In new Iowa wetlands program

Leopold Center work helped set stage

By Laura Miller
Newsletter Editor

When ISU botanists Bill Crumpton and Arnold van der Valk asked the Leopold Center for $57,000 in 1989 to build experimental mini-wetlands next to a crop field north of Ames, they had no idea what they would discover.

They needed some way to study what happened to agricultural pesticides and nutrients after they entered a wetland. They proposed construction of wetland mesocosms – a cutting-edge research method at the time – that allowed them to take measurements in a complex system under controlled but realistic conditions. Each mesocosm consisted of a 12 ft. diameter plastic tank buried 2 ft. in the ground, filled with natural wetland soil and cattails, and connected to equipment to take periodic measurements.

The Leopold Center approved funds to build 36 mesocosms. Crumpton and van der Valk also received two Leopold Center competitive grants to begin work at the new facility.

As it turned out, they were correct in their assumptions. Wetlands are part of nature’s own system of handling water pollutants. Eventually, other research would show that a marsh located in the right place in a watershed could remove 40 to 70 percent of nitrate contained within agricultural drainage water.

The Leopold Center-funded mesocosms laid the groundwork for other research. In 1992, Crumpton, van der Valk and ISU animal ecologist Gary Atchison secured more than $500,000 from the Environmental Protection Agency (EPA) for wetlands water quality work. Several years later, Crumpton began working with ISU agricultural

Policy conference to explore ag concentration

“Concentration in agriculture: How much, how serious, and why worry?” is the timely topic of a February 4 Leopold Center policy conference at the Scheman Building located at the Iowa State Center.

“Consumers, farmers, local businesses and rural communities all have a large stake in the outcome of the present rush toward a global food system operated by a few huge companies,” said Mike Duffy, conference organizer and the Center’s associate director.

Speakers will address the problems and opportunities springing from industrial concentration in agriculture:
• Current level of concentration in production, processing and retailing: Mary Hendrickson, University of Missouri:
• Economic impacts of continuing the current course: Neil Harl, Charles F. Curtiss Distinguished Professor in Agriculture, Iowa State University;
• Anti-trust action history and current situation: Doug Ross, special counsel for agriculture, antitrust division, U.S. Department of Justice;
• Federal and state policy options: Doug O’Brien, counsel for Senate Committee on Agriculture;
• Farmer responses: Collective bargaining, new generation cooperatives, value-added agriculture: Richard Levins, professor of applied economics, University of Minnesota, St. Paul.

Registration fees, which include food and educational materials, are $25 before January 24, and $30 on or after January 24. To register, contact Terrie Hunter at the Scheman Center, (515) 294-5961, or on-line:

www.ucr.iastate.edu/online.htm.
Wetlands projects

(continued from page 1)

and biosystems engineer Jim Baker on an expanded project that included the Iowa Department of Agriculture and Land Stewardship (IDALS) as a cooperator. That project became part of a long-term IDALS water quality program that has funded more than $500,000 of wetlands research projects since 1994.

Results from these projects and other watershed-scale research have been used to create a new $38 million Iowa program, the Conservation Reserve Enhancement Program (CREP). The goal of the program, which uses state and federal funding, is to build nitrate-cleansing wetlands in targeted areas of Iowa. Construction of the first wetland — on a farm in Dallas County — was announced October 31 by Iowa Agriculture Secretary Patty Judge and Derryl McClaren, state director of the U.S. Department of Agricultures Farm Service Agency. Tom Isenhart, who helped monitor the mini-wetlands as Crumpton’s graduate student, now coordinates CREP activities for IDALS.

CREP is a partnership between IDALS and the U.S. Department of Agriculture. An important part of CREP is building wetlands in the proper place in the watershed. To date, CREP has identified more than 150 possible sites in 37 targeted counties. How quickly the wetlands will be built depends on landowners, and availability of funds. IDALS also is providing funds for Crampton’s research group to monitor the effectiveness of the CREP wetlands.

The first CREP project is in the Beaver Creek watershed, a tributary to the Des Moines River, which provides much of the drinking water for the city of Des Moines that operates the world’s largest nitrate-removal system. The 57-acre project includes a 15-acre wetland and buffers south of Woodward on an acreage owned by Darrell Hughes.

“The mesocosm facility still is one of the best wetlands research sites around,” said Crampton, whose work continues under a variety of sponsors. “It was a good investment just about any way you want to look at it. The facility made us competitive so that we could be considered for other major sources of funds, but more importantly, Leopold Center funds were the seed money that led to important new lines of research.”

One mosquito, two mosquito, three mosquito, more??

A legitimate question, especially with the advance of West Nile Virus, is whether creating wetlands will further encourage mosquito breeding, potentially increasing disease risks where the mosquito is a vector. We recommend two publications, available on the web, for readers who want to further investigate interactions of wetland ecologies and mosquitoes. – from the Leopold Center staff

• Did you know?...Healthy Wetlands Devour Mosquitoes
  http://www.cc.bedford.va.us/mosquitoes.pdf

• Mosquitos in Constructed Wetlands: A Management Bugaboo?
  www.stormwatercenter.net/Practice/100-Mosquitos%20in%20Constructed%20Wetlands.pdf

An aerial view of the Ames mesocosm research facility.
Getting a head start on the next 10 years

In his inspiring book, *Guns, Germs and Steel*, Jared Diamond gives us important clues for understanding why, throughout history, some societies flourished and others perished. The way that humans acquired their food in different places and times plays a significant role in his story. Two factors usually play a prominent role in the outcome—local conditions and getting a head start.

