



## DeWitt to lead Leopold Center three more years

Nearly 20 years ago, Jerry DeWitt helped guide the newly created Leopold Center as one of its first advisory board members. For the next three years, he will help shape the Leopold Center's third decade as its director.

DeWitt officially took over the Leopold Center helm as director January 1, 2007. He had been serving as Interim Director since November 1, 2005.

The appointment was approved by Iowa State University President Gregory Geoffroy following a unanimous vote by the Leopold Center's 17-member advisory board. The board recommended that DeWitt serve as director for a three-year interim appointment through 2009.

"We believe that this interim appointment will provide continuity and a stable operation for the Leopold Center in the future," said Paul Mugge, an organic farmer from northwest Iowa who chairs the advisory board. "Over the past year Dr. DeWitt has shown leadership and moved forward with the Center's initiatives in ecology, marketing and food systems and policy."

After a year's stint as Interim Director, DeWitt said he has learned about the broad reach of the Leopold Center.

"The need for the voice of the Leopold Center is even more critical now for Iowans than it has ever been in our 20-

**APPOINTMENT** (continued on page 2)

## Cover crops in the Corn Belt: Survey finds underused potential as conservation tool

By JEREMY W. SINGER USDA-ARS, National Soil Tilth Laboratory

A wealth of scientific information exists on the benefits of cover crops, yet their use in conventional row-crop farming systems traditionally has been low. Scientists and educators have speculated about the reasons for low adoption, but these questions have never been posed to a large audience of producers, who are the end-users of this technology.

To learn more about cover crop use in the central western Corn Belt, we developed a survey that was mailed July 2006

to 3,500 producers in Iowa, Minnesota, Illinois and Indiana. In addition to the questions about why farmers did or did not use cover crops, we asked them about their farm type and size, familiarity with cover crops, and use of other conservation practices.

Survey results confirm that cover crop adoption in these states is low. Only 10.5 percent of the respondents in Iowa had ever planted cover crops, defined as any plants that cover the soil and are planted after the main cash crop growing season. Only 6 percent of the Iowa respondents had planted them within the past five years.

In Iowa, 28 percent of the respondents said they were not at all familiar with

**COVER CROPS** (continued on page 6)

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LEOPOLD CENTER

### LEOPOLD LETTER MISSION

The mission of the Leopold Letter is to inform diverse audiences about Leopold Center programs and activities; to encourage increased interest in and use of sustainable farming practices and market opportunities for sustainable products; and to stimulate public discussion about sustainable agriculture in Iowa and the nation.

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The Leopold Center for Sustainable Agriculture seeks to identify and reduce adverse socioeconomic and environmental impacts of farming practices, develop profitable farming systems that conserve natural resources, and create educational programs with the ISU Extension Service. It was founded by the 1987 Iowa Groundwater Protection Act. The *Leopold Letter* is available free from the Leopold Center at 209 Curtiss Hall, Iowa State University, Ames, Iowa 50011-1050; (515) 294-3711.



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## KIRSCHENMANN CONTINUES AS CENTER FELLOW

*APPOINTMENT (continued from page 1)*

year history," he said. "With the rapidly changing Iowa landscape and emerging new agricultural opportunities around energy, we all must keep Iowa's soil and water quality first as we move into new ventures. Without these precious and vital natural resources fully available for future generations, we risk short-term gains today for future generations of struggle on the land."

DeWitt is working with staff, advisory board members and outside experts on final reviews of approximately 30 competitive grant proposals for new research and education projects, including a special call for projects that would help grass-based dairy enterprises and those that address water quality. The Center will invest nearly \$1.1 million in its 2007 competitive grants program, about half for new projects and the balance for multi-year projects that began in 2005 and 2006.

## Leopold Center coordinates statewide project

A project that focuses on helping strong conservationist farmers teach others about systems that will improve the quality of Iowa's soil and water on their farms has a new home at the Leopold Center.

Center Director Jerry DeWitt is the new coordinator for the Iowa Learning Farm. The five-year program was set up in 2005 as a model for learning and exchanging ideas among government agencies, farmers, scientists, agribusinesses and the general public. It includes several ongoing research and demonstration projects and involves farmer-cooperators throughout the state.

"As project coordinator, I am working with the project administrative team from four ISU departments: Agronomy, Agricultural and Biosystems Engineering, Economics and Sociology. I am looking forward to increasing the visibility of this project and the good work that can be done," said DeWitt.

The Iowa Learning Farm uses both a statewide promotional campaign and a grassroots approach to collaborate on devising innovative ways to help all Iowa citizens have an active role in keeping our state's natural resources healthy. Integral partners and leaders in this venture are Iowa farmers.

Fred Kirschenmann, who was Center director for five years beginning in 2000, continues to serve as the Center's Distinguished Fellow.

"I have been pleased to work with Dr. Kirschenmann over the past year," DeWitt said. "Fred's work both in Iowa and at the national level with numerous partners has been vital for the Center and for sustainable agriculture."

Kirschenmann is actively involved in a number of projects including the creation of markets and supply chains for products from midsized farms. He also serves on the board of directors for Silos and Smokestacks National Heritage Area and Whiterock Conservancy, a nonprofit organization that manages a 1,300-acre conservation area in west-central Iowa.

In 2009, the Leopold Center Advisory Board will convene an external search committee for a new director. The board is responsible for providing the president of Iowa State University a list of three candidates from which to select a director.

In addition, an extensive education and outreach program offers field demonstrations, field days, field training, regional meetings and a statewide conservation systems conference. The social and economic aspects of the soil conservation systems are being examined.

DeWitt said the goals of the Iowa Learning Farm fit well with the goals of the Leopold Center.

"Working with farmers to improve the quality of the soil and water on their farms also is a part of the Leopold Center's mission," he said. "We hope to make available what we've learned at the Leopold Center to the 31 farmer-cooperators in the Iowa Learning Farm project," he added.

