



**Mission Statement**  
The Iowa Learning Farm promotes efficient agriculture production systems that result in agronomic, economic, and environmental improvements through increased awareness and adoption of conservation systems and ethics.

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## Iowa Learning Farm premieres new videos

The Iowa Learning Farm has produced a series of five new videos intended to inspire viewers to build a Culture of Conservation in Iowa. The Iowa Learning Farm project was launched in 2005 with a goal of encouraging all Iowans to actively protect and preserve our precious soil and water resources. The new videos are intended to rekindle viewers' respect, love, and desire to conserve our natural resources.

ILF assistant project manager Jacqueline Comito received a Soil and Water Conservation Districts (SWCD) Initiatives grant from the Iowa Department of Agriculture and Land Stewardship to produce the videos, which will be released in November.

The videos can be shown individually or collectively, and each video is approximately seven minutes long. The viewer does not need to see one to understand the next. All carry a specific, individual message. The five videos are:

- “Don’t Call it Dirt: A Passion for Soil”— how soil is used and ways to improve soil quality;
- “The Work of Our Hands”— discusses the relationship of societies and agriculture, historically and today;
- “Water is Life”— the importance of clean water for people, communities and Earth;
- “We All Have a Place in the Watershed”— defines watersheds and how humans interact within them;
- “A Culture of Conservation: Reclaiming Stewardship”— highlights several Iowans who are working to achieve this goal.

The videos are exclusively Iowan—words, images, music and personnel. Video production is by Jon Anderson with ISU Extension Marketing and Communications. Comito served as head script writer with contributions from ISU Extension water quality engineer Matt Helmers, ISU associate professor and Heartland Regional Water Initiative leader Lois Wright Morton, and Heartland Regional Water Initiative project coordinator Jean McGuire, and the entire ILF team.

The music in the videos was composed by Ann Staudt, a native Iowan originally from Floyd County. Staudt, along with the musical group Joyful Hearts, were inspired by the themes and images of Iowa that are presented in the videos.

The videos will be distributed to each Iowa SWCD office as well as other offices

...VIDEOS continued on page 3



## Building a Culture of Conservation



[www.extension.iastate.edu/ilf](http://www.extension.iastate.edu/ilf)

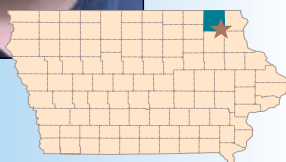


LEOPOLD CENTER

IOWA STATE UNIVERSITY  
University Extension



Paul Hunter



### Producer Profile

Winneshiek County resident Paul Hunter grew up on a farm. As farms go, it is fairly young—his grandparents purchased it in 1973—but Paul represents the third generation to work the land there. Paul began farming with his dad in 1997 after earning a degree from Iowa State University.

Hunter has the distinction of being the youngest cooperator with the ILF project. His demonstration site compares no-till with chisel plow.

He has a diverse operation with 1,000 acres in corn, soybeans and hay; and a cow-calf operation. He also has 40 acres for organic corn and soybeans. The soybeans are sold to an organic soy milk company. His organic corn goes to a local egg producer. Although a no-tiller on the rest of his acres, Paul sees the marketing and income potential with his organic crops. “I’m bothered by the tillage and erosion issues that come with organic farming, but I hate erosion.”

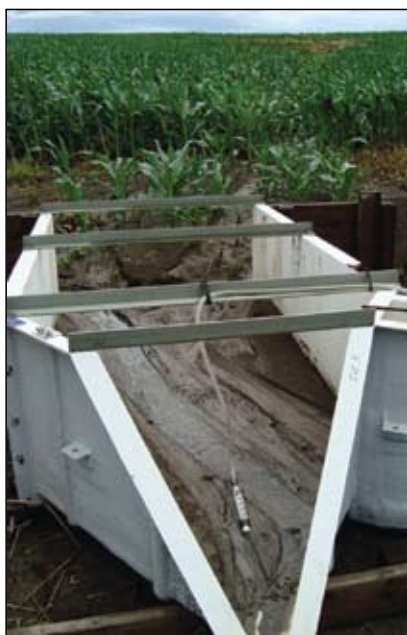
Paul is busy with two young boys and is a member of Farm Bureau, Iowa Corn Growers Association, Iowa Soybean Association, and is on the board of directors for Opportunity Homes, helping individuals with disabilities to live on their own. He also is involved, through his local church, with the Food Resource Bank, a nationwide project to help African farmers grow their own food.

## Long-term study mixes perennials, annuals

By Laura Miller, Communication Specialist  
Leopold Center for Sustainable Agriculture

Prairies in the Neal Smith National Wildlife Refuge quickly give way to what might be expected in July in central Iowa: an emerald ocean of corn as far as one can see. However, like grass missed by a lawn mower, a few patches catch the eye. These patches are not an oversight or poorly drained areas that need to be replanted. They are strategically placed prairie strips that are part of a multi-year Iowa State University project supported by the Leopold Center Ecology Initiative.

Leading the team are ecosystem ecologist Heidi Asbjornsen, Natural Resource Ecology and Management, and water quality engineer Matt Helmers, Agricultural and Biosystems Engineering.



*Flumes have been installed on 14 small watersheds within the Neal Smith Wildlife Refuge to measure the volume and rate of water flow during and after rainfall events.*

The goal is to mix perennials into a landscape dominated by annual crops to take advantage of the ecological services provided by perennials. Perennials can sequester carbon, provide wildlife habitat, protect soil and water and in the future be a source of biomass for renewable fuels.

