

Leopold Center seeks ideas for 2006 projects

by **LAURA MILLER** Newsletter editor

The Leopold Center is seeking ideas for new projects that can address issues and questions in the Center's ecology, marketing and food systems, and policy initiatives.

The Center has distributed a Request for Pre-proposals (RFP) that explains in detail what type of research and educational efforts the various initiatives hope to focus on in the next several years. This was the Center's first joint RFP in nearly two years. The Center's Policy Initiative and Marketing and Food Systems Initiative issued RFPs in April 2003, followed by an Ecology Initiative RFP in November 2003.

The current RFP covers all three of the Center's research and education initiatives. It is open to people who represent any Iowa non-profit organization, agency or educational institution, such as soil and water conservation districts, schools and colleges, and regional development groups. There are no restrictions on project partners or collaborators.

The deadline for submitting pre-proposals is August 1, and most projects will begin in early 2006. The two-page concept papers will be reviewed by Center staff and Advisory Board members who will assess technical merit and relevance to the Center's mission.

"We are interested in research that will equip farmers to meet the challenges ahead," said director Fred Kirschenmann. "We want to help establish farming systems that are less dependent on fossil fuels, that can perform well under unstable climates, and that retain more of the value of the production on the farm."

The long-term goal of the Center's Ecology Initiative is to create ecologically friendly systems that are more resilient, less costly, and more profitable for farmers, communities, and the environment. Initiative leader

REQUEST (continued on page 2)

Duffy leaves Center for full-time research, teaching

Associate director Michael Duffy left the Leopold Center July 1 to pursue teaching and research opportunities in the ISU Department of Economics on a full-time basis.

For most of the past 13 years, Duffy had been balancing his time between the Center and the department, where he has been a professor of agricultural economics the past 20 years and professor-in-charge of the Beginning Farmer Center.

Duffy said he hopes to develop an economics course for the university's Graduate Program in Sustainable Agriculture and work on undergraduate instruction in land appraisal. He will continue to conduct the annual Iowa Land Values Survey and keep his extension appointment, which includes working with area farm management specialists and ISU Extension's Farm Financial Planning Program.

"This was a very difficult decision for me," Duffy said. "I believe strongly in the mission of the Center and I have a great deal of vested interest in its success."

Duffy added that his primary interests are research, outreach and teaching, and that the amount of administrative work at the Center has left him with little time for those things. He concluded: "I fully intend to keep working with the Center, only in a different way. The upcoming debate on the new farm bill will make policy work more important than ever, and I would like to be a part of the Center's efforts to address these issues."

Duffy's work at the Center began in 1992, when he joined agronomy professor Jim Swan as a part-time associate director. In 2000, he

DUFFY (continued on page 2)

INSIDE THIS ISSUE



4



6

From the Director:

Letting go of old ideas allows new ideas to be born 3

Q&A: A look at like-kind property exchanges 5

What are the "external" costs of agriculture? 8

Create your own farm 9

New report summarizes latest research results 10

Farmers joins advisory board, accountant joins staff 11

About our new look for the newsletter 12



LEOPOLD CENTER

The Leopold Letter is also
available on the web at:

www.leopold.iastate.edu

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.

Leopold Letter ISSN 1065-2116

LEOPOLD CENTER STAFF

Director	Secretary
Fred Kirschenmann	Sherry Johnson
Marketing and Food Systems Research Program Leader	Communications Specialist
Richard Pirog	Laura Miller
Ecological Systems Research Program Leader	Editor
Jeri L. Neal	Mary Adams
	Program Assistant
	Andrew Hug
Administrative Specialist	
Karen Jacobson	

LEOPOLD CENTER ADVISORY BOARD

Marvin Shirley, chair, Iowa Farmers Union,
Minburn

Tom Fogarty, vice-chair, University of Northern
Iowa, Cedar Falls

Neil Hamilton, member-at-large, Drake University,
Des Moines

Lyle Asell, Iowa Department of Natural Resources,
Des Moines

Doug Beckman, Iowa Farm Bureau Federation,
Glenwood

Russell Brandes, Soil Conservation Committee,
Hancock

Kelley Donham, University of Iowa, Iowa City

Stephen Howell, Iowa State University, Ames

Jennifer Hoy, Soil and Water Conservation
Districts of Iowa, Birmingham

Erin Irish, University of Iowa, Iowa City

Laura Jackson, University of Northern Iowa,
Cedar Falls

Wes Jamison, Dordt College, Sioux Center

Paul Mugge, Practical Farmers of Iowa, Sutherland

Mary Jane Olney, Iowa Department of Agriculture
and Land Stewardship, Des Moines

Jim Penney, Agribusiness Association of Iowa, Ames

Allen Trenkle, Iowa State University, Ames

Wendy Wintersteen, Iowa State University, Ames

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.



Iowa State does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran. Inquiries can be directed to the Director of Equal Opportunity and Diversity, 3680 Bearshear Hall, (515) 294-7612.

ECOLOGY, MARKETING AND POLICY INITIATIVES ISSUE REQUEST FOR PRE-PROPOSALS, DUE AUGUST 1

REQUEST (continued from page 1)

Jeri Neal said she is most interested in projects that identify, develop and test strategies to help producers transition to practices and products that will move agriculture toward that long-term goal.

Marketing and Food Systems Initiative leader Rich Pirog offers a tightly focused set of interest areas for prospective grantees, including topics such as market feasibility studies, food system infrastructure analysis, research on ecolabels and place-based products, programs that develop farmer business skills, and economic and environmental impacts of local and regional food enterprises.

"We need to explore new market strategies and business structures for farmers so they can retain more of the value for their sustainably-raised products," Pirog said.

Kirschenmann, interim leader of the Policy Initiative, would like to see research on the

2007 Farm Bill, land values, land ownership patterns, and Iowa and U.S. laws and policies that impact processing and marketing options for farmers.

In addition to pre-proposals targeted by the three initiatives, the Center also will consider pre-proposals on other relevant sustainable agriculture topics. However, those pre-proposals should be discussed with a program leader before a concept paper is submitted.



www.leopold.iastate.edu

The RFP is available on the Center's web site, www.leopold.iastate.edu/research/rfp/2005.htm, or by contacting the Leopold Center at (515) 294-3711.