The Iowa Learning Farm's institutional partners include the Conservation Districts of Iowa, Iowa Department of Agriculture and Land Stewardship, Iowa State University Extension, Iowa Department of Natural Resources and the USDA's Natural Resources Conservation Service.



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More about this project, including a short video, at the Iowa Learning Farm web site:  
[www.extension.iastate.edu/ilf](http://www.extension.iastate.edu/ilf)

# q&a

## A conversation with director Jerry DeWitt



### Q. How would you frame the priority issues for the Leopold Center?

We have no shortage of issues to tackle or areas that demand our energies and attention at the Leopold Center! We hear from many of you informally and at workshops or meetings. We also hear or read about concerns emanating from outside Iowa. And we listen.

Recently the entire Leopold Center staff participated in a day-long retreat to consider the critical issues facing sustainable agriculture. What have we heard that resonates beyond the current news cycle? What should be on our agenda? What are Iowa's present and future needs that require our attention and commitment? How do we better define our Center's role and activities?

The staff agreed on six areas of interest, or core issues:

- Landscape diversification, with livestock as a key component;
- Needs of Iowa's midsize farmer, "agriculture of the middle";
- Protection and renewal of Iowa's soil and water;
- Connections between food and health;
- Role of energy conservation in the bioeconomy, and
- Local policies that support sustainability in Iowa.

### Q. How will we work with these core issues?

By no means do these six core issues replace the Center's very important initiatives in ecology, policy and marketing and food systems. These core issues will serve as a template to frame our initiative work.

Not every project we fund in the coming year, or all of our efforts in various arenas, will center on these core issues. But articulating them has helped us to reaffirm what we stand for, where we need to raise visibility and awareness, and what we can attempt to create or change. These core issues will guide in our competitive

grants process, and sharpen our focus on where we might invest seed money to move worthwhile ideas along and start the hard work that is needed.

I also hope we can use these core issues to stimulate discussion throughout Iowa. To me, they offer a road map that spells out clearly and simply, "Here is what we are for...not what we are against."

### How can you set priorities across these important areas?

Because we believe in the power of agricultural "systems," we cannot work on any one area independent of the others. Consider the connections involved. A diversified landscape has positive implications for soil and water resources, and such a landscape may help sustain the midsize farming operation. A focus on food and health connections can lead to more diversity in the landscape by promoting use of new crops and associated processing facilities, which call for local policies to support them. These six core issues, like so many aspects of agriculture, are closely linked, either directly or indirectly.



Photo by Jerry DeWitt

### Which area seems to be the biggest threat to a more sustainable agriculture?

Of course, all six core issues if left unchallenged have dire implications for the sustainability of our land and resources, agriculture and rural communities. But the one issue that demands our immediate attention is the bioeconomy.

The speed of establishment and local acceptance of new ethanol plants has been breathtaking. The lure of ethanol's financial benefits and potential opportunities in cellulosic fuel production has caused producers to make a number of swift decisions. These decisions could have broad implications that may not have been fully understood. I am concerned by the unforeseen impacts, as the tsunami of biofuels activity sweeps across the landscape, and as one decision is made, others are not even discussed.

Consider the rapid increase in land values, ever-rising cash rental rates for land and the availability of land. There's also the impact of feeding ethanol co-products in the cattle industry, the return of currently protected Conservation Reserve Program land to row crop production, and the uncharted effects of ethanol plants on our rural communities and water supplies. One also must look at long-term soil health and risks of increased soil erosion inherent in a large-scale shift to energy versus food production.

I am not saying these problems are insurmountable; these issues have not had their fair turn yet at the discussion table. But, it is time to put these issues on the table for thoughtful debate. The Leopold Center will be there to talk about these issues with you — it's our job and our responsibility.

As always, I am anxious to hear what you think about these ideas. Contact me at [jdewitt@iastate.edu](mailto:jdewitt@iastate.edu).



# Web-based tool expands use for biomass crops

by LAURA MILLER Newsletter editor

*A farmer in western Iowa wants to supply a new biorefinery in his county that uses crop residue, also known as lignocellulosic biomass. He would like to remove all corn residue from a 600-acre field in a corn-soybean rotation, bale it and sell to the biorefinery.*

*He wisely planned to adjust fertilizer rates to compensate for nutrients removed from the cornfield after harvest. He also planned to plow the field after soybean harvest to maximize corn yields the following year but did not account for the fact that the field would be bare between soybean harvest and corn planting. The result: high levels of soil erosion, loss of soil organic matter and a potential drop in soil fertility.*

*What are this farmer's options? How would they impact his bottom line?*

Thanks to a web-based tool developed at Iowa State University that allows a farmer to run "what if" scenarios on virtual or actual farms, the answers are as close as a home computer. The tool, now in its third year, has been expanded so that it can be used to determine biomass harvest and its impact on erosion, soil fertility, livestock operations, the farm's energy and labor requirements and a host of other variables.

I-FARM is a database-driven farming systems simulation model that predicts economic returns and ecosystems impacts of farm operations. It is unique because it integrates both crop and livestock components with soils, weather and economic information specific to 20 states, including

Iowa. Access is free and the web site can handle up to 50 users at one time.

Since we first wrote about I-FARM in 2005 (Summer newsletter, "Take a spin on I-FARM: Create your own virtual farm"), a number of features have been added or expanded. Here are some of the significant changes.

**GIS application:** The most important change has been the addition of a GIS-based interactive map. Rather than selecting from a list of soil types for each field, users can zoom in on the map of Iowa, which takes them to an aerial photograph of their farm. The program then automatically enters soil type, hill slopes and other field-specific details already available on the public databases.

**Soil databases:** Recently two new NRCS soil databases have been coupled to I-FARM: the STATSGO database (state level) and SSURGO database (county level). The coupling has now been completed for nine states in the Midwest, including Iowa. The significant advantages are the availability of field/soil specific hill slopes, slope lengths and yield data.

