

# Letter

## Spencer Award goes to Iowa farm family

The Leopold Center will present one of the state's largest awards in sustainable agriculture to a Hardin County cattle producer and his family during the Iowa State Fair.

David, Diane and Dresden Petty of Eldora will receive the 2003 Spencer Award for Sustainable Agriculture. Presentation of a \$1,000 check and plaque is scheduled for 4 p.m., Saturday, August 9 at the beginning of the Governor's Charity Steer Show in the Pioneer Livestock Pavilion on the Iowa State Fairgrounds in Des Moines.

Iowa Governor Tom Vilsack has been invited to present the award. Also participating in the brief ceremony will be Leopold Center director Fred Kirschenmann and advisory board chair Jim Penney.

The Spencer Award was created in 2001 to recognize farmers, researchers and educators who have made a significant contribution toward the stability of mainstream family farms in Iowa. It is funded by an endowment from the family of Norman and Margaretha Spencer, who farmed near Sioux City for 40 years. The family asked that the Leopold Center administer the award annually as funds are available.

The Petty family owns and operates the Iowa River Ranch, a cattle and crop operation running along eight miles of the Iowa River from Eldora to Union. Their commercial Angus herd is rotationally grazed on 22 connecting pastures, each with its own water source

**SPENCER**

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## Grass-based dairies hold promise for southern Iowa producers

By **Laura Miller**  
Newsletter editor

A Leopold Center-funded project that followed 15 young or beginning dairy operators over the past two years shows promise for grass-based dairies in southern Iowa as well as economic benefits for rural communities.

The work was conducted by Ag Connect, a nonprofit organization based in Lenox that specializes in rural economic development. Its goal was to help current and future grass-based dairy operations by collecting and sharing the records and experiences of the first few new dairy farms that had located in the rolling hills south of Interstate 80.

"Grass-based dairies have a lot of potential for the communities in this area, plus there seems to be a lot of interest by people from Iowa and other states who want to get into agriculture,"

reports Tim Ennis, Ag Connect executive director. "When we began, people were wondering if we would find the 12 new dairies needed for the project, but now we know of at least 30 other families who want to pursue similar opportunities."

As part of the project, Ag Connect collected records on milk sales income, feed expenses, grazing rotations and other information from 15 participants who had recently set up family-owned dairies within 75 miles of Osceola and in two counties in northern Missouri. Because participants lived in counties with few or no other dairies, Ag Connect identified established operators in other parts of Iowa as mentors. To protect the identity and privacy of participating families, information about each dairy is available only by an assigned number.

**DAIRIES**

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# Center issues first request for proposals since 2001

A call for projects in two Leopold Center initiatives has generated considerable interest and some innovative ideas.

In April, the Leopold Center issued two requests for pre-proposals, or RFPs, for projects as part of its new initiatives in policy and in marketing and food systems. The RFPs invited researchers and educators associated with educational or nonprofit organizations to submit a brief concept paper about their proposed projects by the end of May.

## Leopold Center shares in ISU budget cuts

The portion of the Leopold Center budget channeled through Iowa State University was reduced by \$13,400, or about 2.7 percent, for the fiscal year that began July 1, 2003. Most departments and centers made similar cuts to deal with a \$1.9 million budget shortfall in the ISU College of Agriculture.

About two-thirds of the Leopold Center's budget is from the Agriculture Management Account, generated by fees charged on nitrogen fertilizers and pesticides sold in Iowa. None of the funds earmarked for the Leopold Center was transferred during the 2003 legislative session. (See comments by Leopold Center director Fred Kirschenmann on next page.)

The ISU College of Agriculture in June announced plans to close three research farms and reduce support for Ames-area farms for teaching and research in animal science. State funding for the ag experiment station in the College has dropped 24 percent in the past four years.

Hoop house research initiated in 1997 by the Leopold Center and continuing with federal grants will be moved from the Rhodes Research and Demonstration Farm, which is being

The RFPs resulted in 28 policy project requests, and 21 marketing and food systems project requests. Principal investigators for 10 of the policy projects and 12 of the marketing projects have been asked to prepare full proposals. A decision on funding will be made in the fall.

Both RFPs targeted specific projects that relate to each initiative program. Policy initiative leader Mike Duffy said he hopes to fund projects that will help in policy formulation,

closed, to the Western Research Farm near Castana. Related work that had been done in southwest Iowa on the Lauren Christian Swine Farm, also being closed, will be moved to an ISU research facility near Madrid.

A three-year grazing study, also funded by the Leopold Center, will complete its work under special arrangement at the Rhodes farm.

landscape diversification, and the impacts of regulations on sustainable agriculture, to name a few. Marketing research will be directed to development of marketing and business planning skills for midsize farmers, consumer interest and acceptance of sustainable food systems, market potential for geographical-based food brands, and efforts that support direct markets for sustainably produced meat. Rich Pirog leads the Center's marketing and food systems initiative.

Jeri Neal, who leads the Center's ecology research initiative, said an RFP for that initiative will be issued at a later date.

The request for pre-proposals is the basis of the Leopold Center's competitive grant research program that began when the Center was established in 1988. The RFP was suspended in 2002 due to budget cuts, but director Fred Kirschenmann said the current RFP is possible due to frugal fiscal management and modest success with fundraising.



LEOPOLD CENTER

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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.

**Newsletter Editor:** Laura Miller

Era Veteran. Any persons having inquiries concerning this may contact the Director of Affirmative Action, 318 Bearshear Hall, (515) 294-7612.

