

# Green Lands Blue Waters



2013 Conference, 20-21 November  
Coffman Memorial Union  
University of Minnesota, Minneapolis Campus

This Conference brings together experts in Continuous Living Cover (CLC) agricultural systems: professionals with experience in research, education, outreach, and implementation of these systems. The conference goal is to share information across disciplines and to identify shared actions that will achieve transformational changes at the scale of watersheds through increased acreage of Continuous Living Cover on working farmlands.

## Wednesday, November 20 (Mississippi Room)

8:00 – Registration and light breakfast

(Posters set-up by 10 AM; Room 303)

9:00 – 9:15 Welcoming remarks from Michael A. Schmitt, Ph.D., Associate Dean for Extension, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota

9:15 – 10:00 Developing High-Efficiency Agricultural Systems: “A Forever Green Agriculture Initiative.” Donald L Wyse, Department of Agronomy and Plant Genetics, University of Minnesota

*Green Revolution technologies dramatically enhanced crop yields, but often at the expense of food security and sustainability. This session proposes a paradigm shift in agriculture, a Forever Green Revolution that embraces continuous living cover on working lands through development of a suite of high-yielding perennial and winter annual crops that improve multiple ecosystem service.*

10:00 – 10:30 Networking break; posters

10:30 – 12:00 Continuous Living Cover programs and progress:

*Promoters of Continuous Living Cover will present overviews of the research and progress made, particularly over the past year, review the goals that came out of the 2012 Conference, and discuss the state of CLC then and now, and what lies ahead.*

Perennial Grains: Lee DeHaan, The Land Institute

Perennial Forage / Pastures: Laura Paine, Wisconsin Department of Agriculture,  
Trade & Consumer Protection

Perennial biomass: Steve John, Executive Director, Agricultural Watershed Institute

Agroforestry: Mike Gold, Center for Agroforestry, University of Missouri  
Cover Crops: Matt Ruark, Department of Soil Science, University of Wisconsin-Madison

12:00 – 1:00 Lunch (Mississippi Room; posters in room 303)

1:00 – 2:30 Integrating Continuous Living Cover into cropping systems and landscapes (Mississippi Room)

**Diversification With Perennials: How Does it Affect Cropping System Performance?**  
Matt Liebman, H.A. Wallace Chair for Sustainable Agriculture / Professor of Agronomy, Iowa State University

*This session focuses on findings from the long-term study at Iowa State University's Marsden Farm, which compares a conventional corn-soybean system with two alternative systems with perennials: a three-year rotation that adds oat and red clover, and a four-year rotation that adds oat and alfalfa. Since 2003, grain yields, profits, and weed control of the more diversified rotations have been similar to or greater than those of the conventional system, despite large reductions in the use of agrichemicals and fossil fuels. Freshwater toxicity of the more diverse systems has been two orders of magnitude lower than in the conventional system.*

**Prairie Strips: How Much Can They Reduce Soil and Nutrient Loss from Crop Fields?**  
Matt Helmers, Dean's Professor, College of Agriculture & Life Sciences / Associate Professor in Agricultural and Biosystems Engineering, Iowa State University

*The prairie STRIPS project was started in 2005 at the Neal Smith National Wildlife Refuge, IA and expanded in 2013 to on-farm trails. This research is demonstrating that placement of perennial native prairie strips on as little as 10% of cropland can result in large (60% to 95%) percentage reductions in soil and nutrient loss from crop fields.*

**Tool Time: Resources in the CLC Toolbox.**

Gary Bentrup, USDA National Agroforestry Center, Lincoln, NE.

*Integrating continuous living cover into agricultural landscapes involves locating and designing appropriate practices on whole farm and landscape scales. This presentation offers a sampling of farm and landscape-level tools available for mapping and planning continuous living cover strategies to achieve farmer, landowner, and community goals.*

2:30 – 3:00 Networking break (Mississippi Room; posters in room 303)

3:00 – 5:00 Continuous Living Cover Sessions:

*Participants will join a facilitated discussion about opportunities for increasing Continuous Living Cover on the ground. There will be five concurrent sessions. Each session will include discussion of goals and proposed actions. Themes of increasing the practice of CLC, including in long-term rotations, and thoughtful placement of CLC practices on the landscape will undergird the discussions.*

Perennial Forage and Pastures (Room 324) Session leaders:

Laura Paine, Wisconsin DATCP

Terry VanDerPol, Land Stewardship Project

Jane Jewett, Minnesota Institute for Sustainable Agriculture / GLBW

Perennial Biomass (Room 325) Session leaders:

Steve John, Agricultural Watershed Institute, IL

Linda Meschke, Rural Advantage, MN

Carol Williams, University of Wisconsin, Madison

Fred Iutzi, Western Illinois University

Agroforestry (Room 305) Session leaders:

Mike Gold, University of Missouri

Diomy Zamora, University of Minnesota Extension

Michele M Schoeneberger, USDA National Agroforestry Center, Lincoln, NE

Cover Crops (Mississippi Room) Session leaders:

Tom Kaspar, USDA-ARS, Agroecosystems Management Unit, Ames, IA

Matt Ruark, University of Wisconsin, Madison

Perennial Grains/Intermediate Wheatgrass (Room 319) Session leaders:

Lee DeHaan, The Land Institute, Salina KS

Don Wyse, University of Minnesota

5:00 – 6:30

Reception (Mississippi Room, posters in room 303)