**Bioeconomy:** Grants have funded further development of this model to address issues specific to maintaining diversity in the bioeconomy. Sample farms with a range of biomass harvest scenarios have been added to the tool. Locations of all ethanol plants in the United States, as well as feedstock type and capacity information, also have been added to I-FARM. The model can calculate distances to these

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**I-FARM on the web:**  
<http://i-farmtools.org>

To use, click on web application link. Sign in (simply a way to save info for later). Set aside a block of time to enter data from your own farm, or retrieve any one of more than 30 sample farms that have data already entered.

plants from any farm in Iowa.

**States modeled:** Soil, weather and environmental data for the state of Arkansas were added in 2006. The model now covers Iowa, Illinois, Indiana, Kansas, Kentucky, Maine, Michigan, Minnesota, Missouri, Montana, Nebraska, New York, North Dakota, Ohio, Oklahoma, Pennsylvania, South Dakota, Tennessee and Wisconsin.

**Labor, energy, machine costs:** New modules for labor and energy are based on 15-day periods, the same time frame used to calculate erosion. The change helps account for periods of high seasonal labor as well as energy consumption based on the actual number of field trips.

**Custom farming:** Custom rates for labor, machines and energy can be specified in the model, or according to average rates made available through ISU Extension. The first custom farming operations included in I-FARM are for biomass harvest and transport, and other custom farming options will be added.

**Production data:** The model includes production data for corn (grain, stover or silage), soybeans, wheat and wheat straw, alfalfa, grass for grazing, grass and legumes for grazing as well as forage, and switchgrass. Future plans call for the addition of production data for potatoes and barley.

Livestock production data are included for dairy (four categories of milk yield), beef (finishing on hay or silage and cow-calf operations) and types of hog operations (nursery/feeder pigs, grower hogs, gestation sows and lactating sows/piglets). Future plans include the addition of production data for poultry and sheep.

**Instruction:** I-FARM is being used in several university classrooms. The team has developed an instructor's manual and a sample two-hour exercise for a computer lab or homework assignment.

## The Leopold Center link to I-FARM

The Leopold Center was a cooperator with Iowa State University and other partners in a three-state USDA grant designed to encourage farming systems that mix crops and animals. One of the project outcomes was development of I-FARM.

The Leopold Center continues to aid I-FARM's second phase by supporting an advisory team. The group met for the first time in 2006 to provide general guidance and scientific overview of the project in its future directions. Serving on the advisory team are: Martin Adkins, USDA Natural Resources Conservation Service, Des Moines; Robert Burns, ISU Department of Agricultural and Biosystems Engineering; Jill Euken, ISU Extension, Lewis; Jerry Hatfield, USDA National Soil Tilth Laboratory; John Laflen, consultant, Buffalo Center, Iowa; Jeri Neal, Leopold Center Ecology Initiative; and Shahab Sokhansanj, Oak Ridge National Laboratory, Oak Ridge, Tennessee.

The I-FARM development team includes software developer Ed van Ouwwerkerk in the ISU Department of Agricultural and Biosystems Engineering; Tom Richard, Agricultural and Biological Engineering Department, Pennsylvania State University; and Robert Anex, ISU Departments of Agricultural and Biosystems Engineering and Mechanical Engineering.



## It's all about market power, stupid

*Agriculture colleges and experiment stations are teaching the sciences of agriculture. But they are not generally teaching farm economics and the importance of markets. Science is constantly showing the farmer how to increase the annual product per acre in cereals and other staples, but the great question confronting each tiller of the soil is how to secure satisfactory remuneration for the results of his toil.* — J. Sterling Morton, U.S. Secretary of Agriculture, 1896

In 1896, only the third year that the USDA published a *Yearbook of Agriculture*, J. Sterling Morton understood that simply enabling farmers to increase productivity did not improve their economic well-being. Despite the 110 years that have elapsed since, we remain incapable of devising an economic system that enables farmers to “secure satisfactory remuneration.”

Ample data now show that the expenses most farmers incur in producing their crop and livestock commodities absorb all of the cash receipts those commodities earn. The problem is *not* that farmers are inefficient or bad managers – the problem is that they have *no market power* to enable them to capture sufficient value for their labor.

And as agricultural economist Willard Cochrane and others have demonstrated, simply “increasing the annual product per acre” leads to over-production, which further exacerbates the problem.

So how do we address this age-old problem? There are at least three avenues we could pursue and they are not mutually exclusive.



“Looking for Grandma’s Spectacles,” reprinted with permission, J.N. “Ding” Darling Foundation.

### New marketing relationships

First, we can assist some farmers in transitioning from commodity production to the production of highly differentiated food products that command more value in the marketplace. As Michael Porter of the Harvard Business School has pointed out, products can be differentiated by their quality, their attributes, or the service that accompanies them.

Today’s food market shows strong demand for products with

- quality traits that provide superior taste, health and nutrition;
- attributes such as being produced and processed locally, good environmental stewardship and/or appropriate animal care; and
- services that allow consumers to enter into trusting relationships with producers and processors.

Of course, if farmers are to capture part of this higher value they must be part of a marketing relationship that retains part of that value on the farm. Based on research that the Leopold Center has sponsored and the actual experiences of farmers, it would appear that there are two potential pathways.

*Direct marketing* where farmers produce, prepare and sell their produce directly to consumers. This option appears to work best for very small farmers, although some farmers have achieved impressive sales using internet technology.

*Values-based value chains* wherein a group of farmers forms marketing networks featuring their own brand. They become partners in long-term relationships with processors and distributors using pre-established agreements that guarantee fair compensation to the farmers for their investment and labor. Such “fair trade” agreements, in turn, become one of the value-added attributes of the product. The value chain option has the potential to reduce transaction costs and supply large markets like restaurant chains, health care institutions and school systems, as well as interested retail chains. This option is best suited for midsize, independent family farms.

The Leopold Center also has helped to develop a marketing coalition, the Association of Family Farms, which is now working with the National Farmers Union to assist interested farmers and fishermen to establish such value chains throughout the nation.

