

CLC Resource List

Informational resources, organizations, funding sources, tools, and more to support Continuous Living Cover implementation

Overview

This guide includes CLC-focused or -related entities, resources for implementing CLC strategies, potential sources of cost-share and grant funding, and information on a range of other topics, such as land access and equity in farming, that more broadly support CLC adoption.

The first section of the guide highlights some of the many Midwest-based organizations, centers, and agencies that support CLC adoption through direct technical assistance, funding, and more. Entries include a brief description and a link. Many of these organizations have their own resource collections available, as well as highly knowledgeable staff who can help you find more information or provide technical assistance.

The second section consists of a curated list of strategy-specific resources, organized into five categories: CLC with Annuals (Cover Crops, Winter Annuals, and Small Grains); Perennial Grains; Agroforestry; Perennial Forage and Grazing (including Silvopasture); and Perennial Biomass. These resources are mostly technical information aimed at farmers, conservation professionals, and technical service providers.

The third section includes resources that apply to several CLC strategies, or CLC generally, including information on soil health, benefits of CLC, and on-farm examples. They are not technical information on implementation specifically, but help explain the rationale for CLC, provide examples, and provide other information, such as determining soil type or crop suitability, that support CLC.

The fourth section deals with the financial side of CLC, and includes information on economic impacts and tools such as budget templates and calculators that farmers can use to plan and predict outcomes of CLC practices. It also includes information on federal, state, and local funding sources. Federal programs are more consistent and thus specific programs are mentioned. State, county and other local programs are more variable, but examples are provided to give you an idea of what you can look for in your area, and where to look.

Finally, the fifth section includes information on social aspects of farming, which are relevant for any type of agriculture. This includes resources on accessing land, historical discrimination in agriculture and programs for women, Black, Indigenous, and other people of color, beginning farmers, and veterans. It also includes resources on communicating with farmers and farmer mental health.

HOW TO USE THIS GUIDE

If you want to connect with an organization or program that can offer support beyond online information - such as in-person training, answering questions, or on-farm technical assistance, see Section 1.

If you are looking for technical resources on CLC implementation, see Section 2 and related information on soil health, crop suitability, and on-farm examples in Section 3.

To help address economic questions and find funding, see Section 4.

To help address barriers related to land access, discrimination, communication, and mental health, see Section 5.

Section 1: Midwest-based Support for CLC	4
University-based Programs	4
Federal, State, and Local Agencies	4
Nonprofits	
Other	10
Section 2: CLC Information and Resources by Strategy	11
CLC with Annuals: Cover Crops, Winter Annuals, and Small Grains	11
Perennial Grains	12
Agroforestry	12
Perennial Forage and Grazing (including Silvopasture)	13
Perennial Biomass	14
Section 3: General Resources/Multiple Strategies	15
General Resources	15
Soil Health	15
CLC Benefits	16
Determining Soil and Crop Suitability	16
On-Farm Examples	16
Section 4: Economics	17
Funding Sources	17
Economic Impacts of CLC	18
Financial Tools	18
Section 5: Social Sustainability, Equity, and Communication	19
Communicating with Farmers and Landowners	19
Land Access	19
Resources for Underserved Farmers, Beginning Farmers, and Veterans	20
Farmer Mental Health Resources	21
Social Sustainability	21
Questions to Ask Farmers	22

Section 1: Midwest-based Support for CLC

University-based Programs

University of Missouri Center for Agroforestry

Conducts agroforestry research, outreach, and education to support agroforestry improvement and adoption in Missouri and beyond through an annual Agroforestry Symposium, Agroforestry Training Academy, webinars, trainings, and more.

University of Missouri Center for Regenerative Agriculture

The Center for Regenerative Agriculture helps farmers implement new practices and provides information to landowners, farm advisors, consumers, and companies. Find information on their website, organized by both farming and conservation practices and by audience.

University of Minnesota Forever Green Initiative

The Forever Green Initiative, based at the University of Minnesota, works to develop a suite of over 15 CLC crops including Kernza, field pennycress, winter camelina, and hybrid hazelnuts. FGI focuses on basic research and commercialization efforts; staff includes agronomy and commercialization specialists who can provide advice.

