



Off and running: Work begins on 2015 research

Investigators who are receiving awards from the Leopold Center's long-running Competitive Grants Program are beginning 17 new research and demonstration projects. Their work will provide new knowledge on soil health, specifically how phosphorus moves under different cropping systems and how certain changes deep below the surface (given the prevalence of minimum-tillage systems) could make soils more resilient during drought or after heavy rainfall. Other projects explore alternative systems for biomass production, growing fruits and vegetables, or providing habitat for native pollinators.

The 17 new projects, totaling \$1,031,853, fall under all four of the Leopold Center's research initiatives.

"Natural systems are highly complex and diverse, and these projects will help us better understand this diversity so that we can use some of those principles to improve agricultural production and our food system in Iowa," said Director Mark Rasmussen.

The grants vary in length; four projects are for one year, 12 will be done over two years and three projects are for three years. Work will continue on more than 30 multi-year projects already in progress, bringing the Leopold Center's current-year research commitments to \$1.3 million.

Ecology

The Ecology Initiative is funding the soil health projects—on phosphorus movement and changes in deep soil—and three other new projects for a total

GRANTS (continued on page 4)

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Shared-use kitchen to support Des Moines enterprises

By STEFANIE TROUT, Leopold Center Graduate Communications Assistant

A Des Moines institutional kitchen that had gone unused for more than a decade and fallen into disrepair is now being developed as a shared-use community kitchen that will help small business owners and promote local food entrepreneurship.

A three-year competitive grant from the Leopold Center's Marketing and Food Systems Initiative supported a recently-completed feasibility study, which looked at three possible locations for a new shared-use community kitchen and found the best candidate at the Robert W. Mickle Neighborhood Resource Center. The Mickle Center is owned by the Neighborhood Investment Corporation (NIC) and located in the heart of the

Sherman Hill neighborhood, which borders downtown Des Moines. The building was originally constructed in the 1960s as the Iowa Jewish Nursing Home.

A shared-use kitchen is a commercial kitchen that food and farm businesses and community organizations can rent by the hour. Whether they use the kitchen for cooking, packaging food products, or holding cooking classes and demonstrations, the shared-use kitchen grants access to a licensed facility that requires minimal investment compared to the cost of opening a private commercial kitchen.

The grant project was led by Gary Huber, General Manager of the Iowa Food Cooperative, and Jack C. Porter, President of the NIC Board of Directors.

SHARED-USE KITCHEN (continued on page 8)



The newsletter is on the web at:
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LEOPOLD CENTER

LEOPOLD LETTER MISSION

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

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News & Notes

The Stone Barns Center for Food and Agriculture at Pocantico Hills, New York, has established a new lecture series honoring Fred Kirschenmann, who has served as President of its Board of Directors since 2008. The inaugural Kirschenmann Lecture will be June 18 with noted author, philosopher and farmer Wendell Berry. The series will explore concepts that Kirschenmann has promoted in his work such as adaptation to change, Aldo Leopold's land ethic, shared value and humans as part of the biotic community.

• • •

2015 is the International Year of Soils, an effort launched by the United Nation's Food and Agriculture Organization and its Global Soil Partnership. Celebrating the event with new resources highlighted each month are the USDA's Natural Resources Conservation Service and the Soil Science Society of America. Links to Leopold Center-supported work on soil health and resources related to this celebration are available on the Leopold Center website: www.leopold.iastate.edu/year-of-soils.

• • •

The Leopold Center is a partner in two statewide efforts aimed at helping Iowa's pollinators. The ISU College of Agriculture and Life Sciences has launched the Iowa Monarch Conservation Consortium to conserve Monarch butterfly habitat critical to its reproduction in the state. Partners include farmer and conservation organizations, state agencies, companies and various departments and centers at Iowa State University. A second effort is led by Blank Park Zoo in Des Moines. More than 30 Iowa organizations are part of its "Plant. Grow. Fly." program designed to create awareness of the need for habitat for butterflies and other pollinators. The Leopold Center also is funding new research related to pollinators (see 2015 grant list, page 4).

The Leopold Center has updated the *Iowa CSA Farms* directory, which lists 85 Community Supported Agriculture (CSA) enterprises that offer fresh produce and other products for local consumers. In addition to information about production practices, the directory lists contact information, website and social media links, available products and distribution range for each farm and organizations. Listings are organized by county and region within Iowa State University Extension & Outreach. Download *Iowa CSA Farms* on the Leopold Center website: www.leopold.iastate.edu/2015-iowa-csa-farms.

• • •

A new publication shares results of a statewide survey showing that Iowans not only support targeted approaches for agricultural conservation but also are willing to pay for it. Water quality was the highest priority for agricultural policy and programs. The survey was conducted by the STRIPS research team to explore public support for a variety of benefits that agriculture can provide other than commodity production. The publication, *Iowans' Perspectives on Targeted Approaches for Multiple-Benefit Agriculture*, is available on the Leopold Center website: www.leopold.iastate.edu/targeted-approach.

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Melody Bro has joined the staff at Women, Food and Agriculture Network to increase outreach to women in rural Iowa. She will coordinate the Women, Land and Legacy program, where local groups of women hold ongoing meetings covering topics from farm management to conservation. The position is supported by the Leopold Center and the Iowa Natural Resources Conservation Service.

Report showcases Leopold Center's balancing act

Sustainable agriculture is an eternal "balancing act." And our new annual report shows how the Leopold Center nimbly keeps juggling agriculture hot topics from aquaponics to yurts.

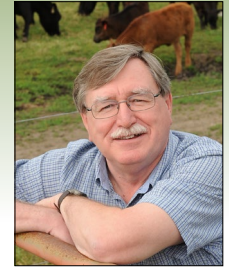
This 36-page publication showcases the wide variety of work done in the Leopold Center's research initiatives for policy, ecology, marketing and food systems, and cross-cutting (multidisciplinary) studies. Research, demonstration, outreach and education projects are part of the Center's competitive grants portfolio.

