



Green Lands
Blue Waters

Summary of the activities of the GLBW NRCS Continuous Living Cover Cohort, 2018-2020

October 2020

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Introduction

Green Lands Blue Waters (GLBW) is singularly focused on Continuous Living Cover (CLC). We act as a connector, collaborator, convener, and communicator serving our broad network of partners in the Upper Mississippi River Basin. Our network includes universities, researchers, educators, producer associations, environmental groups, businesses, nonprofits, governmental agencies, policy makers and practitioners.

Our network supports the development of and transition to a new generation of multi-functional agricultural systems in the Upper Mississippi River Basin and adjacent areas that integrate more perennial plants and other Continuous Living Cover into the agricultural landscape.

GLBW and partners are conducting essential research, improving the genetics of old and new crops, translating knowledge into CLC farming systems, developing new extension and outreach capacity, working in farm fields, shaping policy, building profitable markets for new crops, and changing the narrative around what's possible through agriculture.

For the past five years, GLBW has been working with partners to expand support for CLC systems by optimizing United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) programs. GLBW promotes five CLC farming strategies: agroforestry, perennial biomass, perennial forage, perennial grains, and rotations/winter annuals/cover crops in the Upper Midwest. The goal of CLC farming is to keep live plant cover and roots in the ground on farmland all year long.

Support for CLC farming is among the most efficient uses of NRCS funding. The Environmental Quality Incentives Program (EQIP) and Conservation Stewardship Program (CSP) are NRCS programs that improve water quality, soil health, and address many other agricultural resource concerns. CLC farming can significantly improve conditions for resources of concern to NRCS, GLBW partners, farmers, and communities.

In February 2017, supported by scientific input provided by GLBW partners, the Minnesota NRCS State Technical Committee approved changes that allow for planting Kernza® in 100% stands under three practices: Contour Buffer Strips (332), Filter Strips (393), and Cross Wind Traps (589c). [Kernza is the trademark name for the perennial grain harvested from new varieties of intermediate wheatgrass.]

This seemingly small change is significant, as it allows for planting 100% Kernza stands in the cited conservation practices. In addition, Kernza is not the only CLC crop that can be planted to meet requirements of the Minnesota Buffer Law. Perennial hay crops, perennial bioenergy crops, pastures, and agroforestry can also be used in buffers. EQIP and CSP programs can support any of these CLC strategies in buffers.

In 2018, GLBW released a white paper, *NRCS Opportunities for Increasing Continuous Living Cover Farming Systems*, and a companion two-pager for outreach to partners, *Recommended Actions to include Continuous Living Cover Farming Systems in the Environmental Quality Incentives and Conservation Stewardship Programs*. These are currently housed at <https://greenlandsbluewaters.org/resources/papers-guides/#clc-nrcs-programs>

Formation of the GLBW NRCS Continuous Living Cover Cohort

A next step for GLBW was to engage a cohort of partners serving on state-level NRCS technical committees across the Upper Midwest to better understand and navigate, together as professional peers, NRCS practice prioritization and approval processes and to develop and implement a targeted regional strategy to increase funding for CLC practices through EQIP and CSP.

In 2018, GLBW staff invited representatives of organizations from across its Upper Midwest network.

To date, the following individuals have participated in Cohort calls and have been available for one-on-one consultations.

- George Boody – Land Stewardship Project (MN)
- Suzan Erem – Sustainable Iowa Land Trust (IA)
- Catie Gregg – Prairie Rivers Network (IL)
- Duane Hovorka – Izaak Walton League (National)
- Jeff Jensen – Trees Forever (IA)
- Anna Johnson, Center for Rural Affairs (IA)
- Jill Kostel – Watershed Initiative (IL)
- Linda Meschke – Rural Advantage (MN)
- Valentin Picasso Risso – University of Wisconsin (WI)
- Kris Reynolds – American Farmland Trust (Midwest)
- Liz Rupel, Illinois Stewardship Alliance (IL)
- Kevin Wolz – Savanna Institute (Midwest)

Two new members joined in September 2020:

- Cynthia Bartel – Iowa State University (IA)
- Shona Snater – Land Stewardship Project (MN)

The group has explored ways to learn from each other across state lines, and members have recommended other NRCS state staff and committee members to expand the Cohort.

GLBW created an online collaborative working space for sharing past efforts, new ideas, potential new Farm Bill opportunities, and support materials citing research and sources of technical assistance.

These discussions and individual emailed feedback informed the development of the following “CLC Action Agenda” early in 2019 to guide our first steps in collectively promoting CLC through NRCS programs at the state level across the Upper Midwest states of Illinois, Iowa, Minnesota, and Wisconsin. See box below.