DUFFY'S TENURE WITH CENTER GOES BACK TO 1992

DUFFY (continued from page 1)

became half-time associate director, handling a wide range of administrative and financial responsibilities and serving as liaison between the Center and extension administrators and staff on funding for extension projects. He also led the Center's Policy Initiative, managing a number of grants and special projects.

Most recently he convened a group of economists and policy leaders to examine possible directions for the next Farm Bill, and has helped plan the College's national agricultural policy summit in July. His research has focused on midsize family farmers, land value and land ownership trends, decreasing profit margins and alternatives for Iowa farmers, and the best ways to handle transfer of a farm from one owner to another.

Under the directorship of Dennis Keeney, Duffy worked on a number of competitive grants and helped establish the Center's long-term organic research plots. He received the College of Agriculture's Award for Outstanding Achievement in Extension in 2004.

Leopold Center director Fred Kirschenmann recognizes Duffy's many contributions to both the center and sustainable agriculture.

"Naturally we will miss the great leadership and professional insights that Mike has brought to the Center all these years," Kirschenmann said. "He has been a mentor to me in so many ways but we celebrate Mike's decision to be more fully involved in the research and teaching that he loves so deeply."

Kirschenmann said he is pleased that Duffy has agreed to be available to the Center for advice and consultation. "We look forward to working with him in this new role and wish him well in his new endeavors," he said.

The Center is assessing staff needs and will announce plans to handle the responsibilities that had been managed by Duffy. In the interim, Kirschenmann will lead the Policy Initiative.

I believe strongly in the mission of the Center and I have a great deal of vested interest in its success. — Mike Duffy



Correction

In our story about renewable energy in the Spring 2005 newsletter, we incorrectly reported information about the ethanol industry.

Energy analyst L. Hunter Lovins said that compared to Germany, Iowa still had a lot of

room for growth in the use of alternative fuels, but she was speaking about biodiesel and not ethanol. Biodiesel, most commonly produced from soybean oil, is a clean-burning alternative to petroleum diesel. Iowa is a leader in soy biodiesel production with three facilities; a fourth plant is under construction.

FROM THE

Director



The Death and Rebirth of Everything

To not think of dying is to not think of living – Canadian musician Jann Arden

The single most important thing to know about Americans is that Americans believe that death is optional. – Jane Walmsley, in a New York Times profile of actor and playwright Woody Allen

In September 2004, two young environmentalists published an article that shook the environmental world. In “The Death of Environmentalism,” Michael Shellenberger and Ted Nordhaus argued that the environmental movement with all of its unexamined assumptions, exhausted strategies and outdated concepts needed to die so that a more vibrant, visionary environmental movement could be born.

Many in the national environmental community responded defensively. Numerous environmental leaders attacked what they saw as inaccuracies or omissions in their essay and vigorously defended the movement’s strategies, despite what Shellenberger and Nordhaus saw as recent demonstrable lack of successes.

The same knee-jerk response to criticism or questioning is evident in many other sectors of our society. For example, whenever anyone presents evidence that a new technology may have some unintended, harmful consequences, the reaction on the part of the intellectual community that developed the technology, as well as the industry that manufactured it, is likely to be defensive.

In May 2005, the journal *Environmental Health Perspectives* published a study that suggested a strong correlation existed between mothers exposed to phthalates (chemicals used in many consumer products from cosmetics to weather stripping) and the development of the genitals of their male children. The prompt rejoinder from the trade association that promotes products containing phthalates stated that “an extensive body of scientific research” had already confirmed the safety of phthalates.

Using science as a defense

It is especially interesting to note that science often is used to buttress such defenses. In *Food Politics*, nutritionist Marion Nestle demonstrates how science is used with respect to diet and health issues. She concludes that science often is employed to defend an existing

position rather than to uncover new or more accurate information. Science serves to counter objections rather than to explore or enlighten.

Using science primarily to defend positions that have already been adopted, rather than critically reviewing existing positions and exploring alternatives, contributes to the weakening of public trust in the scientific enterprise. That by itself is a perverse outcome. But perhaps even more troubling is the fact that our rush to defend accepted positions distorts our perception of the world. We end up believing that the way we happen to see the world at a given point in time is a literal, everlasting description of our world.

Lessons from the Earth

But the history of science has taught us that our understanding of the world constantly changes as new knowledge evolves about how the world works. It also shows that the world is very dynamic, continually evolving such that we constantly need to correct our perceptions. Our rush to defend accepted positions, accordingly, amounts to a kind of denial of death and the important contribution that death makes, not only to the rebirth of our perceptions and institutions, but as it turns out, to the vitality of our entire planet.

In her wonderful new book, *Reading the Rocks*, Lawrence University geologist Marcia Bjornerud helps us to understand the science of death. She reminds us that “recycling is ubiquitous and obligatory on Earth,” that everything gets “returned to the factory,” and that “nothing is unusable waste, and nothing will last forever . . . matter resides temporarily in various lodging places, then moves on in new guises.” Furthermore “residence times vary hugely even within a given biogeochemical system . . . eventually, though, everything passes through the system . . . nothing is permanent, and yet because of this, everything is eternal.”

The important point here is that death is the essential element by which everything is re-

talized and therefore is a necessary ingredient to the resilience of the living planet. Every farmer knows this. You can’t reap the bounty of a new crop without planting a seed to die in the soil.

Bjornerud reminds us that “the lessons we can draw” from this story of the Earth are “not merely metaphorical; rather they are design archetypes that we should emulate in our economic and social systems if we wish to avoid irreparable instability.” She goes on to suggest that “our mistake is forgetting that we are simply the youngest children in a generations-old dynasty. Narcissistic fascination with our own short biographies blinds us to the far richer and deeper family saga . . . It is folly to think that we can sit out the dance or make our own rules . . . unchecked consumption and unchallenged political power are violations of ancient earth-law.” In other words, we live in the shadow of Earth’s operating principles, which applies to our social and economic systems as well as biophysical systems.

Allowing the new to evolve

So, Earth’s ancient laws may offer some valuable lessons. Everything has a useful life span, then it is time to let go and allow new life forms to replace the old. Insisting on defending positions or institutions because they seem to serve our own short-term interests as well as our immediate objectives may leave us incapable of meeting the challenges of the future.

The United Nations’ recently released “Millennium Ecosystem Assessment Synthesis” report reveals that two-thirds of the earth’s ecological services on which life depends have now been so polluted or overexploited that the likelihood of unprecedented or abrupt ecological collapses is dramatically increased.

