

**Iowa Learning Farms Program  
11IFLM005  
Integrated Farm and Livestock Management Demonstration Program**

**Year-End Report  
January-December 2011**

**INTRODUCTION**

Wow! What a year 2011 was. Iowa Learning Farms staff has never been busier. But that busyness is being rewarded in the statistics that Iowa farmers are reporting. Early findings from 2011 follow-up evaluations show that farmers are making changes on their fields: 30,000 acres now have increased surface residue (no-till/strip-till) and over 1,500 new acres have cover crops!

With good attendance at all of our 24 workshops and field days, farmers are responding to the message that high quality soil is vital to sustained farming – now and for future generations. This year, ILF held more field days since the program began, beginning in March and wrapping up at the end of October; including an ILF-hosted field day every Wednesday in July.

The Conservation Station and Lil' CS were all over, teaching Iowans about soil and water quality. During RAGBRAI, people from around the world got to see the CS and enjoy some popcorn. There are lots of Conservation Pack members all over the state. Visits included county fairs, Fairfield and Cedar Rapids farmers' markets, festivals celebrating hot-air balloons, maize and water. ILF staff spoke to students in preschools, elementary, middle and high schools, community college, and their teachers, too.

This year, ILF started a webinar series to utilize a different resource for new audiences. ILF has deemed them successful with hundreds of views of the archived sessions. The topics have been timely, novel and very informative.

New resources this year include the video "Out to the Lakes" and the book *Water Quality Matters To Us All*. Both have been well received across the state.

A record number of events, 12 new webinars, a video, a book, new people reached, more acres with residue and cover crops – The momentum is shifting and Iowa Learning Farms is out front. We hope you keep helping us move from *building* a Culture of Conservation to *preserving* it!

--Lois Wright Morton  
*ILF Program Director*

--Jacqueline Comito  
*ILF Program Manager*

--Matt Helmers  
*ILF Administrative Manager*

<b>Field Days/Workshops= No. in Attendance</b>	<b>Meetings/Presentations= No. in Attendance</b>	<b>Educational Events: Conservation Station=CS Lil' CS=RS</b>	<b>Publications/Educational Materials=Distribution</b>	<b>Web Address/ Known Links</b>
Jan 19: ILF Webinar=25 (Comito)	Jan 7-8: Practical Farmers of Iowa Conference, Marshalltown=300 (Andrews, Brown)	March 29: (CS) Southwestern Community College, Creston, various elementary-high schools=217 (Comito, Staudt, Andrews, White)	<i>Wallaces Farmer</i> January 2011	
Feb. 16, ILF Webinar=33 (Chris Anderson)	Jan 10: ILF Communications Meeting	April 7: (CS) Benton Community Schools, Van Horne=39 (Benning, Andrews, Staudt)	<i>Wallaces Farmer</i> February 2011	
March 10: Cover Crop Workshop, Spencer=50 (Lundvall, Hanna)	Jan 15: Madison County Conservation Banquet, Winterset=120 (Comito, Staudt)	April 12: (CS) Ames High School=400 (Comito, Cruse, Benning, Andrews, White, Staudt)	February =ILF Winter Newsletter	
March 16: ILF Webinar =36 (Jeremy Singer)	Jan 21-22: Iowa Coalition of Conservation Educators Winter Solstice Conference, Moravia=100 (Comito, Staudt, Brown)	April 15: Orchard Place School, Des Moines=102 (Lundvall, White, Staudt)	<i>Wallaces Farmer</i> March 2011	
March 18: No-till/Strip-till Conference, LeMars=140 (Lundvall)	Jan 25: Presentation to State Soil Conservation Committee, Des Moines=40 (Staudt, Comito, Brown)	April 17: (CS) Waterbury Neighborhood Association, Des Moines=29 (Lundvall, White, Staudt)	February=Think Pieces: <i>Cellulosic Biofuels and Your Farm and The Language of Conservation</i>	
March 24: Cover Crop workshop, Rock Valley =35 (Lundvall)	Jan 26: Conservation Partnership Day, Des Moines=40 (Comito, Helmers)	April 19: Clarion-Goldfield 4 <sup>th</sup> Grade Water Festival, Clarion=66 (Comito, White)	March=How-To Videos: Cover Crops; Grassed Waterways; Manure	
April 5: No-till/Strip-till Workshop, New Hampton=35 (Hanna, Lundvall)	Feb 14: ILF Communications Meeting	April 20: (CS) Red Oak Middle School Conservation Day=250 (Andrews, White, Staudt)	<i>Wallaces Farmer</i> April 2011	
April 12: No-till Planter Workshop, Kirkwood CC, Cedar Rapids=51 (Hanna, Lundvall)	Feb 18: ILF Listening Session, Grinnell=11 (Comito, Andrews, Lundvall)	April 21: (CS) Watershed Management Class, ISU=60 (Andrews, Helmers, Comito)	<i>Wallaces Farmer</i> May 2011	
April 18: Strip-till Open House, Arlo Van Diest farm, Webster City=53 (Comito, Hanna, Lundvall)	Feb 22: ILF Listening Session, Wall Lake=14 (Comito, Andrews, Lundvall)	April 21: (RS) Humboldt 4 <sup>th</sup> Grade Outdoor Classroom=100 (Lundvall, White)	May-ILF Spring Newsletter With Field Day schedule insert	
April 20: ILF Webinar (Helmers)	Feb 24: ILF Listening Session, New Hampton=18 (Comito, Andrews, Lundvall)	April 22-May 5: (RS) Linn County 6 <sup>th</sup> grade Ag Tours, Marion=1,800 (Cedar Rapids Solid Waste staffed)	June-Cover Crops "Think Piece"	

May 18: ILF Webinar (Laura Christianson)	March 2: ILF Listening Session, Des Moines=13 (Comito, Andrews, Lundvall)	April 28-29: (CS) North Polk Elementary Schools, Alleman=348, Polk City=354 (Comito, Andrews, Newman, Staudt, White, Lundvall)	<i>Wallaces Farmer</i> June 2011	
June 1: ILF/PFI Field Day, Rob Stout Farm, West Chester=33 (Comito, Lundvall, White)	March 23: ISU Extension Ag and Natural Resources In-Service Exhibit, Ames=75 (All ILF staff)	April 30: (CS) Dickinson County Earth Day Celebration, Spirit Lake=72 (CS), 50+ (film screening) (Helmers, Comito, Andrews, White, Staudt)	June–Reprint of five ‘think pieces’, C-Dogs certificates	
June 14: Strip-till Open House, Arlo Van Diest farm, Webster City=64 (Andrews, Comito, Hanna, Lundvall)	March 23: ISU Extension Ag and Natural Resources Livestock Specialist presentation, Ames=10 (Lundvall)	May 4: (CS) Moulton-Udell Ag Day, Moulton=145 (Andrews Comito, Staudt)	<i>Wallaces Farmer</i> July 2011	
June 15: ILF Webinar (Michelle Soupier)	March 31: Meeker Elementary Science Night, Ames=80 (Staudt, students Juchems & Meerdink)	May 5: (CS) Audubon County 6 <sup>th</sup> Grade Ecology Field Day, Exira=64 (White, Lundvall, Staudt)	<i>Wallaces Farmer</i> August 2011	
June 17: ILF/PFI Field Day, Jeff Joyce farm, Ruthven=56 (Hanna, Lundvall)	April 7-8: Central States Anthropological Society Annual Conference, Iowa City (Comito)	May 6: (CS) Palo Alto 5 <sup>th</sup> Grade Conservation Field Day, Ruthven=107 (Helmers, Andrews, White)	<i>Wallaces Farmer</i> September 2011	
June 21: Strip-till Field Day, Mike Hermanson/Key Co-op, Roland=50 (Hanna, Lundvall)	April 14: ILF Steering Committee meeting	May 6: (RS) 2 <sup>nd</sup> Grade Field Day, Jodi and Jim Kerns farm, Edgewood=62 (Comito, Staudt)	“Out to the Lakes” video DVD and booklet	
June 22: Strip-till Field Day, Doug Nolte/Larry Schnittjer farms, West Liberty=55 (Comito, Hanna, Lundvall)	April 30, Dickinson County Earth Day Celebration, Spirit Lake, Screen Troubled Waters in two showings=19 & 27 (Comito, Helmers)	May 10-11: (CS) Mississippi River Fest, McGregor=350 (Andrews, Juchems, White)	“Water Quality Matters To Us All” book published	
June 23: CREP Wetland Tour, Adel=27 (Lundvall, White, Juchems)	May 6: ILF Communications team meeting	May 10: (RS) Poweshiek County 5 <sup>th</sup> Grade Field Day, Montezuma=112 (Christianson, Smith)	Reprints of No-till Planter DVD booklet	
June 28: CREP Wetlands Tour, Algona=20 (Andrews)	May 10: Agriculture Week, Keynote Speaker, Kansas City, KS=55 (Comito)	May 11: (RS) Clay County 6 <sup>th</sup> grade Outdoor Classroom, Webb=180 (Lundvall, Anderson, Meerdink)	<i>Wallaces Farmer</i> October 2011	

July 6: Silver Lake Watershed Field Day, Lake Park=44 (Andrews, Staudt, White, Steinweg)=	May 27: UNI IDM NPMS visioning session, DSM, IA=50+ (Comito)	May 12: (RS) Iowa Children's Water Festival, Ankeny=2000 (Juchems, Sloan, McMains)	<i>Wallaces Farmer</i> November 2011	
July 13: NE Iowa No-Till Field Day, Elkader=45 (Lundvall, Juchems, students Sloan, Anderson)=	June 15: EPA Region 7 Workshop, Honey Creek Resort=20+ (Comito)	May 14: (CS) Fairfield Farmers Market=55 (Staudt, Juchems, Meerdink)	<i>Wallaces Farmer</i> December 2011	
July 19: Harold Whipple Field Day, Lacona=120 (all staff)	June 15: Des Moines Teachers visit to ISU (Staudt, Juchems)	May 17: (CS) Pocahontas Co. 4 <sup>th</sup> Grade Conservation Ag Day, Pocahontas=93 (Staudt, Juchems, Sloan, Anderson)	Oct: Water Quality Book and Out to the Lakes to County Extension offices = 100	
July 20: Smeltzer Farm Field Day, Otho=45 (Lundvall, White, Juchems, Comito, student Meerdink)	June 28, Iowa Association of Agricultural Educators Conference, Ankeny=100 (Brown, Juchems)	May 19: (CS) Muscatine Co. Outdoor Classroom, Muscatine=52 (Andrews, White, Smith)	Oct: Water Quality Book and Out to the Lakes to SWCD offices = 100	
July 27: Randy Caviness Field Day, Greenfield=40 (Lundvall, Juchems, Helmers, Meerdink)	Sept. 7-8, Conservation Districts of Iowa annual conference; booth, CS, film premiere and book session=330 (all staff)	May 21: (RS) Izaak Walton Youth Field Day, Ottumwa=170 (White, Steinweg)	Oct: Fall Newsletter in mail and email	
Aug. 24: CREP Wetlands Tour, Nashua=54 (Comito, Andrews, Staudt)=	Sept. 17: 'Dogs, Frogs, and Nature Songs' children's CD launch concert, Ames=100	May 23-27: CS training for new interns, staff	Nov: Cover Crop, Manure Management and Grassed Waterways videos to County Extension offices = 100	
Aug. 25: Central Iowa Strip-till Expo, ISU Agronomy Farm=85 (Lundvall, Andrews)	Oct. 18: Iowa Academy of Science Teachers Fall Conference, Ames=75 (Comito, Staudt)	June 4: (CS) Don Williams Lake Festival, Ogden=91 (Helmers, Comito, Smith)	Nov: Cover Crop, Manure Management and Grassed Waterways videos to County SWCD offices =100	
Aug. 30: ILF/PFI Cover Crop Field Day, Kelly Tobin Farm, New Market=56 (Lundvall, Comito, White, Staudt)=	Oct. 21: Presentation to EPA Region 7, Ames = 5 (Helmers, Staudt)	June 11: (CS) Monticello Farmers Market=51 (Staudt, Sloan, Anderson)	Dec: Water Quality Book and Out to the Lakes to Ag and Natural Resource Legislative committees = 70	
Sept. 1: Drainage Field Day, Gilmore City=46 Helmers, Comito, Staudt, White)=	Nov. 3: Iowa Environmental Council Annual Conference, Des Moines=200 (Comito, Staudt, Brown)	June 20-24: (CS) Ames Bookmobile joint tour=327 total (All staff)	Dec: Water Quality Book and Out to the Lakes to ILF Farmer Partners = 65	