The lesson appears to be that the advantage goes to those who best interpret the changes taking place in their local environments and get a head start taking advantage of those changes. The changes themselves are largely beyond our control.

Of course, interpreting the changes correctly while they are in the process of evolving is the tricky part. Humans haven’t shown great promise in correctly interpreting local conditions while they are occurring, and the landscape is filled with wrecks and ruins testifying to past failures. Sometimes we are blinded by old visions. Sometimes we allow ourselves to get imprisoned in old structures. Sometimes we are immobilized by fear of change.

The mandate that the Iowa Legislature gave the Leopold Center in 1987 makes it clear that we are to be an agent for change. We were instructed to “conduct and sponsor research to identify and reduce negative environmental and socioeconomic impacts of agriculture practices, and research and assist in developing alternative practices that are consistent with a sustainable agriculture.”

To help determine how the Leopold Center could best accomplish its mandate over the next decade, we wrestled with all of the uncertainties associated with understanding unfolding local conditions and how to get a head start in capitalizing on the opportunities those conditions presented—especially for farmers. We consulted with experts, we visited with Iowa citizens in both rural and urban communities, we talked with scores of farmers. Now we are ready to act.

New work for the Center’s next 10 years will focus on three initiatives.

- We will invite others to join us in developing **new markets and food systems** that enable farmers to produce more value and retain a larger share of that value on the farm, using production methods that protect and restore our natural resources, and advance vibrant communities.
- We will similarly invite others to join us in **researching and designing new agricultural landscapes** that enable us to produce food, fiber and energy with methods that restore natural resources, provide habitat for organisms that increase agricultural productivity while renewing biodiversity, and make us more energy self-sufficient.
- We will explore new options for **public policy** that support these new directions for agriculture.

We have already begun to explore and, in some instances, launch such partnerships. As required by our founding legislation, grants still will be awarded competitively but the areas for study need to be much more focused than in the past.

Of course, the big question has yet to be answered: Are we correctly interpreting the changes taking place so we can gain a head start on new directions to ensure a prosperous future for Iowa? Only time will tell.

It is clear that the present system is not working. Massive public subsidies are needed just to help farmers pay their bills. Young farmers are largely prohibited from entering the agricultural enterprise, while farmers already on the land have little hope for a brighter future. Meanwhile, we are eroding our natural resource base and degrading the environment—in some instances beyond reclamation.

When things no longer work, it is a sure sign that change is on the way. Our future will be the one we choose together as we respond to the changes bearing down on us. The advantage will go to those who read the changes correctly and get a head start.

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Read what Kirschenmann shared about the future of the Leopold Center during the Oct. 21, 2002 celebration dinner, on the web:

[www.leopold.iastate.edu/celebration_page/celebration.html](http://www.leopold.iastate.edu/celebration_page/celebration.html)
The bottom line at the end of a challenging year of revenue transfers and belt-tightening at the Leopold Center is that the research continues.

Work is underway on 37 research and educational projects funded by the Leopold Center’s competitive grants program. All were in progress when the fiscal year began July 1, 2002, and funds already had been set aside for their support.

Included are 24 projects in their second or third year that began under the Center’s previous competitive grants program. The remaining 13 projects are in their first year as part of the Center’s new marketing, policy and ecology initiatives.

Projects in their second or third year focus on alternative crops such as grapes, switchgrass, muskmelons and black walnuts, as well as more sustainable ways to raise conventional crops and livestock. Second- and third-year projects also look at specific pest, nutrient management and water quality problems, including biological control of purple loosestrife, tillage to manage woolly cupgrass, and the impact of hog manure applications on the levels of bacteria, nitrates and phosphorus in surface water runoff.

Projects in their first year take a broader, more integrated approach to farming systems, which is part of the Center’s new direction and initiatives.

One first-year grant supports a project in the Elk River watershed to develop plans for at least one type of environmentally friendly cattle feedlot for family farming operations. Other projects focus on alternative farming systems for cold weather, a feasibility study on related business opportunities if a packing plant specializing in organic or naturally raised animals is built, economic and management issues of combining hunting and grazing in southern Iowa, and a community-based reforestation project in northeast Iowa.

The research is being conducted throughout Iowa on private property as well as Iowa State University research and demonstration farms. Project cooperators include ISU and USDA researchers, extension field specialists, conservation districts for soil, water and natural resources, local food system and watershed groups, and other organizations including the Iowa Cattlemen’s Association, Iowa Natural Heritage Foundation, the ISU Beef Center, the Greater Des Moines Partnership, and the Iowa Pork Producers Association, Iowa Farmers Union, Iowa Institute for Cooperatives, and the Greater Des Moines Partnership. A portion of the funds from a W.K. Kellogg-funded food systems project at Iowa State University also goes to the PNMWG.

In September 2002, the PNMWG Steering Team awarded mini-grants to five projects that address some of the challenges of specialty pork marketing efforts. The projects were selected in a competitive application process.