*The landscape of any farm is the owner's portrait of himself.*

*Conservation implies self-*

*expression in that landscape,*

*rather than blind compliance with economic dogma.*

— Aldo Leopold, "The Farmer as Conservationist," 1939

## Second Open Letter to Iowa's Citizens

*Dear Friends,*

The Iowa Legislature has completed its work for the current session and it appears that legislators refrained from transferring funds designated for the Leopold Center as they had during the past two sessions. During the 2001 session they transferred \$250,000 of those funds to other purposes, and during the 2002 session they transferred \$1 million to the general fund to help balance the state's budget.

After last year's fund transfer I wrote my first open letter to Iowa's citizens encouraging them to "let their voices be heard" and tell us, as well as the legislature, how they felt about the Leopold Center's future and its work.

We know you did that. I understand that Governor Vilsack received more communications about the Leopold Center's budget cut than about any other cut. Many organizations made the Leopold Center and its future one of their legislative concerns. And many of you wrote letters to newspapers expressing your concern about the Center's future.

The Center staff and the advisory board, as well as the dedicated researchers who depend on us for funding to do the research vital to the future of Iowa's agriculture, are enormously grateful. Thank you! We hope you will all take a moment to thank the legislative representatives in your district for supporting our work.

Hopefully this phase of the Leopold Center's life is now behind us and we can, once again, devote our full attention to fulfilling our legislative mandate. We have recently focused the Center's work into three initiatives — Ecological Systems Research, Marketing and

*Thanks again to all of you who took the time to support the Leopold Center in these many ways*

*... Your determination to keep the Leopold Center alive and well has renewed our determination to do all we can to achieve the vision that created the Center 15 years ago.*



Food Systems Research, and Policy Research. We are moving forward on all three fronts but have initially put more of our energy into the marketing initiative, believing that farmers needed markets that would enable them to produce and retain more value if they were going to stay in business. With the help of additional grants that we obtained from both public and private sources, and the willingness of Iowans from many sectors of the food system to be our partners, we have been able to make significant progress.

As a result of frugal fiscal management and modest success in fundraising, we issued two new requests for project pre-proposals in May, one in policy and one in marketing and food systems. We hope to fund the best proposals by mid-September. We continue to explore options in the ecology initiative with numerous potential partners and hope to announce plans for our work in that area this fall.

Before the end of 2003 we also hope to conduct public meetings for researchers and other potential partners. We will more fully explain our new directions and the kind of research we want to support and facilitate.

In the meantime, we will continue our fundraising efforts in cooperation

with the ISU College of Agriculture, which has been very supportive of our work. It is our intent to build an endowment that will eventually be large enough to sustain the Leopold Center's core activities. With the help of additional "Friends of Leopold" (individuals who have contributed \$1,000 or more) and the many smaller contributions that come in to the Center almost daily, we believe we will eventually be able to achieve that goal.

So thanks again to all of you who took the time to support the Leopold Center in these many ways. You have spoken loudly and clearly: the Leopold Center's work continues to be a high priority for Iowa's citizens. Your determination to keep the Leopold Center alive and well has renewed our determination to do all we can to achieve the vision that created the Center 15 years ago.

## A familiar face in sustainable agriculture joins board

By Mary Adams  
Leopold Center editor

What qualities are desirable for a Leopold Center advisory board member? Concern for agriculture and the environment, knowledge of the Leopold Center, and an interest in the future of Iowa's farmers are some obvious characteristics. The Leopold Center feels fortunate to have Laura Jackson, the newest member of the advisory board, embody so many of these traits.

In late May, Jackson was appointed by University of Northern Iowa president Robert Koob as one of the school's two representatives on the board. She replaces Paul Whitson, a ten-year veteran of the advisory board, and joins Tom Fogarty, a UNI geography professor.

Like Whitson, Jackson is a UNI biology professor. She regularly teaches courses in applied ecology, conservation biology, general biology labs and environmental studies; with forays into advanced ecology and the ecology of agricultural systems. Her academic background includes a Ph.D. in ecology and evolutionary biology (with an agronomy minor) from Cornell University. She has been a member of the UNI faculty since 1993.

### Past work with the Center

Sitting on the advisory board isn't Jackson's first association with the Leopold Center. In the 1990s, she conducted a four-year, Center-funded research project, "Incorporating Native Plant Communities on Farms for Forage and Wildlife." Working with three farmers, she demonstrated and assessed the planting of prairie grasses and wildflowers in rotationally grazed pastures in northeast Iowa.

### Leopold Center issue team leader receives top research honor

James Russell, who has led the Leopold Center's animal management issue team since 1989, received the Pioneer Hi-Bred International Inc. Forage Award during the American Dairy Science Association annual meeting in June. The award recognizes outstanding research on forage production, processing, storage and utilization.

Russell's research focuses on forage utilization systems that optimize long-term return on investment in beef pro-

Jackson looks at the big picture, too. She is tracking how large-scale trends in agriculture such as concentrated livestock operations affect the flow



Laura Jackson

of nutrients across the landscape. She and Dennis Keeney, former Center director, were two of the co-authors of a 2000 paper on some of the impacts of manure management in a region with a very high livestock concentration.

Jackson is a long-time Practical Farmers of Iowa (PFI) supporter and has collaborated with PFI member Tom Frantzen on federally-funded research that examines non-chemical methods of quackgrass control. She serves on Iowa's advisory board for the State Preserves System, reflecting her interest in preservation and restoration of Iowa's prairies, forests and wetlands. She is active in her county's efforts to help control invasive species such as garlic mustard in parks and public areas.

Asked about her personal approach to sustainable agriculture, Jackson says she generally adopts the broad-based view of a conservation biologist. Key questions that she would like the Leopold Center to consider are: "How can the Midwestern landscape provide an ample living for its farmers and produce food for people, but function more like a native prairie—supporting a diversity of wildlife, recycling nutrients, producing clean groundwater and building topsoil for future generations? Just as important, how can we get food shoppers to see

connections between their grocery list and the health of our nation's farms, rural communities, and land?"