Thursday, November 21

(posters on display through lunch; Room 303)

- 7:30 – 8:00            Light breakfast / networking (Mississippi Room)
- 8:00 – 9:00            Report-out from Continuous Living Cover groups on previous afternoon's discussion sessions; Q & A and discussion  
Jeri Neal, the Leopold Center for Sustainable Agriculture, Iowa State University
- 9:00 – 10:00           An agricultural watershed case study: Chippewa River Watershed, MN  
Kylene Olson, Chippewa River Watershed Project  
Robin Moore, Land Stewardship Project  
Jim Paulson, University of Minnesota Extension  
*The Chippewa River in West Central Minnesota is adversely affected by flow, nitrogen, sediment, and land degradation stressors. A decade of in-stream monitoring, correlated to land-uses, predicts that converting an additional nine percent of row crop lands to perennials will achieve specific water quality standards. This session presents a comprehensive watershed approach to identify lands for conversion to perennial crops; predict resulting changes in ecosystem services; compare economic aspects of annual row-crop and perennial systems; engage farmers in making land-use changes; and monitor for results in streams and on fields.*
- 10:00 – 10:30           Networking break (Mississippi Room; posters in room 303)
- 10:30 – 12:00           Tour through Watershed Projects in the Midwest

Participants will rotate through three rooms, where representatives from 2-3 watershed projects in each room will provide examples and lead discussions about what works to increase adoption of CLC in watershed landscapes.

Mississippi Room

- St. Croix River Watershed (MN and WI), Deb Ryun, St. Croix River Association
- Elm Creek (MN), Linda Meschke, Rural Advantage
- Chippewa River Watershed (MN), Kylene Olson, Chippewa River Watershed Project

Presidents Room

- Cannon River Watershed (MN); Karl Hakanson, Cannon River Watershed Partnership
- Root River Watershed (MN), Donna Rasmussen and Dean Thomas, Fillmore County Soil & Water Conservation District
- SW Wisconsin, Cara Carper, SW Badger Resource Conservation & Development Council

Room 324

- Boone River Watershed (IA), Eileen Bader, The Nature Conservancy
- Upper Sangamon River Watershed (IL), Steve John, Agricultural Watershed Institute

12:00 – 1:00 Lunch (Mississippi Room; posters in room 303)

1:00 – 2:30 How do we get more farmers, land owners, and businesses more involved and taking action to increase CLC acreage? (Mississippi Room)

#### Farmer-Led Watershed Councils

Julia Olmstead, University of Wisconsin Extension

*What if we put farmers in charge of deciding how best to encourage conservation practices that lead to better water quality, including more continuous living cover adoption on farms? Project coordinator Julia Olmstead will talk about why the state of Wisconsin decided to try handing over some decision-making around water quality to farmers. She'll talk about what it took to get the project launched, what's happened so far, and where the farmers and project partners hope to go.*

#### How Can we Support CLC Practices on Leased Farmland?

Joan Stockinger, Cooperative Development Services (CDS)

*Farmland lease arrangements complicate the adoption of CLC cropping practices, which often require a multi-year commitment. There is a segment of non-operating landowners that is interested in seeing more CLC on their land, but lacks the knowledge, support base, or proximity to the land to make this happen. This session focuses on the work CDS and other organizations are undertaking to establish "Stewardship Farmland Management" companies and other programs to support conservation farming practices on leased farmlands.*

#### New Farm Business Opportunities Associated with Cover Crops

Rob Myers, University of Missouri/USDA-SARE

*Dr. Myers, a Minnesota Institute for Sustainable Agriculture Endowed Chair, has been evaluating the business opportunities for services related to cover crop seeding and management. This session will focus on opportunities for small, medium and large agricultural companies to assist farmers and landowners with cover crops and related conservation practices. It will also address the implications of such industry engagement for cover crop adoption and possible impacts on nutrient management and water quality.*

2:30 – 3:00 Networking Break (Mississippi Room)

3:00 – 4:00 How are government programs and policies changing to accommodate a more diversified agricultural landscape with CLC cropping systems? (Mississippi Room)

**USDA NRCS: Supporting Cropping Systems with Continuous Living Cover**  
Ryan Galbreath, Minnesota State Resource Conservationist, USDA Natural Resource Conservation Service

*USDA NRCS has a wide variety of conservation programs used to solve resource concerns on private lands. These programs offer multiple conservation practices to fit the needs of the diverse landowners and operations. This session will cover common conservation practices and programs used as it relates to long term perennial crop rotations. We will also discuss how our conservation partners can help us to facilitate change to meet state and local needs. NRCS will also give a brief introduction to the NRCS Soil Health Campaign and Soil Health Management Systems.*

**Beyond the Farm Bill: Cultivating Policies to Advance the GLBW Vision**  
Jim Kleinschmit, Rural Communities Program, Institute for Agriculture and Trade Policy

*How well are current agriculture policies working? In the Midwest we continue losing perennial cover on agricultural lands and nitrogen concentrations in surface waters remains very high where row crop agriculture is the dominant land use. New policies are needed to move forward the type of systems approach to agriculture envisioned by Green Lands Blue Waters. This session will propose a process to identify and promote the best ideas on policy – at the local, state or national level – that can support Continuous Living Cover and help achieve the broader GLBW goals.*

4:00 – 4:15

Closing remarks / Adjourn