And, as Bjornerud reminds us, much of that situation is due to “the magnitude of human actions on the Earth” which “now matches those of natural agents. We are changing the

DIRECTOR (continued on next page)

Study shows farmers' markets boost Iowa economy

by LAURA MILLER Newsletter editor

Farmers' markets not only are a great place to get fresh produce, flowers and baked goods, they also may generate an estimated \$20.8 million in sales and more than 325 jobs for the Iowa economy.

These figures are from an economic analysis prepared for the Regional Food Systems Working Group (RFSWG) led by the Leopold Center. To do the analysis, Iowa State University economist Daniel Otto and graduate student Theresa Varner used information collected during the 2004 market season for the Iowa Department of Agriculture and Land Stewardship (IDALS) and the Iowa Farmers' Market Association (IFMA).

"There's more hidden economic value in Iowa's farmers' markets than meets the eye," said Rich Pirog, who directs the Center's Marketing and Food Systems Initiative and the regional foods group. "Farmers' markets and other efforts that support locally grown and processed foods have a positive impact on the regional economy."

In 2004, Iowa had around 160 farmers' markets, the highest per capita in the nation. At least 55,000 people went to a farmers market at least once, with total seasonal attendance set at 135,000. An additional 12 markets were expected to open in 2005.

Based on interviews with more than 4,500 customers, these markets generated \$20.8 million in total sales in 2004. Those sales, in turn, resulted in an additional \$12.2 million of economic activity, of which \$4.3 million represents the supplies and services purchased by vendors and growers, and \$7.2 million in induced (payroll) effects. The analysis showed that farmers' markets represent an estimated 325 jobs in Iowa, plus an additional 146 full-time jobs created by the secondary impacts of the farmers' markets.

The economic impacts of the year's bustling farmers' market season in Iowa were estimated using an economic input-output model. The model uses purchases and sales of commodi-



In 2004, at least 55,000 people visited a farmers' market at least once, with total seasonal attendance in Iowa estimated at 135,000. There were nearly 160 farmers' markets in the state.

ties among industries, businesses and consumers to estimate additional secondary impacts in a regional economy.

"This study really shows the multiplier effect of farmers' markets in a community," said Virginia Gieseke of Des Moines, who manages the Drake Neighborhood Farmers Market and is a member of the RFSWG and IFMA. "But farmers' markets have many other impacts that cannot be measured, such as the ability to gather people in a community and provide fun and educational activities."

To collect the consumer information, trained enumerators interviewed approximately 10 percent of the customers at 161 farmers' markets in Iowa. Customers were interviewed at the beginning, middle and end of the summer to account for differences in the markets during the growing season. Questions included the number of times they visited the market, average cost of their purchase, and type of

products purchased.

The average customer was 51 to 65 years old, and visited the market 13 times during the standard 21-week season. Customers spent \$11-\$20 per visit, and more than 80 percent bought fruits and vegetables and 40 percent purchased baked goods.

RFSWG is part of the Value Chain Partnerships for a Sustainable Agriculture (VCPSA) project funded in part by a grant from the W.K. Kellogg Foundation.

 www.leopold.iastate.edu

The report, "Consumers, Vendors and the Economic Importance of Iowa Farmers' Markets," is available on the RFSWG web site, www.valuechains.org, or by contacting Rich Pirog, (515) 294-1854.

USE SOME OF OUR SCIENCE TO EXPLORE ALTERNATIVES FOR A NEW ERA

DIRECTOR (continued from page 3)

underlying beat of the global dance." And we have no ecological blueprint to predict how the planet will respond to these dramatic impacts. There is plenty of evidence to suggest that we may not like (or even survive) the new trajectory.

Much of our defensive behavior seems to be rooted in our unwillingness to accept death as part of the drama of life and allow social, economic and political systems that no longer

serve the health of the planet to be replaced by alternatives that enhance the capacity of the land community to renew itself.

What does all of this have to do with sustainable agriculture? While we can all celebrate the short-term successes of our brief, past industrial agriculture, it may now be time to allow some aspects of that agriculture to die so that a new agriculture – more consistent with nature's ancient laws – can be born. Rather

than using science to reflexively defend every aspect of what made industrial agriculture successful, it may be time to use at least some of our science to explore different alternatives for a new era that appears to be emerging.

Sincerely,

q&a

EDITOR'S NOTE: Iowa State University's annual land value survey shows that the average price for Iowa farmland reached an all-time high of more than \$2,600 an acre in 2004. One reason cited for the increase is expanded use of like-kind land exchanges. We've asked two experts to discuss these exchanges and to provide some insight on their impact.

Topics in the News: Like-kind property exchanges and tax breaks

Q. What are like-kind exchanges and how are they used? What are their impacts on sustainable agriculture?

Neil Harl

Charles F. Curtiss Distinguished Professor in Agriculture and Emeritus Professor of Economics Iowa State University



For many years, property owners have been allowed to exchange certain types of assets for replacement property that is "like-kind" and avoid paying income tax on part – usually all – of the gain. That feature has made such exchanges popular. The property must be held for use in a trade or business, or held for investment. Principal residences are not eligible and neither are vacation homes – unless held as an investment.

Real estate exchanges are handled differently than personal property, such as machinery or equipment, breeding stock or business vehicles. In a like-kind exchange, any real estate can be exchanged for any other real estate. Thus, farmland can be exchanged for urban real estate; even water rights can be exchanged for farmland, or development rights in farmland can be exchanged for more land – if requirements are met.

The replacement property must be identified within 45 days of the disposition of the property given up, and the close of the transaction must occur no later than 180 days or the time to file an income tax return (whichever date is earlier).

If either party disposes of their property within two years after the exchange, it triggers gain for both parties to the like-kind exchange. Also, one party in a related party exchange is not allowed to "cash out" of their investment in conjunction with a like-kind exchange.

For example, a son sells 160 acres to a neighbor and, within the designated time periods, acquires a replacement quarter section from his mother. It's a related party exchange and, because the mother cashes out of her investment, it isn't eligible for like-kind exchange treatment. The gain would be taxable.

A major question is whether like-kind exchanges of property involving farmland boost farmland values.

There's little objective research on the effect of like-kind exchanges on land values but there's a perception, held by many, that such exchanges add to the buoyancy of land values. It is arguable that once the 45-day and 180-day "clocks" begin ticking, it puts pressure on those with funds to reinvest to find an acceptable property. Indeed, as the deadline approaches, the party seeking replacement property may be willing to give up part of the tax savings from a like-kind exchange to nail down a replacement tract.