### Book generates discussion

Many of Jackson's ideas about sustainable agriculture appear in the book she co-edited in 2002, *The Farm as Natural Habitat: Reconnecting Food Systems to Ecosystems*. She salutes sustainable farmers as the ones who are "restoring a relationship between farming and the natural world that welcomes greater biodiversity and the use of free ecological services in their operations." Contributors bring together insights and practices from conservation biology, sustainable agriculture and biodiversity, and farming, in support of the idea that the agricultural landscape can be restored to a healthy diversity.

Her passionate interest in environmental issues and the future of agriculture isn't at all surprising when you look at her family background. Kamyar Enshayan, her husband and fellow UNI professor, has led several important Leopold Center projects exploring the mechanics and benefits of local food systems.

Jackson comes from a family that has long been interested in sustainable agriculture. Her mother, Dana L. Jackson, is associate director of the Land Stewardship Project in White Bear Lake, Minnesota, and helped write the 2002 *Farm as Natural Habitat* book. Wes Jackson, Laura's father, is president of the Land Institute in Salina, Kansas, and author of several books, including *New Roots for Agriculture* and *Altars of Unhewn Stone: Science and the Earth*.

At home, Jackson is mother to two young daughters, Nettie and Ada.

duction. His primary research areas are summer rotational grazing and winter systems using crop residues and stockpiled forages. More recent research centers on improving environmental quality through grazing management.

He is a professor in the ISU Department of Animal Science, where he also teaches undergraduate and graduate courses in animal nutrition, ethics and sustainable agriculture. He received his

doctorate, master's and bachelor degrees from the University of Wisconsin and joined the ISU faculty in 1979.

The animal management issue team includes ISU researchers and extension faculty, governmental personnel and farmers. The Leopold Center fostered the interdisciplinary team concept and supported the team's work through 2001. The team has continued its research through other programs and agencies.

*We found that it is possible to enter a grass-based dairy business with as little as \$50,000 on as few as 40 acres.”*

— Tim Ennis, Ag Connect and Leopold grant cooperators

## Grass-based dairies keep families, animals on the land

### DAIRIES

*(continued from page 1)*

“We found that it is possible to enter a grass-based dairy business with as little as \$50,000 on as few as 40 acres,” Ennis said. “We believe that grass-based dairying has exceptional potential in production agriculture today because 160 acres may reasonably produce a gross income of up to \$1,000 an acre.”

Ennis reports that the 10 dairies participating in the project in 2002 generated a total gross income of \$942,596 from the sale of milk, which in turn, is used to buy feed, services, and building and production supplies from local businesses. He said that new dairies similar to those in the project are likely to generate more than \$110,00 in gross income per year.

### A steep learning curve for newcomers

“We also found that each beginner experiences a steep learning curve in the first two years of operation,” Ennis said. “The opportunity to communicate with other dairy operators was very helpful for these families.”

The project tracked dairy operations in 2001 and 2002. Nine of the 10 families in the last year of the project were new to the dairy business since 1996. The average milking herd size was 60 cows, and the size of farms ranged from 40 to 270 acres. Each family received a stipend to attend regular meetings with other participants and to provide monthly information about their operations. Several families also hosted field days.

## MBA program adds sustainable ag

The Master of Business Administration (MBA) program in Iowa State University’s College of Business will incorporate a sustainable agriculture minor and two new graduate assistantships in the fall.

The new MBA minor combines some of the coursework from ISU’s Graduate Program in Sustainable Agriculture (GPSA) in the College of Agriculture. The GPSA, which began in 2001, was the first graduate program of its kind among land grant universities.

The graduate assistantships are funded by a grant from the W. K. Kellogg Foundation as part of the Value Chain Partnerships for Sustainable Agriculture project coordinated by the Leopold Center. The graduate students will assist working groups on the development of food supply networks for local and regional foods, specialty pork and products related to bio-based businesses in Iowa.

One of the goals of the Value Chain Partnerships project is to build value chains that reward small and midsize farmers in Iowa who follow sustainable agricultural practices in their operations.

GPSA program coordinator Gretchen Zdorkowski is handling the assistantship program. More information about the MBA program is at: <[www.IowaStateMBA.com](http://www.IowaStateMBA.com)>.



**Tim Ennis of AgConnect reports that at least 30 other families want to pursue grass-based dairy opportunities in Iowa.**

“When we first moved here, people thought we’d never make it, but we’ve passed everyone’s projections,” said one participant who came to Iowa from a factory job in another state. “We’re not here to show up anybody, we just want to make a living and raise our family.”

Another participant left a successful career because he’d always wanted to farm. He’s an enthusiastic supporter of the benefits of rotational grazing, and has converted the hilliest portion of his cropland to quality forage.

“I’m hoping that what we take away from this is that grass-based dairies will work,” he said. “There are so many costs in the conventional system that you cannot change but this system has more variables.”

Ennis said one family has left the dairy business since the project began, another has quit farming, and others face challenges. “All are works in progress,” he said, “but over the long term, the operations that survive can be a great benefit in their communities, bringing new families to the area and producing more income from the land.”

### Many still face challenges

Key factors that threaten the survival of new dairies are market price of milk, the cost to produce milk, and the labor requirements of the milking routine. “Although beginning dairy operators can do very little to change the market price of milk,” Ennis said, “they can do things to reduce their cost of production and labor requirements, such as moving toward a grass-based system that uses management intensive rotational grazing.”

Management intensive rotational grazing divides larger pastures into smaller paddocks so that animals can be moved from one area to another to help promote maximum forage growth. This grazing system also can be a better use for highly erodible land that is less suitable to continuous cultivation.