<u>University of Wisconsin-Madison Emerging Crops Accelerator</u>

Extension's Emerging Crops Accelerator provides information on emerging crops, including hops, table grapes, Kernza, and various small grains, to help diversify Wisconsin's agricultural landscape. Activities include field days, webinars, a podcast, and more.

University of Illinois I-Regen

I-Regen is a research initiative that focuses on conducting actionable research on sustainable agriculture and connecting the academic community with stakeholders to engage in dialogs about research, education, challenges to adoption, and measuring impact.

Iowa State University Leopold Center for Sustainable Agriculture

The Center works to identify and develop profitable methods of farming that conserve natural resources and reduce negative environmental and social impacts. Find resources and how-to videos on their website.

Federal, State, and Local Agencies

Farm Service Agency

Good place to start to find out more about programs, services, and funding in your area. Find your state and county offices <u>here</u>.

Missouri NRCS: Agroforestry Missouri

Information and videos on agroforestry; the NRCS can also work with you to get technical assistance and funding to implement agroforestry practices that address resource concerns.

National Agroforestry Center (USDA)

Reports, webinars, and more information to support broader agroforestry adoption.

Natural Resources Conservation Service

Information on soil health, conservation agriculture practices, and specific program offerings, including an extensive collection of teaching and educational tools. Find your local service center on this page. County-based centers offer conservation planning services, technical assistance, and more.

County Conservation Districts

County-based conservation offices offer training, equipment rental, cost share, and more. Conservation districts are established by state law and thus vary by state. Illinois, Iowa, Minnesota, Missouri, and many other states have Soil and Water Conservation Districts. North Dakota has Soil Conservation Districts; Wisconsin has Land Conservation Districts. You can find local districts with this <u>tool from the National Association of Conservation Districts</u>. You can also usually find the office for your county of interest by searching "conservation district" or "SWCD" + "[county name]".

Resource Conservation & Development Councils

RC&D Councils are not-for-profit corporations that typically work across 5-10 counties. They are administered nationally by the NRCS and receive government funding, but are not government entities, and councils are made up of unpaid volunteers. Councils address a wide variety of issues that vary by region. Search for your state or county + RD&C council to find one in your area.

Nonprofits

Agricultural Utilization Resource Institute

AURI provides resources and services to add value to Minnesota-grown agricultural products, including information, hands-on assistance, and webinars. They have worked with a variety of CLC crops including Kernza.

American Farmland Trust

AFT works on conserving farmland and promoting sound farming practices through state and federal policy work, projects to protect agricultural land, and projects that work directly with farmers. Relevant for landowners and farmers, and those working with them, is the AFT's <u>Farmland Information Center</u>, a clearinghouse for information on farmland protection. Most resources relate to policy and economics.

Artisan Grain Collaborative

AGC is a network of farmers, millers, food manufacturers, bakers, brewers, researchers, and advocates working to promote regenerative small grain production in the Midwest. The website offers information on food grade grains, post-harvest processing, and more and ways to get connected to the network.

Climate Land Leaders

Climate Land Leaders is an organization of landowners working to reduce greenhouse gas emissions from their agricultural operations, sequester carbon in soils and biomass, and increase farm resilience in the face of climate change. CLL supports landowners in implementing ambitious conservation projects, sharing with and learning from each other, and serving as leaders on climate policy and equity initiatives.

Fishers & Farmers

Fishers & Farmers supports farmers, landowners and local partners to protect soil and reduce nutrient runoff to streams of the Upper Mississippi River Basin. They award National Fish Habitat Partnership funds to locally led projects; provide ag, stream, and fish-related resources for the Midwest; and offer ways to connect to local people and projects.

Food Animal Concerns Trust

FACT promotes humane farming and wider access to healthy, humanely produced food through advocacy, education, and direct support for farmers, including grant funding for projects that improve farm animal welfare. Their website offers many resources including short courses and <u>an extensive library of free webinars</u> related to grazing, pasturing, and animal integration.