It seems likely that the availability of like-kind exchanges may encourage disposition of property. If the property owner would otherwise have to pay capital gains tax on property relinquished, the expected gain from the exchange would need to be greater to make it a good move. So it may increase the demand for replacement property.

All of this may be exaggerated in times, such as now, when farmland values have enjoyed several years of increases and the stock market (as a major alternative investment, although stock is not like-kind to farmland) has turned in an unimpressive performance.

Lloyd Brown

Accredited farm manager, rural appraiser, land consultant, real estate broker and president Hertz Farm Management, Inc., Nevada



When farmers and landowners sell land at a profit, the increase in value above their tax basis is subject to federal and state capital gains tax and minimum alternative tax. An alternative is to complete a tax-free 1031 exchange by acquiring like-kind property. The like-kind property definition is quite broad and can include a farm for a farm, improved land for unimproved land, a farm for commercial property, a farm for apartments, a farm for a strip mall, a farm for a car wash, etc. or vice versa. If the replacement property is retained until the taxpayer's death, the replacement property receives a step up in tax basis. If the heirs then sell the farm at the same value as in the estate, there is no capital gains tax.

Some of the common reasons to exchange include the opportunity to sell land at a high price for development, consolidating multiple properties into one larger investment, diversifying one large investment into multiple properties, or relocating property when a taxpayer moves or retires. We also have seen families sell the home farm to one of the on-farm children or long-term farm operator giving them the opportunity to own their home farming base. Sometimes sellers exchange into property closer to where they may have moved or retired. Many people completing tax-free 1031 exchanges are not locked into a specific geographic location and are looking over a broader area to find replacement property that meets their investment criteria.

The Internal Revenue Code has allowed for 1031 tax-free exchanges since 1921 with the regulations updated several times. There has been an increase in use of this provision over the years due to the additional awareness of the tax-free exchange benefits, the higher prices being paid for development land and less attractive alternative investments. A farmer or landowner is less inclined to sell highly appreciated land, pay the capital gains tax, and invest the net proceeds into low interest-bearing accounts or into the stock market due to the uncertainty and risk.

Tax-free exchanges benefit sellers and provide opportunities for buyers of real estate. These tax-free 1031 exchanges are definitely a factor in the farm real estate market, but they are not the key factor driving up the land market.



LEARN MORE

Mike Duffy comments in the June 2005 Ag Decision Maker newsletter, available on the web at:

www.extension.iastate.edu/agdm/articles/duffy/DuffyJun05.htm

Aldo's apple tree lives on, thanks to Iowa orchardist

by SUSAN FUTRELL, Special to the Leopold Letter

It's hard to keep up with Harold Linder when he is walking his orchard. It's not that he moves fast – although even at age 91, he's plenty spry. It's more that he's so full – full of stories, full of information, full of ideas, and full of plans. Linder has spent a lifetime working with trees and plants, and there's plenty still to do.

On his farm east of Sperry in southeast Iowa, Linder keeps an orchard of more than 100 trees. He knows every tree, where it came from, when it was planted, what kind of apples it produces, and which ones make the best sauce. Among his trees is one he calls the Burlington Leopold.

Linder was a friend of Frederick Leopold, older brother of the famed conservationist Aldo (and Leopold Center namesake). The Leopold family orchard was at the home where Aldo and Frederick grew up in Burlington, Iowa on a bluff overlooking the Mississippi River in an area known as Vinegar Hill. On a visit to the Leopold orchard in 1974, Linder noticed a particular tree with an unusual shape that made it a favorite for neighborhood children to play in. "It was an old snag of a tree," he remembers, and Frederick thought it was more than 100 years old at the time.

Tree has distinctive shape

The tree was part of the orchard when the Leopolds bought it, and Frederick did not know its origin. Linder was intrigued by the tree's age and shape, and went back later for a graft, which he planted in his own orchard. It has outlived the original tree (the Leopold family orchard is long gone) and still produces over two bushels of red apples each fall. They are mild flavored, similar to MacIntosh, and good for both cooking and eating. Linder believes the Leopold tree matches the description he's heard of an old Burlington apple, and he thinks this may be the original. The Leopold tree is easy to spot in Harold's orchard, too; it has an unusual shape, a bent limb low to the ground as if to invite children to climb.

Linder's orchard, stretching in orderly rows along a sunny hillside north of his house, has trees in every stage of growth, from new starts planted last year to gnarly trees that he's tended for years. Among them is a graft from the original Hawkeye Delicious, the Iowa parent tree of the now-ubiquitous Red Delicious. Freedom, Duchess, Isaac Newton, Wolf River, Chenango Strawberry – each tree has a story. Two young trees he calls "Schoolkid" apples because they were planted by local schoolchil-

dren. There are familiar standards, too – Macoun, Jonathan, Liberty.

Linder loves apple trees, and he's not stuffy about their pedigree. He's more interested in studying their properties – are they disease and insect resistant, do they thrive in Iowa's weather, do they produce early or late, are the apples tasty? Any tree is worth investigating and nurturing if it promises to add to the body of knowledge he's acquired over seven decades.

Linder also writes about apples

Much of what Linder knows about apples has been compiled in a just-completed book manuscript to be published this year. He writes when he's not tending trees, his large garden, his fish pond, and the plants in his greenhouse. He's authored several books on local history, and his living room is stacked with books and papers from his research.

A computer in one corner helps Linder to keep in touch with a network of friends and orchardists, and exchange tips on propagating walnut trees as well as other trees. The only spot in the room quiet of activity is the empty chair where his wife Mildred always sat – she passed away in February after a long illness, and keeping busy is one way to cope with how much he misses her.

The careful art of grafting and propagating trees is second nature to Linder after so many years, and his cutting knife is always handy. His hands are still steady and sure as he demonstrates several ways to trim and graft freshly cut twigs onto root stock. He takes cuttings each year, and several years ago donated a Leopold apple tree to the Seed Savers Exchange in Decorah, Iowa. The tree now flourishes in the Heritage Orchard there, among the large collection of heirloom fruit trees.

Orchard preserves more than trees

Linder's orchard is a rich repository, not only of apples but of knowledge about trees and history. A friend from Burlington helps with the trees and is learning as much as he can from Linder, but no one in his family is likely to take over and it's not clear what will happen to the orchard.

