for 35 pesticides and 35 other man-made contaminants. Because of the Iowa Public Water Survey, Fawcett said, "we know what occurs in Iowa." Fourteen percent tested positive for herbicides, only two cases of insecticide contamination were found, and sixty-four percent tested positive for non-agricultural contaminants, which are mostly chlorinated by-products.

Fawcett recommended using integrated pest management techniques and limiting pesticide use to cases where there is an economic return and no non-chemical control that is more effective.

Dan Frieberg stated, "We have to change the way we handle pesticides." Frieberg believes that tillage is not an adequate alternative to herbicide use. He also said he believes there are three misconceptions which persist: "that pesticides and nature are not compatible"; "that wildlife and pesticides are not compatible"; and "that technology is the root of all environmental evils."

Dick and Sharon Thompson did not agree with Frieberg that tillage is not an effective alternative to herbicides. Sharon stated that the 375,000 tons of pesticides which are used annually cost 10 billion dollars and are one-tenth of 1% effective. The Thompsons contended that herbicides are losing the battle as weeds become resistant. On their 300-acre farm, they "have needed herbicide once in 21 years." Their solution is to "stack the deck against weeds" by using the following practices: 1) rotation of crops; 2) planting fast-growing, tall-crop varieties which quickly produce a canopy; 3) ridge tillage, which does not "wake up" the weeds; 4) cover crops, which inhibit weed growth; 5) row-banding of commercial fertilizer, to feed the crop but not the weeds; 6) pushing the manure out of the rows; 7) use of the right kinds of rotary hoe and cultivator to handle these residues; and 8) spot treatment with herbicide, as a last resort.

The Thompsons report no major insect problems in the past 20 years. Long rotations of diverse crops have broken the cycles of insect development, they said. They believe their farming techniques are not only safer and less polluting but also more profitable for farmers.

One point that the Thompsons and Frieberg did agree on was that testing for available nitrogen in the soil is needed to avoid over-application of fertilizer. Dick Thompson mentioned that PFI cooperators have been using a nitrate test developed by ISU's Fred Blackmer, comparing their results to those of Blackmer's lab.

Sharon summed up the Thompsons' position in her closing remarks: "The agriculture industry is here to serve man. Man is not here to support the agriculture industry."

— Donna Bauer, Audubon

Wendell Berry — "The Work of Local Culture"

Farmer, author, and storyteller Wendell Berry spoke in Harlan, on November 13. His appearance was sponsored by the Iowa Humanities Board. Berry, who is known as an outspoken proponent of family farming, began with an apology to the audience gathered there in the high school auditorium. He warned them that he had some harsh things to say. He also said that he had discarded his original, wordy title for a simpler one: "The Work of Local Culture."

There is a bucket hanging from a fence post out in the woods near Berry's home in Kentucky. It has been there since the days when buckets were made to last and farmers in that region could afford barbed wire fencing. Over the years, said Berry, the bucket has accumulated several inches of rich soil, thanks to the leaves, dust and other items that have fallen into it. He told this story to illustrate a point. Communities accumulate culture slowly, over time, much as the bucket is accumulating and retaining soil.

What is culture? It includes the collection of local stories, histories and relationships as well as the slowly-learned knowledge of how to "use that place well."

Unfortunately, there is a popular fallacy that if the nation as-a-whole is alright, then its individual localities must be healthy. Instead, communities are being submerged in "the great centralizing process that is our national economy." When country people allow their culture and vision to be defined by this central culture, they participate in their own demise, warned Berry. Local culture has a value, and part of this value is economic, he insisted. For example, higher medical rates result when the breakdown of trust between the community and doctors leads to higher malpractice insurance costs.

In Wendell Berry's view, the local succession of the generations has been broken. We are living out the folk tale in which the children go to the cities for reasons of the external economy, the parents die, and the family land is lost. Now this is the norm; the child is expected to leave and is not educated to stay at home. And as the children depart, the community loses its memory of itself.

What we are left with is, at best, an individualistic sort of professionalism and a television culture in which we are "crowded into a dimensionless 'present'." This is not a thrilling prospect, but Berry offered one note of hope. Don't look for change to come from corporations, from the universities, or from the inner city, he said. However, small towns and rural communities retain a sense of what is wrong and still have the capacity to change it.