Sept. 6: Neal Smith Wildlife Refuge Field Day, Prairie City=30 (Helmers, Comito, Staudt, White)	Nov. 10: Radcliffe Garden Club, Radcliffe = 16 (Comito)	June 25: (CS) Mighty Howard County Fair, Cresco=130 (White, Steinweg, Smith)		
Sept. 8: Hickory Grove Lake Field Day, Colo=41 (all staff)	Nov. 29: Silver Creek Watershed meeting, Cresco=20 (Comito, Staudt)	June 29: (CS) Iowa Teachers Ag Academy, Marshalltown=39 (Juchems, Andrews, Smith)		
Sept. 14: Competine Creek Field Day, Pekin=39 (Andrews, Staudt, Benning, Lundvall)	Nov. 29: Yellow River Headwaters Watershed meeting, Decorah=12 (Comito, Staudt)	July 14: (CS) Central Iowa Fair, Marshalltown=63 (Staudt, White, Smith)		
Sept. 30: ILF/PFI Cover Crop Field Day, Sioux County=15 (Lundvall)	Dec. 1: Badger Creek Lake Watershed meeting, Winterset=12 (Comito, Staudt)	July 15: (CS) Dallas County Fair, Adel=45 (Andrews, Steinweg, Meerdink)		
Oct. 27: ILF/PFI Cover Crop field day, Jeremy Gustafson farm, Boone County=65 (Comito, Lundvall)	Dec. 13: Middle West Fork of Crooked Creek Watershed meeting, Washington=15 (Benning, Lundvall)	July 16: (CS) Cedar Rapids Farmers Market=150 (Andrews, Steinweg, Meerdink)		
	Dec. 15: ISU Extension and Outreach Ag Drainage Workshop, Iowa Falls=65 (Helmers, Lundvall)	July 16: (RS) Lake Red Rock Balloon Festival=65 (Juchems, Anderson)		
		July 21: (CS) Davis County Fair, Bloomfield=64 (Juchems, Sloan, Steinweg, Smith)		
		July 22: (CS) Adair County Fair, Greenfield=25 (Andrews, Anderson, Meerdink)		
		July 22: (RS) Buchanan County Fair, Independence=55 (Reid Christianson, McMains)		
		July 23: (CS) Manning Maize Daze=42 (Brown, White, Smith)		
		July 23: (CS) Carroll County Fair, Coon Rapids=75 (Brown, White, Smith)		

		July 23: (RS) Lake Iowa Nature Center, Ladora=50 (Lundvall, Meerdink)		
		July 26: (CS) Johnson County Fair, Iowa City=110 (Juchems, Steinweg, Anderson)		
		July 27: (CS) RAGBRAI (Boone to Altoona route)=300 (Staudt, White, Sloan, Smith)		
		July 28: (CS) Sac County Fair, Sac City=53 (Juchems, Meerdink, McMains)		
		July 29: (CS) Warren County Fair, Indianola=97 (White, Sloan, Smith)		
		July 30: (CS) Des Moines County Fair, West Burlington=90 (Juchems, Steinweg, McMains)		
		Aug. 2: (CS) Cass County Fair, Atlantic=70 (Andrews, Juchems, White, Steinweg)		
		Aug. 4: (CS) Bremer County Fair, Waverly=120 (Juchems, Steinweg, Anderson, Sloan)		
		Aug. 5: (CS) Strip Tillage Expo, Owatonna, MN=50 (Helmers, Steinweg, Meerdink)		
		Aug. 6: (CS) Bruce Rastetter Summer Party, Alden=1200 (Helmers, Comito, Staudt, Sloan)		
		Aug. 11: (CS) Eagle's Loft Early Learning Center, Ames=68 (Comito, Staudt, White, Steinweg)		
		Sept. 2-5: (RS) Guthrie County Fair=500 (local SWCD staffed)		

		Sept. 8: (RS) Dickinson Co 6 <sup>th</sup> Grade Outdoor Classroom, Spirit Lake=225 (Christianson)		
		Sept. 11: (RS) Amazing Prairie Festival, Maxwell=75 (Lundvall, Meerdink)		
		Sept. 13: (CS) Legislators Tour, Upper Cedar River Watershed=35 (Andrews)		
		Sept. 13: (RS) O'Brien County 6 <sup>th</sup> Grade Outdoor Classroom, Primghar=240 (Lundvall, Staudt)		
		Sept. 14: (CS) Pekin High School outdoor classroom=157 (Benning, Andrews, Staudt, Lundvall)		
		Sept. 16: (CS) Clay County Fair, Spencer=175 (Andrews, Lundvall, Brown)		
		Sept. 16: (RS) Borlaug Harvest Fest, Cresco=240 (White, Helmers)		
		Sept. 19: (CS) ISU Ag Ed 327 Class=59 (Comito, Andrews, White, Staudt)		
		Sept. 20: (CS) Margaret Hogan farm, outdoor classroom, Earlville=94 (Lundvall, White)		
		Sept. 22: (CS) Washington High School, Washington=67 (Benning, Andrews, Staudt)		
		Sept. 27: (CS) Southeastern Community College environmental science class, Keokuk=25 (Comito, Andrews, Staudt)		
		Sept. 20: (CS) FFA Soils Judging Contest, Clayton Co.=80 (Andrews)		

		Oct. 2: (CS) Sunday at the Quarry, Waterloo=262 (White, Meerdink)		
		Oct. 4: (CS) Sibley-Ocheyedan Elementary School 3 <sup>rd</sup> grade=54 (Helmers, White, Staudt)		
		Oct. 4: (CS) Sibley-Ocheyedan Science Night=150 (Helmers, White, Staudt)		
		Oct. 6: (CS) Knoxville Middle School Outdoor Classroom=125 (White, Christianson)		
		Oct. 6: (RS) Smeltzer Farm Outdoor Classroom=43 (Comito, Staudt, Andrews)		
		Oct. 11: (RS) East Sac 8 <sup>th</sup> Grade Conservation Ag Class, Sac City=19 (White, Staudt)		
		Oct. 12: (RS) Cherokee Co 6 <sup>th</sup> Grade Outdoor Classroom, Silver Sioux Recreation Area=190 (White, Christianson)		

Submitted by: Drs. Lois Wright Morton, Jacqueline Comito, Mark Hanna, Matt Helmerts, and Mike Duffy; John Lundvall, Carol Brown, Ann Staudt, Aaron Andrews, Ellie White and Jamie Benning



# OUTREACH/EDUCATION

## **Conservation Station/Lil' Conservation Station**

### **JANUARY-MARCH 2011**

The Conservation Station was hibernating for the winter, but work began in January and continued throughout the quarter on repairs and updating content for the upcoming season. With light snow falling, the Conservation Station hit the road on March 29 for its first trip of 2011, which was a great success. Requests for the Conservation Station have been, and continue to be, abundant with 49 confirmed events currently on the calendar. The spring schedule features many outdoor classrooms and school visits around the state. A full crew of undergraduate student interns has been hired to travel around the state with the Conservation Station this summer.

The Lil' Conservation Station received a makeover during the winter months with a major overhaul of the interior. It also has a new look for the exterior, the wrap completed in March and it will be ready for its first outing in mid-April. The Lil' Conservation Station will go to events when the CS is already booked or when the big trailer is not needed or too large. The Lil' CS is currently scheduled to be at 18 events this spring and summer. Like the (big) CS, the Lil' CS will also feature hands-on, interactive displays, including its own Enviroscope.

### **APRIL-JUNE 2011**

The Conservation Station's schedule was packed full for the second quarter, between a multitude of events across the state and some mechanical improvements being made. The Conservation Station was demonstrated at 28 events and seen by over 3,200 people during the April through June time period. April and May's events were primarily school visits and outdoor classrooms, with the CS visiting students across the state ranging in age from preschool through university students. Staudt and Juchems organized a weeklong Conservation Station training school the last week of May, to prepare ILF summer interns for teaching all aspects of the CS trailer. June featured several community and teacher events, as well as preparation for the upcoming busy summer season.

Improvements for the Conservation Station include obtaining new soil samples for the rainfall simulator trays and also a new tray was created to simulate a "green roof." Andrews worked on revising the content of the soil module for the CS; he and Brown are working on visuals for posters. Andrews also designed and coordinated fabrication of two three-dimensional displays for the soil module including a deep soil core display showing topsoil depth and also a demonstration that shows how water flows through sand, silt and clay.

The Lil' CS had a highly productive second quarter, being demonstrated at eight events across the state and seen by over 4,400 people. The Lil' CS filled in at several outdoor classroom events when the (big) CS was already booked as well as events when the Lil' CS was a better fit for the assigned classroom schedule for the day. Of special note is the Lil' CS spending two weeks in Marion as a part of the Cedar Rapids Linn Co. Solid Waste Agency's annual 6<sup>th</sup> grade tours, where it was a huge hit!

## **JULY-SEPTEMBER 2011**

The Conservation Station continued its adventures to all corners of the state (and beyond) during the third quarter of the year. July marked the beginning of the very busy summer season, with visits around the state at farmer field days, county fairs, and town festivals. ILF and the CS were showcased at such highly visible summer events as the Cedar Rapids Downtown Farmers Market, RAGBRAI, Minnesota Strip Tillage Expo, and the Bruce Rastetter Summer Party.

After a brief August break for ILF staff and the CS to have a bit of R&R, the schedule picked right up again in September, including additional field days, Conservation Districts of Iowa conference, Clay Co. Fair, and school visits and outdoor classrooms. The newly-revamped soils module was unveiled in September, and the reception has been very positive – in particular, the new soil cores have generated much interest and discussion.

With its new facelift earlier in the year, the Lil' Conservation Station saw increased usage during the summer months and start of the school year. The Lil' CS was on display for several summer events on dates when the (big) CS was already booked, increasing ILF's visibility with two CS trailers out on the road at once. The Lil' CS spent Labor Day weekend at the Guthrie Co. Fair, and continued to be well utilized in fall outdoor classroom events.

## **OCTOBER-DECEMBER 2011**

The Conservation Station concluded its 2011 tour with several school visits and outdoor classroom events in early October. Following completion of these events, the trailer was completely organized and winterized on October 14 in preparation for its winter hibernation. Mechanical repairs, including installation of a new axle, were completed. To date, 29 Conservation Station/Lil' CS requests have already been received for 2012; review of these requests will begin in January.

The Lil' CS closed out its season at Knoxville Middle School the first week of October. Following winterization, the Lil' CS visited Howe's Welding for an extensive mechanical upgrade. Beginning in spring 2012, its rainfall simulator display will have the capability of demonstrating both surface runoff and subsurface drainage on undisturbed land surfaces, similar to the display in the Big CS. With these upgrades, we look forward to increased usage of the Lil' CS at school events and outdoor classrooms in the spring.