Dozens of orchards just like Linder's are tucked away around the state. He can name half a dozen orchards within 30 miles that have gone out of business in recent years; only

one is still operated by the sons of the original owner. These nearly-forgotten orchards and the heirloom varieties they maintain may hold clues to restoring the diversity of Iowa's once-thriving apple industry.

Apples keep Linder busy, and they keep him healthy. He makes himself an apple salad for dinner, and eats at least one apple before bedtime. A cool storeroom keeps a ready supply for most of the year. In mid-March, when the ground outside was frosty and the trees not yet budded, Linder sent visitors home with a sack of apples, still crisp after a winter in storage.

Then he headed back out to the orchard, where there is always plenty to do.

In addition to Linder's orchard, the Leopold Burlington also grows near Decorah at the Heritage Farm historic orchard (see below). The orchard has more than 700 pre-1900 trees in its collection. For more information, go to the Seed Savers Exchange web site, www.seedsavers.org.



Susan Futrell is a writer and consultant from Iowa City who specializes in marketing of local and organic foods. In addition to researching the Burlington apple for the Leopold Center, Futrell has studied the potential for Iowa's Muscatine melons as a place-based food. She also is coordinating three new categories for judging heirloom fruit and vegetables at the Iowa State Fair in August.



Growing new trees from old



Harold Linder demonstrates graft techniques at his home near Sperry, Iowa.. Below, Johnson County extension specialist Patrick O'Malley (left) helps Linder prune the tree in late spring. Above, a young apple grows on the Burlington Leopold tree at Heritage Farm Orchard near Decorah, Iowa.



Photos by Susan Futrell

Center establishes endowment fund

by **MARY ADAMS**, Editor

Thanks to gifts from supporters around the country, the Leopold Center was able to formally designate \$50,000 in contributed funds to launch the "Friends of the Leopold Center Endowment" account in March 2005. The endowment account grew out of fundraising efforts the Center embarked upon in 2002 following a \$1 million transfer of funds from the Center's Agricultural Management Account to the state of Iowa's general fund due to the state's budgetary problems.

Donors were assured that if the Legislature restored funding to the Center (which it did in subsequent years), a portion of the gifts would be invested to provide a permanent source of support for the Center.

"This is a seed that has been planted which will eventually grow to secure the Center's future," said Center director Fred Kirschenmann. "Each year we will put at least 50 percent of the gifts we receive from friends into the endowment."

The endowment agreement between the

Center and the ISU Foundation is intended to provide general support for the Center as it strives to meet its legislative mandate regarding sustainable agriculture in Iowa. The ISU Foundation will administer the account, and the Center director will be responsible for determining and applying funds to be distributed by the endowment. The Center plans to use the funds for support of specific projects within the research initiatives and for special projects that fall outside the general boundaries of the current research focus.

Richard Bundy, the ISU Foundation executive officer for the College of Agriculture, comments on the endowment, "Private support for the Friends of the Leopold Center Endowment will enhance the Center's ability to contribute to the development of profitable farming systems that conserve Iowa's natural resources."

The Center received private gifts to begin the endowment from a number of individuals and groups. Donors of \$1,000 or more were designated as "Friends of the Leopold Center."

Among those who made gifts at this level



www.leopold.iastate.edu

If you want to contribute, the ISU Foundation accepts and manages all gifts made to support programs in the College of Agriculture, including the Leopold Center. For more information, contact Rich Bundy, (515) 294-9088, rbundy@iastate.edu, or go to the ISU Foundation web site: www.foundation.iastate.edu/

were James and Millicent Cozzie, Susan Futrell, David and Barbara Hurd, John and Mary Miller, Ann Lennartz, the Lumpkin Family Foundation, Joe Lynch and Lonna Nachtigal, National Catholic Rural Life Conference, Jan and Cornelia Flora, Gary and Sue Osweiler, Margaret Pennings, Richard and Elizabeth Schnieders, the Sioux City Catholic Diocesan Peace and Justice Action Network Director, Robert Ware, Stephen and June Weis, and David and Corrine Williams.

Several other contributors in this donor group opted to remain confidential.

Study tabulates “external” costs of U.S. agriculture

Much attention this summer has focused on the amount of subsidies paid to U.S. farmers in the form of commodity and conservation payments as part of the 2002 Farm Bill. But none of the figures include another cost seldom tabulated as part of the total agricultural price tag: the cost of externalities.

Externalities are costs that are external to a system or market. In agriculture, an external cost would be the cost to clean up a stream contaminated by a leak in a livestock manure lagoon or treatment to remove nitrate from drinking water. Agricultural practices also can create erosion and soil loss, which lead to problems with flood control and navigation, lost capacity in reservoirs and irrigation channels, and problems related to loss of water quality.

In 2002 and 2003, Leopold Center scholar Erin Tegtmeier and (then) associate director Mike Duffy conducted a study to calculate the external costs of agriculture. They used an approach similar to one used by British ecologist Jules Pretty in 2000 to arrive at an aggregate, national figure for specific costs of agriculture. Pretty used existing databases and studies and estimated the negative impacts of agriculture in the United Kingdom at about 208 pounds per hectare (approximately \$349 per acre at the January 2000 exchange rate).

Study looked at crops, livestock

The Tegtmeier-Duffy study recently was published in the *International Journal of Agricultural Sustainability*. In the peer-reviewed article, they estimate the negative impacts of crop and livestock agriculture in the United States may cost society anywhere from \$5.7 to \$16.9 billion each year. They estimate that U.S. crop production alone has external costs ranging from \$11.92 to \$38.74 per acre. The study calls for a restructuring of agricultural policy that shifts production toward methods that lessen external impacts.

Tegtmeier and Duffy looked at six general categories: damage to water sources (\$419.4 million), damage to soil resources (\$2.2 to \$13.4 billion), damage caused by greenhouse gas emissions from cropland and livestock

(\$450.5 million), damage to wildlife and ecosystem biodiversity (\$1.1 billion), and damage to human health from pathogens and pesticides (\$416 million, and \$1 billion, respectively).

They classified cost estimates according to production type (crop or livestock) and area-based external cost figures for crop production also were calculated. They reviewed more than 50 studies that assigned values to specific impacts of agriculture in the United States, then revised and updated the values to reflect changes in conditions. They also deflated some of the estimates to address changes in technology and a subsequent decrease in soil erosion.