Cast Report on Sustainability of U.S. Agriculture

The Council for Agricultural Science and Technology (CAST) has recently published a report, *Long-Term Viability of U.S. Agriculture* (CAST no. 114, June 1988). The new director at CAST deserves credit for selecting this topic and for the diversity of people selected for the task force members. These members included university scientists in agricultural, economic, and social disciplines from around the country, as well as advocates for sustainable agriculture, industry representatives, and farmers. The chair of the committee was Dr. Luther G. Tweeten, Department of Agricultural Economics and Rural Sociology, The Ohio State University, Columbus.

The report is divided into three main subject areas: economic viability, environment and natural resource viability, and social viability. The arguments about economic viability revolve around the concept of "comparative advantage." In this report, one group of producers has a comparative advantage over another group when the first group produces the same product with a greater profit (including other factors like social and environmental costs). This concept is important because, in a free market, the group with the comparative advantage will remain viable, and the group without a comparative advantage will need to re-allocate its resources. Studies assert that US agriculture does have a comparative advantage in the production of wheat, coarse grains, and oilseeds. Although individual regions of some other countries may have a comparative advantage over US agriculture for some crops, these regions are small and cannot supply the world market.

The economic viability section also makes projections about the supply, domestic demand, and quality of US agricultural products. It leaves unanswered the question of stability of foreign demand. Will our foreign customers continue to be able to pay for the food they need? The projections treat improvements in agricultural technology and increases in productivity with the same certainty as increases in population. Will plant breeders continue to increase grain yields over the next 50 years at the same rate that they have in the previous 50 years? The authors do address the problems from current changes in consumers' demand for more healthy food. "The changes create instability and adjustment problems to producers, but do not threaten the long- term viability of

U.S. agriculture." "A market-oriented agriculture will respond to consumers' preferences, but grading, quality, purity, and safety standards established by industry and government must be capable of transmitting consumers' tastes and preferences back to producers and marketing firms so that quality and preference are rewarded and produced." In other words, consumer demand for leaner meat, or for food with fewer residues of antibiotics and other agricultural chemicals, will be frustrated until proper standards allow these food products to receive separate handling and labeling.

The authors do a thorough job of identifying environmental limitations on US agriculture, such as soil erosion and salinity, water quality and availability, and finite reserves of energy and fertilizers. They miss the opportunity to provide economic projections based on 61 years of demonstrated phosphate rock reserves, and 28 years of world oil reserves. Finite resources might add a different perspective to current models in the same way that travel routes through remote areas need to account for supplies of water and fuel. They do provide some sobering information about the effects of pollution. Most of us assume that air pollution affects only cities or mountain lakes, but effects are also present in rural areas. "The annual effects of ambient ozone are expected to be comparable to losses from pests and diseases."

The section on social viability begins with a discussion of farm ownership. Farmland ownership is concentrated so that "1% of the farmland owners control over 30% of the private land in the United States and the largest 5% holds almost 50%." Because of the high cost of land, family farming tends to rely on the generosity of parents who help their offspring get started. One of the difficulties for the typical family farm is maintaining good management. Although these farm units are quite resilient, they lack the resources necessary to adjust most efficiently to the instability apparent in the 1970s and 1980s. Larger farming units can better afford the resources for researching changes in markets and tax laws. In addition, the availability of off-farm income may determine the viability of farming in certain regions.

The authors recommend continued agricultural research, especially research that would lower the costs/unit and not just increase production. Policy makers need to eliminate disincentives to conservation, such as the requirement to maintain acreage in one crop as a base instead of allowing crop rotation or conversion to conservation reserves. Cooperation between the scientific establishment and farmers, instead of the animosity we have seen from both sides, would serve both agriculture and society. On-farm research is one example of such cooperation.

On the whole, the report provides a welcome relief from the common litany that we have heard of "Researchers know best what you want" and "More yield, more inputs." The report ignores or glosses over some areas critical to current agricultural problems, but it does recognize other problems that are also important. Let us hope that this report represents a start in the dismantling of the useless animosity and a reconstruction of cooperation among researchers, farmers, and agribusiness leaders.

To order a copy of the report, send a check for $4.00 to CAST, 137 Lynn Avenue, Ames, Iowa 50010-7120. Please request report 114, *Long-Term Viability of U.S. Agriculture*.

— Rick Voland

PFI 1988 Summer Field Days: The Rundown

North-Central District. Thirty-five people met at Allyn and Laura Hagensick's farm on the evening of August 10 for the first PFI field day of the season. The hot weather broke for one day, in deference to the event. Co-hosting the tour were Hal and Georgia Bumgarner, PFI cooperators who also farm near Hampton.