Copies of the FY2014 annual report are available by calling 515-294-3711. Or you can view the report at www.leopold.iastate.edu/news/annual-reports.



Conversations

WITH DIRECTOR MARK RASMUSSEN



From generation to generation

Some readers may remember that in the past I have drawn on my family history as a way to discuss current affairs related to agriculture. In this article, I am going to invoke my ancestors again. Only this time the focus will be on the Rasmussen side of the family.

The topic is one that I am sure many are (sadly) familiar with: generational disputes over land, inheritance, money and perceptions of equity.

In my family's case, the problem arose in my great-grandparents' and grandparents' generations. Their dispute became so contentious that it was pursued all the way to the Nebraska Supreme Court where one side won, one side lost and all ended up spending cash in legal fees. But the entire family lost in a way that extends well beyond the money lost. It did terrible things to family relationships.

Here are some details of my family's particular case. The great-grandparents, who were farmers, accumulated land during their lifetime. There is nothing unique about that. At the time of Great Grandfather's passing, some land was sold to some of the siblings who were expected to carry on the farming tradition. There were two points of contention at this stage of family history. The first to cause distress were decisions about the siblings who were to receive farmland, and second were disagreements regarding the sale price of the land. As you might expect, these decisions strained family relationships and set the stage for worse things later.

After the land sales, some of the proceeds from the farmland were retained to support Great Grandma in her senior years. Initially, things went reasonably well. When she died, the dispute intensified among the siblings (my grandparents' generation) over the disposition of the remaining funds and this was the particular case pursued in the courts.

It is not my intent to go into great detail about the case or to take sides. That is water under the bridge. I am more interested in telling you about the impact of this dispute and the lessons I have learned from this part of my family's history.

First, it illustrates what can happen to siblings when the controlling influence of Mom and Dad ends. Often a power vacuum can develop, and when *no one* is in charge *everyone* is in charge, speaking with competing voices. In some cases, it can deteriorate to a "Mom always liked you best" tone.

My family's case also shows that disputes can occur even when a will is in place. A will may specify how assets are to be distributed legally, but it does not deal with residual emotions or someone's injured sense of equity.

Most important is that this dispute had long-term, multigenerational impacts. The siblings in my grandparents' generation were split over the situation. "I am never speaking to him again," I imagine was one possible response and our parents' generation directly witnessed the split and bad feelings as young adults. We in the next generation were told the history of the dispute (probably a one-sided story in many cases) and for many years the separation continued. The fires may not have been as intense, but tension continued from the long-term separation of family members. This gradually has been repaired over the years, but I realize much has been lost that never can be retrieved.

I tell this story of the Rasmussen family history because I know that a lot of people are facing or will soon be facing this issue. According to the USDA's 2012 Agricultural Census, the average age of established farmers is 61 years. Farmland has increased in value and families now are dealing with multi-million dollar portfolios of land that must change hands. If my grandparents' generation fought over thousands of dollars, there is certainly great potential for disputes when totals now reach into the millions.

My best advice is "Don't do it like my family did." Talk to each other, show mutual respect, maintain good working relationships, remember off-farm family members, seek expert advice or mediation and be ready to compromise. Also, realize and prepare for the day when Mom and Dad are gone and things could get tense. Planning now will help when that day comes.

Families that manage this process well should have an opportunity to continue to farm or stay connected to the land, if they choose. Those that fail to navigate the thorny process will suffer the fate of my family. It may mean that some are cut off from the land or must start over in farming, no easy task for any generation, then or now.

The other thing to remember is that these disputes also have long-term consequences which extend to the children and even grandchildren. In the end, everyone who has to deal with this must decide what's right for him or her, but looking back, I don't think a "victory" in court was worth the price we all paid.

Mark Rasmussen

See story on page 10 about Leopold Center support for a project designed to get families talking about this tough issue.

WORK BEGINS ON 2015 RESEARCH

GRANTS (continued from page 1)

first-year cost of \$371,125. Two grants will focus on prairies: the University of Northern Iowa's Tallgrass Prairie Center will create guidelines and a community of practice for prairie establishment and management, and an ISU research team will collect bird and pollinator data from established prairie STRIPS on private farms. Another project will study how landscape diversity affects native pollinators.

Marketing

Five new projects in the Marketing and Food Systems Initiative are receiving \$226,049 in first-year competitive grant funding. The ISU Community Design Lab will expand its successful Agricultural Urbanism Toolkit from three to six Iowa communities, and Global Greens Farm in Des Moines will offer a small-farm business incubator for recent immigrants. Other projects look at supply chain logistics, institutional markets, and working with nontraditional retailers to sell local food items.

Policy

The Policy Initiative is supporting two new projects at a cost of \$84,500. Investigators will develop a guide for county zoning issues related to local foods (a 2014 project examined municipal zoning issues). The Drake University Agricultural Law Center grant will help host four regional workshops and a two-day conference on conservation policy in Iowa.

Cross-Cutting

Five projects in the Cross-Cutting Initiative are receiving \$350,179 in competitive grant funding. Topics include organic dairies, extended rotations, tillage management in organic systems, long-term sustainability of growing miscanthus for biomass, and grazing systems for beef cattle.

Two research projects gain traction at Cedar Rapids airport

Recent developments at the Eastern Iowa Airport near Cedar Rapids highlight two projects that have received significant support from the Leopold Center: production of sustainable biomass and prairie conservation STRIPS.

"It's important for the airport to be a good steward of the land," said Eastern Iowa Airport Director Martin Lens. "Ultimately, we're a public asset, so it's important for us to partner with other community institutions and look at new and different ways to improve water quality."

The airport will be converting 63.6 acres of low-performing farmland to miscanthus production. Approximately five acres will be planted in native prairie for research associated with the STRIPS project at Iowa State University. Both the prairie grass in the STRIPS project and the miscanthus will be harvested and used at the University of Iowa power plant as a source of renewable biofuel.