Mini-grants, totaling $34,500, went to:

- Niman Ranch Pork Company to collect meat quality data (such as taste and tenderness) to develop a meat quality assurance program;
- Eden Farms, State Center, to set up a third-party system to verify that farmer-members follow various production standards, such as restrictions on antibiotic use;
- Dave Stender, ISU Extension field specialist, to gather production cost information from producers who use alternative management practices that can be included in business plans and loan requests;
- ISU Extension, for a needs survey among operators of pork niche marketing enterprises to be used for creation of a primer on business planning and feasibility studies, and
- the Greater Des Moines Partnership, which is planning a study tour to Sweden in spring 2003 for Iowa pork producers and educators. The tour will focus on the European certification system for niche pork products created in response to consumer concerns.

To keep track of PNMWG activities or subscribe to a bimonthly Pork Update newsletter, go to the web site, http://www.agmrc.org/pork/pnmgwg.html. The site is maintained by the Agricultural Marketing Resource Center (AgMRC) at ISU.
FY2003 Renewed Grants

**Agriculture and Community**
- Developing a local food system in association with business and industry, year 2 of 3, $20,560; W. Johnson, Limestone Bluffs RC&D, Maquoketa (2002-67)
- An internship program to help institutional food buyers develop links to local farms in northeast Iowa, year 3 of 3, $17,000; K. Enshayan, Center for Energy and Environmental Education, University of Northern Iowa (2001-13)
- Local food connections: From farms to restaurants, year 2 of 2, $12,000; R. Karp, Practical Farmers of Iowa, Ames (2002-29)
- Sustaining agricultural producers through direct marketing of processed foods, year 2 of 3, $6,100; C. Chase, Black Hawk County ISU Extension, Waterloo (2002-16)

**Agroforestry**
- Black walnut cultivar performance, year 2 of 3, $1,000; B. Hanson, Iowa Nut Growers Association, Centerville (2001-01)

**Crop and/or Forage Systems**
- Development of dormancy breaking mechanisms in Eastern Gamagrass, year 3 of 3, $20,000; L.R. Gibson and A.D. Knapp, ISU agronomy (2001-19)
- Development of switchgrass as a viable agricultural commodity for farmers in southern Iowa, year 2 of 2, $9,000; D. Guffey, Chariton Valley RC&D, Centerville (2002-26)
- Evaluating the adaptability of forage species and varieties in northwest and south central Iowa, year 3 of 3, $4,200; D. Haden, ISU Northwest Research and Demonstration Farm, Sutherland (99-41)
- Evaluating pork production systems for niche markets, year 3 of 3, $4,000; D. Stender, Cherokee County Extension (2001-10)
- Improving productivity of warm season pastures by interseeding legumes, year 3 of 3, $25,175; K. Moore, ISU Agronomy (2001-35)
- Incorporating grassland agriculture into row crop production systems, year 2 of 3, $20,000; M. Mensching, USDA-NRCS, Knoxville (2002-39)
- Sustainable grape production for the reestablishment of Iowa's grape industry, year 2 of 3, $20,880; G. Nonnecke, ISU horticulture (2002-46)
- The value of CRP filter strips for grassland bird communities, year 2 of 2, $5,000; L. Best, ISU animal ecology (2002-04)

**Nutrient Management/Soil Quality**
- Agronomic and environmental soil testing for phosphorus and threshold levels in soils, year 3 of 3, $24,000; A. Mallarino, ISU Agronomy (2001-11)
- Optimizing solid manure application by improving distribution, year 3 of 3, $29,400; M. Hanna, ISU agricultural and biosystems engineering (2001-24)

**Pest Management**
- Biotic interference of biological control of purple loosestrife, year 3 of 3, $8,290; J. Obrycki, ISU Entomology (2001-33)
- Evaluating sustainable, integrated management of muskmelon diseases, weeds and insect pests, year 3 of 3, $20,361; M. Gleason, ISU plant pathology (2001-21)
- Investigation of the influence of tillage for management of wooly cupgrass, year 3 of 4, $10,375; M. Owen, ISU agronomy (2001-56)

**Water Quality**
- Economically sustainable riparian buffer to promote bank stability and reduce gully erosion and phosphorus runoff in the Loess Hills, year 2 of 3, $27,500; J. Kelly, ISU forestry (2002-30)

FY2003 Grants in New Program Areas

**Marketing and Food Systems**
- Grinnell area local food system initiative, 2 years; $17,500; J. Andelson, Center for Prairie Studies, Grinnell College
- Life in Iowa Homecoming Institute, 3 years; $15,000; N. Bevin, ISU Extension
- Let the vineyards be fruitful: A study of the potential market for Iowa grape juice, 1 year; $4,220; J. Higgins-Freese, Prairiewoods Center, Hiawatha
- Industrial co-location opportunities for meat processing, 1 year; $23,559; Mary Holz-Clause and Sev Johnson, ISU Extension Value-Added Program
- Johnson County food education project, 1 year; $18,400; C. Hunt, Johnson County Soil and Water Conservation District
- Investigating Iowa plants as natural dyes, 2 years; $11,516; S. Kadolph, ISU apparel, educational studies, and hospitality management

**Ecology**
- Alternative farrowing systems during cold weather, 2 years; $25,064; M. Honeyman, ISU Research Farms; J. Harmon, ISU agricultural and biosystems engineering; and J. Kliebenstein, ISU economics
- Biological control of the soybean aphid in organic and sustainable soybean production systems, 3 years; $32,706; J. Obrycki, ISU entomology; R. Exner, Practical Farmers of Iowa and ISU Extension
- Developing prototypes of environmentally sustainable family-owned beef feedlots in the Elk River watershed, 3 years; $40,000; B. Van Laere, Natural Resources Conservation Service, Clinton County; J. Zacharakis-Jutz, ISU Extension
- Integrating hunting and grazing – A southern Iowa investigation into management issues, 1 year; $34,370; J. Lawrence, Iowa Beef Center; J. Pease, ISU animal ecology; and D. Otto, ISU economics
- Squaw Creek watershed – Rapid assessment of water quality and natural resource knowledge and beliefs, 1 year; $9,746; M. Wagner, ISU landscape architecture; Jim Coope, Prairie Rivers RC&D, Nevada
- Upper Iowa hot spot reforestation project, 2 years; $15,000; L. Frest, Northeast Iowa RC&D