## **Field Days/Events**

### **JANUARY-MARCH 2011**

Although there were no field days during this quarter, ILF staff was at several conferences either serving as speakers or staffing exhibit booths—or both. Comito spent many hours serving on the planning committee for the Iowa Water Conference held in March. ILF had its own “track” at the conference, which took additional planning and coordinating by Comito and Lundvall (see attached event evaluation).

ILF staff presented, staffed, or attended several other events, including:

- Practical Farmers of Iowa Annual Conference (exhibit booth), Marshalltown, Jan. 7-8
- ICEC Winter Solstice Conference (session presenter and exhibit booth), Honey Creek Resort, Moravia, Jan. 21-22
- State Soil Conservation Committee [and SWCD regional reps] (presentation), Des Moines, Jan. 25
- Legislative Conservation Partnership Day (presentation and exhibit), Des Moines, Jan 26
- Iowa Water Conference (conference track host, session presenters, exhibit booth), Ames, March 8-9
- Iowa State University Extension Ag and Natural Resources In-service (session presenters, exhibit booth), Ames, March 22-24

## **APRIL-JUNE 2011**

Outreach this quarter includes several field days of which ILF has been a sole or co-sponsor. Work this quarter included scheduling, lining up speakers, food details and promotion for these field days.

Field days this quarter included:

- No-till/strip-till workshop, New Hampton
- No-till Planter workshop, Kirkwood Community College, Cedar Rapids
- Strip-till Open House, Arlo Van Diest farm, Webster City (April)
- ILF/PFI Cover Crop field day, Rob Stout farm, West Chester
- Strip-till Open House, Arlo Van Diest farm, Webster City (June)
- ILF/PFI Cover Crop Field Day, Jeff Joyce farm, Ruthven
- Strip-till Field Day, Mike Hermanson farm/Key Co-op, Roland
- Strip-till Field Day, Doug Nolte farm, West Liberty
- CREP Wetland tour, Adel
- CREP Wetland tour, Algona

## **JULY-SEPTEMBER 2011**

This quarter holds the majority of field days for the year with July having a field day every Wednesday. Field day preparation includes confirmation of speakers, food details and promotion.

Field days this quarter include:

- Water Quality field day, Lake Park
- No-till field day, Elkader
- Conversations on the Prairie, Lacona
- Strip-tillage and cover crop management field day, Smeltzer Farm, Otho
- No-till and biofuels (Miscanthus) field day, Greenfield
- CREP Wetland tour, Nashua

- Strip-tillage field day, Ames
- Cover Crop management field day, New Market
- Ag drainage field day, Gilmore City
- Prairie Strips field day, Neal Smith Wildlife Refuge, Prairie City
- Hickory Grove Lake watershed quality awareness field day, Colo
- No-till/strip-till field day, Pekin
- Cover Crop field day, Lyon County

## **OCTOBER-DECEMBER 2011**

There was one field day this quarter, held on Oct. 27. This field day was a joint effort between ILF, PFI and Boone County NRCS and featured cover crop management at the Jeremy Gustafson farm in Boone County.

## **Other Outreach**

### **JANUARY-MARCH 2011**

The Winter ILF newsletter was distributed in February; three *Wallaces Farmer* columns were submitted. The “internal” e-newsletter is ongoing. This monthly update is sent to our farmer/non-farmer partners, agency partners, steering committee and ISU Extension field agronomists.

Three “how-to” videos were finished by the end of February and were duplicated in time for distribution at the Iowa Water Conference. The new how-to videos are: “Adding a Cover Crop to a Corn-Soybean System,” “Manure Management and Conservation,” and “From Gully to Grass: Implementing Grassed Waterways.” These will be distributed by request and to ISU Extension, NRCS and SWCD offices as well.

### **APRIL-JUNE 2011**

The spring newsletter was distributed in May, and three *Wallaces Farmer* columns were submitted in addition to many press releases and flyers promoting field days, workshops and webinars. The “cover crops” think piece was finalized, printed and is available at our cover crop-themed field days.

### **JULY-SEPTEMBER 2011**

Three *Wallaces Farmer* columns were submitted in addition to many press releases and flyers promoting field days, workshops and webinars. In order to keep expenses down, there was no newsletter this quarter. After county fair events in July and August, follow up press releases were sent to newspapers that included a photo of local county fair attendees visiting the Conservation Station.

Various press releases were found through Google Alerts on these websites: Waverly Democrat, Fort Dodge Messenger, Farm News, Drivers Cattle Network, Tama/Toledo News, KNEB (Scottsbluff, NE) and KRVN (Lexington, NE) radio stations, Eastern Iowa Life (Cedar Rapids

Gazette-sponsored), WHO-TV, Waterloo Cedar Falls Courier, Wallaces Farmer, Leopold Center, Practical Farmers of Iowa and ISU Extension.

### **OCTOBER-DECEMBER 2011**

Three *Wallaces Farmer* columns were submitted in addition to press releases promoting webinars and the new video “Out to the Lakes,” the book *Water Quality Matters To Us All*, the how-to videos and the children’s music CD “Dogs, Frogs, and Nature Songs.” The quarterly fall newsletter was mailed in late October.

Various ILF press releases and references to ILF were found through Google Alerts on these media websites: Farm News, Iowa Farmer Today, Cedar Rapids Gazette and their sponsored web pages Eastern Iowa Life and Business 380, Iowa Environmental Focus website (sponsored by the Center for Global and Regional Environmental Research), Wallaces Farmer, Leopold Center, Practical Farmers of Iowa and ISU Extension.

Copies of *Water Quality Matters To Us All* and the DVD “Out to the Lakes” were mailed to all SWCD and ISU Extension and Outreach offices, as well to the many personal requests which were received as a result of press releases and newsletter articles. The three how-to videos were mailed to these offices this quarter as well.

## **Electronic Outreach**

### **Website:**

#### **JANUARY-MARCH 2011**

January: 4,327 hits

February: 3,232 hits

March: (unavailable at report time)

#### **APRIL-JUNE 2011**

Beginning this quarter, the numbers recorded will reflect the ILF website’s page views instead of hits. After doing some research, reporting page views is a more accurate account of our website activity.

According to “Opentracker” website, “...if you have a page with 10 pictures, then a request to a server to view that page generates 11 hits (10 for the pictures, and one for the html file). A page view can contain hundreds of hits. A page view is each time a visitor views a page on your website, regardless of how many hits are generated. Pages are comprised of files. Every image in a page is a separate file. When a visitor looks at a page (a page view), they may see numerous images, graphics, pictures etc. and generate multiple hits.”

The numbers now indicate how many page views and how many “unique” visitors there were on our website each month.

<b>April 2011</b>	<b>May 2011</b>	<b>June 2011</b>
Page views: 2,798	Page views: 3,201	Page views: 3,756
Unique visitors: 782	Unique visitors: 912	Unique visitors: 938
Visitors who visited once: 477	Visitors who visited once: 574	Visitors who visited once: 588
Visitors who visited more than once: 305	Visitors who visited more than once: 338	Visitors who visited more than once: 350

### **JULY-SEPTEMBER 2011**

The numbers below indicate how many page views and how many “unique” visitors there were on our website each month.

<b>July 2011</b>	<b>August 2011</b>	<b>September 2011</b>
Page views: 2,938	Page views: 3,239	Page views: 3,184
Unique visitors: 826	Unique visitors: 842	Unique visitors: 647
Visitors who visited once: 550	Visitors who visited once: 582	Visitors who visited once: 530
Visitors who visited more than once: 276	Visitors who visited more than once: 260	Visitors who visited more than once: 117

### **OCTOBER-DECEMBER 2011**

The numbers below indicate how many page views and how many “unique” visitors there were on our website each month.

<b>October 2011</b>	<b>November 2011</b>	<b>December 2011</b>
Page views: 3,517	Page views: 3,789	Page views: 3,111
Unique visitors: 754	Unique visitors: 710	Unique visitors: 687
Visitors who visited once: 569	Visitors who visited once: 546	Visitors who visited once: 518
Visitors who visited more than once: 185	Visitors who visited more than once: 164	Visitors who visited more than once: 169

## **Webinars**

### **JANUARY-MARCH 2011**

The monthly webinar series kicked off in January with presenter Jacqueline Comito. February’s webinar featured Chris Anderson, who talked about climate change and agriculture. Jeremy Singer offered information on cover crops in March. The webinars originate from the Brenton Center on the ISU campus the third Wednesday of each month at noon, and are archived on the ILF website.

## **APRIL-JUNE 2011**

Beginning in January 2011 ILF staff coordinated noon-hour webinar presentations originating from the Brenton Center for Agricultural Instruction and Technology Transfer in Curtiss Hall on the ISU campus. The webinars are scheduled for the third Wednesday of each month. Experts in the fields of soil and water quality, soil conservation, and climate research deliver 20-minute PowerPoint presentations and respond to questions typed in by viewers logged in to the webinar via Adobe Connect. Intended audiences for the webinars include agency, Extension and agribusiness professionals, farmers, and others interested in hearing state-of-the-art information without having to travel to a professional conference. Webinars are archived on the ILF website for those unable to view the live presentations.

January to June 2011 ILF Webinar presenters, their presentation title and number of webinar participants logged in to the live webinar presentation include the following:

January 19	ILF Program Manager Jackie Comito, “A Culture of Conservation”	25
February 16	ISU Climate Scientist Chris Anderson, “Will the Rain Ever Stop?”	35
March 16	NLAE Research Agronomist Jeremy Singer, “Cover Crop Management”	32
April 20	ILF/ISU Ag Drainage Specialist Matt Helmers, “Nitrogen Management and Water Quality”	29
May 18	ISU A.B.E. Ph.D. candidate Laura Christianson, “Bioreactors: Benefits and Potential Challenges”	27
June 15	ISU Water Quality Researcher Michelle Soupir, “Fate and Transport of Pathogens from Agricultural Landscapes”	25

## **JULY-SEPTEMBER 2011**

ILF Webinar presenters, their presentation title and number of webinar participants are listed below. The Archived view numbers are a cumulative count through October 3.

January 19	ILF Program Manager Jackie Comito, “A Culture of Conservation” Live participants = 30 Archived views as of 10/3/2011 = 190	
February 16	ISU Climate Scientist Chris Anderson, “Will the Rain Ever Stop?” Live participants = 39 Archived views as of 10/3/2011 = 170	
March 16	NLAE Research Agronomist Jeremy Singer, “Cover Crop Management” Live participants = 37 Archived views as of 10/3/2011 = 180	
April 20	ILF/ISU Ag Drainage Specialist Matt Helmers, “Nitrogen Management and Water Quality” Live participants = 33	

Archived views as of 10/3/2011 = 150

- May 18 ISU A.B.E. Ph.D. candidate Laura Christianson, “Bioreactors: Benefits and Potential Challenges”  
Live participants = 31  
Archived views as of 10/3/2011 = 171
- June 15 ISU Water Quality Researcher Michelle Soupir, “Fate and Transport of Pathogens from Agricultural Landscapes”  
Live participants = 29  
Archived views as of 10/3/2011 = 97
- July 20 ISU Agronomy Assistant Professor Emily Heaton, “Giant Miscanthus and Other Perennial Energy Crops”  
Live participants = 13  
Archived views as of 10/3/2011 = 116
- August 27 ISU Agronomy Professor Rick Cruse, “Losing Ground”  
Live participants = 53  
Archived views as of 10/3/2011 = 197
- Sept. 21 Drake University Agricultural Law Center Fellow Ed Cox, “Sustainable Farm Leases”  
Live participants = 25  
Archived views as of 10/3/2011 = 37

### **OCTOBER-DECEMBER 2011**

ILF Webinar presenters, their presentation title and number of webinar participants are listed below. The archived view numbers are a cumulative count through January 6, 2012.