"STRIPS and sustainable biomass production represent two important projects that the Leopold Center has provided research funding from the start, and has been keenly involved in since that time," said Leopold Center Director Mark Rasmussen. "We have supported these efforts because these practices have the potential to improve water quality and soil health, resulting in major change in the Iowa landscape. The information that will be collected at the Eastern Iowa Airport sites will help move these practices toward reality."

The airport owns more than 2,000 acres of farmland in Linn County and announced plans for this land use change in February.

ANOTHER PROJECT UPDATE ON THE WEB:
www.leopold.iastate.edu/spring-2015-grants

LEOPOLD CENTER 2015 NEW COMPETITIVE GRANTS

Ecology Initiative

- » Blurring the lines between working and conservation lands: Enhancing bird and pollinator habitat using prairie strips
- » Crop diversity effects on soil organic matter and nitrate retention in surface and subsoils
- » Impacts of landscape and on-farm diversity on abundance and health of bee pollinators
- » Improving soil health and water quality through better soil phosphorus assessment and management practices
- » Prairie contour strips: Demonstrating the importance of custom seed mix for biological integrity

Marketing & Food Systems Initiative

- » Agricultural Urbanism Toolkit Years 2 + 3
- » Building producer capacity for institutional food distribution
- » Increasing local food consumption in rural communities by partnering with non-traditional food retailers
- » Small-farm business development incubators for refugee farmers
- » Supply chain management for Iowa regional food systems

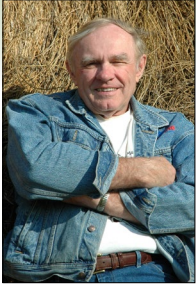
Policy Initiative

- » Protecting Iowa's land legacy: Soil and water conservation policy—past, present and future
- » Reducing local regulatory barriers to local foods Phase 2: Local foods and county zoning project

Cross-Cutting Initiative

- » Budgeting for organic dairying
- » Impacts of contrasting rotation systems and weed management regimes on weed dynamics and agroecosystem health
- » Linking soil and water quality with crop performance across a continuum of tillage and management strategies, Years 2 and 3
- » Long-term assessment of miscanthus productivity and sustainability (LAMPS)
- » Sustainably growing Iowa's beef herds: Evaluating systems that provide economic opportunities while protecting soil and water resources

DETAILS, GRANT AMOUNTS ON THE WEB: www.leopold.iastate.edu/grants/current



TOWARD A SUSTAINABLE

Future

From instant gratification to a hunger for connection

Henry Ford was born to the mission of personal productivity. Raised on a farm outside Detroit, he had absorbed the farmer's obsession for any tool or technique that let you get more bushels or other outputs from the same hour of labor, and he made that principle the centerpiece of his new company.

—Author Paul Roberts,

By now I suspect it is clear that we currently live in a culture which motivates each of us to focus our energies on our own personal interests with little or no concern for the common good. In his compelling new book, *The Impulse Society*, Paul Roberts describes this culture as a society of individuals driven exclusively by “mine and now” and obsessed entirely by the drive to achieve personal wealth and power.

Some of the roots of this culture in the United States are embedded in our history. As Roberts points out, Alexis de Tocqueville recognized this cultural reality among Americans almost 200 years ago. It was de Tocqueville who first noted that when Americans “freed themselves from a tightly controlled European culture” they were tempted to “focus entirely on individual pursuits and leave the greater society to look after itself.” Yet, Roberts says de Tocqueville also recognized that this “enlightened self-interest always rested on the premise that individuals truly saw their own interests as inseparable from the community’s.” It wasn’t until the 1970s that we began to pursue lives of instant gratification and lost our sense of cultural cohesion.

However, the notion that we must transform and dominate nature was embedded in a belief shared by our Puritan forbearers. They were convinced that they were sent here to build a new “kingdom of god” in this land, a mission that included transforming the “wilderness”—which they perceived as “the devil’s playground”—into agricultural farm land. Turn-of-the-century thinkers such as Liberty Hyde Bailey challenged the Puritan notion, saying that man has “no commission to devastate” and called for humans to have a relationship with the land. Such voices were sidelined by an enthusiasm to transform farming into a commercial business venture.

We seem to have convinced ourselves that this culture of instant gratification now has provided us with the best quality of life that we humans have ever known. However, most of the facts suggest otherwise. Psychological studies, like those reported in Tim Kasser’s book, *The High Price of Materialism*, point out that since we have embedded ourselves in this culture of “mine and now,” rates of depression, anxiety and suicide have all gone up dramatically. Furthermore, Marjorie Kelly reminds us that the “extractive economy” which has emerged out of our “mine and now” culture increasingly is becoming dysfunctional and that a new “generative economy” focused on enhancing the “common flourishing of life” is now beginning to emerge.

Of course, this culture of “mine and now” has not only eroded the quality of our personal and economic well-being but also shaped much of our agriculture.

Before the 1970s our agriculture—despite Henry Ford’s narrow focus on maximum efficient industrial production for short-term

economic return—was shaped largely by “community” interests. Farmers were deeply interested in healthy, local communities that provided many of the public services that supported their farm operations. Neighbors were interested in seeing each other succeed for the common good. Inputs mostly were purchased from community suppliers and production was sold to local vendors, which sustained their rural communities.

With emergence of the 1970s “mine and now” culture, neighbors began to see each other as competitors forced to operate in an economy where each had to find ways to extract as much wealth as possible from their land and communities for themselves. Consequently, we live largely in “you are on your own—grab what you can” economies. And if the health of the ecological community is harmed by what we do, that is just the way things are. Furthermore, we now largely insist that we each have the legal right to use our property as we wish, regardless of any harm it may cause others.