Farmland in the southern third of Iowa appeals to would-be farmers from eastern parts of the United States where land costs are considerably higher due to urban encroachment into rural areas. The southern Iowa farmland is considerably more productive than what is available at the same price in Tennessee, Kentucky and Virginia.

\* \* \*

A summary of the final report from this project is included in the 2003 *Center Progress Report*.

*Communities as well as producers see benefits*

# A tale of two local food projects

**By Laura Miller**  
Newsletter editor

*If each of the 44,000 households in Johnson County spent just \$10 a week on local foods, an estimated \$23 million would stay in the local economy.*

Two local food projects have made a difference in their communities.

Competitive grants from the Leopold Center have jump-started local food projects in Black Hawk and Johnson counties. The result has been more interest in “buying local” and additional opportunities for area business owners as well as farmers.

For the Local Food Project at the University of Northern Iowa, the opportunity has added up to money that has stayed in the Waterloo-Cedar Falls area.

## Growing more than food

During the past five years, eight institutions participating in the UNI project (including nursing homes, hospitals, schools and two restaurants) have purchased a reported \$783,000 of meat, fruits and vegetables from farmers in Black Hawk and neighboring counties. Some growers estimate that institutional sales represent 15 percent of their total sales. Two businesses now buy all of their beef and pork from local locker plants.

“This is just the tip of the iceberg for the potential of capturing food dollars locally,” said Kamyar Enshayan, who heads the Local Food Project operated at UNI’s Center for Energy and Environmental Education.

He estimates the 49,900 Black Hawk County households spend about \$300 million each year on

*Every dollar invested in the UNI Local Food Project funneled \$6.50 into the regional economy. Learn more about the UNI Local Food Project on the web at: <[www.uni.edu/cee/foodproject](http://www.uni.edu/cee/foodproject)>*



**Restaurant owner Kurt Friese participates in the Field to Family festival in Iowa City.**

©2002 Mark Tade/Gazette Commercial Photography

groceries and eating out. “Retaining as much of the food dollars locally as possible is good community economic development,” he said. “It builds on our most precious assets: our people and our land.”

In 1998, Enshayan received a \$17,000 annual grant for three years to set up the Local Food Project, which has since been renewed for an additional three years. Funds support educational activities as well as salaries for summer student interns. They make weekly calls to 10 to 15 farmers who are part of the growers network to determine the type and quantities of produce available. The information is faxed to 10 food buyers, who work directly with farmers for delivery. At the peak of the growing season, the weekly selections may include 40 to 50 fruits and vegetables.

## Growing restaurant support

Barry Eastman, who owns and operates Rudy’s Tacos, said the UNI project helped link him with 10 or 12 farmers and a local locker plant that supply 100 percent of the beef, pork, chicken, cheese, tomatoes and black beans served in his Waterloo restaurant. Locally raised meat and produce make up 65 percent of his annual food purchases, or about \$120,500. He features the farmers on table tents in the restaurant.

Six years ago, Eastman said the UNI project helped him find a local source for free-range chickens, which he had read about in trade publications.

“I’m always looking for better ingredients – that’s part of my job,” he said. “But when I cooked this chicken, the difference in taste just blew me away. From then on I have tried to get everything locally that I could. I also want to support our local family farms.”

“The response from my customers has been great,” he added. “Almost on a daily basis I hear from people who really like the local foods.” Robin Gaines, director of nutrition services at Bartels Lutheran Retirement Community in Waverly, has seen similar enthusiasm from many of the 200 residents. In 2002, the dining service purchased all of its beef and pork, about \$40,000, from a local locker plant. The dining services also uses as much seasonal produce as possible from local farmers.

“Our residents wanted fresh tomatoes and we had trouble finding enough at the farmers market,” Gaines said. “A local hospital put us in touch with the UNI project and we’ve been buying locally since.” Residents also enjoy helping the dining staff husk sweet corn delivered fresh from the field.

**LOCAL**

*(continued on next page)*

“We are in a farming community,” she added, “and many of our residents were farmers or have some connection with farming. This is our way of giving something back to the community.”

### Growing community interest

In the Iowa City-Coralville area, the Johnson County Soil and Water Conservation District’s local food project grew so quickly that total sales could not be tracked for the entire three-year grant. The commerce that was tracked, however, nearly tripled, with most white-tablecloth restaurants now offering some kind of locally grown food on the menu.

Carol Hunt, who manages the Johnson County local food project, also has seen tremendous support for local foods. As part of the Leopold Center grant that ended June 2002, Hunt compiled a directory of producers in a nine-county area. The directory lists 125 farmers, and the list has nearly doubled in three years. Many of those producers support five area markets, including one new venue.

Hunt also helped develop initial relationships between farmers, chefs and area food service personnel. She worked with community groups to explain the benefits of buying locally grown products. More than 20 all-Iowa banquets for 1,500 people resulted in at least \$10,000 in additional sales for local farmers.

Iowa City chef Kurt Friese relies on 20 to 30 sources for locally grown products to supply his two Iowa City restaurants. Although buying local is a simple concept, he said that someone needed to do the preliminary work.

“When I came to Iowa City 11 years ago, I was almost the only person interested in buying local,” he said. “Interest has grown by leaps and bounds but this doesn’t happen by itself because it’s too easy to buy frozen French fries off the back of a truck. There is a local food system here because of Carol and the Leopold Center project.”

Enshayan said that neither producers nor food buyers have the time to develop the network needed to make a local food system work. And he said the process does not happen overnight.

“The real work of the Leopold Center is not just as a source of grants, but in bringing people together,” he said. “That’s where new ideas are discussed and projects are built.”

## Doing good by eating well

By Arlin Wasserman

I have come to realize that I can improve my own health and the welfare of others simply by following one resolution that I made at the start of the year: To do good by eating well.