**Policy**
- Development of potential savanna/prairie conservation models for southern Iowa, 1 year; $20,000; D. Sand, Iowa Natural Heritage Foundation
- The effects of thrips on strawberry production in Iowa, year 2 of 2, $10,770; J. Obrycki, ISU entomology (2002-47)
- Evaluating the effectiveness of restored wetlands for reducing nutrient losses from agricultural watersheds, year 3 of 3, $26,637; A. Van der Valk, ISU botany (2001-60)
- Effects of grazing management on sediment and phosphorus losses from pastures, year 2 of 3, $35,000; Leopold Center agroecology and animal management issue teams and Iowa Cattlemen’s Association (2002-U19)
- Impact of swine manure applications on phosphorus, NO3-N and bacterial concentrations in surface runoff and subsurface drainage water, year 3 of 3, $27,010; R. Kanwar, ISU agricultural and biosystems engineering (2001-55)
- Understanding the potential of phosphorus transport to water resources via leaching, year 2 of 2, $24,064; J. Baker, ISU agricultural and biosystems engineering (2002-40)
Scenes from the South Africa: Alternative energy and organic vegetables delivered by horse-drawn carts are part of a turn-of-the-century hospital complex converted into an ecovillage.

An inside look at the World Summit

This past spring, the Iowa United Nations Association (UNA) sponsored a paper competition for student groups to submit plans for creating “Sustainable Futures for Iowa.” I was a member of one of the five winning teams and was offered the opportunity to attend the World Summit on Sustainable Development in Johannesburg as a delegate of the Iowa UNA. Support for my trip was provided by the Leopold Center with additional help from the Henry A. Wallace Endowed Chair for Sustainable Agriculture, the Iowa UNA, Global Agriculture Programs at ISU and the Women, Food and Agriculture Network.

I traveled with fellow team member and graduate student Pernell Plath in South Africa and Swaziland for two weeks prior to our meeting the other Iowans in Johannesburg to observe the Summit.

South Africa, only eight years removed from Apartheid, is struggling to find a new image and continues to be a country of stark socioeconomic contrasts and racial divides. It is a place striking for its surreal mix of first and third worlds. Witnessing life there is like being in a sort of snow globe where time and space seems jumbled. Images of black poverty and physical toil tumble over those of wealthy, mostly white modernity. This is especially so around Johannesburg where new, single-occupant Jaguars and BMWs tool along the freeways followed by worn minivans packed with 16 or more black commuters or flatbed trucks carrying black laborers wearing bright blue work coveralls.

Housing also reveals a range of conditions. Middle class to wealthy homes are comparable to those in the United States. However, “armed response” security systems are rife everywhere and walled communities topped with electric fencing and guarded by 24-hour gate security surround Johannesburg. These are contrasted with township shanties and modest homes with no electricity and where thousands share communal toilets and water taps. A number of squatter camps are recent additions around major cities, housing immigrants from neighboring countries looking for work in the relatively strong economy of South Africa.

Our trip began in Capetown, the cosmopolitan city by the sea. The Dutch East India Company settled this port town in the 17th century and it sits in a stunning setting of oceans and mountains. There are many tourist sights to keep travelers busy including a tour of Robben Island where Nelson Mandela and other political prisoners were kept, and visiting the world-renown Kirstenbosch Botanical Gardens.

Ecovillage draws interest

One of our off-the-beaten-path excursions took us to Oude Molen (Old Mill) Village on the grounds of what was a hospital complex in the late 1800s and early 1900s. Artisans are renting spaces as homes and workshops to transform the area into an eco-village. Grant funds have recently been awarded to install a number of solar panels to provide an alternative energy source. An organic farm on the site grows food for residents and neighbors, delivering by horse-drawn cart. The organizing committee for Oude Molen envisions this eco/artisan community acting as an educational and recreational resource for urban residents of Capetown. It also provides an alternative use for this site, which may otherwise be razed and developed commercially.

After our time in Capetown, we headed north and rode a train for 30 hours across the Karoo. This semidesert plateau is so large it accounts for about one-third of South Africa’s land area. We spent a few days in the tiny kingdom of Swaziland, nestled in the northeast corner of South Africa. We also enjoyed seeing some wildlife before it was time to join the other delegates at the Summit.

The UN’s purpose at the World Summit on Sustainable Development was to gather delegates and establish goals concerning development and the global environment. The final document of the 1992 Rio Earth Summit was Agenda 21. This document was re-evaluated in Johannesburg and new statements and targets were negotiated.
A city of contrasts: Makeshift quarters for a goat herd in Soweto outside Johannesburg; the downtown skyline.

The Summit was a logistical challenge with some 40,000 delegates and others descending upon Johannesburg. There were three official venues for meetings, conferences and exhibits and more than 500 related events throughout the city and country. Considering that Johannesburg is one of the largest cities in the world, getting from site to site was an ordeal!