Spring 2019 Cohort Action Agenda

→ GLBW and Cohort members will produce fact sheets for use by Cohort members and others on State Technical Committees. Content will include an explanation of CLC farming and highlights of Upper Midwest state-level NRCS program successes supporting CLC farming.

→ Soil Health & Income Protection Pilot Program (SHIPP) - Monitor and learn from projects during trial period and identify ways to encourage program expansion to more states. SHIPP is designed as a shorter, more flexible CRP; farmers can sign up to 15% of their program acres, plant perennials on 3, 4, or 5 year contracts, and receive 50% of the county CRP payment; crop can be harvested for forage or grazed; can also be harvested for seed but the payment is reduced by 25%.

→ Environmental Quality Incentives Program (EQIP)

✓ Promote these practices (and possibly identify others) for states' Top 10 lists for increased cost-share:

- 311 Alley Cropping
- 327 Conservation Cover
- 379 Multi-Story Cropping
- 380 Windbreak/Shelterbelt Establishment
- 381 Silvopasture Establishment
- 412 Grassed Waterway
- 512 Forage & Biomass Planting
- 612 Tree & Shrub Establishment

Note that these CLC-supportive practices also cross-reference with high greenhouse gas reducing practices funded by EQIP.

✓ Identify pathways to increase scoring of CLC practices on applications to rank those applications higher. Pathways may include increased communication about multi-functional benefits and/or targeted sub-committee membership, such as finance.

→ Conservation Reserve Program – Call for a reframing of CRP to promote CLC practices that address resource concerns while also producing food products, especially agroforestry, silvopasture, and alley cropping.

Activities to date

The following materials have been developed and can be found at

<https://greenlandsbluewaters.org/resources/papers-guides/#clc-nrcs-programs>

- *Examples of NRCS program support for CLC farming* – fact sheet by GLBW
- *NRCS and the Benefits of Agroforestry* – developed by Cohort member Savanna Institute in concert with WI NRCS
- *Using NRCS programs for CLC farming: Haase Farm – Blue Earth, MN* – case study by GLBW

Cohort members have worked to prioritize specific CLC strategies through their participation on NRCS state technical committees and subcommittees. Especially important is their efforts prioritizing CLC practices in state soil health strategies and for additional EQIP funding. Some of their work over the last two years is described below.

State: Illinois

Cohort members:

- **American Farmland Trust, represented by Kris Reynolds**
- **Illinois Stewardship Alliance, represented by Liz Rupel**

CLC Strategy: Cover crops, primarily, and increasing CLC overall

Cohort members participated on the Illinois EQIP sub-committee to identify its top ten funding priorities. The latest published list of Illinois' top ten EQIP priorities include three state-defined priorities that call out directly for CLC practices and ground cover to improve soil health, soil organic matter, and water infiltration.

1. Improve soil health by adding organic matter, reducing compaction, and promoting soil organisms.
2. Reduce soil erosion by managing water runoff and increasing plant residue.
3. Improve water quality by reducing the sediments, nutrients and other contaminants from entering Illinois waterways.

State: Illinois

Cohort member: Savanna Institute, represented by Kevin Wolz

CLC Strategy: Agroforestry/Alley Cropping

This spring, the Illinois Working Lands, Water and Wildlife Conservation Partnership was awarded a grant through the NRCS Regional Conservation Partnership Program (RCPP). As part of the partnership, the Savanna Institute will pilot novel cost-share approaches to stimulate adoption of alley cropping in the Midwest. Specific to this project, the Savanna Institute will steward \$1,040,000 in cost-share to farms and landowners for establishing alley cropping systems and provide, via \$1,500,000 of in-kind match funding, staff time and associated costs to conduct producer outreach, provide technical assistance, and develop and support land management and land rental contracts.

State: Iowa

Cohort member: Center for Rural Affairs, represented by Anna Johnson

CLC Strategy: Overall conservation program support

In December 2019, Cohort member Center for Rural Affairs/Anna Johnson worked with Practical Farmers of Iowa to bring farmers and Iowa NRCS officials together in a series of conversations about how conservation programs are working for farmers. Ten farmers met with Iowa NRCS officials and discussed topics such as: how to encourage more people to enroll in conservation programs; how specific programs such as CSP and EQIP were and were not working well for farmers; and concerns specific to organic production and other transitional practices.

State: Iowa

CLC Strategy: Grazing/Forage

A notable CLC success in Iowa is that in FY19 IA NRCS introduced a new CSP Grassland Conservation Initiative that rewards livestock producers for conserving eligible land through grassland conservation contracts, which helps to protect grazing lands as well as improve soil, water, and habitat resources. 74 Iowa farmers enrolled in the initial round and signed five-year contracts agreeing to meet or exceed stewardship requirements at a rate of \$18 per acre each year.