My resolution is to take the time to eat well, to eat the foods that make holidays wonderful, to eat foods that embody the taste of someplace special.

It may seem a bit indulgent. But why shouldn’t my taste buds share what my eyes, ears and nose already enjoy? The search for things that evoke a sense of place have left my walls full of pictures of favorite landscapes and my house smelling like a forest, courtesy of homemade potpourri from my family’s ersatz Martha Stewart.

But can food really taste like somewhere? Champagne and caviar do the trick. But so can everyday foods. My neighbor’s home-smoked bacon captures the taste of the maple trees that cover the hillside between our homes. Whitefish, the local specialty hauled out of Lake Michigan, is as close as a meal can come to really drinking a glass of fresh water while standing on a sandy beach.

The French have long recognized food’s ability to capture the taste of the place where it’s grown. They call it *terroir* (pronounced teh-whá).

Savvy marketers have introduced the concept to American grocery aisles and restaurant tables, though sometimes they can be a little vague about the place our food comes from. Orange juice now comes from entire states like Florida. “Homemade” frozen dinners originate in factories thousands of miles away.

But increasingly, we find foods that really connect place and plate. We know the river where our salmon used to swim. Supermarkets tout the names and location of the farms where the food was raised.

Seeking out foods from “somewhere,” that have a taste that can’t be duplicated in another country or on

factory floor, means getting the satisfying flavors we crave.

Good taste, not surprisingly, is a top concern for American consumers, according to David Schmidt, vice president of the International Food Information Council, a leading source of consumer information.

When we eat foods with great flavor, we eat a healthier diet. We don’t heap on sugar, salt and fatty sauces to make up for the bland, disappointing flavors of foods from nowhere special.

Americans also are concerned about the health and safety of food in another obvious way, says Schmidt. No one wants food to make them sick.

We often hear about food safety recalls, forcing the return of millions of pounds of brand-name meat and poultry processed in a handful of packing plants. Besides accidental contamination, homeland security concerns highlight the need to protect our food supply against bioterrorism.

Foods grown someplace specific, preferably nearby, often change hands fewer times and travel fewer miles. Buying these foods reduces our dependence on the most vulnerable and risky parts of our food system.

Purchasing more foods from our own community and small growers proud of the place their foods are made also helps out family farmers by providing them with a good price for a product they call their own. Local foods avoid the costs of long distance transport and national advertising.

Good diet. Good health. Security. Solving the farming crisis. It all starts with a commitment to eating well from the wide array of foods that proudly come from and taste like someplace special.

It’s been one of the easiest resolutions for me to keep, and maybe one of the most important as well.



Arlin Wasserman

**Arlin Wasserman** is a Food and Society Policy Fellow of the W.K. Kellogg Foundation. In March, the Leopold Center helped bring Wasserman to Iowa to discuss economic development opportunities associated with markets for food based on “taste of place.” To view his presentation, go to the Center web site: [www.leopold.iastate.edu/pubinfo/wasserman.html](http://www.leopold.iastate.edu/pubinfo/wasserman.html).

# Checking the food odometer: How far does your food travel?

*A recent analysis of produce sales to institutional markets shows that conventionally sourced produce traveled an average of more than 27 times farther than its local counterparts.*



**By Rich Pirog**  
Marketing and food systems leader

A lot has been written about food miles since the Leopold Center published the “Food, Fuel and Freeways” report two years ago.

In that report, we found that under a conventional system many food items travel an average of about 1,500 miles from where they are grown to get to where they are purchased. We also found that the distance food travels to reach the consumer has increased compared to 20 years ago.

I’ve been fielding a lot of calls and e-mails about this work, and have come up with a few questions of my own. Does “locally-grown” mean the same thing for Iowa squash as it does for strawberries? How do the miles logged by locally grown fruits and vegetables compare to those coming to Iowa from across the country? Does it vary by the type of produce?

To answer these questions, ISU student Andrew Benjamin and I looked at records of 160 sales transactions that were part of food brokering efforts at Practical Farmers of Iowa (PFI). The transactions were for fresh fruits and vegetables from 34 Iowa farms sold in 2001 to 23 conference centers, hotels and other institutions in central Iowa. Using a formula representing both distance and weight of load transported, we calculated a weighted average source distance for 16 produce items in the PFI transactions.

We then went to information collected by the USDA’s Agricultural Marketing Service for the same types of produce that arrive by truck at the Chicago and St. Louis terminal markets. We had to estimate where these items would likely have originated, and we used only sources within the continental United States responsible for at least 50 percent of U.S. produce arrivals. We were able to use this information to calculate a weighted average source distance for the produce items in a conventional system, substituting the weights of the PFI-brokered transactions so comparisons

could be made with the locally grown produce distance data.

We found that locally grown produce traveled an average 56 miles from farm to point of sale; the average distance was 1,494 miles – nearly 27 times farther – if those items had come from conventional sources within the continental United States. Another perspective on this comparison is that the locally grown food spent about an hour in transport (assuming an average truck speed of 55 miles per hour) compared to 27 hours for the conventional produce.

The comparisons varied widely by the type of produce. Broccoli shipped under the conventional system traveled more than 90 times farther than locally grown broccoli. Carrots and sweet corn traveled approximately 70 times farther than their local counterparts.