GrassWorks

GrassWorks is a grassroots membership organization that provides training and education to farmers and consumers to promote managed grass-based agriculture. GrassWorks offers training for grazing planners, natural resource professionals, and certified crop advisors on cover crop grazing, pasture management and more.

Illinois Stewardship Alliance

ISA works with farmers, consumers, and policymakers to bring greater transparency to the food system, with the goal of returning power to farmers and eaters and creating a more just and regenerative food system.

Illinois Sustainable Ag Partnership

ISAP supports healthy soil, clean water, and profitable farms by promoting sustainable farming practices, offering cost-share payments, sharing knowledge from a bi-annual conference and other events, and curating lists of financial incentive programs for Illinois farmers adopting conservation practices.

The Land Institute

The Land Institute is a science-based research organization working to develop an alternative to current destructive agricultural practices. They are focused on advancing <u>perennial grain crops</u> and <u>polyculture farming solutions</u>. Resources include research publications, a podcast, a video and audio library, case studies, and information about various perennial crops and polycultures.

Land Stewardship Project

LSP works to promote an ethic of stewardship for farmland, sustainable agriculture, and healthy communities through farmer training, local organizing, federal policy work, and more. LSP offers farmer-to-farmer events such as pasture walks and networking, trainings and workshops, conferences, forums, and more. Find links to event pages as well as many informational resources on their website - including the Farmland Clearinghouse.

Leadership for Midwestern Watersheds

A project of the Sand County Foundation, Leadership for Midwestern Watersheds is a forum and "community of practice" for conservation professionals who lead projects related to reducing agricultural runoff by working with landowners, agencies, and businesses.

Marbleseed

Marbleseed supports regenerative and organic farmers in the Midwest with education and resources, including help from a team of organic specialists, field days, classifieds to find land, equipment, and job opportunities, and an Organic Resource Directory for trusted support services, factsheets, and workbooks.

Michael Fields Agricultural Institute

MFAI's work addresses soil and water quality, climate resilience, racial equity, food security, and farm success through field research and demonstration, policy work to support regenerative agriculture, and education programs, including Midwest GRIT (Grains Resource & Immersive Training) and Wisconsin Women in Conservation (WiWiC).

Midwest Cover Crops Council

MCCC shares cover crop knowledge in the Midwest and beyond to help overcome barriers to adoption. They offer online resources on mixes, planting, equipment, management, and termination, as well as an annual conference, state-specific information, a pocket field guide, selector tools, and more.

Midwest Perennial Forage Working Group

Resources for a wide range of grazing practices, including fact sheets, handbooks, case studies, event calendars, links to regional programs and grazing exchanges, and more!

The Nature Conservancy

The Nature Conservancy is expanding their conservation work into the realm of sustainable agriculture through two science-based strategies - Sustainable Grazing Lands and Soil Health and Nutrients. They're not a go-to technical assistance organization, but it's worth being aware of the agriculture work they are doing.

Pheasants Forever and Quail Forever

Pheasants Forever and Quail Forever work to conserve pheasants, quail, and other wildlife through habitat improvements, public access, education, and conservation advocacy. Across the country, their Farm Bill Biologists work directly with farmers and landowners to implement conservation practices. Services include no-cost, on-farm technical support and connection to potential funding. Find a local chapter to get connected with someone in your area.

Practical Farmers of Iowa

Practical Farmers of Iowa offers many programs on diverse topics including cover crops, livestock, farmer-led research, shared learning calls, and email listservs. PFI is a great resource for technical information and advice on a range of CLC practices. They offer some cost-share programs as well.

Quivira Coalition

The Quivira Coalition works to increase landscape resilience, biodiversity, and soil health by helping ranchers design restoration plans, stewarding conservation practice knowledge, supporting climate change adaptation and mitigation practices, and sharing educational resources. While focused on the Western region, some resources are still relevant for the Midwest.

Regenerative Agriculture Alliance

The Regenerative Agriculture Alliance is focused on scaling up regenerative poultry systems, including integrated agroforestry-poultry production, for environmental and economic benefits. Activities include regenerative poultry trainings, an annual conference, and climate smart projects.