Al started the group off at a soybean field in which some strips had received no banding of herbicide. Weeds had been left standing for demonstration purposes. The relatively low numbers of broadleafed weeds, he said, were a demonstration of ridge- till's inherent ability to control weeds in the row, and rotary hoeing would have further reduced weeds.

Both farms demonstrated reduced nitrogen rates in corn. The Hagensicks had comparisons of 184 lbs N vs. 34 lbs in continuous corn, 134 vs. 34 lbs in corn-after-beans, and a starter-vs.-sidedress comparison. Leaf tissue samples taken at silking showed no difference between the rates in terms of nitrogen taken up by the plant.

Hal Bumgarner makes a point

Vic Madsen discusses fertilizer response

Informal tour at the Thompson farm

The home of "Bob's Tomatoes"

Ron Rosmann at the Southwest District field day

Picnic in the shade after Northwest District field day

The soil nitrate test being developed at Iowa State was put to use on these farms. Hal Bumgarner adjusted his two fertilizer rates to the high and low ends of the range suggested by the test. Hal said he views the test as an important new tool to save money and limit groundwater pollution.

After sunset, everyone retired to the Bumgarners' barn for refreshments before the drive home.

Northwest District. On August 16, the northwest district held a three-farm field day. The day was another hot one, but each farm drew about 20 people.

The tour started off with Harlan and Sharon Grau's farm, near Newell. This year there were weed control demonstrations in both corn and soybeans, with chemical control strips next to nonchemical strips. The corn was uniformly weedless. Beans had some broadleafed weeds, but it wasn't clear which practice came out ahead.

After 1987 tissue tests showed low potassium, Harlan put together a special rig for banding dry fertilizer. He intends to use the device in some on-farm comparisons in '89.

Bob and Diane Graaf, near Palmer, hosted the second stop of the tour. Tomatoes are the new enterprise for the Graafs. They use a system in which plants grow mostly in pots of peat, with nutrients pumped in along with the irrigation water. Bob has put time into developing customer recognition at the local supermarket, and demand for "Bob's Tomatoes" has steadily grown.

In their row crops there were two comparisons. A with-and-without-herbicide trial in soybeans may have had a little more foxtail without herbicide. A comparison of two nitrogen rates in corn showed no visible differences.

Todd and Linda Hartsock, of Rolfe, also showed a comparison of ridge-tilled beans with-and-without herbicides. Todd was impressed with the way ridge-till cleaned up a corn strip that had been left unharvested for the wildlife. In another field, corn was being grown with either a small amount of starter or a ten-times-greater amount of sidedressed fertilizer. The corn with starter had been taller through tasseling, but by the time of the tour, it was hard to tell the difference. The field day finished up with a picnic supper under the shade trees at Todd's mother's house.

Northeast District. On August 17, 55 people turned out for the first stop of the day, the farm of Ray and Marjorie Stonecypher, near Floyd. There was a corn field with-and-without herbicides — both treatments were clean as a whistle. Another replicated trial comparing 60 and 120 lbs of N also showed no difference, and leaf sampling had indicated sufficient nitrogen in both treatments.

Ray and Tom Morris, an ISU graduate student, went through the extraction procedure for the soil nitrate test being developed by Dr. Fred Blackmer. The test will allow farmers to adjust sidedressing rates to precisely meet crop needs. Dennis Dammen, a local fertility consultant, then spoke on nutrient sufficiency as a concept for efficient fertilizer use. There was a long line of equipment out in the field — conveniently placed for shade and leaning on — and at least one dealer brought equipment for viewing.

Dinner was served on the Stonecypher patio before the crowd moved on to the next stop. Marj was head chef despite being hobbled from a riding accident. From Floyd, the tour moved east to New Hampton, one of the driest areas of the state this year.

Fifty-seven people arrived at the farm of Mike and Jamie Reicherts. Mike has retooled and invented equipment to apply controlled and even rates of slurry. He also does field trials in cooperation with the Extension Service, and many of the farmers on hand came to hear agents Kay Connelly and Gerald Anderson discuss these demonstrations.

The PFI trial compared sidedressings of 90 lbs of purchased N and 1500 gallons of slurry per acre. Both treatments also received 30 lbs of N at planting. Leaf samples showed both treatments to be well over the sufficiency level for nitrogen.