We stayed at the prep school campus of St. Stithian’s College, also a venue for alternative conferences and gatherings. Friends of the Earth hosted The People’s Earth Summit, and Biowatch South Africa presented The South-South Biopiracy Summit, which I attended.

Biopiracy and the WTO
The hot topic at the biopiracy summit was intellectual property rights of biological resources. One document offered this simple definition of biopiracy: “Legally speaking, biopiracy is the appropriation of biological resources without prior informed consent of owners or local people or government.”

Deciding who is a biopirate depends on your perspective. Corporate or research institutions that have spent millions of dollars on development of a plant or seed for commercial use may see seed-saving or traditional use as piracy. The farmer who has saved seeds for years may see the corporation as a pirate for genetically modifying a life form and then attempting to control its use.

There also was a fair amount of debate about the future of intellectual property rights of biological resources and how they are affected by world trade. The World Trade Organization (WTO) established the Trade Related Intellectual Property Rights (TRIPS) agreement in 1995, which requires member states to allow patenting of certain life forms.

But implementing WTO obligations is complex. Countries have inconsistent patent laws and guidelines for determining which life forms are patentable. In addition, patenting any form of life contradicts the cultural values of some countries and groups. Of great concern is the continuing trend in which genetic, biological resources from the developing world actually benefit the corporations and research entities of the city and the country. Considering that Johannesburg is one of the largest cities in the world, getting from site to site was an ordeal!

Meet our Leopold Scholars
Providing hands-on experience and an opportunity for students to learn about sustainable agriculture has always been important in the work of the Leopold Center. The Center has employed a summer intern for more than 10 years. Each year the Center has supported dozens of graduate students who work with university professors to conduct research funded by competitive grants.

In 2000, the Leopold Center Advisory Board moved its commitment to a new level. The board approved funds for up to three years for a graduate assistantship in Iowa State University’s newly created Graduate Program in Sustainable Agriculture (GPSA). For each of the past two years, the Center has helped sponsor a new student entering the GPSA program at ISU.

Currently, the Center provides partial support for three outstanding Leopold Scholars:

- Xiaofan Niu, Shenyang, China, who began Fall 2001, advised by X.B. Yang, plant pathology;
- Karie Wiltshire, Indianapolis, who began Fall 2002, advised by Kathleen Delate, agronomy and horticulture, and
- Erin Tegtmeier, Chicago, who began Spring 2002, advised by associate director Mike Duffy, economics.

Each student brings a unique perspective to the new GPSA program, one of the first of its kind in the United States. And, we’re pleased to admit, we’re learning as much from them as they are learning from us!
Leopold Scholars bring energy, experiences to sustainable ag

NIU (continued from page 7)

my grandmother’s career so I had heard about ISU because it’s one of the top three schools for plant pathology in the United States.”

Niu also was concerned about environmental pollution and the problems it has created, especially for farmers.

“After farming for 4,000 years, the Chinese people are now facing severe environmental pollution and a lack of resources,” Niu said. “Making this situation worse is our large population so it’s extremely difficult to make any changes. As a plant pathologist I want to learn how we can manage our pests without continuing to pollute our water and soil, which will be a huge challenge.”

With an interest in plant pathology and sustainability, Niu thought Iowa State’s new Graduate Program in Sustainable Agriculture (GPSA) would be a perfect fit. She applied to the GPSA and contacted one of the new program’s participating faculty members, X.B. Yang, who also grew up in China.

“Dr. Yang is well known in the field of plant pathology both in China and the United States,” Niu said. “I was thrilled to be accepted into the program. I will always remember when I arrived in Ames – July 19, 2001 – because it was a starting point in my new life.”

Niu is working with Yang to chart changes in Phytophthora sojae, the pathogen that causes stem rot in soybeans. Soybean cultivars developed 20 years ago included a gene resistant to this pathogen, and they were 98 percent effective in controlling stem rot. In recent years, however, stem rot again has become a serious problem in Iowa soybean fields because the disease-causing pathogen has developed its own resistance to the gene.

“Developing cultivars that are resistant to diseases is one of the most important strategies used in integrated pest management so that farmers do not have to rely on chemicals to control pests and disease,” Niu explained. “Aldo Leopold also put tremendous emphasis on helping farmers switch to more organic methods of agriculture, so in that way my work has the same goals as Leopold.”

She plans to complete her master’s degree next year and hopes to continue working toward a Ph.D. in plant pathology before she returns to China.

WILTSHERE (continued from page 7)

Department of Natural Resources and the Natural Resources Conservation Service (NRCS).

Wiltshire entered Grinnell College as a biology major, but admitted that she was more interested in social issues. “A summer of prairie restoration as a Nature Conservancy summer intern first sparked my formal interest in ecology,” she recalled, “and Aldo Leopold readings also influenced me profoundly during my college years.”

A semester with a Costa Rican farm family pointed her toward agriculture as well as social issues. The study-abroad program included work on a project to evaluate the farming practices of cacao farmers who lived in the rainforest. After a semester of interviewing farmers and surveying neotropical migrant bird populations, she discovered another passion – to be a farmer.

She returned to Grinnell in 1999 to complete her undergraduate degree with a concentration in environmental studies. After graduation she completed an internship with Midwest Soyfood Company Harvest (now known as Wildwood Harvest Foods) in Grinnell.