State: Minnesota

Cohort member: Rural Advantage, represented by Linda Meschke

CLC Strategy: Agroforestry

Cohort member Linda Meschke will continue to engage the GLBW NRCS CLC Cohort to build support for hazelnut plantings via regional NRCS programs as part of a USDA-funded specialty crops project that launched in 2020. Plant materials technical notes will likely need to be developed for native and hybrid hazelnuts.

State: Wisconsin

Cohort member: Savanna Institute, represented by Kevin Wolz

CLC Strategy: Agroforestry

At the 2019 GLBW Conference, Savanna Institute convened GLBW network partners from Illinois, Iowa, Minnesota, and Wisconsin who are working with NRCS to provide more support to agroforestry, tree crops, and silvopasture as land use, climate, and rural resilience strategies.

Since, Savanna Institute staff worked with WI NRCS staff to develop a brochure with information about existing practices that promote agroforestry and that partnership engaged Wisconsin Land and Water (the organizing body for Wisconsin Conservation Districts) to develop a webinar series targeted to conservation agents.

WI NRCS State Forester Andy Hart is working to encourage WI NRCS offices to support landowners interested in implementing agroforestry. Additionally, a partnership has formed through the WI State Forestry sub-committee working with Savanna Institute, the Assistant State Conservationist for Partnerships, the State Forester, the State Grazing Specialist to update silvopasture standards and supported practices for government assistance.

National

Cohort member: Cynthia Bartel

CLC Strategy: Perennial Grains

Building off of the early GLBW success incorporating Kernza into Minnesota practices and the work of Bartel et al. (article in preparation) as funded by the Atkinson Center for a Sustainable Future at Cornell University, a group of university and agency representatives from across the country have been communicating to share information about efforts to encourage and document entry points in NRCS programs for Kernza production and to develop required practice standards and plant materials technical notes. These early actions also helped to position a project to construct a more national framework through a recently awarded five-year, \$10 million grant to the University of Minnesota through USDA NIFA's Agriculture and Food Research Initiative's (AFRI) Sustainable Agricultural Systems program.

The project seeks to scale the research, production, awareness, and commercialization of Kernza. The policy component of the project will construct a national framework for Kernza adoption opportunities to maximize existing federal and state conservation program impact and to inform future policy making process. Initial policy review and evaluation will involve an inventory of existing authorized federal and state conservation and other programs.

Next Steps for the GLBW NRCS CLC Cohort

GLBW will continue to convene the Cohort, support members in their work on state technical committees, gather additional information, and explore new opportunities. Cohort members were interviewed individually this spring and expressed a desire to continue to collaborate; they shared that they were experiencing the benefits of working together and unifying messages as they call for elevated support for CLC.

Additionally, Cohort members identified the following needs and focus considerations throughout the project period via meeting discussions, emails, and one-on-one interviews.

- NRCS staff and technical service providers need more training about the benefits and realities of CLC so that practices are prioritized and contract variations allow for CLC practices.
- Local/County work groups drive state-level opportunities through county rankings, local practice application scoring, and local funding pools.
- Program and practice definitions need more flexibility to expand management options to include harvestability and different plant materials.
- Calls are intensifying for new programs and/or new framing of working lands programs that are defined and driven by the goals of agricultural resilience, green infrastructure, and climate change mitigation.

Alternative approaches include the following.

- Encourage EQIP retooling to focus on productive, conservation agriculture.
- Continue to expand harvest options within the Conservation Reserve Program.
- Work with other agencies, external to NRCS. For example, work in targeted ways to train, support, and partner with Soil and Water Conservation Districts to encourage farmer behavior changes through mechanisms that support flexible practices.

To move this work forward, GLBW will be coordinating these primary activities over the next year.

- Conducting interviews and compiling state staff perspectives on the best opportunities for state-specific integration of CLC.
- Producing in-depth case studies documenting successes of NRCS conservation programs that use CLC farming in the Upper Mississippi River basin.
- Organizing a group of CLC leaders to complete a gap analysis of CLC-related development training for technical assistance professionals and institutions and create a roadmap for addressing training needs, outlining recommended solutions and potential roles.

Acknowledgement

Green Lands Blue Waters thanks the Walton Family Foundation and McKnight Foundation for their support of this work to expand and target the use of NRCS programs to increase the adoption of Continuous Living Cover farming systems.

Green Lands Blue Waters is a vision for productive, profitable agriculture in the Upper Midwest based on the straightforward concept of getting as much value as possible from farmlands by growing crops that keep the soil covered year-round—what we call farming with Continuous Living Cover. The values from the crops we promote can be measured in yields and farm profits; but also as reduced risk, improved outlook for long-term productivity from the soil, more jobs, more wildlife, cleaner water, and resiliency in the face of a changing climate.

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