Forty-four people continued to an unscheduled stop at the farm of Tom and Irene Frantzen. By this time the group included several state legislators and an Iowa congressman. Tom gave a short demonstration of the ridge-till planter and cultivator, which may have been a useful introduction for some of these folks. With the dry spring and summer, the ridge-till corn on this farm had looked worse than corn under conventional tillage, but by the time of the field day, there was no obvious difference. At the row ends, the remnants of last year's cover crop

trial were still evident; the hairy vetch had reseeded itself and continued to suppress weeds.

Southeast District. Around 40 people attended the southeast Iowa PFI field day, held August 23. The farm of Ed Broders, in Stockton, was the first stop. He applied a biological product called P3Kg along with liquid manure.

Rod and Wanda Treimer's farm, near Durant, compared two rates of nitrogen — 190 and 130 lbs/acre — in second year corn. There was no difference in leaf tissue N, and there was lodging in the field. This led to a discussion about planting populations.

Dave and Bonnie Oien, also of Durant, demonstrated 60 and 120 lbs/acre of N fertilizer in corn-following-soybeans. Leaf tissue in both treatments showed only moderate N concentrations. Because fertilizer was applied in split applications, the dry weather may have kept fertilizer nitrogen away from the corn roots.

Steve and Gloria Leazer, of Wilton, compared a food-grade starter and a conventional starter fertilizer. They also evaluated the effectiveness of insecticide for seed corn maggot. The Leazers are part of the Resourceful Farming project of the Iowa Natural Heritage Foundation, and for that program they conducted a demonstration of the value of liquid manure.

Mark and Rita Mays, also of Wilton, demonstrated corn following a cover crop of vetch and rye. In addition, they showed the crowd a trial of ridge-till soybeans with-and-without herbicides. This field had inherited a weed problem from seed corn production. In the no-herbicide strips, there were some buttonweeds growing in the rows. On the other hand, Mark pointed out, chemical control was not very effective or economical on neighboring farms in 1988.

Dordt College. On August 25, around 100 people attended the Dordt College field day, near Sioux Center. Dordt has a PFI cooperator farm that is managed by Ron Vos. Before going to the field, visitors could enjoy punch and cookies while they watched a slide history of the cropping season, including Sceptor damage and the PFI trial of ridge-till corn with-and-without herbicide. There were more weeds without the herbicide. This had been expected, since the ridges were built late the previous fall. Channel 4, from Sioux City, was present for the field day, as were the president, vice president and other administrators of the college. It was gratifying to see this support and involvement.

Tom and Marcia Hanks. The Hanks farm, near Ackworth, hosted a small tour on August 29. Two trials were shown. In one, there was a comparison of N fertilizer rates in corn following beans. The corn that received 55 lbs of nitrogen looked about as good as the corn that got 120 lbs, but leaf tissue tests suggested that it might be short of N.

A weed control trial in ridge-till soybeans used a combination of materials that cost just under $30 per acre. The beans were not rotary hoed before they emerged. Both kinds of strips contained weeds, but there were more weeds where herbicide was not used. In the herbicide strips, most weeds were outside the herbicide band but beyond the reach of the cultivator disks.

Southwest District. On August 31, around 40 people came to the Harlan, Iowa farm of Ron and Maria Rosmann, which was the first of two stops in the district field day. This farm has a long-term comparison of manure versus compost application. On land where both manure and liquid urea were used this year, soil nitrate readings were very high.

A study in soybeans compared ridge-till and conventional tillage — both without herbicide. In this trial, planted May 18, the conventional beans had much more pigweed. Nearby, beans under conventional tillage that had been planted May 25 were quite clean. In 1989, the Rosmanns will compare late-planted, conventional-till beans to early-planted, ridge-till beans.

The second stop was Vic and Cindy Madsen's farm, near Audubon. The PFI trial there concerned nitrogen fertilizer in corn following soybeans. Both treatments received 42 lbs of N at planting, and one was also sidedressed at first cultivation to bring its total to 77 lbs/acre. Leaf samples showed plenty of N in both.

Victor will conduct a potassium trial next year, since his leaf tissue tests suggest K shortages. He said he likes the field trial design used by PFI because he feels it is important to base decisions on reliable information.

After the tour, Cindy and others grilled burgers for the guests. She also showed her chicken operation, which has become a local hit.