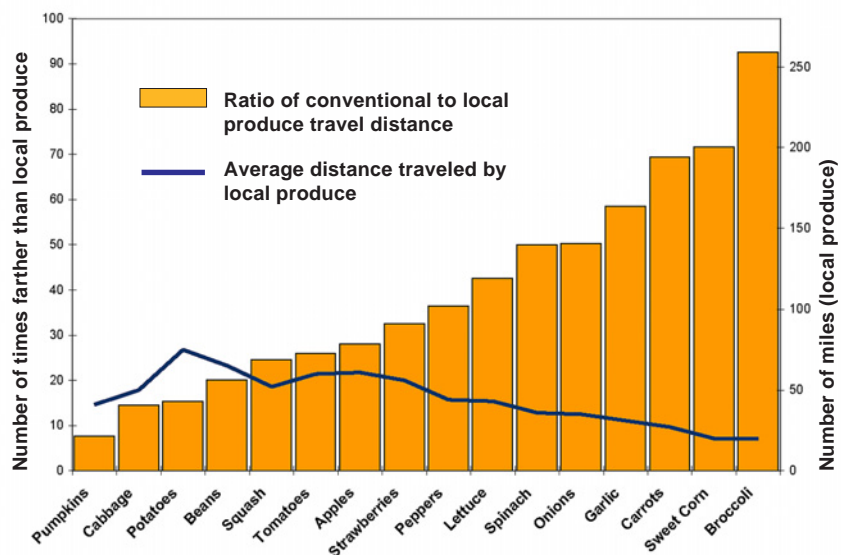
Here’s another way to think about it: The sum of the average travel distances for the 16 locally grown produce items in our study totaled 716 miles, about the distance between Des Moines and Den-

ver. The sum of the average travel distances for conventional produce was 25,301 miles, roughly a trip that would circle the earth pole to pole starting and ending in Des Moines, plus 440 additional miles north almost to the Canadian border!

We restricted our study for conventional produce to the continental United States. However, an increasing proportion of what we eat comes from outside the United States, including 39 percent of the fruit, 12 percent of the vegetables, and 78 percent of the fish and shellfish. Had we included international data, travel distances would have been even farther for certain produce items in the conventional system.

For a copy of the new report, “Checking the food odometer: Comparing food miles for local versus conventional produce sales to Iowa institutions,” contact the Leopold Center, or go to the Center’s web site [look for Papers under Publications, Papers and Speeches].

## How much farther does conventional produce travel?



Source: Leopold Center for Sustainable Agriculture, 2003

Local produce data from 2001 Practical Farmers of Iowa “All Iowa” meals. Conventional data extrapolated from 1998 USDA AMS produce arrival data for Chicago and St. Louis.



# Missouri trip explores potential for agroforestry

The Leopold Center's ecology initiative sponsored a trip in May to the University of Missouri-Columbia's Horticulture and Agroforestry Research Center (HARC). The goal was to achieve a better understanding of the potential role of woody agriculture in the Iowa landscape, and to discuss possible future partnerships for projects that combine agroforestry and production agriculture.

"This approach to agriculture is less familiar in Iowa," said Jeri Neal, who leads the Center's ecological systems research program. "We wanted to know answers to all sorts of questions. Can woody agriculture be profitable for landowners? What kinds of pest and production problems do they encounter? What are potential markets?"

The group spent a half-day touring the 650-acre farm and a number of ongoing research plantings. Projects include alley cropping (trees in widely spaced rows with crops in between); silvopasture (grazing forages, animals and trees in one system); windbreaks; floodplain tree tolerance plantings; forest farming (mushrooms, medicines and decorative florals); specialty nut crops; and living terraces.

The afternoon session included

more specific research presentations by members of the HARC staff and a general discussion about the challenges of integrating production agriculture and forestry. Staff at the HARC, which started out as a horticulture farm and has become an agroforestry research center, are excited about the opportunity to further integrate forestry and production agriculture.

"We did not come home with a clearly defined project," Neal said, "but we really liked HARC's concept of 'productive conservation.' We need to include this in our thinking about how we might increase biologic and economic diversification in Iowa agricultural landscapes."

The entourage included Leopold Center advisory board chair Jim Penney, farmers John Sellers of Corydon (also an advisory board member), Hubert Staggs of Seymour and Ted Dixon of Bloomfield; Steve Gates and Lottie Wilson, Indian Hills Community College; Roger Wolf, Iowa Soybean Association; Richard Schultz, Joe Colletti and Heidi Asbjornsen, ISU's



The Leopold Center took two van loads of farmers and researchers to Missouri in May to look at the potential for agroforestry in Iowa.

Natural Resources and Ecology Management; Steve Fales, ISU Agronomy; Tom Sauer, National Soil Tilth Laboratory; Bernie Hoyer, Iowa Department of Natural Resources; and Fred Kirschenmann and Neal from the Leopold Center.

Four short videos about alley cropping, riparian forest buffers, silvopasture and windbreaks can be checked out by contacting the Leopold Center, (515) 294-3711.

## Seminar discusses potential new partnerships

A university seminar to explore a new relationship between the Iowa sustainable ag community and Cargill Dow attracted a standing room-only crowd and generated a lengthy discussion about the meaning of sustainability.

The Leopold Center hosted a series of meetings with producer groups, agribusinesses, Iowa State University faculty and others to meet Karl R. Rábago, sustainability alliances program leader for Cargill Dow LLC, an independent joint venture of Cargill Inc. and the Dow Chemical Corporation. In addition to showing various products made from corn-based polymer manufactured at the Cargill Dow facility near Blair, Nebraska, Rabago also explained the company's long-term goals and what it would mean to develop a fully sustainable renewable plastic.

"Our long-term goal is to make the feedstocks for our products ultimately sustainable," Rábago said at the seminar on the ISU campus. "In order to do that, we believe we must establish a connection back to the farm."



Rábago discusses the market for fully sustainable renewable plastic and fiber.

Many companies are beginning to consider a product's benefits throughout its life cycle – from how raw materials are raised to how the product is recycled or discarded. Although the polymer manufacturing process destroys DNA, Rabago said consumers in European markets also want the raw materials in bio-based products to be non-GMO. "These customers are concerned about the financial connection between agricultural feedstocks and the ultimate fiber or packaging product," he said.