Regenerative Ag Ideas Network (REGAIN)

REGAIN works to connect and inform regenerative agriculture educators, advocates, and practitioners in the Midwest and nationwide. Their website includes extensive resources, including online courses on managed grazing, a directory of experts, trainings, resources by topic, and a mentorship program.

Renewing the Countryside

Renewing the Countryside is focused on strengthening rural areas by supporting rural communities, farmers, and activists through sustainable and innovative initiatives, businesses, and projects. They connect people interested in sustainable rural development and provide practical assistance and networking opportunities. Projects include the Farmland Access Hub, Farmland Access Navigators, Women in Agriculture, on-farm events, and more.

Sand County Foundation

Sand County Foundation is solely focused on supporting voluntary conservation on working lands through ethics, science and incentives. They facilitate knowledge sharing to landowners, researchers, funders, and policymakers; help remove barriers and incentive conservation practices, create and highlight examples of well-implemented conservation practices, and more. Website includes videos of practices and links to more resources.

Savanna Institute

The go-to organization for agroforestry in the Midwest. The Savanna Institute offers free technical assistance, financial tools, field days, conferences, courses and trainings, and online information including videos, a podcast, factsheets, and guides. Their recently-launched commercial arm, Canopy Farm Management, provides professional tree planting and management services to customers in select areas of the Midwest.

Soil Health Institute

The Soil Health Institute is focused on advancing soil health and productivity through scientific research. Online resources include an extensive video library of presentations on research findings and in-field topics, many short technical documents and fact sheets, blog posts, and more. There are many resources not organized by topic, so use the search function to find information relevant to your work.

Soil Health Nexus

The North Central Region Soil Health Nexus is a university-led team dedicated to increasing access to research-based soil health knowledge, extension and resources. Offerings include webinars, trainings, short articles on many aspects of soil health, demonstration videos, the <u>Conservation Economics & Finance Resource Hub</u>, educational graphics, the <u>Soil Health Matrix Decision tool</u>, and more.

Soil Health Partnership

The Soil Health Partnership promotes the adoption of soil health practices for economic and environmental benefit through peer-to-peer network building and on-farm data collection. Website includes a resource library of publications on soil health, webinar series, a podcast, and videos, including virtual field day recordings.

Soil and Water Conservation Society (SWCS)

SWCS is a nonprofit scientific and educational organization that advocates for conservation professionals and science-based conservation practice, programs, and policy. Local SWCS chapters provide education, training, and professional development opportunities at a local level. <u>Find a chapter near you</u>. Resources include the Journal of Soil and Water Conservation, books and reports, the Conservation Media Library, student and early career resources, news briefs, webinars, conferences, and other events.

North Central Region Sustainable Agriculture Research and Education (SARE)

The Sustainable Agriculture Research and Education (SARE) program is a decentralized competitive grants and education program operating in every state. SARE is divided into four different regions that operate as separate entities and run grant programs for their states. The North Central SARE website offers extensive online resources, past project reports, and current funding opportunities.

Sustainable Farming Association

SFA offers farmer-to-farmer networking, education, demonstration and research, including conferences, field days, events, apprentice programs, networking, on-farm consulting services, informational resources, annual Soil Health Summit, and more, with many resources relevant for multiple CLC strategies. Chapters throughout the state also offer local events.

Wallace Center

The Wallace Center is a nonprofit organization that works on building healthy farms, equitable economies, and resilient food systems. Their team works on projects across the United States, including leadership retreats, mentorship and fellowship programs, grazing and cover crop projects, and grants and subawards to support other work. Many of these programs are delivered through the Wallace Center's two peer learning networks – the <u>Food Systems Leadership Network</u> (FSLN) and the <u>Regenerative Ag Idea Network</u> (REGAIN).

Wild Farm Alliance

The Wild Farm Alliance promotes agriculture that supports wildlife by incorporating continuous living cover, flowering plants, and native trees and shrubs. WFA has offices in Minnesota, California, and Oregon, with a range of resources relevant for those regions.