“Learning about organics and value-added products linked me with new groups and I enjoyed working with farmer-innovators,” Wiltshire said. “I also learned about community supported agriculture and became passionate about starting a CSA enterprise in Grinnell.”

Working with the Center for Prairie Studies at Grinnell College and diverse community members, she recruited three growers and 35 consumers to create the Compass Plant CSA in 2001. She has been active in the Grinnell Area Local Food Alliance, whose work is currently funded by a Leopold Center grant, and is a board member and project coordinator for the Iowa Network for Community Agriculture (INCA).

For the past two years, Wiltshire had been a private lands and prairie specialist for the Iowa Department of Natural Resources Wildlife Bureau and the Knoxville and Oskaloosa offices of the NRCS. Her areas of expertise include warm season grasses, prairie ecology, habitat planning, native species identification and ecosystem management. She has worked with hundreds of landowners in Marion and Mahaska counties to develop plans for native plantings, and has coordinated field days and other educational events.

Wiltshire said her work at ISU will help her to better understand the value of natural ecological processes as they relate to human activities – ideas that Leopold emphasized.

“I came to ISU to continue a fusion of Leopold-based philosophies that have been fundamental to my pursuits: a land ethic within a sense of place,” Wiltshire said. “Central Iowa has been my home, ecosystem, passion and laboratory for seven years now, and Ames and the GPSA only made sense as the place to further my place-based land ethic journey.”

SUMMIT (continued from page 7)

developed countries.

I was fortunate to hear Indian physicist and environmental activist Vandana Shiva speak on several occasions. During a panel discussion at the Biopiracy Summit, she suggested that TRIPS, based on U.S. patent law, is structured to protect commercial interests and not communities concerned about their biological and natural resources. She promoted a sharing-growing “earth family” paradigm rather than the current system of biopiracy and a “genetic mine.” She advocates reshaping governance systems so that communities are at the center of decisions about resources.

This call for a stronger community-level voice was echoed at many summit-related events. It also seemed to affirm our efforts with the UNA of Iowa to create our own sustainable futures here at home. I hope to be an active contributor to such efforts upon my graduation from ISU, and I thank the Leopold Center and its supporters for the opportunity to witness the deliberations on sustainability in Johannesburg.

For more information about the Summit:

http://www.earthsummit2002.org/
http://www.africaearthsummit.org/
New guide to local foods info

Buying local might be a good idea, but finding the food you want can be a challenge.

The Leopold Center has worked with other organizations to produce a two-page guide to help consumers find information about local foods. The new resource, I Want More Say in My Food Choices!, contains web sites and contact information for organizations that support local food systems and/or local food directories.

A printable version of the guide can be downloaded at the web site for the Leopold Center for Sustainable Agriculture: http://www.leopold.iastate.edu/dfs/food_resource_guide.pdf

Other project collaborators include Practical Farmers of Iowa, the Iowa Network for Community Agriculture, Women, Food and Agriculture Network, Natural Catholic Rural Life Conference, Ecumenical Ministries of Iowa, Iowa State University Extension, USDA Natural Resources Conservation Service (Iowa) and the Iowa Food Policy Council.


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BOOK REVIEW

People Sustaining the Land
Cynthia Vagnetti and Jerry DeWitt
2605 NW 5th Street, Ankeny, IA 50021
118 pp., $24.95

Growing up on a farm, I know that farmers can spin some of the best tales. I know that photographers also are wonderful storytellers; several gifted news photographers I have worked with over the years have given life to many of my newspaper assignments.

So when I heard about two photographers who were traveling the country to capture the stories and thoughts of American farmers, I knew it would be a winner. People Sustaining the Land is all that I expected — and more. It is a lesson in sustainable agriculture and a Saturday morning visit over coffee, all rolled into one. Crafted in both pictures and the words of the farmers, it is a heartwarming and hopeful snapshot of what works in agriculture today.

Iowa readers will recognize at least one of the authors, Jerry DeWitt of Iowa State University. A 30-year extension educator, entomologist and sustainable agriculture program leader, DeWitt set off on a one-year sabbatical to follow two passions: photography and family farmers.

DeWitt joined Cynthia Vagnetti, a documentary photographer and video producer who began her journey in 1987 as a thesis project to depict change in rural areas through the stories and pictures of Illinois dairy farmers.

In 1998, the two went to 38 states, traveling 45,000 miles and crossing the Mississippi River 13 times. They visited more than 35 farm and ranch families, staying with each several days at least twice during the year. They interviewed them, worked with them and took photographs of the people, places and landscapes they had seen.

DeWitt took more than 6,000 color images (animals and landscapes), while Vagnetti captured stories from the farmers and their families in videotaped interviews and over 1,000 black-and-white images. This book includes just 53 photographs and a short, first-person narrative from each of the 26 farmers and ranchers who are profiled.

The stories that emerge are authentic and heart-felt. The book also provides a good look at sustainable agricultural practices — unique to each operation and region — sprinkled with a healthy dose of farm-bred philosophy.

“In the process of being sustainable, you don’t want to be sustainable at the risk of your neighbors, or at risk of damaging your environment or damaging anything,” says Ephron Lewis, a Memphis farmer who shared how he raises rice, soybeans and wheat more sustainably. “You want to be sustainable and still be accountable, and that’s the way I would put it.”

Other stories come from chili growers in New Mexico, vegetable farmers in New York, beef producers in Nebraska, and fruit growers in Texas, Florida and Washington. I especially enjoyed reading perspectives from two Iowa land stewards — Fairfield dairy farmer Francis Thicke and Ron Risdall of Roland, who’s been working with the Leopold Center for years on the Bear Creek demonstration project.