Dick and Sharon Thompson. The annual Thompson farm field days near Boone this year drew about 350 people on September 11-12. In addition to the wagon tours, there were slide shows on nearly all aspects of the farm, and the Onion Creek Cloggers performed traditional country dances. Field demonstrations compared planters, rotary hoes, fertilizer rate and placement, chemical-vs.-nonchemical weed control, cover crops and rotations. Oats on the farm this year yielded 142.5 bushels/acre, with a 38 lb test weight. As the fields showed, the dry weather this year is forcing all farmers to take moisture conservation seriously, and this will affect tillage and cover cropping practices as well as choice of varieties. The Thompsons are also setting up a seven-year, cash- grain rotation that will conserve soil and limit outside inputs.

Dick and Sharon at a PFI field day

Agronomy Meetings Discuss Sustainable Agriculture

Agronomists of all kinds convened their annual meetings the last week of November, in Anaheim, California. Sustainable agriculture was the topic of one seminar session and several talks and discussion groups. Sustainability has become a buzzword in the past year, but most scientists are still not clear what it means. Among those scientists who were interested in the topic, I saw basically two responses.

One group wanted a clear definition of sustainable agriculture. Scientists like and need clarity of terms. In this case, though, one suspected many of them were mainly interested in improving their chances of getting the federal LISA (Low-Input Sustainable Agriculture) money that has become available. Those most concerned with having a pat definition seemed to be those least sympathetic to sustainable agriculture. The old myth that reduced external inputs means reduced profits was repeatedly expressed by these folks. In the end, they decided that "low- input" has nothing to do with "sustainable." It was with some difficulty that others convinced them to include in their definition an acknowledgement that sustainability is about people as well as agronomy.

A second group of agronomists was more open to sustainable agriculture and less concerned with precise definitions. These people are already working in areas that apply to sustainable agriculture. Examples include fertilizer efficiency, earthworms, cover crops, soil and water conservation, and manure management.

I attended the Extension Breakfast, which featured a talk on sustainable agriculture. My impression was that people there shared common ground with sustainable agriculture. What they and other sympathetic scientists are less sure of is why they need to add this strange new word to their vocabularies. The cynical answer is: "because that's where the money is now." In the long run, though, the value of the term "sustainable" may be that it brings together in a new way farmers, agronomists, social scientists, businesses and consumers.

— Rick Exner

PFI Proposes New Sustainable Research

The cooperative relationship between Practical Farmers of Iowa and Iowa State University has attracted the interest of the Northwest Area Foundation. The Foundation is encouraging sustainable farming groups in a seven-state region to submit proposals for similar cooperative projects with their own Land Grant universities. These projects will utilize on-farm research to investigate the biological, social and economic effects of sustainable agriculture.

Here in Iowa, PFI is proposing a series of projects to increase the value of the on-farm trials already being carried out by PFI cooperators. With additional support, PFI would be able to involve university researchers in studies of weed control, soil fertility, cover crops and other aspects of sustainable farming. In addition, we could examine farmer attitudes toward sustainable agricultural practices and the effects of these sustainable practices on rural communities. This would all put PFI and Extension in a much better position to shape a strategy for presenting sustainable alternatives to the general farming community.

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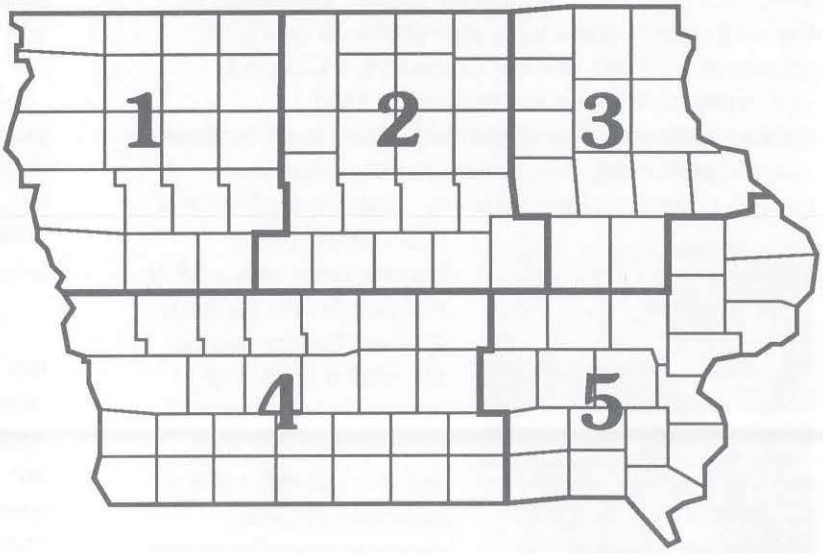

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