### Stronger marketing position

A second avenue, probably the only option available to producers of undifferentiated commodities, is to strengthen the marketing position of farmers. The classical antidote to market power is competition, but competition only works in competitive markets.

# STUDY SHOWS FEW FARMERS HAVE EXPERIENCE WITH COVER CROPS, BUT WILLING TO CONSIDER THEIR BENEFITS

**COVER CROPS** (continued from page 1)

cover crops and 28 percent said they were either very familiar or moderately familiar with this practice.

The highest rate of cover crop use was 28 percent in Indiana, which typically has a longer growing season and window to plant and establish a cover crop. In both Illinois and Indiana, 15 percent of the respondents had planted cover crops in the past five years.

## Perceived obstacles to cover crop use

When asked why they had never planted cover crops, farmers were asked to choose from several reasons (which are calculated for this analysis by state). Responses included:

- Don't know enough about them to know if it's right for my farm, 22 to 34 percent;
- Too much time involved, 21 to 30 percent;
- I don't have a runoff problem, 19 to 23 percent;
- Already use no-tillage practices, 17 to 35 percent;
- Too costly, 14 to 24 percent; and
- Cover crops reduce crop yield, 1 to 8 percent.

Based on these results, time constraints, profitability and yield depression in subsequent cash crops do not appear to be significant impediments to cover crop adoption. Developing good cost estimates for cover crop establishment and cover crop management and uses may help producers determine the benefits and risks of using cover crops in farming systems dominated by summer annual crops.

## Perceived benefits of cover crops

Farmers were asked about what they perceive to be the main benefits of cover crops. Between 84 and 87 percent listed a reduction in the amount of soil erosion, followed by an increase in soil organic matter, 60 to 71 percent. Other perceived benefits included a reduction of soil compaction and weed suppression.

## Willingness to use cover crops

When asked about using cover crops if cost-sharing was available, 40 to 58 percent of the respondents said they would use them. Between 47 and 62 percent of the respondents said they had a grain drill or other equipment to plant cover crops, and 24 to 30 percent said they would use cover crops if they could custom hire the planting.

## Most desirable traits for cover crops

Farmers were asked about characteristics they would look for in a cover crop. Desirable plant traits included:

- Nitrogen fixation, 43 to 56 percent;
- Fall plant residue, 38 to 52 percent;
- Spring plant residue, 20 to 29 percent; and
- Winterkill (for weed suppression), 19 to 25 percent.

## Commonly planted cover crops

Among cover crop choices, winter wheat was more popular in Illinois and Indiana; winter rye was common in Illinois, Indiana and Iowa; and oat was common in Iowa and Minnesota. Red clo-

## About the survey

The survey was funded as a special project of the Leopold Center Ecology Initiative to look at cover crop use and impediments to adoption in the central western Corn Belt. The survey was conducted by the Statistical Laboratory at Iowa State University.

It included 875 producers in each of four states: Iowa, Minnesota, Illinois and Indiana. The survey had a response rate of 36 percent, and eligible respondents had farmed in the past five years.

## Survey respondents, by the numbers

58-61	Average age, years
33	Average years in farming
624-849	Farm size, acres
62-67 percent	Full-time farmers
53-64 percent	Crop-only operations
34-43 percent	Crop/livestock operations
35-47 percent	Participate in government conservation programs
70-85 percent	Have implemented conservation practices (independent of programs)
29-38 percent	Received cost-sharing incentives for conservation practices
16-21 percent	Would have implemented practices without cost-sharing

ver was the most common legume cover crop, appearing more often in Illinois and Indiana.

Cover crop adoption and the cover crop used reflect the different farming systems in each state. More wheat is grown in Illinois and Indiana than Iowa, so producers may save some of their wheat seed to plant a cover crop. Producers from these states also could have counted their cash grain wheat crop as a cover crop, although the survey defined cover crops as plants grown between cash crops.

The higher incidence of red clover in Illinois and Indiana also reflects the use of the red clover as an intercrop in wheat, which is a good source of nitrogen for a subsequent corn crop. Longer growing seasons in Illinois and Indiana also may contribute to increased cover crop use.

## Conclusions

The results of this survey will be used to identify cover crop knowledge gaps and improve the dissemination of cover crop information. Cover crops may become more important in midwestern farming systems as producers add corn acreage with corn following corn becoming more common.

Cover crops may alleviate some of the yield depression that is documented in continuous corn, and continue to accumulate nutrients after the cash crop is harvested. Educational programs and targeted cover crop use on vulnerable sites in the landscape may increase cover crop adoption and contribute to protecting our natural resource base and maintaining productive soil.



Top: Staff from NRCS and the National Soil Tilth Laboratory visit an Allamakee County test plot of a rye cover crop.

Bottom: Winter rye cover crop in early spring.

## These crops provide more 'coverage'

Cover crops are literally “crops that cover the soil” and may be used to reduce soil erosion, diminish nitrogen losses, provide weed and pest suppression and increase soil organic matter.

Winter cover crops are planted shortly before or soon after harvest of the cash crop and are killed before or soon after planting of the next cash crop. Cereal grains, such as oat, barley, winter wheat, triticale and rye are excellent cover crops because they grow rapidly in cool weather, withstand moderate frost, and their seed is relatively inexpensive or can be produced on site.

Many varieties of winter rye, triticale and wheat can overwinter in the upper Midwest and continue growing in the spring. Growth of these winter-hardy cover crops must be terminated with herbicides or tillage prior to planting corn and soybean. Oat, barley, spring wheat and triticale, some rye and winter wheat are not winter-hardy in the upper Midwest. Because these cereal grains do not survive the winter, they do not require control prior to planting corn and soybean.

Corn yields may be reduced following winter-hardy cereal grain cover crops that are terminated immediately before corn planting. Yield reduction can be minimized by terminating cover crop growth more than 14 days prior to corn planting and using starter fertilizer. Corn yields following an oat cover crop or a legume that overwinters are not reduced. Soybean yields do not decrease following cereal grain cover crops unless low soil water content limits soybean germination and emergence.