- January 19 ILF Program Manager Jackie Comito, “A Culture of Conservation”  
Live participants = 30  
Archived views as of 1/6/12 = 257
- February 16 ISU Climate Scientist Chris Anderson, “Will the Rain Ever Stop?”  
Live participants = 39  
Archived views as of 1/6/12 = 205
- March 16 NLAE Research Agronomist Jeremy Singer, “Cover Crop Management”  
Live participants = 37  
Archived views as of 1/6/12 = 262



- April 20 ILF/ISU Ag Drainage Specialist Matt Helmers, “Nitrogen Management and Water Quality”  
Live participants = 33  
Archived views as of 1/6/12 = 200
- May 18 ISU A.B.E. Ph.D. candidate Laura Christianson, “Bioreactors: Benefits and Potential Challenges”  
Live participants = 31  
Archived views as of 1/6/12 = 215
- June 15 ISU Water Quality Researcher Michelle Soupier, “Fate and Transport of Pathogens from Agricultural Landscapes”  
Live participants = 29  
Archived views as of 1/6/12 = 134
- July 20 ISU Agronomy Assistant Professor Emily Heaton, “Giant Miscanthus and Other Perennial Energy Crops”  
Live participants = 13  
Archived views as of 1/6/12 = 169
- August 27 ISU Agronomy Professor Rick Cruse, “Losing Ground”  
Live participants = 53  
Archived views as of 1/6/12 = 327
- Sept. 21 Drake University Agricultural Law Center Fellow Ed Cox, “Sustainable Farm Leases”  
Live participants = 25  
Archived views as of 1/6/12 = 123
- Oct. 19 ISU Extension Agricultural and Biosystems Engineer Mark Hanna, “Farm Energy Efficiency”  
Live participants = 11  
Archived views as of 1/6/12 = 50
- Nov. 16 Iowa Department of Agriculture and Land Stewardship Urban Conservationist Wayne Petersen, “Urban Conservation”  
Live participants = 15  
Archived views as of 1/6/12 = 77
- Dec. 14: ISU Wildlife Biologist Ryan Harr, “Patch-burn Grazing”  
Live participants = 14  
Archives views as of 1/6/12 = 43

## Videos

### Views from ILF Website:

#### JANUARY-MARCH 2011

Culture of Conservation:	Jan= 6	Feb= 2	March= NA
Soil:	Jan=36	Feb=16	March= NA
Work of Our Hands:	Jan=17	Feb= 8	March= NA
Stewardship:	Jan=33	Feb=13	March= NA
Water is Life:	Jan=38	Feb=23	March= NA
Watershed:	Jan=32	Feb=18	March= NA

#### APRIL-JUNE 2011

Culture of Conservation:	April= 2	May= 2	June= 1
Soil:	April=29	May=19	June=15
Work of Our Hands:	April= 7	May= 5	June= 5
Stewardship:	April=27	May=14	June= 9
Water is Life:	April=36	May=18	June=21
Watershed:	April=23	May=19	June=12

#### JULY-SEPTEMBER 2011

Culture of Conservation:	July= 5	Aug= 3	Sept= 4
Soil:	July=12	Aug=21	Sept=16
Work of Our Hands:	July= 7	Aug= 6	Sept= 7
Stewardship:	July= 1	Aug=10	Sept= 6
Water is Life:	July=14	Aug=15	Sept=17
Watershed:	July=12	Aug=11	Sept= 9

#### OCTOBER-DECEMBER 2011

Culture of Conservation:	Oct = 0	Nov = 4	Dec = 1
Soil:	Oct = 21	Nov = 34	Dec = 15
Work of Our Hands:	Oct = 11	Nov = 14	Dec = 12
Stewardship:	Oct = 6	Nov = 12	Dec = 9
Water is Life:	Oct = 12	Nov = 32	Dec = 10
Watershed:	Oct = 14	Nov = 16	Dec = 12

## YouTube

### JANUARY-MARCH 2011

<b>Converting Your Planter for No-Till:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Conclusion	657	4/6/2011	12/11/2009
Furrow Point	616	4/6/2011	12/11/2009
Fertilizer Applicators	657	4/6/2011	12/11/2009
Row Cleaners	1,807	4/6/2011	12/11/2009
Closing Systems (Case IH)	2,047	4/6/2011	12/11/2009
Closing Systems	792	4/6/2011	12/11/2009
Depth Adjustment (Case IH)	1,435	4/6/2011	12/11/2009
Depth Adjustment	318	4/6/2011	12/11/2009
Seed Opener (Case IH)	1,300	4/6/2011	12/11/2009
Seed Opener	3,374	4/6/2011	12/11/2009
Intro and Leveling	4,113	4/6/2011	12/11/2009
<b>Culture of Conservation Videos:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
The Work of our Hands	85	4/6/2011	11/12/2009
Don't Call it Dirt: A Passion for Soil	1,062	4/6/2011	11/12/2009
Building a Culture of Conservation: Iowan to Iowan	130	4/6/2011	11/12/2009
Water is Life	688	4/6/2011	11/12/2009
We All Have a Place in the Watershed	147	4/6/2011	5/21/2009
Reclaiming Stewardship	120	4/6/2011	4/9/2009
<b>Troubled Waters</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part 1: Natural Resources and Biodiversity	239	4/6/2011	3/24/10
Part 2: Human Intervention & Modification	151	4/6/2011	3/24/10
Part 3: Pollutants	98	4/6/2011	3/24/10
Part 4: Ecological Resilience	167	4/6/2011	3/24/10
Part 5: Blessed be the River	296	4/6/2011	3/24/10

## APRIL-JUNE 2011

<b>Converting Your Planter for No-Till:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Conclusion	765	7/11/2011	12/11/2009
Furrow Point	738	7/11/2011	12/11/2009
Fertilizer Applicators	787	7/11/2011	12/11/2009
Row Cleaners	2,214	7/11/2011	12/11/2009
Closing Systems (Case IH)	2,565	7/11/2011	12/11/2009
Closing Systems	954	7/11/2011	12/11/2009
Depth Adjustment (Case IH)	1,745	7/11/2011	12/11/2009
Depth Adjustment	380	7/11/2011	12/11/2009
Seed Opener (Case IH)	1,545	7/11/2011	12/11/2009
Seed Opener	4,447	7/11/2011	12/11/2009
Intro and Leveling	4,875	7/11/2011	12/11/2009
<b>Culture of Conservation Videos:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
The Work of our Hands	100	7/11/2011	11/12/2009
Don't Call it Dirt: A Passion for Soil	1,358	7/11/2011	11/12/2009
Building a Culture of Conservation: Iowan to Iowan	156	7/11/2011	11/12/2009
Water is Life	831	7/11/2011	11/12/2009
We All Have a Place in the Watershed	170	7/11/2011	5/21/2009
Reclaiming Stewardship	126	7/11/2011	4/9/2009
<b>Troubled Waters</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part 1: Natural Resources and Biodiversity	299	7/11/2011	3/24/10
Part 2: Human Intervention & Modification	204	7/11/2011	3/24/10
Part 3: Pollutants	119	7/11/2011	3/24/10
Part 4: Ecological Resilience	198	7/11/2011	3/24/10
Part 5: Blessed be the River	337	7/11/2011	3/24/10
<b>Conservation Station</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Six minute promotional film for the CS	145	7/11/2011	5/1/2011

## JULY-SEPTEMBER 2011

<b>Converting Your Planter for No-Till:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Conclusion	802	10/4/2011	12/11/2009
Furrow Point	785	10/4/2011	12/11/2009
Fertilizer Applicators	870	10/4/2011	12/11/2009

Row Cleaners	2,397	10/4/2011	12/11/2009
Closing Systems (Case IH)	3,047	10/4/2011	12/11/2009
Closing Systems	1,029	10/4/2011	12/11/2009
Depth Adjustment (Case IH)	1,861	10/4/2011	12/11/2009
Depth Adjustment	407	10/4/2011	12/11/2009
Seed Opener (Case IH)	1,702	10/4/2011	12/11/2009
Seed Opener	4,904	10/4/2011	12/11/2009
Intro and Leveling	5,285	10/4/2011	12/11/2009
<b>Culture of Conservation Videos:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
The Work of our Hands	110	10/4/2011	11/12/2009
Don't Call it Dirt: A Passion for Soil	1,634	10/4/2011	11/12/2009
Building a Culture of Conservation: Iowan to Iowan	174	10/4/2011	11/12/2009
Water is Life	969	10/4/2011	11/12/2009
We All Have a Place in the Watershed	186	10/4/2011	5/21/2009
Reclaiming Stewardship	136	10/4/2011	4/9/2009
<b>Troubled Waters:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part 1: Natural Resources and Biodiversity	328	10/4/2011	3/24/2010
Part 2: Human Intervention & Modification	220	10/4/2011	3/24/2010
Part 3: Pollutants	125	10/4/2011	3/24/2010
Part 4: Ecological Resilience	211	10/4/2011	3/24/2010
Part 5: Blessed be the River	346	10/4/2011	3/24/2010
<b>Conservation Station</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Six minute promotional film for the CS	177	10/4/2011	5/1/2011
<b>Cover Crop How-To</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part I – planting	17	10/4/2011	7/18/2011
Part II – terminating	12	10/4/2011	7/18/2011
<b>Implementing Grassed Waterways</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part 1: The need for waterways	18	10/4/2011	7/18/2011
Part 2: Conservation practices	2	10/4/2011	7/18/2011
Part 3: Design considerations	7	10/4/2011	7/18/2011
Part 4: Waterway capacity	14	10/4/2011	7/18/2011
Part 5: Establishing a waterway	10	10/4/2011	7/18/2011
Part 6: Financial Assistant	5	10/4/2011	7/18/2011
Part 7: Waterway maintenance	9	10/4/2011	7/18/2011
Part 8: A Farmer's Perspective	6	10/4/2011	7/18/2011
<b>Manure Management and Conservation</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>

Part 1: Managing Manure Nutrients for Crop Growth	23	10/4/2011	7/18/2011
Part 2: Sampling Liquid Manure	17	10/4/2011	7/18/2011
Part 3: Sampling Open Lot Manure	14	10/4/2011	7/18/2011
Part 4: Sampling Stockpiled & Composted Manure	11	10/4/2011	7/18/2011
Part 5: Manure Sample Analysis	13	10/4/2011	7/18/2011
Part 6: The Value of Manure Nutrients	59	10/4/2011	7/18/2011
Part 7: Injection Equipment	53	10/4/2011	7/18/2011
Part 8: Putting It All Together	38	10/4/2011	7/18/2011
Play all (not split into chapters)	16	10/4/2011	9/29/2011
<b>Out to the Lakes</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Posted on YouTube in its entirety	34	10/4/2011	9/29/2011

## OCTOBER-DECEMBER 2011

<b>Converting Your Planter for No-Till:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Conclusion	847	1/4/2012	12/11/2009
Furrow Point	807	1/4/2012	12/11/2009
Fertilizer Applicators	981	1/4/2012	12/11/2009
Row Cleaners	2,710	1/4/2012	12/11/2009
Closing Systems (Case IH)	3,486	1/4/2012	12/11/2009
Closing Systems	1,094	1/4/2012	12/11/2009
Depth Adjustment (Case IH)	1,997	1/4/2012	12/11/2009
Depth Adjustment	447	1/4/2012	12/11/2009
Seed Opener (Case IH)	1,846	1/4/2012	12/11/2009
Seed Opener	6,517	1/4/2012	12/11/2009
Intro and Leveling	5,966	1/4/2012	12/11/2009
<b>Culture of Conservation Videos:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
The Work of our Hands	127	1/4/2012	11/12/2009
Don't Call it Dirt: A Passion for Soil	2,292	1/4/2012	11/12/2009
A Culture of Conservation: Iowan to Iowan	193	1/4/2012	11/12/2009
Water is Life	1,075	1/4/2012	11/12/2009
We All Have a Place in the Watershed	203	1/4/2012	5/21/2009
Reclaiming Stewardship	143	1/4/2012	4/9/2009
<b>Troubled Waters:</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Play All version	127	1/4/2012	10/7/2011
Part 1: Natural Resources and Biodiversity	368	1/4/2012	3/24/2010