The study is based on 417 million cropland acres in the United States reported by the U.S. Department of Agriculture in 2000. The figures did not include approximately 37.8 million acres that were idled that year.

Soil resources hit hardest

The highest estimates were in the category of damage to soil resources, primarily from soil erosion, of which agriculture is the single largest contributor. Their figures included cost to the water industry for additional treatment, lost capacity of reservoirs, cost to water conveyance systems, flood damage, cost to recreational activities, navigation, commercial fisheries, and municipal and industrial users. They reasoned that a great deal of research exists on soil erosion from agriculture and that the direct effects may be simpler to track and analyze than in other categories.

Impacts on water resources were gauged by the costs of treatment necessary to control major pollutants associated with agricultural production including microbial pathogens, nitrate and pesticides.

Among the damages to wildlife and ecosystem biodiversity they included the cost of honeybees and pollination losses (\$409.8 million), loss of beneficial predators from pesticide use (\$666.8 million), fish kills from pesticides and manure spills (an average of \$48.4 million), and bird kills due to pesticides (\$34.5 million).

 www.leopold.iastate.edu

For a copy of the article, contact the Leopold Center, or go to the Center's web site at: www.leopold.iastate.edu/pubs/staff/files/externalcosts_IJAS2004.pdf.

Economic losses could be higher

According to the authors, the study illustrates that current agricultural practice results in very real economic, social and environmental impacts, which would significantly affect the perceived economic efficiency of agriculture if they were paid by the industry itself. They report that while U.S. farmers spent \$8.2 billion on pesticides in 2002, this is less than 80 percent of the actual cost of pesticide use considering the \$2.2 billion in damages to water resources, wildlife and ecosystem biodiversity and human health that they calculated.

The study concludes by stating that the figures identified may be on the conservative side, partially due to a need for more data and partially because the full consequences of agriculture may not yet be known. It also calls for valuation studies into the potential positive externalities of sustainable agricultural practices, such as providing carbon sequestration or wildlife habitats. Such acknowledgment of the true costs and benefits of various methods, technologies and practices available to farmers may help to influence a shift in agricultural practices and the policies that promote them.

They also acknowledge that placing exact monetary figures on factors such as the value of a bird's or a human being's life is extremely difficult and that further work is called for, but insist that such studies can aid in influencing the future of agricultural practice: "A monetary metric provides a base for comparisons to aid in policy decisions."

In the article, Tegtmeier and Duffy conclude that "the partial estimate of damage costs promotes responsible, creative policy actions to acknowledge and internalize the externalities of production practices that are generally accepted and widespread."

RATIONALE FOR STUDY

"The partial estimate of damage costs promotes responsible, creative policy actions to acknowledge and internalize the externalities of production practices that are generally accepted and widespread." – Tegtmeier and Duffy



Take a spin on I-FARM: Create your own virtual farm

by LAURA MILLER, Newsletter editor

A group of local investors wants to build a biorefinery in your county and you're interested in providing biomass. How much corn stover can you harvest without affecting soil quality? What situation might make switchgrass a better option?

Here's another scenario: You're thinking about changing from a conventional dairy to a grass-based dairy. How much would it cost to use marginal cropland for pasture in a rotational grazing system?

A new web-based program, I-FARM, brings the answer right to your computer, allowing you to run "what if" scenarios on virtual or actual farms.

The Leopold Center has been a cooperator with Iowa State University and other partners in a three-state USDA-funded project designed to explore farming systems choices that mix crops and animals. This is in contrast to today's more common farming model, in which crops and animals are in separate, specialized operations. One outcome has been I-FARM, which lets farmers, managers and policymakers see what happens at the farm scale in terms of economic returns and environmental impact.

"This is a planning tool for exploring alternatives in a rigorous and realistic way," said agricultural engineer Tom Richard, who helped initiate the project at ISU and has since brought it to Pennsylvania State University where he is a faculty member. "What could take years and a lot of money to try in the real world, you can do in about an hour."

Model looks at crop, livestock

I-FARM is unique because it has both crop and livestock enterprises in the same model. The model has weather and soils data for 16 states and variables for just about everything — from how often and when you cultivate a field to the local price for alfalfa.

Information can be entered for a range of crops and crop rotations, plus tillage, fertilization, planting, weed control, harvesting and residue removal. Swine, cattle and dairy production are modeled based on feed intake, growth rate, grazing or confinement operations, and manure management systems. Users can select options that fit their farm or interests, and enter other information such as payments to lending institutions for land, buildings and machinery investments.

The model calculates a long list of results. Soil losses, the farm's energy and labor requirements, what's produced in terms of crops, livestock and manure to be used as fertilizer, and residue that could be harvested for biom-

ass are shown, plus annual earnings or losses. Nutrients are listed by field, and subsidy and conservation payments are calculated based on current programs. Users can change any of the variables, and run the model again to see the impact on their bottom line as well as the environment.

An example using biomass

Richard and others have been using I-FARM to study effective ways to harvest biomass for production of renewable energy. They set up a typical 1,000-acre grain farm in five different areas of Iowa, ran the simulation and found some regional differences.

"In the north central region, where production is much higher, you can take a lot of corn stover biomass off the land with minimal environmental impact," he explained. "So in that region it makes sense to harvest biomass as corn stover, and you can still receive commodity payments," he explained.

"In other regions, it makes more sense to put in switchgrass for biomass, because harvesting corn stover leads to too much erosion and a decrease in soil organic matter," Richard said. "As we know, current farm policies rarely encourage this kind of land use, but the model helps document these impacts and find what will work in specific situations."

Richard said I-FARM also can help producers evaluate conservation incentives, such as the Conservation Security Program, with the potential to improve both economic and environmental outcomes on the farm.

I-FARM developer Ed van Ouwerkerk is working with a graduate student Amritpal Kang to make the system easier to use. Rather than selecting from a list of soil types for each field, users enter a location on a map, which takes them to an aerial photograph of the farm. The program then automatically enters soil type, hill slopes and other field-specific details already available on public spatial databases. The new feature should be ready for use in Iowa by the end of August 2005.

Up to 20 people can use I-FARM at one time, and you can save your "farm" and revisit it as many times as you want to experiment with different choices. The web site also includes a tutorial and sample farms.