The project involves 14 watersheds in Jasper County, ranging in size from 2 to 8 acres, all within the refuge and managed as restored prairie or for row-crop production by the U.S. Fish and Wildlife Service. Native grasses were planted in plots representing 10 or 20 percent of the total drainage area in each watershed, and placed at the bottom or midway up the slope. Researchers are taking numerous water quality measurements, including runoff volume during rainfall events, quality and depth of groundwater, and the amount of sediment, nitrogen and phosphorous leaving each watershed.

Baseline measures were taken in 2006, the prairie plantings were done in 2007, and 2008 marks the first full crop season for the project. Yet, researchers are beginning to observe differences, made more obvious by summer’s heavy rains.

“Our biggest rain event in June was 4 to 5 inches one morning,” Helmers said. “This resulted in significant runoff through our flow measurement flumes. In areas without prairie plantings, sediment was deposited 4-6 inches deep in our flumes. In contrast, we saw much less sediment in the flume from the watersheds with prairie plants, and observed sediment deposits at the upstream edge of the prairie plantings.”

During a three-month period from April to June 30, the average sediment loss from watersheds with no prairie strips was 8.5 tons per acre, compared to an average one-half ton per acre sediment loss on the watersheds with prairie plantings. The period included 10 runoff events that produced measurable sediment loss.



Before field experiments began, researchers met with farmers and local stakeholders, including government agencies, producer groups and environmental organizations. This advisory group has helped researchers in design and management of the experiment so that findings will be most meaningful and applicable to those who could use the results.

“We realized from the start that unless our research addresses concerns and priorities of people who make decisions on the ground, it will be difficult to promote agricultural systems that include perennial plants,” Asbjornsen said. “This stakeholder group has provided valuable suggestions and a local farmer has been active in helping us manage the sites.”

The Leopold Center provided an initial planning grant and current five-year operating grant. Other major funders include the ISU College of Agriculture and Life Sciences, National Science Foundation and the U.S. Forest Service. The project is guided by a Stakeholder Advisory Committee comprised of representatives from 15 institutions and organizations.

## New bioeconomy project underway

The Leopold Center for Sustainable Agriculture and the Iowa Learning Farm are coordinating a three-year project that focuses on cellulosic biomass management. Iowa State University was a recipient of a federally-funded Conservation Innovation Grant (CIG) through Natural Resources Conservation Service (NRCS) in June of 2007.

The grant, “Stewardship in the Bioeconomy: An Iowa Market-Based Model,” supports development of a profitable and environmentally-sound model for market-based pricing and procuring of biomass for cellulosic ethanol as well as residue management and removal. Through the grant, the Leopold Center and ILF will offer education and outreach opportunities to industry, farmers, crop consultants, and technical service providers across Iowa.



Harpenau

With the projected increase of cellulosic ethanol production facilities in Iowa, the demand for biomass will increase as well. Long-term environmental impacts to Iowa’s soil and water quality may evolve if precautionary steps are not taken during biomass removal. The grant will enable the development of a pilot program for farmers to implement environmentally and socially responsible procedures in biomass harvest.

New program assistant with the Iowa Learning Farm Erin Harpenau will be coordinating soil conservation education with farmers. Harpenau’s work will focus on soil and water quality concerns that may arise from biomass harvest for ethanol production and other uses.

A Remsen, Iowa native, Harpenau holds a bachelor’s degree in biology and a professional science master’s degree in ecosystem management, both from the University of Northern Iowa. Her project was with the Black Hawk Soil and Water Conservation District and focused on urban storm-water management and erosion in a state preserve.

She has been involved with other projects related to water and soil quality including serving as an intern for Iowa Natural Heritage Foundation, traveling the state as part of a team restoring prairies, oak savannas, and woodlands; and for the Conservation Foundation of Dickinson County coordinating IOWATER volunteers to sample the water bodies in Dickinson County.

## Stout receives Extension award

ILF Cooperator Rob Stout, Washington County, was honored at this year’s annual Iowa State Extension Conference, held in Ames Oct. 22-23.

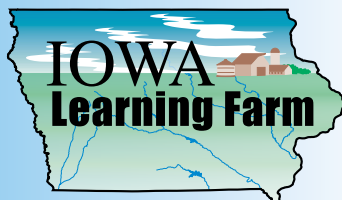
Stout received the Friends of Extension award, which was created to recognize outstanding contributions and support of Extension programs at the local, area or state level. Award recipients have shown continued leadership and support of Extension efforts. Stout has been involved with many different Extension projects over the years.

He was one of four honorees this year. Stout was nominated by County Extension Education Director Gene Mohling and the Southeast Iowa Epsilon Sigma Phi (ESP) awards committee. ESP is the national honorary Extension fraternity.



... **VIDEOS** continued from page 1 around the state, including NRCS and Iowa State Extension, beginning in December. Educators and community leaders who would like to receive a copy may contact the Iowa Learning Farm. Curriculum will be developed for middle and high schools, and community colleges for use in the classroom by fall 2009. The ILF team hopes that these videos will inspire dialogue and actions to help preserve our vital resources for now and for the future.

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## Farm Progress Show



The Iowa Learning Farm had two exhibits at this year's Farm Progress Show, held in Boone County. In addition to the rainfall simulator demonstrations, "Operation Strip-till" was located just outside the Iowa State University building. The exhibit drew many interested people as well as the curious. ILF Cooperators Dave and Gary Nelson were key organizers for the exhibit. A special thanks to Brokaw Supply for providing the strip-till machine that was on display. Dave had pulled it through the sod at the exhibit so attendees could see firsthand how the soil looks after it has been strip-tilled. Gary was on-hand throughout the entire show to answer questions and to explain the benefits of this practice.