Part 2: Human Intervention & Modification	277	1/4/2012	3/24/2010
Part 3: Pollutants	138	1/4/2012	3/24/2010
Part 4: Ecological Resilience	236	1/4/2012	3/24/2010
Part 5: Blessed be the River	360	1/4/2012	3/24/2010
<b>Conservation Station</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Six minute promotional film for the CS	231	1/4/2012	5/1/2011
<b>Cover Crop How-To</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part I – planting	42	1/4/2012	7/18/2011
Part II – terminating	30	1/4/2012	7/18/2011
<b>Implementing Grassed Waterways</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part 1: The need for waterways	30	1/4/2012	7/18/2011
Part 2: Conservation practices	20	1/4/2012	7/18/2011
Part 3: Design considerations	24	1/4/2012	7/18/2011
Part 4: Waterway capacity	39	1/4/2012	7/18/2011
Part 5: Establishing a waterway	29	1/4/2012	7/18/2011
Part 6: Financial Assistance	15	1/4/2012	7/18/2011
Part 7: Waterway maintenance	23	1/4/2012	7/18/2011
Part 8: A Farmer’s Perspective	21	1/4/2012	7/18/2011
<b>Manure Management and Conservation</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Part 1: Managing Manure Nutrients for Crop Growth	37	1/4/2012	7/18/2011
Part 2: Sampling Liquid Manure	27	1/4/2012	7/18/2011
Part 3: Sampling Open Lot Manure	23	1/4/2012	7/18/2011
Part 4: Sampling Stockpiled & Composted Manure	24	1/4/2012	7/18/2011
Part 5: Manure Sample Analysis	26	1/4/2012	7/18/2011
Part 6: The Value of Manure Nutrients	139	1/4/2012	7/18/2011
Part 7: Injection Equipment	162	1/4/2012	7/18/2011
Part 8: Putting It All Together	60	1/4/2012	7/18/2011
Play All version	206	1/4/2012	9/29/2011
<b>Out to the Lakes</b>	<b>Views</b>	<b>Date</b>	<b>Date Posted</b>
Posted in its entirety	206	1/4/2012	9/29/2011

# ADMINISTRATION AND EVALUATION

## **JANUARY-MARCH 2011**

The winter quarter with its heavy snows and rains found the Iowa Learning Farm staff trying to figure out the flow of water in Davidson Hall. Since terraces, buffers and no-till would not work inside, John Lundvall found himself moving his computer and/or covering it with plastic numerous times before we were able to move him into a new, somewhat drier, office. Despite all the challenges with ceilings falling and water flowing, we were still able to get a lot of work done this quarter. The completion of two think pieces, three how-to videos and remodeling of the Rainfall Simulator are just a few examples of our accomplishments this quarter. The first quarter is a time of planning and organizing events for our field season: April through October. At the time of this report, we have 15 field days scheduled and 70+ Conservation Station events. Lundvall takes the lead on all field day organization and Staudt coordinate the Conservation Station. Because of Landvall's and Staudt's attention to details and advance preparation, we can hope to have a successful field season with hopefully only a few minor mishaps.

We are also pleased to announce a new hire for ILF: Ellie White. Ellie has an undergraduate degree in anthropology and environmental studies. She is helping with ILF evaluations and serving as a key educator with the Conservation Station. Ellie began work on March 1. In addition, Staudt and Andrews reviewed the applications of over 40 students, interviewed 20 and hired 8 students to help staff the Conservation Stations and conduct water quality data research. We are really pleased with the quality of student candidates and feel like we have a great group to help us through the summer. As many of you know, our ISU student interns are important to our outreach and serve as wonderful ambassadors for ISU and ILF. We find that participants at events love to talk to these students, to see them active in our program and to hear their stories.

In addition, Comito sent out follow-up evaluations to all attendees at 2010 ILF field days. The purpose of the follow-up evaluation was to discover what actions, if any, people took as a result of the information gained at our field days. We had an excellent response to the follow-up evaluations and the results, along with the earlier evaluations are in a separate report that was distributed to ILF Steering Committee in March.

## **APRIL-JUNE 2011**

Comito and ILF staff crafted the 2012 ILF work plan and budget to secure funding for 2012. Due to federal and state budget cuts, ILF was asked to take a 15% cut based on 2011's funding. These cuts were achieved in a way that would allow ILF to continue to nurture farmer partner demonstrations and outreach as well as continue our larger education and outreach mission and we are currently in the process of getting the new contract approved by IDALS DSC. In addition, Comito, Staudt and Helmers developed a youth water education project to work and submitted a USDA-NIFA in partnership with Iowa 4-H, DMACC and Conservation Districts of Iowa.

Comito and Staudt also submitted a proposal to create a prairies, wetlands and croplands middle school module with Warren County. This module will explore the ways in which prairies and wetlands are good ecological strategies to improve water quality in Iowa. This new proposal was funded and work will begin in July. Comito and Lundvall submitted a proposal and received funding for the cover crop project



for FY2012. Helmers and Andrews submitted a pre-proposal to SARE-NCR to do cover crop outreach project but, unfortunately, the pre-proposal was not accepted.

Evaluations are ongoing. All field days are evaluated at the event and via mailed surveys. We will do a follow-up survey of ILF field days in February. ILF staff via an event evaluation form will evaluate all other events and activities. Event evaluations for all events this quarter are included at the end of the report.

## **JULY-SEPTEMBER 2011**

One of the primary reasons Iowa Learning Farms is able to do so many activities and events is due to the leveraging of the ILF funds with other smaller grants. We have also had the benefit of a NRCS CIG for the past 3.5 years. The CIG was completed at the end of June and we are lucky for other means of funds so that we can continue to do a variety of events and activities beyond the ILF yearly work plan. Comito and ILF staff crafted a revised 2012 ILF work plan and budget to allow for additional funds for 2012. We were also awarded funds from the Leopold Center to be used for our youth education program. We are currently in the process of writing the new contract so that it will be in place by January 2012. In addition, Comito, Staudt and Helmers developed a youth water education project and submitted a USDA-NIFA in partnership with Iowa 4-H, DMACC and Conservation Districts of Iowa. Unfortunately, the proposal was not funded. We continue to look for means of funding this worthwhile project. Meanwhile, we have the Leopold Center funds to help get us started in 2012. We have submitted a small portion of the “Water Rocks!” proposal to a private donor with hopes of getting a portion of it funded. Helmers and Comito will continue to look for new avenues of funding so that the team can continue their important work developing educational materials, research and outreach.

Evaluations are ongoing. All field days are evaluated at the event and via mailed surveys. An evaluator, usually Comito, attends all field days in order to better understand how the information is being received and to evaluate the effectiveness of the event. We will do a follow-up survey of ILF field days in February. ILF staff, via an event evaluation form, evaluates all other events and activities. Event evaluations for all events this quarter are included at the end of the report.

## **OCTOBER-DECEMBER 2011**

All project events and outreach were evaluated on multiple levels. The result of these evaluations will be processed and released after we complete the follow-up evaluation analysis in February and March. The report will be presented at the April steering committee meeting. We continue to seek new means of evaluating and improving the work that ILF is doing in terms of outreach and education.

Ellie White left Iowa State University and the Iowa Learning Farms team to pursue a new direction for her career. We held a search to replace her and interviewed two candidates in late November. Nathan Stevenson joined the Iowa State University Extension and Outreach and Iowa Learning Farms team December 12. He will be working in several areas including ILF program evaluation, field days, expanding farmer participation and Conservation Station education and outreach. Stevenson brings a variety of experiences to the ILF program. He grew up on a century farm near Goldfield, Iowa, helping his father and grandfather grow corn and soybeans. Nathan says that his great grandfather

purchased the land, making Nathan the fourth generation of an Iowa farming family. Their family is a part of the culture of conservation by investing in a legacy of pride through practices such as prairie buffer strips and a restored oak savannah area. Nathan is a 2009 graduate in political science from the University of Northern Iowa. Nathan spent the days between Christmas and New Year's preparing and assembling over 900 follow-up field day evaluations so that they could be mailed on January 3.

## **WORK WITH DEMONSTRATIONS AND OTHER DATA**

### **Anthropological/Sociological**

#### **JANUARY-MARCH 2011**

We conducted four additional listening sessions this winter primarily to gain a better understanding of water quality perceptions throughout the state. We targeted three farmer groups and limited the size of the groups from 7-15 people. This is the ideal size to get full engagement of all participants. The farmer group listening sessions were held at Grinnell, Wall Lake and New Hampton. We also expanded our work to include one urban listening session. This was conducted at Drake University in Des Moines. Wright Morton helped develop the questionnaire based on prior work she has done on water quality issues. We want to be able to use the qualitative data to give voice to her statewide quantitative study conducted in 2007. The four listening sessions were transcribed and we are currently analyzing them and organizing them (along with listening session from 2008-2010) into a comprehensive report. Lundvall and Andrew helped with the coordination of the listening sessions. Andrew also helped to create accurate transcriptions of the material.

#### **APRIL-JUNE 2011**

Comito, Wright Morton and Dr. Jon Wolseth analyzed all of the listening sessions conducted over the last 4 years as a part of ILF, combined them with the 4 listening sessions conducted this year and wrote a comprehensive report titled: "Water Quality Matters to Us All." In May, a draft of the report was submitted to a visioning team representing over 50 key stakeholder groups assigned with the task of updating Iowa's Nonpoint Source Management Plan. Comito presented the report to them and they voted to adopt the ILF team's recommendation to conduct a statewide campaign to build on people's knowledge about water quality issues and motivate them to get involved in watershed work and change their behavior. In addition, Comito presented portions of the report as the keynote speaker for the EPA, Region 7, Agriculture Week in May and to a gathering of members of EPA Region 7 meeting with Nebraska, Missouri, Kansas and Iowa DNR staff at Honey Creek Resort in June. All three presentations were greeted by enthusiasm and an engaged discussion by audiences.

#### **JULY-SEPTEMBER 2011**

Comito revised the introduction and conclusion to *Water Quality Matters to Us All* and supervised its production into a softbound book. The book was prepared in time for the Conservation Districts of Iowa annual conference where Comito presented its findings to 30 people. In addition, we distributed 400 copies of the book to attendees at the conference. The book has been greeted with enthusiasm and we hope it

generates fruitful discussions among water quality stakeholders. Comito, Dr. Jon Wolseth and Wright Morton are working on three journal articles based on the 2008-2011 listening sessions. These articles will be completed this winter and submitted for peer review and hopeful publication.

### **OCTOBER-DECEMBER 2011**

Comito, Dr. Jon Wolseth and Wright Morton finished one journal article and a first draft of two other journal articles based on the 2008-2011 listening sessions. All the articles will be completed this January and submitted in February for peer review and, hopefully, publication.