WI Land+Water

The Wisconsin Land and Water Conservation Association (WI Land+Water) is a non-profit membership organization that supports the efforts of around 450 land conservation committee supervisors and 370 conservation staff in 72 county land and water conservation department offices. Activities include state policy advocacy, preceding conservation training, youth education, and developing technical conservation standards.

Women Food & Ag Network

The Women Food & Ag Network is focused on engaging women and non-binary people in building an ecological and just food and agricultural system through individual and community power. Activities include serving women landowners interested in conservation, mentorship, grassroots advocacy, community network building, webinars, and workshops.

Xerces Society

The Xerces Society for Invertebrate Conservation is an international nonprofit organization that protects the natural world through the conservation of invertebrates and their habitats. They conduct their own research and rely upon the most up-to-date information to guide work on pollinator conservation, endangered species conservation, and reducing pesticide use and impacts. The website includes extensive resources on pollinator conservation by region, including hundreds of science-based publications, *Wings* magazine on invertebrate conservation (with very readable essays), species profiles, and the Pollinator Conservation Resource Center.

Other

Northern Crops Institute

The Northern Crops Institute works to support regional agriculture and value added processing through educational and technical programs, including in-person and online courses, technical services such as testing and consulting, and online information such as webinars and handbooks. These resources are especially relevant for small grains production and marketing, as they include handbooks on stone milling, ancient grains, and wheat quality, and courses on stone milling, food barley uses, pasta production, and more.

Section 2: CLC Information and Resources by Strategy

CLC with Annuals: Cover Crops, Winter Annuals, and Small Grains

See also in Organizations:

- Artisan Grain Collaborative
- Midwest Cover Crop Council
- Practical Farmers of Iowa
- Michael Fields Agricultural Institute
- Sustainable Farming Association

Cover Crops

Cover Crops - University of Minnesota Extension

Cover Crop Directory - Illinois Sustainable Ag Partnership

Cover Crop Guide - SARE

<u>Cover Crop Mixes</u> - Illinois Sustainable Ag Partnership

Cover Crop Recipes - Midwest Cover Crop Council

Cover Crop Resources - SARE

Cover Crop Resources and fact sheets - Land Stewardship Project

Cover Crop Selector Tools - Midwest Cover Crops Council

<u>Cover Crop Termination Tradeoffs</u> - University of Nebraska - Lincoln Crop Watch

Illinois Cover Crop On-Farm Network Webinars - Illinois Sustainable Ag Partnership

Introduction to Soil Science (Open Source Textbook) - Iowa State University

NRCS Cover Crop Termination Guidelines - NRCS

Open Source Soil Resources - Colby Digs Soil

Profiles in Soil Health: Roller Crimper Key in Organic No-till System - NRCS

Seed Dealer Directory - Illinois Sustainable Ag Partnership

<u>Useful Tools for Cover Crop Implementation</u> - Rice County SWCD

Webinar: Thinking Through Cover Crops - Practical Farmers of Iowa

Winter Annuals

Covers that Pay: Camelina & Pennycress - Albert Lea Seed & Forever Green

Introduction to Pennycress - IPREFER

Pennycress Summary - Forever Green Initiative

Winter Camelina Crop Profile - University of Wisconsin Madison Extension

Winter Camelina Growers Guide for Minnesota - Forever Green Initiative

Winter Annual Oilseed Research Reports - Forever Green Initiative

Winter Camelina Summary - Forever Green Initiative

Winter Camelina (short on-farm YouTube video) - Great River Greening

Winter Hardy Annual Oilseeds (YouTube Playlist; includes virtual field days) - Forever Green Initiative

Small Grains

Intercropping Winter Cereal Grains and Red Clover - Iowa State University Extension

Oat Production Guide - Grain Millers

Organic Grain Resource and Information Network (OGRAIN) - UW Organic Collaborative

Small Grains - University of Minnesota Extension

Small Grains - Practical Farmers of Iowa

Small Grains and Grain Sorghum - University of Illinois

Spring Wheat in Iowa - Iowa State University

Perennial Grains

See also in Organizations:

- Agricultural Utilization Research Institute (AURI)
- The Land Institute
- Forever Green Initiative