## COMPENSATING FARMERS FOR THE PUBLIC GOODS THEY PROVIDE – CONSERVATION – IS A GOOD START

**FUTURE** (continued from page 5)

As individuals, farmers have never been in a competitive position with other players in the supply chain, consequently they have become raw-material-supplier-“price-takers.” And, unfortunately, farmers end up competing with each other for land and other resources.

Individually, farmers who produce undifferentiated commodities simply do not have the power to compete with the much more powerful processors, distributors and other players in the food chain. Their only option is collective bargaining.

In 1925, Ding Darling recognized this fact in one of his famous cartoons entitled “Looking for Grandma’s Spectacles.” The cartoon features Congress, the Farm Bloc and the Agriculture Department desperately looking for the farm industry (Grandma’s) “spectacles,” labeled “cooperative marketing.” All the while, the spectacles are perched on Grandma’s head.

This second avenue is not a new idea. While some dismiss it because no one has

ever been able to effectively organize farmers into collective bargaining units, two things have changed.

First, we now have far fewer farmers to organize. As of 2002, only 70,650 farmers produced 61 percent of total farm commodities nationally. We can reasonably expect that by the time the 2007 Farm Census data is collected, that total figure will be even lower.

Second, given our new electronic communications technology, it will be much easier to organize farmers into collective bargaining cooperatives than it was in the 1920s.

### Conservation compensation

A third avenue would be to improve net farm income by compensating farmers adequately for the public goods they can provide. The Conservation Security Program (were it fully funded) is an important first step toward that end.

Farmers are in a position to provide

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*Small grain cover crops for corn and soybean, PM 1999*

Get this publication at your county extension office or at:  
[www.extension.iastate.edu/Publications/PM1999.pdf](http://www.extension.iastate.edu/Publications/PM1999.pdf)

Richard Levins, long time proponent of collective bargaining for farmers, has published a short booklet, *Market Power for Farmers: What it is, How to Get it, How to Use it*, published in 2005 by the Institute for Rural America, Ames, Iowa.

much more than food, feed, fiber and fuel – they are the front-line players in protecting the environment and maintaining the ecological health of our home, planet Earth – and it is in all of our interest to compensate them adequately for doing so.



## Northeast Iowa group hopes to build stronger food economy

By LAURA MILLER Newsletter editor

The old adage says that you need to get on the train before it leaves the station. A northeast Iowa group is not waiting for the train to arrive in rural Iowa. They've found their own ride into the future, and seats are filling up faster than anyone imagined.

This is the story of the Northeast Iowa Farm and Food Coalition that was organized in April 2006. The story has food, all kinds of farmers, business leaders, educators and others from communities in five Iowa counties. At first the outlook appeared gloomy, but with more discussion and ideas, a new picture began to emerge. Fresh, local foods are being grown and served in homes, hospitals, restaurants and schools, thanks to the work of local investors, farmers, distributors and processors. The picture expands to include not only local business and farming communities but also the health care, education and fitness communities. And everyone would be a winner.

At least that's the goal of the Northeast Iowa Farm and Food Coalition: to develop a vibrant and sustainable food economy. But it didn't start out that way.

The coalition had its beginnings nearly two years ago when several ag producers in Winneshiek County asked their local ISU Extension office to help them promote agriculture. This led to a series of meetings with producer organization boards and their leadership to better explain the economics of agriculture to northeast Iowa communities.

### A wake-up call

One of the invited speakers was economic consultant Ken Meter, who shared information about Winneshiek and Allamakee counties that he had collected as part of a study funded by the Leopold Center's Regional Food Systems Working Group (RFSWG). Meter's presentation in March 2005 marked a turning point, recalled Brenda Ranum, Winneshiek County Extension and Education director, who organized the meetings.

Meter's study revealed disturbing trends (based on USDA data):

- Farm production costs and cash receipts have declined steadily since the late 1970s.
- Farm subsidies since 1969 totaled \$634 million, with government payments providing at least 50 percent (and sometimes 100 percent) of net farm income since 1999.
- Like Iowa farmers as a whole, Winneshiek and Allamakee farmers were earning less producing crops in 2002 than they were in 1969, despite doubling their productivity during that period. "The news was sobering and we were caught off guard," said Ranum. "His conclusions ran counter to the conventional wisdom that increased productivity of commodities will save rural communities. Instead, we learned how quickly agriculture was changing."

On the bright side, the study also showed that in 2002 farmers in the two counties actually led the state in organic production (\$2.7 million) and sold \$611,000 of food directly to consumers. However, almost all of the region's food dollars (\$70 million in 2000) were going to businesses outside the region.

Ranum said the message was clear: the region's farmers had an opportunity to strengthen their local economy by growing more foods that people in the region could purchase directly from them or local processors and distributors.

"We were all discouraged," said Lora Friest, who is USDA's co-

*Related photo on page 1 was taken at the Northeast Iowa Dairy Foundation, Calmar.*



*Above left, the Oneota Food Coop, Decorah; above right, inside the processing kitchen of GROWN Locally CSA; and the 'Taste of Winneshiek County' dinner.*



ordinator for Northeast Iowa Resource Conservation & Development Inc. in Postville. "But instead of waiting for agriculture to change, we all felt strongly that we wanted to shape our own agriculture future in the region."

### A boost from planning

Group members also shared their frustrations with Leopold Center Marketing and Food Systems Initiative leader Rich Pirog, who suggested that they submit a second project proposal to RFSWG to conduct a series of strategic planning sessions. The sessions included 35 diverse stakeholders spanning the entire food chain, including commodity producers, community supported agriculture growers, lenders, market gardeners and orchard owners, extension agents, retailers, independent meat processors and fund raisers from a three-county region.

Eric Nordschow, a cattle producer, tree farmer, and owner of Windridge Implements in Decorah, said an important part of the effort was to include all types of producers, along with the direct-market farmers and organic growers.