However, I think that Paul Roberts and Marjorie Kelly are correct. This instant gratification culture rapidly is becoming dysfunctional, and in its place a new community economy is beginning to emerge. Community food initiatives are evolving in many parts of the industrial world where farmers and non-farmers collaborate as “food citizens” to create systems which serve both farmers and the community. In many parts of the developing world local, small-holder farmers are creating cooperative enterprises, such as *La Via Campesina*, in which land is not seen as a “commodity belonging to them” but as a “community to which they belong,” as Aldo Leopold so eloquently put it. Furthermore, these communities are beginning to operate on the principle that all people have a “right” to food and that food security can be achieved with ecological principles that enhance the self-renewing capacity of the land, rather than through expensive input systems that largely ignore land health (De Schutter 2010).

In the interest of a healthy culture and agriculture, a transition from instant gratification to a hunger for connection (to both people and land) will be essential in our not-too-distant future.

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De Schutter, Olivier. 2010. “Report Submitted by the Special Rapporteur on the Right to Food,” Human Rights Counsel; United Nations General Assembly.

New report shows food hubs emerging as economic force in Iowa

The first statewide study of food hub development in Iowa shows that food hubs play a significant role in Iowa's food economy. Thirteen food hubs purchased \$4.5 million in food from more than 450 Iowa farmers and supported 58 jobs.

That's just the revenue and jobs reported by only some of the Iowa food hubs identified in the study conducted by a group of local and regional food leaders and published by the Leopold Center. This study identified 16 food hubs and an additional 15 additional centers of food hub-related activity in Iowa.

With increasing demand for fresh, local foods, food hubs aggregate, market and distribute products from small and midsize farms so that large-volume buyers, such as grocery stores or schools, can buy local foods from family farms in the region. The U.S. Department of Agriculture has recognized food hubs as "critical links" in the success of farmers who want to take advantage of the economic opportunities from serving these new markets.

The Iowa food hub study began when Ag Ventures Alliance, a group of business investors based in Mason City, awarded a \$10,000 grant to members of the Regional Food Systems Working Group (RFSWG) to explore food hub activity in the state and, if warranted, suggest recommendations that would support further development of food hubs.

The project was led by Healthy Harvest of North Iowa local food coordinator Jan Libbey, former RFSWG coordinator Jessica Burt Fogarty, and Corry Bregendahl and Arlene Enderton from the Leopold Center. This team recruited a steering committee with representatives from the USDA, food hub managers, farmers and researchers to

guide the project. Support also came from the North Central Sustainable Agriculture Research and Education (SARE) professional development program.

Results are included in a new report, *Food Hub Development in Iowa: Lessons learned from a study of food hub managers and regional food coordinators*.

"Expansion of local and regional food systems has been linked to solutions that address some of our nation's most pressing social problems including economic and rural community development, obesity prevention, family farm preservation, food security and environmental protection," said Bregendahl, one of the report's authors. "However, local foods may not be readily available, with high-income families often enjoying the easiest access. Food hubs are viewed as an important way to bring local foods from the farm to the table for everyone."

The report shows that most food hub activity is concentrated around the Des Moines metro area and along major arterials serving the Cedar Falls, Cedar Rapids and Iowa City urban markets. At the same time, farmers in northeast Iowa near Decorah and southeast Iowa near Fairfield provide products that are distributed locally and beyond to urban markets eager for Iowa-grown food.

Food hubs join a parade of local food work that has been unfolding across Iowa since the late 1990s in the form of farmers markets, farm to school programs, Community Supported Agriculture enterprises, community gardens, food policy councils, urban farms and more.

The new study gathered data on financial performance, structure and operations from 13 of 16 food hubs initially identified by the steering committee and regional food coordinators throughout the state. Nearly \$5 million in local food revenue passed through those food hubs. If the sample businesses were representative of all 31 food hubs and centers of food hub-related activity in the state, Iowa food hubs could

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More about food hubs:
www.leopold.iastate.edu/food-hubs

Get the food hub report:
www.leopold.iastate.edu/2015-food-hub-report



Photo courtesy Carla Jaquet

The Quad Cities Food Hub operates this Veggie Mobile.

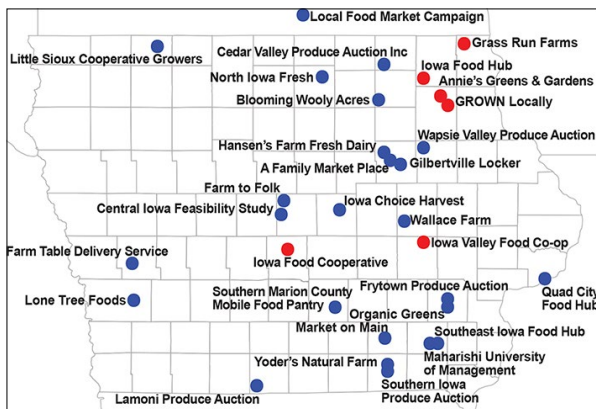
be handling more than \$10 million of locally grown food in the state.

Project leader Libbey, who coordinates a local food group covering a nine-county area in north central Iowa, says food hubs could be a driver for economic development, but they are still in their infancy in Iowa.

"Identifying these food hub businesses and getting a better understanding of their status can help bring resources to support their development and garner the attention of funders and policy makers to recognize food hubs as a critical local food strategy in Iowa," she explained.

The study included two surveys—one of food hub managers and a second with local food coordinators—completed in October. Food hub managers and steering committee members reviewed survey results and met with a larger group to determine recommendations that will help support development of food hubs in Iowa.

Among the recommendations is the need for more detailed information about producers who may be interested in participating in a food hub and are ready to scale up production for larger markets. Other recommendations include the need to form a food hub manager working group to better explore strategic cooperation, and the need for continued work toward business goals.



Food hubs and food hub-related activity identified by USDA and survey participants.

Agricultural urbanism project helps create sustainable Iowa communities

By STEFANIE TROUT, Leopold Center Graduate Communications Assistant

Cedar Rapids, Cresco and Des Moines residents will soon enjoy new places to get local food—like edible landscapes, food boxes and community gardens—as their Agricultural Urbanism Toolkit projects move from the planning phase into implementation.