2023 Kernza Grower Guide

2024 Kernza Cafe Chat Series

Intro to Kernza

Kernza Planting & Management

Kernza Harvesting

Kernza Marketing

Kernza as Forage

Cleaning and Dehulling Kernza - AURI

Forever Green Environmental and Economic Clusters of Opportunity Program

Grazing Kernza as a Dual-Use Crop: Research Trial Results - University of Minnesota

Kernza: Defining a Path Forward for Perennial Grains - US Nature4Climate

Kernza Crop Enterprise Budget - University of Minnesota

Kernza.org - Resources for growers, handlers, food processors, researchers, and consumers

Perennial Crops - The Land Institute

Perennial grain crop conservation rotation (E3280) - Natural Resources Conservation Service

Agroforestry

See also in Organizations:

- National Agroforestry Center
- The Savanna Institute
- University of Missouri Center for Agroforestry

Agroforestry Training Manual - University of Missouri Center for Regenerative Agriculture

Agroforestry Regional Knowledge (ARKx) Exchange Network

Agroforestry Video Library - Savanna Institute

Expanding Agroforestry Production - The Nature Conservancy/USDA Climate-Smart Commodities Program)

Fruit and Nut Compass - University of Wisconsin Center for Integrated Agricultural Systems

Growing Hybrid Hazelnuts - Rural Advantage

Introduction to Agroforestry - University of Missouri Center for Agroforestry

Introduction to Agroforestry Technical Assistance - Savanna Institute

Growing and Marketing Elderberries in Missouri - University of Missouri Center for Agroforestry

Learn Agroforestry (Courses for natural resource professionals and educators) - Savanna Institute

Midwest Tree Nut Business Case Studies - University of Wisconsin Center for Integrated Agricultural Systems

Online Agroforestry Courses - Savanna Institute

Perennial AF Blog - Savanna Institute

Perennial Tree Crop Info Sheets - Savanna Institute

Publications - Savanna Institute

Technical Service Program - Savanna Institute

Training Manual for Applied Agroforestry Practices - University of Missouri Center for Agroforestry

Upper Midwest Hazelnut Development Initiative

Perennial Forage and Grazing (including Silvopasture)

See also in Organizations:

- Food Animal Concerns Trust
- Grassworks
- Midwest Perennial Forage Working Group
- Regenerative Ag Ideas Network (REGAIN)
- The Land Stewardship Project
- University of Wisconsin Madison Extension
- Wallace Center (Pasture Project)

Agroforestry & Silvopasture - Sustainable Farming Association

Alfalfa, Wildlife, and the Environment - National Alfalfa and Forage Alliance

Free Range Meat Chicken Production Manual

Beginning Grazier Handbook - Sustainable Farming Association

> Dozens of resources including technical assistance, training, business planning, funding, and more.

Crop-Livestock Integration Resource Hub - Organic Farming Research Foundation

GrazeScape - Grassland 2.0

Grazing Cover Crops - University of Missouri Extension

Grazing Cover Crops Farmer Toolkit - Practical Farmers of Iowa

Grazing Infographic - Green Lands Blue Waters

Grazing Systems Resources - University of Missouri Center for Regenerative Agriculture

<u>Grazing Streamside Pastures</u> - University of Wisconsin - Madison Extension

Grazing and Pasture Management for Cattle - University of Minnesota Extension

Grazing Resources - Land Stewardship Project

A Guide for Grazing Cornstalks - Hay & Forage Grower

The Heifer Grazing Compass and Beef Grazing Compass - Grassland 2.0

> An Excel-based tool to help predict cash flow and financial outcomes for raising heifers on pasture.

HireGoats.com

> Directory of Goats Working on Landscapes

Just Transitions to Managed Livestock

> Grazing Needs and Opportunities for Change in the Midwestern United States

Managed Grazing for Dairy Profits - Green Lands Blue Waters

> Fact sheet with benefits, cost breakdowns, and resources for managed dairy grazing

Managing Pasture in Drought Conditions - University of WI - Madison Extension

Midwest Grazing Exchange - Midwest Perennial Forage Working Group and Practical Farmers of Iowa

➤ A matchmaking website for livestock and grazing opportunities. Users can search, save, and create listings of what land or livestock they have to offer or are seeking, and find grazing resources, including examples of grazing lease agreements and contracts. Also see contacts list.