## **Agronomic**

### **JANUARY-MARCH 2011**

During this quarter we continued to communicate with ISU Extension Field Agronomists, existing ILF farmer partners, other ISU Extension and agency staff, and local watershed improvement groups to identify sites for 2011 on-farm demonstrations. Several long-term ILF farmer-partners plan to continue hosting on-farm demonstrations comparing tillage systems or nutrient application methods. “Whole-farm” demonstration site hosts are also being identified and asked to become new ILF farmer-partners; these farmer-partners have already successfully made the transition to no-till or strip-tillage on their farm, and will not be asked to establish a side-by-side demonstration with full-width tillage. In early March we asked ISU Extension Field Agronomists and farmers to consider establishing in-season nitrogen application timing and rate comparisons; several potential 2011 demonstration sites are being planned with statewide farmer-partners in 2011.

Jack Bensink (Pleasantville, Marion County) and Nathan Anderson (Aurelia, Cherokee County) joined the ILF team as new farmer-partners during the quarter. Mr. Bensink has implemented no-till, grassed waterways, and other conservation practices conducive to wildlife habitat on his farm; Mr. Anderson is a very well-spoken, engaging young farmer who was invited to speak about cover crop management at our March workshop in Rock Valley.

ILF sponsored a Northwest Iowa No-Till and Strip-Till Conference coordinated by ISU Extension Field Agronomist Joel DeJong in Le Mars on March 18. Approximately 140 area farmers interacted with Cherokee County farmer Tom Oswald, who shared his experiences with strip-till corn and no-till soybeans. Attendees also interacted with a panel of Plymouth County farmers who recently completed their first or second year of no-till crop management and a separate panel of regional farmers who have completed 10-15 years of no-till crop management. The conference concluded with an interactive question and answer session with Joel DeJong about nitrogen management for corn production in strip-till or no-till settings.

### **APRIL-JUNE 2011**

During this quarter we continued to communicate with ISU Extension Field Agronomists, existing ILF farmer partners, other ISU Extension and agency staff, and local watershed improvement groups to identify sites for 2011 on-farm demonstrations. Several long-term ILF farmer-partners plan to continue hosting on-farm demonstrations comparing tillage systems or nutrient application methods. “Whole-farm”

demonstration site hosts are also being identified and asked to become new ILF farmer-partners. These farmers have already successfully made the transition to no-till or strip-tillage on their farm, and will not be asked to establish a side-by-side demonstration with full-width tillage. In early March we asked ISU Extension Field Agronomists and farmers to consider establishing in-season nitrogen application timing and rate comparisons; several potential 2011 demonstration sites are being planned with statewide farmer-partners in 2011.

Arlo Van Diest (Webster City, Hamilton County) joined ILF as a farmer-partner during the quarter. Mr. Van Diest uses spring strip-tillage to prepare a seedbed for first- and second-year corn on his farm.

### **JULY-SEPTEMBER 2011**

Work continues with ISU Extension Field Agronomists, existing ILF farmer-partners, other ISU Extension and agency staff, and local watershed improvement groups on 2011 on-farm demonstrations. Crop year 2011 demonstrations will be summarized in a future quarterly report.

### **OCTOBER-DECEMBER 2011**

We are consulting with ISU Extension Field Agronomists, existing ILF farmer-partners, other ISU Extension and agency staff, and local watershed improvement groups to plan 2012 on-farm demonstrations.

## **Water Quality**

### **JANUARY-MARCH 2011**

Work continues on the water quality modeling project that investigates historical land use change on a farm in Northeast Iowa. We are looking at impacts on soil erosion and water quality over generations. Preliminary data has been collected through personal conversations with landowners and other knowledgeable sources.

### **APRIL-JUNE 2011**

Work continues on the water quality modeling project that investigates historical land use change on a farm in Northwest Iowa. The project will continue through 2012, due to its extensive nature of the research. We are looking at impacts on soil erosion and water quality over generations. Preliminary data was collected last quarter through personal conversations with landowners and other knowledgeable sources and we are now working on the computer parameters for the historical modeling.

### **JULY-SEPTEMBER 2011**

Andrews took the lead on the generation of a new soils module to be displayed in the Conservation Station. He conducted prototype research and used 3D modeling software to design a soil particle-size demonstration model to compliment the new module. Country Plastics and Howe's Welding, both of Ames, constructed the model. 3D modeling software was further used to design an apparatus for displaying 4 ft. deep soil core samples for use in the CS soils module and was fabricated by Howe's Welding as well. The apparatus will be used in

conjunction with our water quality modeling work to show the effect of long-term land use practices on soil erosion in a future “whole-farm approach” module.

## **OCTOBER-DECEMBER 2011**

Research continues on the whole farm water quality modeling project. In addition to the Helmers’ farm in Osceola County, we’ve identified two potential century farm locations to be incorporated into the project: the Staudt farm in Floyd County and the Doug Nolte farm in Muscatine County. We are contacting these families to request their involvement.

During this quarter, Liz Juchems and Aaron Andrews conducted extensive county-based research for these locations as well as a great deal of statewide historical research including images that may be included. They collected all required geographical data (topographical, soils, rivers, current land use, aerial imagery, etc.) of each county for model input. Also, a preliminary landowner survey has been developed which will help further define model parameters for individual farm management practices during each of the time periods of interest (1930’s, 1950’s, 1970’s and present day).

## **Economics**

### **JANUARY-MARCH 2011**

During this quarter we were able to compile field operations summary information from ILF farmer-partners hosting 2010 on-farm demonstrations. The 2010 crop input information is being summarized into economic comparisons for posting on the ILF website. We began compiling multiple-year field operations summaries for longer-term comparisons. Some ILF farmer-partners kept the same demonstration for multiple years. These allow us the opportunity to determine results from the experiments.

We began a summary of the field operations data based on the type of experiment. For example, we would like to develop general economic conclusions about tillage systems (no-till compared with other tillage systems) from a collection of farmer-partners.

A preliminary study was completed estimating the impact of erosion on land values. In the past we have concentrated on the value of the erosion from the farmer and/or societal perspective. This study is an examination of the costs from the landowner perspective. The study is being done by compiling a list of all soil map units where we have similar slopes. We then use the ISPAID data set to determine the change in the corn suitability rating (CSR) and/or the change in corn yield based on the erosion phase. The initial work was presented at the USDA National Agriculture Forum in Washington, DC on February 25<sup>th</sup>.

Another study underway is preparing a rental agreement that will allow landowners to incorporate conservation measures in their leases. We have developed the form and now we are developing a description of each conservation practice. The description includes a picture, purpose of implementing the practice, and estimated cost to implement the practice. One of the major issues is who bears the cost of the practice.

## **APRIL-JUNE 2011**

(NOTE: Dr. Duffy was recovering from surgery for part of this quarter). Ongoing projects: Continued working on a summary of the field operations data-based on the type of experiment. Further analysis of a preliminary study estimating the impact of erosion on land values. In the past we have concentrated on the value of the erosion from the farmer and/or societal perspective. This study is an examination of the costs from the landowner perspective. Compiling a list of all soil map units where there are similar slopes is how we are conducting the study. We then use the ISPAID data set to determine the change in the corn suitability rating (CSR) and/or the change in corn yield based on the erosion phase. Another study underway is preparing a rental agreement that will allow landowners to incorporate conservation measures in their leases. We have developed the form and now we are developing a description of each conservation practice. The description includes a picture, purpose of implementing the practice, and estimated cost to implement the practice. One of the major issues is who bears the cost of the practice.

## **JULY-SEPTEMBER 2011**

The paper on the impact of soil erosion on the value of the land was completed and has undergone preliminary review. The decrease in value per acre was estimated in three different ways. The average cost of moving from one erosion phase to another is \$268 per acre or \$.44 per ton of soil lost. The value would increase as the value of the grain lost increases. This was a rather lengthy paper covering all of the details of the calculations and full methodology. A shorter version suitable for the newsletter is being prepared. I started the work on the 5-year land ownership survey. I was able to find three sources of funding for the survey. In addition, a pre-proposal to the Leopold Center was accepted to be developed into a full proposal. This project, if funded, will expand the land ownership survey to incorporate more questions on the impact of the use of land going into trusts. One of the major shifts occurring in land ownership today is the amount of land going into trusts. It is unclear how trustees view soil conservation. Is conservation considered a cost that must not be incurred because of the fiduciary responsibility? Hopefully we will learn more and be able to incorporate this group into our target audiences. We are continuing work on developing the guide for incorporating soil conservation practices into a lease. This guide is being directed towards landlords who are not familiar with the terms, costs or benefits of the various practices. Elderly and women landowners are especially being targeted with the publication. However, it will be suitable for any landowner not familiar with the terms. Our hope is to help landowners recognize the benefits and costs of the various practices. In this way they can present a more rational and complete program to their tenants. It is hoped that this type of information will empower the landlords to ensure that conservation is being implemented and followed on their land. We will continue working on these publications and spreadsheets in the fourth quarter. Hopefully we will also begin getting the cooperator data to initiate the analysis for 2011.

## **OCTOBER-DECEMBER 2011**

Work continues with the paper on the impact of soil erosion on the value of the land. This was a rather lengthy paper covering all of the details of the calculations and full methodology. Liz Juchems has been working on editing this paper down to fit in a four-page think piece to be finished in 2012.

# AFFILIATE PROJECTS

## **Community/Lakes Video Project**

### **JANUARY-MARCH 2011**

We completed all but one of our interviews for the video. We spent this quarter going through the more than 10 hours of taped material to organize it into a storyline. We continued work on the background music for the video and now have an almost finalized script. We are coordinating several illustrations as well as developing several animations. The title of the Lakes video is “Out to the Lakes” and it is targeting a more youthful audience. We still have a lot of “b” roll to tape over the next three months. The video will be completed by August 2011, and will premiere at the SWCD conference in September.

### **APRIL-JUNE 2011**

We completed our final interview in late June. We completed work on the background music for the video and now have an almost finalized script. We are coordinating several illustrations as well as developing several animations. The title of the video is “Out to the Lakes” and it is targeting a more youthful audience. We gathered a lot of “B” roll and still have a bit more to tape over the next few months. The video will be completed by August 2011, and will premiere at the SWCD conference in September. We are also subcontracting the “enhanced school activities” booklet to two educators who helped us with the booklet we produced for *Troubled Waters*. That booklet will be completed at the end of July. Finally, the ILF communication team is working together to produce the materials that will accompany *OTTL DVD*.

### **JULY-SEPTEMBER 2011**

The video was finished in time for the CDI conference. We gave out 300 copies at the conference and the audience seemed to be pleased with the production.

## **Performance-based Watershed Management**

### **JANUARY-MARCH 2011**

#### **Watershed group activities:**

The Middle West Fork of Crooked Creek Watershed group, led by ILF cooperator Rob Stout, is a partnership of local farmer-leaders, Washington SWCD, ISU Extension and Iowa Learning Farms. Work continued on the watershed development grant including continuing the RASCAL assessment and sending out a watershed resident survey.

The Competine Creek Watershed group met for a progress meeting with IDALS watershed staff. Great progress has been made with identifying high-risk areas within the watershed that are in need of conservation structures and practices.

The Dry Creek Watershed group in Linn and Benton Counties held two meetings this quarter. A watershed-wide meeting was held on March 2 to update the agricultural producers on the progress of the watershed assessment that was conducted as part of the planning grant and to report the results of the Army Corps of Engineers visioning session. The second meeting of the farmer leadership team was held on March 31 to discuss the results of the watershed assessment, the Army Corps visioning process, and to plan watershed outreach events for the summer. The residue measurement risk assessment tool was introduced to the leadership team and will be used this spring on fields enrolled by producers within the watershed.

### **JULY-SEPTEMBER 2011**

Fall cornstalk nitrate sampling was conducted in the Middle West Fork of Crooked Creek watershed, Crane Creek watershed, and Competine Creek watershed. Results will be summarized and presented to the watershed groups for discussion during winter meetings. The ILF Conservation Station presented watershed, water quality and soil quality information to high school and middle school students in the Washington and Pekin School districts which intersect the Middle West Fork of Crooked Creek and Competine Creek watersheds, respectively. Connecting to youth in the watersheds has increased awareness of the water quality improvement efforts occurring in the two projects.