The Agricultural Urbanism Toolkit is a process directed by the Iowa State University Community Design Lab and funded by competitive grants from the Leopold Center's Marketing and Food Systems Initiative. A recently completed one-year grant to get the project started in three pilot communities has been renewed for two more years.

The new, two-year grant will support the implementation of projects prioritized by the pilot communities while establishing the program in three additional Iowa communities through an application process. The Community Design Lab will announce selections in May.

The Agricultural Urbanism Toolkit involves a four-stage process that includes community capacity-building, research and analysis of existing conditions, design, and implementation of each community's chosen tactics.

Courtney Long is Design Fellow with the Community Design Lab and a member of the local food team coordinated by the Leopold Center and ISU Extension and Outreach. She recently hosted a webinar about the process, assembled a brochure with best management practices in the Agricultural Urbanism Toolkit, and has been sharing information about the process at state and national conferences.

"There is a lot of interest from statewide and local leaders," Long says. "This project is being seen as a model that can be transferrable within and outside of Iowa."

The three pilot communities demonstrate the diverse approaches available for agricultural urbanism. Each group prioritized short-, medium- and long-term goals that build on existing resources to meet community needs.

Cedar Rapids

"As a community, Cedar Rapids has been doing a lot of work on agricultural urbanism since our city flooded in 2008," explains Stephanie Neff of the Blue Zones Project®. "We identified some opportunities but didn't have the technical capacity to execute them on our own; these projects wouldn't have moved forward without the Community Design Lab's help."

The Community Design Lab helped the Cedar Rapids Food Environment Alliance rank projects that would have the biggest impact on expanding community access to local food. They prioritized projects that drew upon available resources and existing momentum, would be visible in the community and provided learning opportunities.



This garden at St. Wenceslaus Church in Cedar Rapids is an example of a faith-based garden growing produce in partnership with Feed Iowa First.

Photo courtesy Courtney Long

Their short-term goals are to create a faith garden network, edible landscape on the campus of Coe College, and an urban orchard in collaboration with area school districts that comprise Iowa BIG. Long-term goals included a shared-use kitchen and an urban farm.

Cresco

Cresco is a rural community focused on building the capacity to eat local year-round. "The Agricultural Urbanism project and the ISU Design Lab were so highly recommended by our local and regional ISU Extension partners that it was a no-brainer to get involved in the pilot phase," says Jason Passmore, Executive Director of Howard County Business and Tourism.

"The community had not gone through a process like this in their recent history, so all ideas were on the table, and synergies started to materialize. The process that Courtney and her team led the group through made it easy for us to prioritize tactics."

Cresco's short-term goals include a values survey, public edible landscape, and a program where people can pick up pre-packed boxes of local food at their workplaces. Their medium-term goal is to build partnerships between school and faith-based gardens. Long-term goals include expansion of the Norman Borlaug birthplace and boyhood farm west of Cresco, a business analysis for a shared-use kitchen, and creation of a local food coordinator position.

Des Moines

Before partnering with the Community Design Lab, Eat Greater Des Moines already was implementing several of the tactics outlined in the Agricultural Urbanism Toolkit. "The toolkit seemed like a great way to expand our existing partnerships and address some of the gaps in our local food system," explains Eat Greater Des Moines director Aubrey Alvarez.

For example, faith-based and school gardens already were a part of the community, but backyard gardening wasn't. "The toolkit is complementing the work we are already doing and making sure the

different groups we work with have the support they need so all the projects can move forward."

The short-term goals for Eat Greater Des Moines include an awareness campaign and collaboration with community partners in the city to create workshops and manuals specific for Des Moines—including manuals for shared-use kitchens and backyard and community gardens. Looking a bit further into the future, they plan to create a public edible landscape and conduct a food box aggregation distribution analysis. The long-term goals are to create an urban farm and conduct a greenhouse analysis study.

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Agricultural Urbanism Toolkit, Year 1:
www.leopold.iastate.edu/grants/m2014-03

Agricultural Urbanism Toolkit, Years 2+3:
www.leopold.iastate.edu/grants/m2015-12

SHARED-USE KITCHEN WILL SUPPORT FOOD ENTERPRISES IN DES MOINES

SHARED-USE KITCHEN (continued from page 1)

“The whole idea is that, as a state and as a community, we need to figure out what we need to have in place in order to feed ourselves—and feed ourselves well—over the long-term while simultaneously building jobs, businesses and communities,” says Huber.

Last year, Leopold Center Program Assistant Alice Topaloff assembled a *Shared Use Kitchen Planning Toolkit*, a how-to guide for starting a shared-use kitchen. Her research into the background of shared-use kitchens indicates a rapidly increasing demand for shared kitchens in the United States: “There were a dozen such facilities in 1999 and more than 130 just 15 years later.”

This new demand for shared-use kitchens stems from increasing consumer demand for locally produced and processed food. Entrepreneurs are launching new food businesses every day. But there are a lot of risks associated with starting a food business, too.

“Food businesses are among the riskiest forms of entrepreneurship because they must deal with changing consumer tastes and, typically, earn slim profit margins,” writes Topaloff.

Shared-use kitchens help minimize the risk associated with starting a new food business or expanding an old business into the food sector by making affordable what might otherwise be a cost-prohibitive requirement—a commercially licensed kitchen.

“Shared-use kitchens are a solution to a problem,” Huber explains. “They reduce the risk to small business owners and enhance our communities. They are coming from people saying ‘We would

love to have this. We need it. We could use it. We will use it.’ The shared-use kitchen is tangible in the way it enhances the community’s ability to feed itself.”

Knowing that the demand is there is critical for starting a shared-use kitchen, which often relies on a small number of anchor tenants who use the space a lot. Huber anticipates that once the kitchen is launched, 80 percent of its use will come from 20 percent of the tenants.