Rábago said that for these customers, Cargill Dow will procure (through Cargill Inc.) non-GMO corn and arrange for its processing at the corn wet mill in Blair where Cargill Dow buys its dextrose raw materials. A premium is paid for these "source offsets," which includes a premium paid to farmers. "Sustainable means sustainable for farmers and farming communities as well," he said. "Our success depends on it."

Bio-based containers are being used by McDonald's in Sweden and Austria, and for fresh foods in Italy, he said. Cargill Dow LLC also has developed Ingeo™ fiber from corn-based polymer, which is used by several companies in their bedding, floor covering and apparel products.

## Leopold Center loses long-time staff member, gains another

Recent changes at the Leopold Center have included saying farewell to one long-time staff member and filling a new full-time position for a project launched by a recent \$560,000 grant.

April Franksain, who joined the Center in 1991 when it was under the leadership of Dennis Keeney, left in May for another position on the Iowa State University campus.

Franksain had managed the office and an extensive database. She also answered the telephone and numerous questions, and took care of any number of details that kept the Center running smoothly and made it a pleasant place for staff and visitors alike. Her new part-time position in the ISU Civil, Construction and Environmental Engineering Department will allow her to spend more time with her family.

Amber Lonnevik, an ISU senior in agricultural business from Britt, has been handling secretarial duties during the summer months.

The newest addition to the staff is Andrew Hug, who brings a variety of experiences and talents to the Center. Hug began work as a program assistant June 24, and will split his time between the new Value Chain Partnerships for a Sustainable Agriculture project funded by the W.K. Kellogg Foundation and the Center's marketing and food systems initiative.

For Hug, a native of Coralville, the Leopold Center move has brought him back to a long-time interest in agriculture and the environment. As a new graduate

of the University of Iowa master's program in urban and regional planning, Hug was hired in 1989 to be

the first staff member for a Washington, D.C.-based center now known as the Environmental Working Group. His job was to research and write policy analyses on agricultural nonpoint source water pollution and wetlands issues, and provide technical assistance for the 1990 Farm Bill, the Clean Water Act, and two fiscal years of environmental appropriations.

He also worked on the Chesapeake Bay program with the Maryland Department of Natural Resources, then moved to Iowa in 1995 to direct communications for a computer security software company at the ISU Research Park. He also has worked on the Iowa governor's wetlands and watershed policy task forces and has been involved in running his own software company. More recently, he has worked on an ISU food safety project with Food Science Human Nutrition Extension. He lives in Ames with his wife and two daughters.

Another change is a 25 percent appointment for Rich Pirog as associate director of Practical Farmers of Iowa. He



April Franksain



Andrew Hug



Rich Pirog

will retain a 75 percent appointment as the Center's marketing and food systems program leader, and continue to direct the Value Chain Partnerships project.

Pirog's primary PFI responsibilities are to coordinate the group's food system projects, develop work plans, help facilitate PFI board meetings and retreats, and work with the Buy Fresh, Buy Local campaign. His appointment runs from July 1, 2003, through February 29, 2004.

Pirog has signed agreements with the Center and PFI outlining specific parameters of his job, which includes no involvement in financial decisions regarding PFI, or grant proposals submitted to the Leopold Center by PFI. The Leopold Center has supported PFI's on-farm demonstration and food system projects since 1998.

Leopold Center director Fred Kirschenmann said the joint appointment will help the Center explore ways to better engage practicing farmers with university resources.

### 2003 Center Progress Report details work from 13 grant projects

Leopold Center research projects continue to span the impressive breadth of Iowa's agricultural interests. Just leafing through the newest issue of the *Center Progress Report* takes the reader from wetlands, to pawpaws, to rotational grazing, to composting, with many other interesting stops in between.

Summaries of the 13 research and education projects completed in 2002 appear in an illustrated, 56-page paperback. The projects are organized in these categories:

- Agriculture and communities
- Crop systems

- Ecology
- Livestock systems

In addition to projects directly related to agricultural production, the report also details investigators' efforts to establish local food marketing and distribution systems and encourage institutional purchases of local foods. The Center's research and demonstration efforts were carried out on Iowa farms, at Iowa State University's outlying research farms, and in urban and suburban areas of the state.

The summaries are condensed from longer, more detailed final reports submitted by principal investigators.

Copies of the complete final reports are available from the Center. Readers also may contact the investigators directly for more information. Center editor Mary Adams is in charge of producing the report.

Iowa agricultural producers, researchers and educators will appreciate the variety of topics covered in this volume. To receive a free copy of the *2003 Center Progress Report*, contact the Center at (515) 294-3711, or download a copy from the Center's web site [look for Research Reports under Publications, Papers and Speeches].

## FROM THE FIELD: David, Diane and Dresden Petty

### *Family combines cattle with conservation*

By Laura Miller  
Newsletter Editor

David Petty has taken what might be considered a negative situation – farming along river bottom ground – and turned it into an environmental plus, as well as a profitable and productive agricultural operation.

The Petty family's Iowa River Ranch spans an eight-mile stretch of the picturesque Iowa River and has become an award-winning model for environmental stewardship and sustainability. In August David and Diane Petty and their daughter Dresden will add another honor when they become recipients of the 2003 Spencer Award for Sustainable Agriculture from the Leopold Center (see page 1).

"If you keep the environment in the equation, you improve the total system and everyone comes out ahead," said David Petty. "I've always thought that cattlemen were the original conservationists."

Petty began farming in 1974 with the purchase of 10 cattle and a leased pasture. He has worked with neighbors to rent, and then make improvements on, marginal cropland and overgrazed pastures. With help from the Natural Resources Conservation Service (NRCS), he has built more than 13 miles of terraces, four ponds and 12 miles of drainage, reshaped more than 11 miles of waterways, and seeded three miles of buffers to control soil erosion, improve water quality and establish wildlife habitat.