"We listened to everyone's ideas," he said. "People felt they could be part of the process, and that it was a professional process."

Ranum said diverse views energized the group, too. Each member brought a different strength, such as knowledge about business and finance.

"We have some real champions on this team and a sense of community, but we don't always come together to talk about it," she said. "There really is a culture of entrepreneurship and we need a place for these people to explore opportunities."

A strategic plan was reviewed by more than 80 people in public meetings last spring. The plan has three general goals to:

- provide opportunities for existing and new producers to diversify their operations,
- explore development of regional processing and storage facilities to add value to all agricultural products in the area, and
- increase the sale and consumption of locally grown food.

**COALITION** (continued on page 9)



## COALITION TAKES SHAPE; PROJECT COMPETING FOR NATIONAL GRANT

**COALITION** (continued from page 8)

The coalition was formed in April 2006, and expanded in May 2006 to include Clayton and Fayette counties because of their similar topographies. The group is now in the process of collecting information from institutions, health care facilities, schools and businesses as well as households in the region. Other assessments are planned to determine what food is currently produced in the area, its economic impact and other baseline data.

Another RFSWG grant of \$20,000 is being used for several of the planned assessments. The coalition also has received grants from the Iowa Farm Bureau Federation (\$3,500), local county Cattlemen's associations (\$3,500), the Community Vitality Center (\$2,000), and Buy Fresh Buy Local (\$1,000).

The coalition is awaiting news about its biggest potential source of support: a \$250,000, two-year grant from the W.K. Kellogg Foundation. The coalition is among 11 organizations nationwide competing for six grants as part of the foundation's new Food and Fitness Initiative. The project proposal includes work with schools, colleges, health departments, local governments, farmers markets, health care facilities and many other partners.

Ranum said she has been amazed at the new partnerships and support the coalition has cultivated.

"We weren't writing these strategic plans to go after grants," she said. "Our group met because we wanted to solve our own problems. The Leopold Center [through RFSWG] was the first outside money we received and that really invigorated us because it meant someone else thought that what we were doing was worthwhile."

## Other regions receive RFSWG support for building local food systems

The Regional Food Systems Working Group will support local food systems efforts in two other parts of Iowa during 2007.

In southwest Iowa a group known as the Cultivators has been awarded a \$20,000 RFSWG grant to build capacity and develop a strategic plan for a regional food system. The group includes Cass and the surrounding counties of Adair, Adams, Audubon, Montgomery, Pottawattamie and Shelby.

"We believe there are opportunities for new farmers in our region," said Steve Olsen, Iowa State University Extension education director in Cass County who has raised strawberries for many years. "But it will take work and commitment."

The group includes representatives from the Wallace Foundation for Rural Research and Development and the National Center for Appropriate Technology, both with offices in Lewis; Cass County Memorial Hospital; Harrisdale Homestead and the Global Horizons entrepreneurial development program.

RFSWG has awarded a \$7,400 grant to the Southeast Iowa Local Food Network in Jefferson, Davis and Van Buren counties. The southeast Iowa project will focus many of its efforts in Fairfield but will include surrounding communities. The network includes representatives from Pathfinders RC&D, Fairfield Buy Fresh Buy Local, and Jefferson County Extension. The group plans to invite more organizations to its network, and develop a vision, strategic plan and action plan for the region. Like the southwest Iowa group, its efforts will start after an assistance plan is developed.

"Our support for these regional efforts is strategic," explained

### Northeast Iowa Food and Farm Coalition

The coalition of nearly 40 members is co-chaired by Brenda Ranum, Winneshiek County Extension, and Larry Grimstad, a Decorah farmer and former bank president. Other organizations in the coalition are:

- Allamakee County Dairy Promotion Board
- Allamakee County Farm Bureau
- Allamakee County Cattlemen's Association
- Allamakee Farmers' Market
- Cresco Farmers' Market
- Decorah Farmers' Market
- Economic development groups in Allamakee, Clayton, Fayette, Howard and Winneshiek counties
- GROWN Locally Cooperative
- Iowa State University Extension in Allamakee, Clayton, Fayette, Howard and Winneshiek counties
- Luther College
- Northeast Iowa Community College (NICC)
- Northeast Iowa RC&D
- Northeast Iowa Dairy Foundation
- Winneshiek County Dairy Promoters
- Oneota Food Coop
- Practical Farmers of Iowa
- Upper Explorerland Regional Planning
- Winneshiek County Farm Bureau
- Winneshiek County Cattlemen's Association
- Winneshiek County Pork Producers
- Numerous individual producers

RFSWG coordinator Rich Pirog, who also directs marketing research at the Leopold Center. "We wanted to invest in groups that are working in defined geographical areas to help them make a better case for local and state investment in regional food businesses and the groups that provide assistance to those businesses."

Since 2003, RFSWG has conducted research and facilitated partnerships to increase investment and support of community-based, economically sustainable, and environmentally and socially responsible food enterprises. The group has awarded 13 other grants and assisted an organic dairy in southwest Iowa. With assistance from RFSWG, Woodbury County developed incentive policies for farmers to transition to organic production, the first such program in the nation.



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

Northeast Iowa Farm and Food Coalition:  
[www.extension.iastate.edu/allamakee/info/local+foods.htm](http://www.extension.iastate.edu/allamakee/info/local+foods.htm)

Regional Food Systems Working Group and Value Chain Partnerships:  
[www.valuechains.org](http://www.valuechains.org)

## Practical Farmers of Iowa toasts Leopold Center

Practical Farmers of Iowa helped the Leopold Center kick off its 20th anniversary year in style. The group, whose on-farm research has been essential to the Leopold Center's work, hosted a reception January 12 during its annual conference in Des Moines.

"The most important mission of the Leopold Center is not even mentioned on their web site or in any of their publications," said PFI board member and farmer Nina Biensen in her toast to the Center. "The Leopold Center has become a conduit for voices that will not be heard elsewhere."