The development group includes the ISU Departments of Agronomy, Agricultural and Biosystems Engineering, Economics and Animal Science; the North Central Regional Center for Rural Development; National Soil Tilth Laboratory and Practical Farmers of Iowa. In addition to the USDA funds, other grants have been obtained from the U.S. Department of Energy and the National Science Foundation.

 www.leopold.iastate.edu

Go to <http://i-farmtools.org> and click on the web application link. You'll be asked to sign in (simply a way to save information for later). Set aside a block of time to enter data to set up your own farm, or you can retrieve any one of more than 30 sample farms that have data already entered.

An Iowa example

Here's a sample 1,000-acre grain and pork farm. It is based on soils in Montgomery County in southwest Iowa, of which 158 acres are continuous corn for feed in the livestock operation, 541 acres are in a corn-soybean rotation, and 301 acres are enrolled in the Conservation Reserve Program. The farm includes a conventional hog confinement building to raise feeder pigs.

Here are selected results from the model, based on one year of operation:

- 2,058 hogs marketed
- 16,678 bushels corn, fed to hogs
- 42,883 bushels corn, marketed
- 12,172 bushels soybeans, marketed
- 4,276 gallons of diesel fuel for crop production
- 2,527 hours labor (1,506 for crops; 1,021 for livestock)
- \$53,029 government payments (including direct payments, counter cyclical income and CRP)
- 1.9 tons/acre/year average soil loss
- \$408,230 total farm revenues
- \$289,895 total farm expenses
- \$65,637 loan payments for equipment and buildings
- \$105,726 income, before taxes at a rate of \$17.62 per labor hour



Team member Matt Liebman (right) demonstrates I-FARM for Russ Brandes.

Center issues compilation of latest research results

The new 2005 *Center Progress Report* features summaries of 19 projects that were funded by the Center and completed in 2004. For the first time, there are a significant number of completed projects sponsored by one of the three initiatives, Marketing and Food Systems, along with research from the previous competitive grants program.

Research and education projects that the Center funded run the gamut from woolly cupgrass control and grape production to forage evaluation and a local food capacity analysis. Investigators explored problems of farm food handling practices, supply chain options for biobased businesses, small market farm business planning, and soil nutrient enhancement. The Center specifically en-


couraged the investigators to consider how their work could benefit Iowa farmers.

Summaries of the 19 research and education projects appear in an illustrated, 74-page paperback, are grouped in these categories:

- Agriculture and communities
- Crop systems
- Ecology initiative
- Pest management
- Marketing and food systems initiative

The Center's research and demonstration efforts described in detail in the *Progress Report* were carried out on Iowa farms, at ISU'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 the principal investigators. Copies of the complete

 www.leopold.iastate.edu

The 2005 Center Progress Report also is on-line. Find it at www.leopold.iastate.edu/research/grants/completed_grants.htm#2005

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 *Progress Report*.

Copies have been sent to Iowa agricultural producers, researchers, media, and educators. If you would like a paper copy of the 2005 *Center Progress Report*, please contact the Center at (515) 294-3711.

News & Notes

Rich Pirog, who leads the Center's Marketing and Food Systems Initiative, was part of a panel that explored "Remaining Profitable in Today's Changing Agriculture," during the 2004-05 Leadership Iowa program. The May session focused on the "New Face of Agriculture," and included a discussion of critical state, national and international issues facing and impacting agriculture. Leadership Iowa brings together 40 leaders from Iowa's health care, communications, business and education sectors.

..

The Wallace Genetic Foundation has awarded a \$35,000 grant to the Leopold Center to coordinate a revision of the 1948 USDA Yearbook of Agriculture, *Grass*. The Leopold Center will coordinate an editorial committee that will be reviewing current topics, research and issues surrounding the use of grass.

..

Leopold Center director Fred Kirschenmann addressed the June 16-18 Farm Foundation Round Table in Portland, Oregon on "The National Status of Sustainable Agriculture." The Round Table brings together a wide variety of agricultural and agribusiness leaders twice a year for discussion of public policies.

..

The first two modules of a new web-based sustainable agriculture curriculum designed

for high school students have been completed. "Toward a Sustainable Agriculture" has been developed by Diane Mayerfeld of the Center for Integrated Agricultural Systems at the University of Wisconsin-Madison. The curriculum includes on-line handouts, lecture notes and background information. The project has been funded by a grant from the North Central Regional Sustainable Agriculture Research and Education (SARE) program. Leopold Center director Fred Kirschenmann is a member of the curriculum review committee. The curriculum web site is: www.cias.wisc.edu/curriculum/index.htm

..

If you're attending the 2005 Iowa State Fair in Des Moines, you'll want to check out the new competitions for heirloom fruit and vegetables. The Leopold Center is sponsoring three new divisions in the horticulture and foods competitions. They include Heirloom Fruits (judging on August 11), Cooking with Heirloom Fruits and Vegetables (judging on August 14) and Heirloom Vegetables (judging on August 16). An existing competition for heirloom tomatoes is sponsored by Polk County Master Gardeners. The purpose of the competitions is to create an awareness of the variety and uniqueness of Iowa's produce heritage.

..

Proceedings from a conference the Leopold Center helped sponsor in November 2004 are now available. "New Perspectives on Food

Security" featured sessions on the legal and economic issues, environmental and public health concerns, and public policy. The proceedings are available on the Leopold Center web site at: www.leopold.iastate.edu/pubs/other/files/food_security.pdf, or can be purchased at a cost of \$15.50 from www.cafepress.com/conferencebook.

..

The Leopold Center will provide \$20,000 per year for three years to sponsor graduate student assistance for Iowa State University's new animal behaviorist, Anna Johnson. A native of England, Johnson joined the ISU Animal Science Department in April. For the past three years she had been director of animal welfare for the National Pork Board in Clive, responsible for the development of the Swine Welfare Assurance Program. Her doctorate in animal science at Texas Tech University included a focus on sow and piglet behavior and welfare in both indoor and outdoor systems. The Center has been very supportive of the animal science department's decision to fill the animal behaviorist position because any alternative animal production systems must take into account the animal's health and well-being. Johnson is interested in talking with farmers to learn about the kinds of challenges they face related to animal behavior issues and their overall welfare in different housing situations. She can be contacted at (515) 294-2098, or by e-mail, johnsona@iastate.edu.

Southwest Iowa farmer joins advisory board

Russell Brandes of Hancock is the newest member of the Leopold Center Advisory Board but he's not a newcomer to the work of the Leopold Center.