Already, the shared-use kitchen being developed at the Mickle Center has garnered interest from diverse types of tenants. “We have everything from caterers to food truck owners to small entrepreneurs who sell at farmers markets,” says Porter. One thing they all have in common is their passion for food-related enterprise and a need for a commercial kitchen.

The Leopold Center grant helped Porter and Huber conduct market research and evaluate the technical, organizational and financial feasibility of the kitchen. “There are so many variables involved, from space, use, equipment, and how to operate—all in keeping with the public requirements for food,” Porter explains. “The Leopold Center support was essential for us to get a better understanding of what it takes to operate and open a community kitchen.”

 www.leopold.iastate.edu

More about this grant project:
www.leopold.iastate.edu/grants/m2012-06

The Mickle Center’s website:
www.micklecenter.com

The researchers hope that their work will serve as an example for others who might look to open shared-use kitchens in their communities.

Since the final report for the competitive grant was completed in December 2014, the project has moved forward with drafting a business plan, talking to contractors who will help with the construction necessary to bring the kitchen up to modern codes and securing a kitchen operator and anchor tenants. All of these pieces need to be in place before the NIC can invest the \$300,000 estimated costs to upgrade the facility. Their plan is to have the kitchen open for use by this fall.



Photo courtesy Gary Huber

A view of the kitchen



Photo courtesy Dwight Lykins

Fresh chick pea hummus with green onion and cayenne pepper is a popular toast offered for private catering and will be available on the food truck this summer.

A toast to local food enterprises

One potential tenant for the Mickle Center’s shared-use kitchen is Dwight Lykins, a 23-year-old entrepreneur from Altoona. Lykins was recently elected President of the Legion of Food, a newly-formed mobile food association in Des Moines.

After graduating from the Northwest Culinary Academy of Vancouver, Lykins returned to Iowa to start his own company, Let’s Toast, which began as a small catering and consulting business in 2013 and will be launched as an island-themed tapas food truck this summer.

“Let’s Toast provides a fresh, healthy breakfast and snack option in parts of the city where food might not be readily available,” says Lykins. “We also will be working with the Legion of Food to help the community by offering new creative dining options to a wide range of customers all over the city.”

Access to the shared-use kitchen will allow Lykins and other vendors to safely dispose of waste, to access commercial grade equipment that would otherwise be unaffordable, and to serve a larger volume of customers.

Special project shows high-value grass-finished beef in Iowa is feasible

By STEFANIE TROUT, Leopold Center Graduate Communications Assistant

Despite increasing consumer interest in grass-finished beef, adoption by Iowa farmers so far has been limited. This is due to the difficulties associated with consistent production of USDA Choice beef from forage-fed cattle, especially in northern latitudes. But we could see a change with more Iowa producers raising grass-finished beef.

A pilot project at Iowa State University's Armstrong Research farm near Lewis demonstrated that, despite only having six months for cattle to graze, grass-finishing high-value beef in Iowa is feasible thanks to technology that can help farmers supply something many consumers want.

"The study showed that through genetic selection and sufficient pasture management, it is possible to graze Angus cattle in one season and achieve a quality product," says Peter Lammers, who was the principal investigator on the project. Lammers is Assistant Professor of Animal Science at Illinois State University in Normal, Illinois.

The research was supported by the Leopold Center through a Director's Special Project grant issued in 2012 under the leadership of Mark Honeyman, who was interim director of the Center at the time.

This project is different from other studies of grass-finished beef in several ways. For one, studies on pasture-raised beef rarely are done this far north, where seasonal climate limits the time available for foraging to approximately six months.

Another distinctive part of this project was that the researchers used cutting-edge ultrasound technology to measure intermuscular fat at the beginning of the study. Taking these measurements helped them select heifers with the potential for high marbling. When both the grass- and grain-fed cattle had similar high-marbling potential, the development of intramuscular fat could be compared from a common baseline.

A third unique aspect of his project is that "in other studies of grass-finished beef, it's rare to grade cattle at the end," Lammers explains.

In this way, the research allowed him to examine the extent to which cattle finished on

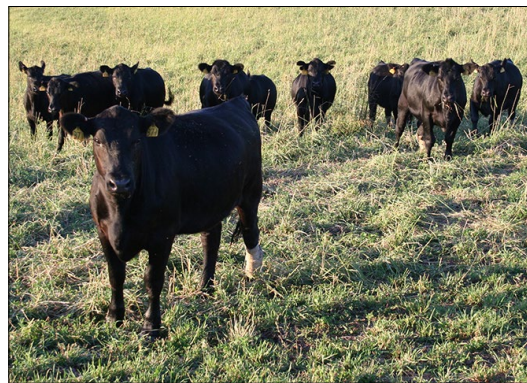


Photo courtesy Bernard Havlovic

Cattle graze on the pasture at Iowa State University's Armstrong Farm in Pottawattamie County. The tape on the animals' lower legs holds pedometers in place so the daily number of steps taken by the grass-fed heifers could be compared to that of the grain-fed group.

Leopold Center's first director writes memoir

It took me many, many years to fully appreciate the idea of farmland as a community that involves each of us. No wonder it's called "The Heartland," writes Dennis Keeney in his new memoir, *The Keeney Place: A Life in the Heartland* (2015 Levins Publishing).

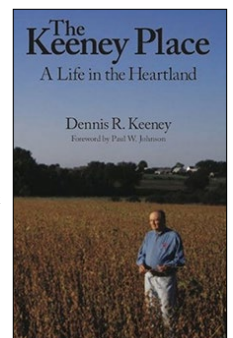
In 112 pages, Keeney takes readers on a journey—from his family's small farm near Runnells in Polk County, to classrooms and research labs where he became a nationally-known soil scientist, and finally to Iowa State University where Keeney built the Leopold Center's international reputation as its first director. The journey, he writes, was one of "understanding the true meaning of agricultural change."