"Many conservation practices lend themselves to the cow-calf industry," he said. "My crop headlands are grass, which I bale once during the season to

keep it growing. Then in the fall my cattle graze corn stalks and grass in the headlands, field terraces and buffer strips."

Petty said he rented small pastures when commodity prices were high and "no one else was interested in grazing." Much of the land was hilly or easily flooded by the river and not suited to row crops.

With every new property, the family has picked up rocks and cleaned out scrub brush so that holding ponds and terraces could be built and pastures could be re-seeded with quality forage. Petty also dug two wells and laid more than 4,000 feet of underground water lines to supply the connected pastures for rotational grazing. Crop fields are farmed on the contour using minimum tillage. Manure from the beef feedlot and market hogs are used as fertilizer on the crop ground.

Their farm has been open to agencies such as the Iowa Department of Natural Resources and the federal Environmental Protection Agency. Current ISU work at the farm includes research on nutrients found in water, stream bank stabilization and the most economical level of fertilizer application on grasslands.

Diane, an elementary school principal in a nearby school district, helps during the summer months with farm tours. Visitors have included staff from Living History Farms, a group from Russia, and pasture walks hosted by NRCS or local extension staff. Dresden, a junior at Iowa State University in animal science and agricultural education, shows cattle and horses, and speaks to groups about her family's operation.

**SPENCER** (continued from page 1)  
away from streams and waterways. Their farm also is home to hundreds of whitetail deer, wild turkey and waterfowl.

In 2001, the Petty family received the National Environmental Stewardship Award from the National Cattlemen's Beef Association. And in 2002, Petty received another top honor from the Kansas City region of the federal EPA, the first given to a

farmer. The Petty family also has been active in hosting pasture walks and tours of their farm, and sharing their ideas about land stewardship with others.

The Petty family was chosen for the award by a nine-person committee comprised of members of the Leopold Center advisory board, Fred Kirschenmann and Laura Miller of the Center staff, and two members of the Spencer family. The committee's selection is confirmed by Dean Catherine Woteki of the ISU College

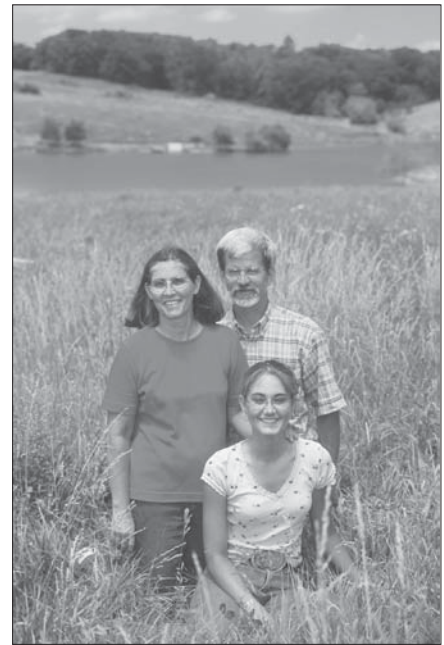


Photo by Dale Heikes, Agrivision Productions

**Above: Diane and David Petty with daughter Dresden in a late-summer pasture. Top photo: Each pasture has its own watering system away from streams.**

The Pettys have added a primitive campground near the river in a portion of native timber. The land often becomes a weekend gathering spot for picnics, hikes, trail rides, canoeing, hayrack rides, campfires and fishing expeditions for a large extended family.

"The fun part of agriculture has seemed to slip away for a lot of people," David Petty said. "We enjoy it and like to share."

of Agriculture.

The first Spencer Award was presented in 2002 to David and Amy Petersen, who have a dairy operation near Blue Grass, Iowa. For more information about the Petersens or to learn more about the Spencer family, check out the Leopold Center web site: [www.leopold.iastate.edu/spencer/spencer.html](http://www.leopold.iastate.edu/spencer/spencer.html).

Guidelines for the 2004 award will be announced by the end of the year.



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# Letter

## HIGHLIGHT EVENTS

### Fall date for ecologist

The Leopold Center still hopes to bring internationally known ecologist Jules Pretty to Iowa to wrestle with the topic of economics and the environment.

Pretty's visit, originally set for June, was re-scheduled to allow more participation by Iowa State students and faculty, who would have been on summer break. The visit also may be combined with that of another national speaker, and coordinated with a lecture featuring University of Maine economist Stewart Smith.

Pretty is director of the Centre for Environment and Society at Great Britain's University of Essex. He has reviewed studies of more than 200 sustainable farming projects on 70 million acres in 52 countries, and has written eight books.

### October 6 conference considers farms in transition

The Leopold Center's policy initiative is planning an October 6 conference to address another looming problem in Iowa agriculture – farms in transition.

The latest U.S. Census shows Iowa is losing farms at a pace three times the national average, with more than twice as many farmers over age 65 as under age 35. An ISU survey in 2000 showed that a majority of Iowa farmers have not made plans for the future of their farm businesses or for their retirement.

The day-long meeting will look at policy options and legal methods that could help beginning and retiring farmers. Co-sponsors include the Beginning Farmer Center at Iowa State University and the Drake Agricultural Law Center.

The conference will be at the Scheman Building in Ames.



### Salute to agriculture

The Leopold Center is one of several co-sponsors for a lecture that will launch a new Center for Excellence in the Arts and Humanities at Iowa State University. Pulitzer Prize-winning writer Annie Proulx will speak at 8 p.m. September 15 in the ISU Memorial Union in Ames. The new ISU center is hosting a year-long series of lectures and seminars by writers and artists on agriculture and the environment.