Gary Huber, PFI food systems coordinator, said the Leopold Center has "been a blessing for PFI, for sustainable agriculture and for Iowa." He thanked legislators who sponsored the 1987 Groundwater Protection Act that created the Leopold Center, and thanked each Center director, all of whom offered remarks at the event.

Dennis Keeney, who served as director

from 1988 through 1999, said that he felt it was a great privilege to come to the Center "and put my concepts of science and agriculture to work. It turned out these were parallel to the goals of PFI in many ways."

"I knew when I joined the Leopold Center as a farmer that research doesn't stand the test of time unless it's been tested on the farm," said Fred Kirschenmann, who led the Center for the next five years and is now Leopold Center Distinguished Fellow. "If PFI didn't exist, we'd have to invent them."

"PFI has added value and richness to Leopold Center work," said Jerry DeWitt. "We've been with you in the past, we're with you today and we'll be with you tomorrow."

The Leopold Center is working with a number of other partners on related anniversary events throughout the year, and will host a statewide conference July 11 in Ames.

## News & Notes

Leopold Center Distinguished Fellow Fred Kirschenmann discusses new "food values" and how they may change consumer-buying decisions in the mid-fall 2006 issue of *Forum* magazine, a trade publication of the Grocery Manufacturers' Association. He says that for a growing number of consumers today, food must do more than fill the stomach — it must nourish the spirit, a long-known fact that is now being rediscovered by a new generation of consumers. Read the interview, "Emerging Food Values: Beginning of the End of Just Eat It?" and one of Kirschenmann's essays, "The Pleasure of Good Eating," at: [www.leopold.iastate.edu/news/inthenews/GMForum1106.pdf](http://www.leopold.iastate.edu/news/inthenews/GMForum1106.pdf).

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Iowa State University has appointed two new members to the Leopold Center Advisory Board effective January 1, 2007: Maynard Hogberg, chair of the Department of Animal Science; and Jack Payne, Vice President for Extension and Outreach. They replace Allen Trenkle, Distinguished Professor of Animal Science, who had served on the board since 1989; and Wendy Wintersteen, Dean of the College of Agriculture, advisory board member since 1990.

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In 2003, there were 35 to 40 niche pork marketing efforts in Iowa. Mark Honeyman, Rich Pirog and Gary Huber explore this phenomenon in an article in the August 2006 *Journal of Animal Science*. Honeyman is a member of Iowa State University's Hoop Group, Pirog leads the Leopold Center Marketing Initiative, and Huber coordinates the Pork Niche Market Working Group that works with the Value Chain Partnerships program. Read the article at: [www.leopold.iastate.edu/research/marketing\\_files/NichePork\\_0806.pdf](http://www.leopold.iastate.edu/research/marketing_files/NichePork_0806.pdf).

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Cynthia Rosenzweig will present the 7th annual John Pesek Colloquium on Sustainable Agriculture at 7 p.m., February 28 in the Sun Room of the Iowa State Memorial Union in Ames. Rosenzweig, a research agronomist at NASA's Goddard Institute of Space Studies, will talk about climate change and agriculture. The Leopold Center is a co-sponsor of the event, coordinated by the Henry A. Wallace Chair for Sustainable Agriculture at ISU. A town hall meeting is scheduled March 1 at Dordt College in Sioux Center. More information at: [www.leopold.iastate.edu/news/events.htm](http://www.leopold.iastate.edu/news/events.htm).

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

The Center's 20th anniversary:  
[www.leopold.iastate.edu/anniversary.htm](http://www.leopold.iastate.edu/anniversary.htm)



Top: Gary Huber of PFI; Bottom: former Leopold Center director Dennis Keeney.

Photos courtesy PFI.

### Restaurant chain selects Center for special project

Chipotle Mexican Grill Inc., a Denver-based restaurant chain that focuses on "food with integrity," is selling calendars to support the Leopold Center for Sustainable Agriculture.

The 2007 Chipotle calendars are available in its 530 stores nationwide for \$5 apiece. Proceeds from the calendars will be divided between the Leopold Center and The Land Institute of Salina, Kansas. If every calendar is sold, Chipotle will raise about \$100,000 for these organizations.

The charitable effort befits Chipotle's mission of "Food With Integrity," based on the use of fresh ingredients that are sustainably grown and naturally raised with respect for the animals, land and farmers who produce the food. Chipotle operates about 20 restaurants in each of the Kansas City and Minneapolis/St. Paul metropolitan areas as well as at five locations in and around Omaha.

For more information, go to [www.chipotle.com](http://www.chipotle.com).

# Food miles become media metaphor

By LAURA MILLER Newsletter editor

The *New York Times* lists “food miles” — the distance that food travels from where it is grown to where it is sold — as one of the top new buzzwords for 2006. Another national publication, *Business Review Online*, also cites local foods among the top 10 food trends to watch in 2007.

This isn't news to Rich Pirog, who leads the Center's Marketing and Food Systems Initiative. Pirog has been fielding media inquiries since 2001 when he wrote the Center's first of three food miles reports.

“The number of requests increased significantly last year when fuel prices skyrocketed and more people became interested in global warming,” Pirog said. “Food miles definitely have become a media metaphor.”

The Center's “Food, Fuel and Freeways” study is one of the few reports that link carbon dioxide emissions and different food transportation systems. The study found that the conventional food system used 4 to 17 times more fuel and emitted 5 to 17 times more CO<sub>2</sub> than the local and regional food systems, depending on the system and truck type. The study also found that produce arriving by truck at the Chicago terminal market from within the continental United States traveled 22 percent farther in 1998 than it did in 1981. Compared to 20 years ago, nearly twice as much produce arriving at the Chicago terminal market is from outside the continental United States.

“There is growing evidence that consumers are becoming increasingly attracted to locally grown and raised foods,”

reports *Business Review Online*. “Fresher food is one draw and so is helping the environment. Moreover, the concept of ‘Food Miles’ is just beginning to surface, a concept that communicates the high-energy consumption required to bring foods from far-flung areas to market.”