The connecting thread for many of his experiences, Keeney discovered, was Aldo Leopold's land ethic.

Keeney is emeritus professor of Agronomy and Agriculture and Biosystems Engineering at ISU. He has degrees in Soil Science from ISU and the University of Wisconsin-Madison, and was on the Soil Science and Water Chemistry faculties at UW-Madison from 1966-1988. He served as director of the Leopold Center from 1988 until his retirement in 2000. He is past president of the Soil Science Society of America and the American Society of Agronomy and is a Fellow of the American Academy for the Advancement of Science.

Recently, he has held positions as Senior Fellow for the Institute for Agriculture and Trade Policy in Minneapolis and Visiting Scholar at the Center for a Livable Future at Johns Hopkins University.

Paul Johnson, former head of the USDA's Natural Resources Conservation Service and an author of the Iowa Groundwater Protection Act that created the Leopold Center, wrote a Foreword to the book. It is available from Itasca Books at this website: www.thekeeneyplace.com.



www.leopold.iastate.edu

More about this grant project:
www.leopold.iastate.edu/grants/dsp2012-02

Iowa pastures can fit in with a USDA grading system designed around grain-fed cattle.

The fact that Lammers could produce USDA Quality Grade Choice beef in one season on grass alone is a good sign for farmers who are seeing increasing demand for what has formerly been considered a niche meat product. But there is still more work to be done in the area of pasture-raised beef research.

The next steps for the project include looking for a mechanism whereby producers can select high potential cattle without knowing their genetic background. Lammers explains that the past decade has seen "a wealth of genomic work in cattle raised on feedlots," but researchers have yet to settle on an objective measure for producers of grass-fed beef.

Though the initial grant focused on the production side of raising cattle on pasture, the project also is considering the bigger picture.

"Grass-fed beef is a good way to market grass," says Lammers. "Growing perennials is positive for water quality. If we can make it more economically attractive, we will also reap environmental and social benefits."

Performance, visual arts spark difficult conversations in agriculture

By LAURA MILLER, Newsletter editor

Lights dim, the curtain opens, fidgeting and coughs from the audience stop. People settle down for an evening of entertainment, followed by a lively discussion related to—nutrients and water quality? Land tenure?

Correct on both counts. The Leopold Center has supported two recent projects that use the performing arts to communicate critical issues related to agriculture. The result has been an amazing connection with audiences, and conversations that extend well beyond the events themselves.

In May 2014, the Leopold Center approved a \$1,000 request from Practical Farmers of Iowa (PFI) to support the premiere and five other performances of “Map of My Kingdom,” a play written by Iowa Poet Laureate Mary Swander about farmland transfer. In October 2014, the Leopold Center approved a \$1,000 grant for Luther College professors in dance and biology to collaborate on a multi-media project, “Body of Water,” performed on the campus in Decorah March 5-7. Both grants are part of the Leopold Center’s Competitive Educational Support Program (CESP).

“These are wonderful examples of how the arts can play a pivotal role in communicating about agriculture,” said Leopold Center Distinguished Fellow

Fred Kirschenmann, who is a member of the CESP committee that reviews grant applications. Kirschenmann and Swander also founded the ISU student organization, AgArts, to explore the intersection of the arts and agriculture.

Teresa Opheim, PFI executive director, said her board thought a play about farmland transfer would be a good way to call attention to the issues, and get families talking about what happens after Mom and Dad are gone.

“We are on the cusp of a monumental farmland ownership transfer and unfortunately, many sustainable farmers will lose their farmland during this transition due to a lack of careful planning,” she said.

In the play, character Angela Martin, a lawyer and mediator in land transition disputes, shares stories of how farmers and landowners have approached their farmland transfers. Some families struggled to resolve the sale or transfer of their land, dissolving relationships in the process. Others found peacefully rational solutions that focused on keeping the land—and the family—together.

“Land is the thread that binds all the stories together,” Opheim added. “We think this play resonates with those who have been or are working through challenging land transfer issues. We also hope it helps others start those critical conversations.”

The play premiered July 12 in West Branch, with subsequent performances in Decorah, Chariton, Red Oak and in Ames at PFI’s annual conference. The five shows had a combined attendance of almost 700 people, and more performances are scheduled as well as workshops to help farm families develop succession plans.

The second project brought together students of Luther biology professor Jodi Enos-Berlage and dance professor Jane Hawley to explore water—celebrating its sacred and challenging aspects as it relates to usage and quality. Intwoven with dance, colorful sets and costumes were video interviews about water with local farmers and others in the community. A pre-performance exhibit highlighted water-monitoring efforts and other research in the Dry Run Creek Watershed surrounding Decorah.

“The audience and response have been overwhelming,” Enos-Berlage said. “Every show after Thursday sold out, with waiting



Photos courtesy Brittany Todd

Above: Deveny Miles and Christie Owens perform in “Body of Water.”
Below: Cast members.



Photos courtesy Practical Farmers of Iowa.

Above: Actress Madeleine Russell performs at PFI’s annual conference.
Below: Mary Swander leads a discussion at the premier of “Map of My Kingdom” in West Branch.



lists of 50 people. The audience was one of the most diverse ever for a Center for the Arts performance at Luther. We had farmers, urban residents, scientists and artists, students and community members.”

She estimated that about 700 people attended the four Body of Water performances. Numerous community members contributed to the videos and discussions following each performance, and the program included a “Water Pledge” that audience members could follow. The College is producing a documentary of the performance, and hopes to present it in June at Grinnell College’s arts and sciences Summerfest event.

“So many have voiced that the work touched them emotionally, with multiple points in the piece bringing some audience members to tears,” Enos-Berlage said. “In the talk-back Friday night, one person said how special it was for her to truly understand how water functioned in her body, cells and blood, and as a result,

ARTS (continued on page 11)

Two conservation leaders join Leopold Center advisory board

An environmental economist and a northern Iowa tree farmer have joined the Leopold Center's Advisory Board. They are Cathy Kling, director of the Center for Agricultural and Rural Development at Iowa State University, and Jody Kerns, a farmer and small business owner from Edgewood.