### **OCTOBER-DECEMBER 2011**

The Middle West Fork of Crooked Creek watershed group met on December 13<sup>th</sup>. A total of 17 people, including 12 farmers from the watershed, attended. Todd Sutphin, with the Iowa Soybean Association, shared results of crop year 2011 stalk nitrate performance measures results with watershed landowners and farmers. Jamie Benning updated attendees on status of the watershed improvement project. Tom Wilton, Iowa DNR, presented the results of water sampling done within the watershed.

## **ILF/PFI Cover Crop Working Group**

### **JANUARY-MARCH 2011**

Much of this quarter was spent wrapping up our “Adding a Cover Crop to a Corn-Soybean System” how-to DVD, which was completed in late February. The DVD was distributed at the Iowa Water Conference in Ames and cover crop management workshops in northern Iowa.

Cover crop management workshops were held on March 10 in Spencer and on March 24 in Rock Valley. The March 10 workshop featured question and answer sessions for farmers and agency personnel to interact with cover crop researcher Tom Kaspar from the ISU-based National Laboratory for Agriculture and the Environment, ISU Soil Fertility Specialist John Sawyer, and ISU Extension/ILF Ag Engineer Mark Hanna. The March 24 workshop featured a question and answer session with Cherokee County farmer Nathan Anderson, who is using cereal grain cover crops on his farm near Aurelia. Mr. Anderson subsequently joined the ILF team as a spokesperson farmer-partner. Attendees also interacted with cover crop researcher Jeremy Singer from the National Lab for Agriculture and the Environment and Sarah Carlson of Practical Farmers of Iowa, who shared results from our ILF/PFI Cover Crop Working Group on-farm winter rye cover crop demonstrations.



Jeremy Singer presented the ILF Webinar on the topic of cover crop management on March 16.

Summer and fall 2011 cover crop management outreach and education field days are being scheduled in conjunction with farmer-partners and NRCS agency personnel statewide.

On-farm demonstration work will continue in crop year 2011 with existing farmer-partners in Butler, Greene, Guthrie, Ida, Shelby, Tama, Taylor, Washington (two farmer-partners), and Webster counties. Our Grundy County farmer-partner's organic crop rotation will prevent him from continuing to host an on-farm demonstration. Pending continued funding of the project through June 2012 we will re-establish winter rye cover crop at 10 existing on-farm demonstration sites in fall 2011.

### **APRIL-JUNE 2011**

Our "Adding a Cover Crop to a Corn-Soybean System" how-to DVD was distributed at all ILF-sponsored field days during the quarter (whether or not cover crop management was a featured topic on the field day agenda). Field day participants were also offered free copies of the Sustainable Agriculture Research and Education (SARE)-published 3<sup>rd</sup> edition of "Managing Cover Crops Profitably," a 244-page book that includes detailed information about cover crop species, cover crop management, and benefits of using cover crops.

Cover crop management field days were held on June 1 in Washington County and on June 17 in Palo Alto County. The June 1 field day was hosted by ILF farmer-partner Rob Stout and featured question and answer sessions for farmers, landowners, and agency personnel to interact with project cooperators Rob Stout and George Schaefer (also of Washington County), cover crop researcher Tom Kaspar from the ISU-based National Laboratory for Agriculture and the Environment, ISU Soil Fertility Specialist John Sawyer, and ISU Extension/ILF Ag Engineer Mark Hanna. The June 17 field day was hosted by Palo Alto County farmer Jeff Joyce and featured a question and answer session with Joyce, cover crop researcher Jeremy Singer from the National Lab for Agriculture and the Environment, Sarah Carlson of Practical Farmers of Iowa, ISU Soil Fertility Specialist John Sawyer, and ISU Extension/ILF Ag Engineer Mark Hanna.

Our June 22 ILF field day in Muscatine County did not specifically include cover crop management discussion; however, cover crop management DVDs and other outreach and education materials were offered to field day attendees. Lundvall visited with several farmers who specifically asked about cover crop management and field day host Doug Nolte expressed interest in trying a winter rye cover crop on his farm.

During the quarter, information gleaned from Jeremy Singer's March 2011 ILF Webinar on cover crop management was summarized into a four-page ILF/PFI "Cover Crops: Frequently Asked Questions" think piece. The publication will be distributed at education and outreach events and posted on the ILF website.

On-farm demonstration continues in crop year 2011 with 10 farmer-partners in Butler, Greene, Guthrie, Ida, Shelby, Tama, Taylor, Washington (two farmer-partners) and Webster counties. In June, the project was granted continued funding through June 2012, so plans are in place to re-establish winter rye cover crop at 10 existing on-farm demonstration sites in fall 2011.

### **JULY-SEPTEMBER 2011**

Our “Adding a Cover Crop to a Corn-Soybean System” how-to DVD was distributed at all ILF-sponsored field days during the quarter (whether or not cover crop management was a featured topic on the field day agenda). Field day participants were also offered free copies of the Sustainable Agriculture Research and Education (SARE)-published 3<sup>rd</sup> edition of “Managing Cover Crops Profitably”, a 244-page book that includes detailed information about cover crop species, cover crop management, and benefits of using cover crops.

Cover crop management field days were held on July 20 at the Smeltzer Farm in Webster County, on July 27 at the ISU Neely-Kinyon Farm in Adair County, on August 30 in Taylor County, September 14 at Pekin High School in Jefferson County, and on September 30 in Lyon County. The July 20 field day included talks from three local farmers who aerial-seeded winter rye cover crops in fall 2010, along with discussion of corn nitrogen fertilizer needs following a winter rye cover crop. The July 27 field day was part of an ILF no-till/cover crop/perennial energy crop field day featuring ILF farmer-partner Randy Caviness, ISU-based National Laboratory for Agriculture cover crop researcher Jeremy Singer, and ISU Agronomy miscanthus researcher Emily Heaton. The August 30 field day was hosted by project cooperator Kelly Tobin and also featured long-time cover crop farmer Paul Ackley, also of Taylor County. Farmers, landowners, and agency personnel were able to interact with Tobin and Ackley, cover crop researcher Tom Kaspar of the ISU-based National Laboratory for Agriculture and the Environment, PFI’s Sarah Carlson, and ISU Extension/ILF Ag Engineer Mark Hanna. The September 14 field day was hosted by Pekin High School FFA and the local Compentine Creek Watershed group and featured a question and answer session with project cooperator Rob Stout, cover crop researcher Tom Kaspar, and ISU Soil Fertility Specialist John Sawyer. The September 30 field day was held in conjunction with Lyon and Sioux County NRCS personnel, who identified a farmer in southern Lyon County who broadcast-seeded winter rye following corn silage harvest in early September.

The four-page ILF/PFI “Cover Crops: Frequently Asked Questions” publication was distributed at all ILF education and outreach events and is posted on the ILF website. On-farm demonstration continues in crop year 2011 with 10 farmer-partners in Butler, Greene, Guthrie, Ida, Shelby, Tama, Taylor, Washington (two farmer-partners) and Webster counties. In September, winter rye was aerial-seeded into standing corn and soybean crops at our Shelby, Washington, and Webster county demonstration sites. Winter rye will be drilled at the remaining demonstration sites following harvest of the 2011 corn or soybean crop.

### **OCTOBER-DECEMBER 2011**

On-farm demonstration work continues, with 10 farmer partners in Butler, Greene, Guthrie, Ida, Shelby, Tama, Taylor, Washington (two farmer partners) and Webster counties, concluding crop year 2011 field work and seeding the overwintering cover crop. In September, winter rye (*Secale cereale*) was aerial-seeded into standing corn and soybean crops at the Ida, Shelby, Washington and Webster county demonstration sites. Winter rye was drilled following corn or soybean harvest at the Butler, Greene, Guthrie, Tama and Taylor county demonstration sites.

Receipt of 2011 corn and soybean grain yield data from our farmer-partners has been slow. As a result, 2011 corn and soybean grain yields will be summarized in a future report. Preliminary 2011 soybean yield data is encouraging, with no difference or increased soybean yield responses reported where planted into overwintering rye cover (versus the “no cover” treatment strips). In addition, our farmer partner in Tama County reported good suppression of lambsquarter (*Chenopodium album L.*) and waterhemp (*Amaranthus tuberculatus*) weed species by the winter rye cover crop in his soybean demonstration site planted to a conventional (non-glyphosate resistant) soybean variety.

Cover crop management was discussed at one field day during the reporting period, on October 27 in Boone County. Our “Adding a Cover Crop to a Corn-Soybean System” how-to DVD was distributed at the field day. Field day participants were also offered free copies of the Sustainable Agriculture Research and Education (SARE)-published 3<sup>rd</sup> edition of “Managing Cover Crops Profitably,” a 244-page book that includes detailed information about cover crop species, cover crop management, and benefits of using cover crops.

The October 27 field day was held in conjunction with Boone County NRCS personnel, who identified Boone-area farmer Jeremy Gustafson who is using cereal grain and tillage radish cover crops. Gustafson has used a small grain drill to seed cover crops post-harvest in previous years; however, in early September 2011 Gustafson worked with Webster City-area pilot Ralph Storm to aerial-seed (pre-harvest) winter rye into corn and oats into soybean. After harvest of the 2011 crop Gustafson also used a modified dry fertilizer cart to “drill” winter rye and oats in 15-inch rows. Both systems were on display at the October 27 field day. Farmers, landowners, and agency personnel were able to interact with Gustafson, pilot Ralph Storm, cover crop researcher Tom Kaspar of the ISU-based National Laboratory for Agriculture and the Environment, PFI’s Sarah Carlson, ISU Extension Agronomist John Sawyer, ISU Extension/ILF Ag Engineer Mark Hanna, and NRCS agency staff from Boone and neighboring counties. Attendance at the October 27 event exceeded expectations, with 60 people attending. A number of NRCS personnel from neighboring counties were on-hand to learn more about cover crop management.

The four-page ILF/PFI “Cover Crops: Frequently Asked Questions” publication was distributed at all ILF education and outreach events and is posted on the ILF website. During this quarter, this publication was also reformatted to fit as a booklet into the cover crop DVD, to eliminate having to distribute both the four-page publication and the DVD separately.

## **Iowa Water Center**

### **JANUARY-MARCH 2011**

Preparing for the Iowa Water Conference was the main activity this quarter. Cruse heads up the planning committee for this group. The Iowa Water Conference was March 7 and 8. ILF helped sponsor the Monday evening plenary session where the film “Green Fire” about the life and work of Aldo Leopold was shown and “Green Fire” filmmaker Curt Meine served as speaker.

## **APRIL-JUNE 2011**

Iowa Water Center assisted with the submission of an USDA NIFA grant for a Youth Water Education program. Iowa Water Center will do the administration on grant if it is received.

## **JULY-SEPTEMBER 2011**

This quarter we partnered with ILF to write a large USDA NIFA grant proposal. We did not get the project funded but the writing of the proposal helped us develop a youth water education program. We are submitting parts of the Water Rocks! project to other organizations for funding. We also began to plan for the Iowa Water Conference ILF track. In addition, Cruse was August webinar presenter and was quite successful. We plan to make a video of this webinar production.

## **OCTOBER-DECEMBER 2011**

Preparations for the 2012 Iowa Water Conference continues. The Iowa Learning Farms “track” was finalized this quarter and speakers were confirmed for the afternoon’s session.