Pastures for Profit: A Guide to Rotational Grazing - University of Wisconsin - Madison Extension

Photo Guide to Northeastern United States Silvopasture

Regenerative Grazing Foundations Course - REGAIN

Regenerative Grazing for Soil Health training - REGAIN

Silvopasture - Project Drawdown

Silvopasture Learning Network - University of Minnesota

State Grazing Specialists

Perennial Biomass

See also in Organizations:

American Farmland Trust

Bioenergy Industry and Market Analysis - American Farmland Trust

The Dairy Merits of Switchgrass - Dairy Herd Management

Integrating Practices That Benefit Wildlife With Crops Grown for Biomass - University of Missouri Extension

On-Farm Biomass Conversion Technology Fact Sheet - American Farmland Trust

Midwest Perennial Bioenergy Crop Diversification Project - American Farmland Trust

Miscanthus Growing Guide - American Farmland Trust

Miscanthus Resource Directory - American Farmland Trust

Perennial Bioenergy Cropping Systems Fact Sheet - American Farmland Trust

Planting and Managing Giant Miscanthus as a Biomass Energy Crop - NRCS Plant Materials Program

Scaling Up PERennial Bioenergy Economics & Ecosystem Services Tool (SUPERBEEST)

➤ A free, online, geospatial tool under development to assist with decision-making regarding the adoption of perennial bioenergy crops in the Midwest.

Shrub Willow Growing Guide - American Farmland Trust

Switchgrass Growing Guide - American Farmland Trust

Switchgrass Resource Directory - American Farmland Trust

Examples of Biomass Markets and Uses

- Genera, Inc. makes ag-based sustainable paper products including compostable food packaging:
- A hospital in Virginia

Section 3: General Resources/Multiple Strategies

General Resources

Agriculture Myth Busters - Land Stewardship Project

> Short articles addressing common myths and misconceptions about agriculture

CLC Literature Resource List - Green Lands Blue Waters

➤ Hundreds of peer-reviewed articles, many of which are open access, on CLC strategies and benefits Conservation Planning Part 1

➤ A course designed for NRCS Conservation planners, but useful for anyone helping implement conservation practices on agricultural land. Touches briefly on communication styles. ~4 hrs

Continuous Living Cover: Adaptive Strategies for Putting Regenerative Agriculture into Practice

23-article Special Issue in Frontiers in Sustainable Food Systems, organized by GLBW

Continuous Living Cover Manual - Green Lands Blue Waters

Farminars - Practical Farmers of Iowa

<u>Technical Assistance for Continuous Living Cover Agricultural Practices</u> - University of Minnesota <u>Soil and Water Conservation Society</u> - Conservation Media Library

> Hundreds of high quality photos and videos of conservation agriculture practices; free to use

NRCS YouTube Channels

Topics include funding sources, examples of conservation practices, and more.

- National NRCS: https://www.youtube.com/@TheUSDANRCS
- Missouri NRCS: https://www.youtube.com/@NRCSMissouri
- Nebraska NRCS: https://www.youtube.com/@NebraskaNRCS

Soil Health

See also in Organizations:

- Soil Health Nexus
- Soil Health Institute
- Soil Health Partnership
- Soil and Water Conservation Society (SWCS)

Conservation Webinar Portal - NRCS

Building Soil for Better Crops, 3rd Edition - SARE

Introductory Soil Course - Minnesota Board of Water and Soil Resources

<u>Resource Concerns</u> - South Dakota Resource Concerns

Soil Health and Building Soil Carbon Resources - University of Missouri Center for Regenerative Agriculture

Soil Health and Water Quality White Paper - Soil Health Nexus

Soil Health Practices - Conservation Cropping Systems Initiative

Soil Health Website - Natural Resources Conservation Service

Web Soil Survey - Natural Resources Conservation Service

4 Principles of Soil Health - North Dakota NRCS

Soil and Manure Testing Labs

<u>Certified Soil Testing Laboratories</u> - Minnesota Department of Agriculture (includes labs nationwide)