Both bring conservation expertise to the board and have been recognized nationally for their work.

Cathy Kling

Kling is the Charles F. Curtiss Distinguished Professor of Agriculture and Life Sciences and a professor of economics at Iowa State University. She

is one of three ISU representatives on the Leopold Center Advisory Board.

Kling is the board's in-house expert on the costs and impacts of conservation practices, having collaborated with the Leopold Center nearly a decade ago on this topic. In 2007, she led a landmark study supported by the Leopold Center that estimated the cost of conservation practices in Iowa. The following year, she coordinated a statewide conference for the Leopold Center to examine strategies for addressing hypoxia in the Gulf of Mexico.

Recently, she participated in a national assessment related to Gulf hypoxia published by the National Academy of Sciences. To reach a national policy goal of reducing the size of the hypoxic zone would require a \$2.7 billion investment annually.

"I was first struck by how small actions in thousands of agricultural fields could collectively contribute to such a large problem area," she said. "The more I learned the more I realized that this is the end result of a problem affecting streams, rivers, and lakes throughout the Midwest, and that the tools of my trade could help



frame some of the issues for policymakers and the general public."

She grew up in Bettendorf, with easy access to the Mississippi River. "My dad was an active outdoorsman so we had many opportunities to go hiking, fishing and ice-fishing, which was very important to me," she said.

She believes the Leopold Center brings people from diverse backgrounds together to discuss common problems. She said the Center can be a "voice for alternatives" as Iowans decide how they will manage increased production while balancing environmental costs.

Kling and her husband, Terry Alexander, also an ISU economist, have two children, Danny and Maggie. She has a bachelor's degree in business and economics from the University of Iowa and a doctorate in economics from the University of Maryland. Prior to coming to ISU in 1993, she worked in France and the University of California-Davis.

Jody Kerns

Kerns is one of two people who represent the State Soil Conservation Committee on the Leopold Center Advisory Board. She succeeds Jennifer Steffen, who had served on the board since 2004.

Although new to the board, Kerns is a familiar face in many conservation circles. She is beginning her 12th year on the State Soil Conservation Committee, which she also chaired for two years. An active community volunteer, she has been a member and served in leadership roles on the Iowa Tree Farm Committee, the Iowa Woodland Owners Association and Pheasants Forever. She is a farmer partner with Iowa Learning Farms.

Jody and husband Jim began their conservation journey early in their 31-year



marriage when they bought 40 acres as an investment. The farm had cropland, pasture and timber on it, which Jim farmed for a few years. After attending a forestry field day, they decided to let the walnut seedlings mature in their pasture and enroll 15 acres in the Conservation Reserve Program to grow red oak, white oak, hickory, walnut, ash and red and white pine.

Now they own and operate a 620-acre farm, of which 300 are managed as woodlands. Jim operates a family business, Edgewood Locker, which does custom processing and deer processing, along with a large retail business, full-service catering and an event center. Jody works as a radiologic technologist specializing in mammography, and is religious education director at their church.

The Kerns were named Iowa Tree Farmers of the Year in 1997 and were National Outstanding Tree Farmers in 2001.

Trees also are important in the life of their family, with plantings to mark the birth of each of their six children, ages 9 through 25 years.

"I tell my kids that the trees are our IRA investment," Kerns says. "Unlike other retirement accounts, we get to enjoy and use our investment, hunting and playing outdoors."

Trees form an outdoor classroom for not only their family but also students in the local school district and other landowners. They host several field days every year for students and adults, and a nine-week high school environmental science course is conducted on their property each fall.

"I have a strong philosophy that educating children in conservation is key to educating adults," she says. "I continually see this in the parents who attend field days with their children."

Kerns said she knows about the Leopold Center's work and is looking forward to her term on the board. "I like new challenges and opportunities. I hope my unique background and many different life experiences will provide a valuable insight to the board," she said.

PERFORMANCE, VISUAL ARTS SPARK DIFFICULT CONVERSATIONS IN AGRICULTURE

ARTS (continued from page 10)

her sensitivity to water resources is now much more personal, meaningful and applicable."

She said this project demonstrates the power of liberal arts to bring people together to find solutions through collective action.

Dancer Deveny Miles also participated in a "bridge" project to talk about water with community members.

"We are working together to form bonds within the community, similar in a way to oxygen and hydrogen atoms that bond together to create water molecules," she wrote. "Only by extending our hands and knowledge to create our own hydrogen bonds with the bodies around us can we hope to permeate the world with goals of betterment for all beings."



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FOR SUSTAINABLE AGRICULTURE
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Highlight Events

April 8

New York chef and author Dan Barber will present the Shivvers Memorial Lecture at 7 p.m. in the Sun Room of the ISU Memorial Union.

April 22

The quarterly meeting of the Regional Food Systems Working Group at the Hansen Agricultural Learning Center in Ames includes a half-day grant-writing workshop.

May 31-June 3

The Leopold Center and the Mid-American Agroforestry Working Group are among the planners for the 2015 North American Agroforestry Conference in Ames.

Field Days and Pasture Walks

Be sure to check the Leopold Center calendar for details about field days planned by our partners including Iowa Learning Farms, Practical Farmers of Iowa and ISU Research and Demonstration Farms.



Honoring two leaders

Steve Berger and Leigh Adcock (center) received the Spencer Award for Sustainable Agriculture on March 2 during the annual Iowa Water Conference. Presenting the awards were Leopold Center Advisory Board member Bill Ehm (left) and Director Mark Rasmussen. Nominations for the 2015 award are due June 8.

More details, events

Check the Leopold Center web calendar:
www.leopold.iastate.edu/news/calendar

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Your response will help us keep our mailing lists current. We look forward to hearing from you!

Sincerely,

Mark Rasmussen