“It isn't too far fetched to speculate that we might see carbon ratings on packaged food and beverages to encourage energy conservation and fight global warming,” the article continues. “These ratings could express the carbon released into the atmosphere to grow, package and transport goods to market.”

Pirog worked with the ISU College of Business in 2003 to look at consumer attitudes toward ecolabels, a seal or logo indicating that a product has met a certain set of environmental and/or social standards or attributes. Using an ecolabel offers a highly visible avenue to educate consumers about locally grown, sustainably-raised foods.

“We found that the term locally grown commands a great deal of power and influence for consumers when purchasing meat or produce items,” Pirog said. “Foods that are locally grown hold great appeal for consumer respondents provided those products consistently offer the taste, freshness, quality, and value consumers are looking for.”

Within the past year, Pirog has fielded inquiries from *Newsday*, *Chicago Sun-Times*, Sirius Satellite Radio, *Washington Post*, Associated Press, National Public Radio, *Omaha World-Herald*, *San Diego Union-Tribune*, *Green Living Guide*, and magazines including *Gourmet*, *Sierra*, *Yes!*,

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

Media reports on food miles:  
[www.leopold.iastate.edu/news/inthenews/inthenews.htm](http://www.leopold.iastate.edu/news/inthenews/inthenews.htm)

Food, fuel, and freeways:  
[www.leopold.iastate.edu/pubs/staff/ppp/index.htm](http://www.leopold.iastate.edu/pubs/staff/ppp/index.htm)

Checking the food odometer:  
[www.leopold.iastate.edu/pubs/staff/files/food\\_travel072103.pdf](http://www.leopold.iastate.edu/pubs/staff/files/food_travel072103.pdf)

Ecolabel Value Assessment Phase II:  
[www.leopold.iastate.edu/pubs/staff/ecolabels2/ecolabels2.htm](http://www.leopold.iastate.edu/pubs/staff/ecolabels2/ecolabels2.htm)

*Mother Earth News* and the *Oregonian*. He also was contacted by Vancouver journalist James Mackinnon, who launched a “100-mile diet” web site and plans to write a book about eating only foods from within his region.

In 2004, shortly after the Leopold Center published its ecolabel study, Pirog was contacted by the producer of a Japanese environmental television program. A Japanese film crew visited Ames, where they taped a segment at a local grocery store about ecolabels. The ecolabel study has been used in numerous educational settings to demonstrate the connection between food travel and greenhouse gas emissions.

If Google can be used to gauge a word's popularity, a search for “food miles” on the Internet results in 62 million hits. The first link goes to a BBC media site in the United Kingdom. The second link in the search is to Wikipedia, an online encyclopedia that first entered food miles as a term in September 2005. The third link leads to the pioneering Leopold Center study.



Rich Pirog explains the concept of food miles while a Japanese film crew tapes a segment for an environmental program in 2004.

## Feed options for hog producers

Increased demand from the ethanol industry is affecting corn prices and supplies, and farmers are looking for alternate sources for livestock feed. Among the options currently under investigation in projects funded by the Leopold Center are triticale and double-cropped field peas. Both crops can be fed to hogs and generate other benefits associated with longer, diverse crop rotations.

More information about these Leopold Center projects appeared in the Summer 2006 *Leopold Letter*, “Field peas, pigs make good combination,” and the Fall 2005 issue, “Triticale, a versatile crop for Iowa growers.” Alternative rations are featured in the *Hog Production Alternative Livestock Production Guide*, produced by the National Sustainable Agriculture Information Service. See [attra.ncat.org/attra-pub/Hogs.html](http://attra.ncat.org/attra-pub/Hogs.html).

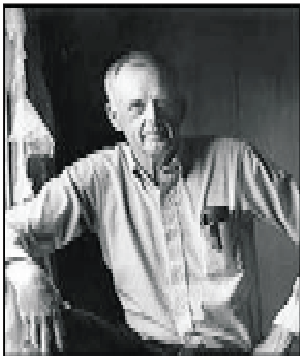




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# Highlight Events



**Wendell Berry**  
April 15, 7 p.m.

Details about the event:  
[www.leopold.iastate.edu/  
news/events.htm](http://www.leopold.iastate.edu/news/events.htm)

## A conversation with Wendell Berry

Save Sunday, April 15 for a visit with Wendell Berry. The poet, essayist, farmer and novelist from northern Kentucky will be joined by his daughter, Mary Berry Smith, and area farmers to discuss the changing landscape of American agriculture.

The program, "A Conversation with Wendell Berry," will be at 7 p.m. in the Sun Room of the ISU Memorial Union in Ames.

This event commemorates the 20th anniversary of the Leopold Center and is the 2007 Shivvers Memorial Lecture, in memory of John Shivvers, who farmed near Knoxville, Iowa. It is co-sponsored by the ISU chapter of Gamma Sigma Delta, an honorary society for agriculture students that is celebrating its 100th year at Iowa State.

Wendell Berry has written more than 30 books, including poetry, essays and novels, and has taught English at New York University and the University of Kentucky. Mary Berry Smith lives near her father on a traditional cattle and tobacco farm, which she has diversified to include a vineyard and winery.

## Workshops focus on sharing machinery, labor

The Leopold Center is co-sponsoring a series of workshops for farmers interested in sharing machinery and labor in their farming operations. Iowa State University Extension economists and farm management specialists will discuss strategies for sharing agreements and how to evaluate their effectiveness.

Workshops will be held February 16 in Fort Dodge, February 21 in Mount Vernon and February 22 in Carroll. Cost for the workshop is \$10, which includes lunch. Other sponsors include ISU Extension, North Central Risk Management Education Center, University of Missouri Extension, Iowa Farm Bureau Federation and Grundy National Bank.

More information available at:  
[www.machinerysharing.info](http://www.machinerysharing.info).