All farmers share the details of how they care for the land and why, as well as what they’ve learned from their experiences. Although the specifics are different in each story, the conclusion is the same one that Aldo Leopold discovered: land has its own story to tell.

In her introduction, Vagnetti writes: “In 1987 an Illinois farmer took me to the edge of a freshly plowed field and pointed to the horizon, saying, ‘There’s an education out there.’…After living with farm families and walking in the shoes of well over 100 farmers, both men and women, I can speak with knowledge about a land-based wisdom that evolves from each farmer’s deep and intimate love with the land.”

The self-published book is available from the authors for $24.95 (make checks payable to PSTL). Copies also are being sold at Big Table Books in Ames and by Practical Farmers of Iowa.

Sixty-one photos, 15 audio clips and one video clip from the project were featured in “Gifts and Graces of the Land,” published in the July 1999 issue of The Digital Journalist (on the web: http://dirckhalstead.org/issue9907/gifts.html). A second book to feature DeWitt’s photographs, Renewing the Countryside: Iowa, is scheduled to be released in 2003. Vagnetti leads a national project documenting the women and their families involved in sustainable practices, which will be touring as Voices of American Farm Women between 2004 and 2008. — Laura Miller
Supporters celebrate Leopold Center work

The Iowa-grown food was as bounteous as the good will and optimism for the future of sustainable agriculture when 180 people gathered at Hotel Fort Des Moines Oct. 21 to celebrate the work of the Leopold Center. The dinner was the first official event of a fundraising campaign to benefit the Center. It was organized by the National Catholic Rural Life Conference (NCRLC) and supported by more than a dozen organizations. NCRLC director Brother David Andrews presented the Leopold Center with the first Annual International Local Food Prize to recognize leadership in sustainable agriculture research and on developing models for food self-sufficiency.

The event featured a social hour with music by Des Moines harpist Pat Boddy. Nan Bonfils and Don Adams of Full Circle Farm in Madrid created table centerpieces from natural materials, and a number of Iowa farmers donated food for the event. Among the political supporters present were Iowa Congressman Leonard Boswell, and former state legislator David Osterberg who wrote the founding legislation for the Center. Ames farmer Joe Lynch became the first official member of the new “Friends of the Leopold Center” group for people who contribute $1,000 or more to the Center (see photo on page one). Lynch suggested the idea to the Leopold Center several months ago.

For more photos, go to the Leopold Center web site www.leopold.iastate.edu/celebration_page/celebration.html

Long-time staffer recalls early days at the Center

When Ken Anderson joined the Leopold Center in July 1989, the organization’s first employee, director Dennis Keeney, had been in Ames less than a year. Keeney and his new associate, Bruce Brown, had set up shop in two small offices on the third floor of ISU’s Agronomy Hall.

The Leopold Center began as a grant-making agency funded with some of the revenue from a new state tax on the sale of fertilizers and pesticides. That charge required someone to negotiate the paper trail, set up spending accounts for research projects, prepare financial statements to satisfy reporting requirements and help keep track of the center’s finances.

Not quite 14 years later, the Center has funded more than 250 competitive grants totaling more than $10 million as well as numerous other projects, educational events and interdisciplinary research teams. The organization has grown from a new idea to an entity that has been recognized nationally and internationally. Throughout those years of growth and change, Anderson has been the Center’s account specialist. At the end of December he will leave to operate his own investment consulting firm in Ames.

“I’ve been interested in financial planning for a long time, since high school,” said Anderson, who is 46. “I figured if I was ever going to do something like this, now would be the time.”

Although the number of funded projects is down this year, the Leopold Center has had at least 40 to 50 competitive grant projects underway at any given time. Other work, including projects directed by as many as six interdisciplinary issue teams might involve up to 100 organizations or principal investigators, Anderson said.

“In the early years we probably had more national name recognition than state-wide recognition,” Anderson said. “It was such a new idea to fund this kind of work from a state tax.”

Anderson said the Center’s first director also had a difficult task to build support as well as help people understand the concept of sustainable agriculture.

“Dennis already was a well-recognized scientist in soil and water quality,” Anderson said. “But he decided as soon as his feet hit the Iowa pavement that he didn’t want the Leopold Center to be just another state agency. He worked to put the Leopold Center out front as its own entity even though we’re very much linked to ISU.”

“Ken has been a very important part of the Center from its earliest days and represents to me the soul of the Center,” said Keeney. “He always ‘walked the talk’ of sustainable agriculture and kept us from making some fiscal miscues. He thoughtfully supplied his insights into the decisions the Leopold Center had to make on a daily basis.”

Anderson, who grew up in Ames, also has strong personal ties to Iowa agriculture. As a child, he recalls visiting his great-grandfather’s farm, 80 acres along the Skunk River near Hickory Park restaurant on South Duff in Ames. Frequent Sunday dinners at his grandfather’s farm provided the opportunity for a new generation to learn to appreciate the farming lifestyle. Members of his father’s family, who immigrated from Norway in the 1800s, farmed near Nevada and established several farming communities throughout Iowa. An aunt operates a family farm north of Luther.

In his spare time, Anderson enjoys operating an amateur radio station. He holds an Extra Class license, callsign NØAS, and has made contact with operators in nearly 200 countries. He also is one of a team of Volunteer Examiners who regularly test individuals seeking to get or upgrade their current license.