## **High School Project**

### **JANUARY-MARCH 2011**

Benning, Andrews and Staudt have continued to work on integrating the Conservation Station into secondary science and agriculture classrooms around the state. With the help of Carol Brown, three educational modules have been created, integrating concepts of watersheds, soil quality and water quality. Each module features hands-on learning opportunities for the students, including watershed delineation, residue measurements and water quality monitoring. Conservation Station school visits are scheduled with Benton Community Schools and Ames High School this spring; several additional schools have been contacted for fall visits.

### **APRIL-JUNE 2011**

In early April, Benning, Andrews and Staudt (with the help of Brown and Comito) completed the design of the Conservation Station’s high school teaching module and corresponding hands-on activities. The multimedia lesson features topics of watersheds, water quality, conservation practices, land management choices and career exploration. The curriculum was tested with three different Conservation Station visits this spring: Benton Community Schools, Ames High School and Moulton-Udell Schools. Educational activities were adjusted/modified based on ILF team and classroom teacher feedback about their effectiveness. In particular, the hands-on activities were very well received, including puzzle piece activity, watershed delineation, IOWATER monitoring and residue measurements. Pre-assessment and post-assessment surveys were given to students to evaluate their understanding of watersheds and water quality issues/challenges in the state; complete data will be available following fall classroom visits.

## **JULY-SEPTEMBER 2011**

Benning, Andrews, and Staudt carried out the final two visits to high schools around the state in September, completing the outreach component of the USDA/ NIFA Secondary Education Challenge Grant: “Improving Secondary Ag/Science Students’ Understanding of Watersheds” (2010-2011). Materials developed for the high school module are being utilized by ILF staff in a variety of applications beyond the targeted high school audience; the materials and hands-on activities have been particularly fitting for Conservation Station visits with community college students, and will continue to be woven throughout existing and new Conservation Station modules.

## **OCTOBER-DECEMBER 2011**

Final evaluation and reporting for the USDA/ NIFA Secondary Education Challenge Grant: “Improving Secondary Ag/Science Students’ Understanding of Watersheds” (2010-2011) were completed in December. The module and hands-on learning activities reached over 550 high school agriculture and science students over the course of the year. Students demonstrated an increased understanding of the pollutants found in Iowa’s rivers, lakes, and streams, as well as how practices on the land can impact water quality. Furthermore, teacher feedback was very positive, indicating that their lessons were enhanced by the module information and hands-on learning activities.

## **Accelerating Strip-tillage Adoption Project**

### **JANUARY-MARCH 2011**

Quarterly activity included inquiries with statewide farmer-partners, Extension, and agency staff about scheduling crop year 2011 strip-till education and awareness field days. We are working with Chickasaw County NRCS Resource Conservationist Jay Jung on an early April strip-till informational workshop in New Hampton. Jung moved to Chickasaw County from Marion County NRCS over the winter; in March he contacted ILF, citing local farmer questions about strip-till and no-till management. ILF farmer-partners Jon Gisleson and Collin Jensen will share their experiences and insights at the workshop.

A central Iowa strip-till field day is being planned with ISU Extension Field Agronomist Mark Licht on August 24 at the ISU Agronomy Farm west of Ames; ILF will also sponsor planned local strip-tillage field days in the Mason City area in June and near Fort Dodge in July. We plan to develop an ILF strip-tillage how-to video in 2011. In March, ILF farmer-partner Tom Wagner agreed to be featured on the video planting his 2011 corn into tilled strips created in fall 2010.

### **APRIL-JUNE 2011**

Statewide agency, ISU Extension and agribusiness groups assisted us with successful strip-tillage education and awareness workshops and field days.

On April 5, Chickasaw County NRCS Resource Conservationist Jay Jung hosted a strip-tillage/no-till informational workshop in New Hampton. Floyd, Mitchell, and Fayette County ILF farmer-partners Jon Gisleson, Collin Jensen, and Randy Norby offered insights and

answered farmer/landowner questions about strip-till or no-till equipment, fertilizer nutrient and weed management, and related issues.

On April 18, Hamilton County ILF farmer-partner Arlo Van Diest and ISU Extension Field Agronomist John Holmes hosted a strip-tillage open house at the Van Diest farm. Van Diest detailed the soil quality benefits he has experienced after 10 years of using strip-tillage. Of particular interest were Van Diest's insights about spring strip-tillage seedbed preparation for corn following corn. The public was invited to a follow-up strip-tillage open house at the Van Diest farm on June 14, showcasing early-season corn growth and featuring additional perspective about fall strip-tillage management from Mike Rhoades, an agronomist working with northwest Boone County farmers Orrie and Mark Muench.

On June 17, ILF, PFI, and ISU Extension Field Agronomist Paul Kassel hosted a strip-tillage and cover crop management field day near Ruthven with Palo Alto County farmer Jeff Joyce. He aerial-seeded a winter rye cover crop into standing soybeans on August 25, 2010; following soybean harvest, a late October strip-tillage operation included application of dry fertilizer and anhydrous ammonia + N-Serve stabilizer. Over 50 farmers and landowners attended the field day to learn about Jeff Joyce's pairing of a fall-seeded cover crop and strip-tillage to minimize soil erosion and improve soil quality.

On June 21, ILF partnered with former ILF employee Jim Penney and Key Co-op to host a strip-tillage field day in Story County near Roland. Farmer Mike Hermanson showcased his farm's Environmental Soil Warrior two-pass, coulter-only strip-tillage equipment and management system utilizing fall-applied poultry manure. The field day also included tours of two other field sites (one 2011 corn and one 2011 soybean field) that were custom strip-tilled in fall 2010 by Key Co-op personnel, using a local farmer's John Deere strip-tillage equipment. We hope to encourage other regional farmer cooperatives to provide leasing of cooperative-owned strip-tillage equipment or to provide custom strip-tillage by two or three well-trained cooperative employees using a dedicated tractor and cooperative-owned strip-tillage equipment.

On June 22, Muscatine County ILF farmer-partner Doug Nolte, Doug's father-in-law Larry Schnittjer, and ISU Extension Field Agronomist Virgil Schmitt hosted a strip-tillage field day near West Liberty. Nolte detailed his experiences using strip-tillage equipment leased from a local ag supplier for spring strip-tillage (prior to 2009 and 2010 crops) and fall strip-tillage (prior to 2011 crop).

ISU Extension Field Agronomist Mark Licht is in charge of a replicated, randomized tillage system research plot at the Ames-area ISU Johnson Farm in 2011. An adapted corn hybrid was planted May 6 using one of three tillage treatments: 1) no-tillage; 2) Fall 2010 strip-tillage; and 3) full-width tillage (Fall 2010 disk-chisel + Spring 2011 field cultivator tillage). During the April-June quarter Hanna and Lundvall assisted Licht with corn seedling emergence and plant height data collection.

## **JULY-SEPTEMBER 2011**

Statewide agency, ISU Extension and agribusiness groups assisted us with successful strip-tillage education and awareness workshops and field days. On July 6 O'Brien County ILF farmer-partner Tom Wagner offered insights and answered farmer/landowner questions about strip-till management and his experiences with strip-till as part of an ILF-sponsored field day with Silver Lake Watershed in Dickinson County. On July 20 Webster County ILF farmer-partners Gary and Dave Nelson hosted a strip-till management field day at the Smeltzer Trust Farm near

Otho. Dave Nelson detailed the agronomic and economic benefits he and his father have experienced in their 5 years of using strip-tillage. On August 25 ILF and ISU Extension Field Agronomist Mark Licht hosted a strip-tillage and precision agriculture management field day at the ISU Ag Engineering and Agronomy Farm near Ames. Crop advisors, farmers and landowners attending the field day saw five unique strip-tillage implements demonstrated in a field of harvested oat stubble. Attendees were able to exchange strip-till ideas with other farmers and visit with strip-tillage equipment manufacturer representatives at the field day. Work with a crop year 2011 replicated, randomized tillage system research plot at the Ames-area ISU Johnson Farm continues. Crop year 2011 corn grain yields will be collected and reported in the next quarterly report.

## OCTOBER-DECEMBER 2011

Statewide agency, ISU Extension and agribusiness groups assisted us with successful strip-tillage education and awareness workshops and field days. Work continued with a 2011 crop year replicated, randomized tillage system research plot at the Ames-area ISU Johnson Farm. Results of the 2011 demonstration are summarized below.

Treatment	Residue Cover	Spring Plant Population	Emergence Rate Index	V4 stage		Grain Moisture	Grain Yield
				Plant Height	Fall Plant Population		
	%	plants / acre		inches		%	bushels / acre
No-tillage	76.3	31,875	10.6	17.46	30,438	21.9	168.4
Strip-Tillage	70.5	32,625	12.5	21.85	30,750	19.1	165.1
Conv. Tillage	23.8	30,625	10.8	20.01	29,375	19.7	172.6
Pr > F	0.0001	0.2747	0.1280	0.0056	0.8204	0.0071	0.3558
LSD <sub>(0.05)</sub>	10.1			2.1		1.0	

Three tillage systems were compared, including no-tillage, strip-tillage (November 2010 strip-tillage operation with anhydrous ammonia application), and conventional tillage (fall 2010 disk-chisel tillage operation, followed by spring 2011 field cultivar tillage operation). Pioneer 33W84 (111-day relative maturity) corn hybrid was planted on May 6 in 30-inch rows at approximately 34,000 seeds per acre. The field site had been planted to corn in 2010, so the 2011 plots were managed as corn following corn. Plots measured 12 rows (30 feet) wide x 450 feet long. Nitrogen fertilizer (200 lbs. N per acre) was applied to the strip-tillage and conventional tillage plots on November 11, 2010 as anhydrous ammonia. The same 200 lbs. N per acre rate was applied to the no-tillage plots on June 6, 2011, as coulters-injected liquid UAN (urea ammonium nitrate) fertilizer. Soil test phosphorus (P) and potassium (K) was adequate and no additional P and K was applied.

Corn yields were statistically similar regardless of tillage system, though conventional tillage and no-tillage reported yields were higher in 2011. Tillage system did have a statistically significant effect on early-season estimated residue cover, corn plant height at V4 growth stage (early June, with four corn leaves fully emerged on majority of corn plants), and harvested grain moisture. The intent is to repeat the tillage comparison in 2012, although we were unable to secure a strip-tillage implement post-harvest 2011.

On December 12 Dean Lemke and Matt Lechtenberg of IDALS met with ISU Extension Field Agronomist Mark Licht, Mark Hanna, and John Lundvall to review results from the 2011 ISU Johnson Farm strip-till/conventional tillage/no-till demonstration. The group discussed plans for a February 2012 follow-up meeting with ILF farmer-partners currently using strip-tillage management.

## **Prairies, Wetlands and Croplands Project**

### **JULY-SEPTEMBER 2011**

Comito and Staudt consulted with Harold and Kay Whipple to establish preliminary plans and timeline for the development of a “Prairies, Wetlands, and Croplands” module, targeting Warren Co. 4<sup>th</sup> grade students. ILF staff also met with Pauline Drobney, Michelle Garcia, and Megan Wandag at the Neal Smith National Wildlife Refuge to discuss integration of ongoing prairie STRIPs research into this new educational module.

### **OCTOBER-DECEMBER 2011**

The “Prairies, Wetlands, and Croplands” project is on-target for creating a unique and engaging educational module for 4<sup>th</sup> grade students. Project accomplishments during this quarter included collection of 12+ prairie plants with accompanying photographs, review and compilation of educational materials for development of in-class activities, beginning development of biodiversity card game, and composition and recording of two songs: “Litany of the Prairie” and “Wetlands Have Real Important Jobs To Do.” All Warren Co. principals and 4<sup>th</sup> grade teachers were contacted via email in early December to introduce the project and provide details about sharing this learning module with them. Two schools have responded to date, and we plan to follow up with additional communication with all schools in mid-January.