Brandes served as a farmer member of the Leopold Center's successful Animal Management Issue Team headed by ISU animal science professor Jim Russell. He was appointed in February to replace John Sellers, Jr. as the State Soil Conservation Committee representative on the advisory board.

"I think the Animal Management Issue Team has done some great work, especially in the area of phosphorus runoff in pastures, extended grazing systems and stockpiling forage," Brandes said. "It is a good model as far as research goes."

The Center assembled the innovative team in 1990 with scientists from several disciplines, along with farmers, educators and agency personnel who helped design the projects with the goal of making cow-calf operations more sustainable and profitable for farmers. The Center funded most of the team's research through 2002 that included key studies on rotational grazing, winter grazing and optimal use of forage. Brandes has been involved with the team since 2001.

"Many of the team's findings reinforce what

we only thought was going on, like with the phosphorus runoff in pastures," he said. "But I do see the recommendations being implemented. I hope to use stockpiling in my own operation."

Brandes farms 800 acres in Pottawattamie County, some of which is a Century Farm that his great-grandfather settled when he emigrated from Prussia in 1874. Of that, about 500 acres are devoted to row crops, plus small fields of oats and hay, and pasture for a 60-head cow-calf herd. In addition, he is a contract feeder, finishing hogs in three 1,100-head buildings. He began the hog enterprise in 1999, which he says is the main reason he's been able to meet expenses without getting an off-farm job.

He said he's always been interested in soil conservation, serving as a district commissioner the past 20 years. He also served 8 years on the State Soil Conservation Committee, including a stint as chair in 2002. Since he started farming in 1972, he has added terraces, grassed waterways, contour cropping, filter strips along streams and he uses no-till methods. He said he's trying organic corn this year, and may consider planting organic soybeans.

Brandes said he had wanted to be on the Center's advisory board for some time. "I



Russell Brandes

knew the Leopold Center was something pretty special and unique when it was formed," he said. "My interest is in how we're treating the land."

Brandes studied agronomy and agricultural education at Iowa State University for three years before going back to his family's farm. He's been part of the Tri-County Steer Carcass Futurity Cooperative, an ISU Extension-led program that tracks carcass data. The program is designed to compile information that will help recruit producers and cattle to be fed in southwestern Iowa.

Brandes lives on the southwest Iowa farm with his wife, Phyllis.

Full-time accountant joins Center staff

A full-time accountant has joined the Leopold Center staff to manage the Center's finances and work with more than 80 grant accounts administered by the Center.

Karen Jacobson, a certified public accountant for many years, began work July 1 as an administrative specialist. She brings a diverse background in public and private accounting that includes seven years as controller for Bethany Life Communities, a continuing care retirement community in Story City. She also has worked as an independent consultant, auditor and corporate treasurer for an Ames bank.

She has a degree in accounting from Augustana College in Illinois and an MBA in accounting from the University of Wisconsin in Madison. She recently served as president (and was chartering president) of the Ames chapter of the American Society of Women Accountants and a mentor in the Iowa Society of CPAs.

One of Jacobson's tasks will be to coordinate and write a new grants manual for the Center's many partners and researchers. She

said she hopes to streamline the process for grantees to prepare budgets and report how Center funds have been used in various projects.

"I enjoy people very much and it's important to me to contribute to the successful operation of the Center," Jacobson said.

She also will prepare quarterly budget reports for the Leopold Center Advisory Board and provide backup office support for payroll and purchasing.

Jacobson was born in Chicago but has spent most of her life in rural Wisconsin and Iowa communities. "I know how important agriculture is to our economy," she said. "I am excited to work at the Leopold Center because I really believe in its vision — to explore and cultivate alternatives that secure healthier people and landscapes."

Jacobson lives in Story City with her husband Paul. They have a 21-year-old son who is a senior in management information systems at Iowa State University.

Since 2002, the Center's finances were managed by Amy Rogers under an agreement between the Center and the College of Agricul-



Karen Jacobson

ture budget and finance office. When Rogers left in February for another position on campus, the Center decided to hire its own full-time account specialist. From 1989 to 2002, Ken Anderson was the Center's full-time account specialist.



LEOPOLD CENTER
FOR SUSTAINABLE AGRICULTURE
209 CURTISS HALL
IOWA STATE UNIVERSITY
AMES, IOWA 50011-1050

LEOPOLD CENTER

Seeds and Breeds

The Leopold Center is among several sponsors of the 2005 Seeds and Breeds conference to be held September 11-14 in Ames. The purpose of the conference, which stemmed from a 2003 summit in Washington, D.C., is to help reinvigorate the public breeding of crops and animals in agriculture.

Co-sponsors are the Raymond F. Baker Center for Plant Breeding at Iowa State University and the Rural Advancement Foundation International (RAFI) based in Pittsboro, North Carolina.

Highlight Events

The conference will include a review of existing breeding programs and a discussion of strategies for making and implementing policies that will shift the current paradigm from engineering of only a few varieties that benefit even fewer sponsors, to programs that involve a larger group of farmers, universities and non-governmental organizations.

The planning committee is committed to having farmers and NGOs participate in the dialogue, and is offering 10 scholarships for farmers and funding for staff from NGOs to attend the conference. For more information, contact conference coordinator Laura Lauffer. (919) 542-6067, or go to

www.agron.iastate.edu/seedsandbreeds.

About our new look

We hope you like our new look! This is the first major design change in the newsletter since 1990. The new masthead gracing the front page incorporates an aerial view of Winneshiek County in northern Iowa. It was chosen to reflect the Leopold Center's vision statement: to explore and cultivate alternatives that secure healthier people and landscapes in Iowa and the nation.

We hope the new headings and spot

color make our newsletter easier to read. We also are providing additional information on our web site for those who want details beyond what appears in each newsletter.

And finally, we hope you enjoy the stories, written to keep you up-to-date on what's happening at the Leopold Center and in sustainable agriculture. The biggest compliment you can pay us is to use the information and pass along your newsletter to someone else.

The newsletter is still printed on recycled paper and with soy-based ink. The switch to a less expensive paper nearly compensates for the cost of adding spot color.

Many thanks to our readers for feedback this past year. Thanks also to Juls Design of Ankeny who worked with staff on the redesign, and the USDA Natural Resources Conservation Service for the aerial photo. — *Newsletter editor Laura Miller*