The Leopold Center’s finances will be managed under an agreement between the Center and the College of Agriculture budget and finance office under the direction of administrative specialist Amy Rogers.
Cultivating a place

Zack Smith would like nothing more than for his new agronomy degree to take him right back to his family’s farm. But this 23-year-old knows that getting into farming can be a lengthy process.

While an ISU student, he played and managed a local rock band, grew sweet corn for grocery stores throughout Iowa, and learned about corporate agriculture as an intern. For the past five months he has handled program details for the new Kellogg-funded Value Chain Partnerships for a Sustainable Agriculture project at the Leopold Center. In January, he will begin work as a manager for Thompson Seeds’ farming operation near Leland.

Before he left Ames, Smith was asked to share his perspectives with readers of the Leopold Letter.

What brought you to Iowa State?
I am from Buffalo Center, a small farming community on the Iowa/Minnesota border. My love of farming steered me in the direction of going to ISU and majoring in agronomy. I had hoped to leave with a degree and a job at a large company, but as I got closer to graduation I discovered that I wanted no part in corporate agriculture. Several work experiences helped me decide that I didn’t want to work for farmers, I wanted to be a farmer. I want to prove that a young person can make it today in production agriculture.

What is your agricultural background?
I grew up on a 10-acre farmstead southeast of Buffalo Center. My dad has been farming since his dad died of a heart attack in 1975. He began by growing 480 acres of corn, soybeans and hay as well as managing a small hog herd. The operation grew until 1991 when the hog operation was at a turning point. Dad decided to drop the hogs and pick up more land. He’s been farming about 1,000 acres with me at his side since. I became very active in the farm when I was about 12 doing everything from planting to combining. My dad would like to pass on the farm to me but he doesn’t want to put me in a place where I’ll be fighting to keep my head above water. Our general plans for now are to slowly phase me into the operation over the next 10 years. We are considering diversifying the operation as well by exploring niche markets.

What interested you in the Kellogg project?
Last spring, Fred Kirschenmann and Mike Duffy made presentations at an agronomy class. I was blown away by their comments and intrigued by their ideas. I decided that if I wanted to farm in the future, I needed to change my ideas to more of a sustainable approach. I began doing a lot of research into sustainable agriculture and local markets over the course of the spring and summer. I have enjoyed working at the Leopold Center with people who share my hopes and dreams for maintaining rural life in Iowa.

What are the biggest obstacles in making family farms more sustainable?
Sustainable agriculture is the only answer for small to midsize farms in this state. As Brazil continues to develop its infrastructure, farming operations will continue to swallow more acres and be able to produce commodities much cheaper than Iowa farmers. If we want to compete, we need to quit thinking in terms of commodities and focus on finding niche markets. The biggest problem for Iowa agriculture is having a farm demographic in which the average age of a farmer is 54 years old. They’ve been farming the same way for 20 to 30 years, so why should they change?

What do you hope to do on your family’s farm?
My plans are to have a career path that promotes Iowa rural life and vitality. I plan to eventually return to my family’s farm and continue working the land as my father, grandfather and great-grandfather have done for nearly 100 years. My goal is to return the farm to a more biologically friendly state and profit while doing so. I’d like to be able to raise a family on the land as I was raised, and teach my children the life lessons you can’t learn anywhere else but on a farm.
**LETTER**

**Workshop on food service markets**

The Leopold Center is helping to sponsor a one-day workshop for farmers interested in selling produce to hotels, food services, and hospital and school cafeterias. The January 24 workshop, "Institutional Markets: Supply Chain Development and Risk Management Strategies," will be at the Hotel at Gateway Center in Ames.

Guest speakers include:

- Michael Rozyne, Red Tomato, Canton, Massachusetts, a non-profit broker of sustainably raised fruits and vegetables serving a three-state area;
- Rink DaVee, Homegrown Wisconsin, a cooperative that includes 25 farm families in south central Wisconsin;
- Rick Hartmann, Practical Farmers of Iowa (PFI), who has worked with local farmers, conference centers and caterers to supply food for "All-Iowa" meals, and
- Bob Parrish, food service buyer for Iowa State University Residence Halls.

The workshop is one of several activities that are part of the Practical Farmers of Iowa annual conference January 24-25. Other workshop sponsors are PFI, the USDA’s Risk Management Agency and Iowa State University Extension. Workshop cost, which includes lunch, is $15 if paid before January 10. Non-PFI members must pay an additional $25, which includes a one-year membership. For more information, contact Sandra Trca-Black (515) 232-5662, ext. 101.

**HIGHLIGHT EVENTS**

**The biotech debate:**

How are Iowa State and other land grant universities helping farmers and citizens sort through the divisive issues that surround this evolving technology? Charles Benbrook, nationally known biotech expert and ag policy consultant, posed that question during a Nov. 20 discussion in Ames hosted by the Leopold Center.

**Pesek Colloquium**

Frances Moore Lappé, whose writings about global hunger and international corporate concentration have stirred worldwide debate, will present the third annual Pesek Colloquium on Sustainable Agriculture March 5-6. Her first book, *Diet for a Small Planet* released in 1971, helped a generation rethink food issues. She created the California-based Institute for Food and Development Policy (known as Food First) and the Center for Living Democracy.

The Leopold Center is providing support for the event, organized by the ISU Henry A. Wallace Endowed Chair for Sustainable Agriculture.