Certified Manure Testing Laboratories - Minnesota Department of Agriculture (includes labs nationwide)

University of Missouri Soil Health Assessment Center

University of Minnesota Soil Testing Laboratory

CLC Benefits

Agricultural Carbon Markets, Payments, and Data - Friends of the Earth

Benefits of CLC Infographics - Green Lands Blue Waters

Benefits of Crop Rotation and Diversity - US Farmers and Ranchers

Biodiversity Resources - University of Missouri Center for Regenerative Agriculture

Climate-Smart Mitigation Activities - NRCS

Cover Cropping for Pollinators and Beneficial Insects - SARE and The Xerces Society

Ecosystem Services from Cover Crops - SARE

Field Office Technical Guide - NRCS

Grassland Birds: Fostering Habitats Using Rotational Grazing - University of Wisconsin - Madison Extension

Making the Case for CLC - Green Lands Blue Waters

Minnesota Projects to Protect Drinking Water with Kernza Perennial Grain - Green Lands Blue Waters

Prairie STRIPS Program - Iowa State University

Regenerative Agriculture and Climate Change Brief - Green Lands Blue Waters

Source Water Protection with Kernza - Green Lands Blue Waters

STRIPS (Science-Based Trials of Rowcrops Integrated with Prairie Strips) - Iowa State University

Understanding soil carbon dynamics in pasture systems - Green Lands Blue Waters

Water Quality Program - The Savanna Institute

Well-managed perennial pasture: Setting the gold standard for ecosystem services - Grassland 2.0

Determining Soil and Crop Suitability

Alternative Crops Factsheets - University of Missouri Extension

Alternative Crops - Risk Management Guide for Organic Producers

Includes advice on assessing options and marketing crops

Canopy Compass - Canopy Farm Management + the Savanna Institute

> An online tool for crop suitability mapping and farm analysis

Web Soil Survey - Natural Resources Conservation Service

On-Farm Examples

A-Frame Farm

Ben Penner Farms

CLC Success Stories - Green Lands Blue Waters

CLC Farmer Features - Green Lands Blue Waters

Jóia Food & Fiber Farm (Wendy Johnson)

TsyunhehkwaFarm Spotlight - Green Lands Blue Waters

Tsyunhehkwa Farm Website - Oneida Nation

Section 4: Economics

Funding Sources

Funding assistance can help make implementing CLC practices more affordable. It can come from federal (primarily NRCS), state, local, and non-profit sources. State, local, and non-profit programs are more likely to change; programs listed here are provided as examples of what to look for.

NRCS Programs

<u>Environmental Quality Incentives Program</u> (EQIP) - NRCS' flagship conservation program that helps farmers, ranchers and forest landowners integrate conservation into working lands

<u>Conservation Stewardship Program</u> (CSP) - helps operators build on existing conservation efforts while strengthening their operation

<u>Agricultural Conservation Easements Program</u> (ACEP) - helps landowners and other entities protect, restore, and enhance wetlands or protect working farms and ranches through conservation easements <u>Healthy Forests Reserve Program</u> (HFRP) - helps landowners restore, enhance and protect forestland resources on private and tribal lands through easements and financial assistance <u>Regional Conservation Partnership Program</u> (RCPP) is a partner-driven approach to conservation that funds solutions to natural resource challenges on agricultural land.

Note: While NRCS programs are federally funded, the first step is usually to contact your local NRCS office. You can do that here: Find Your Local NRCS Service Center

More info on NRCS Programs and CLC Practices:

Continuous Living Cover & Agroforestry in NRCS Practices - Green Lands Blue Waters

Examples of NRCS Programs - Green Lands Blue Waters

NRCS Agroforestry Assistance FAQs with Lauren Cartwright

NRCS Conservation Practice Standards for Agroforestry

Using NRCS Assistance For Agroforestry & Woody Crop Establishment - University of Missouri

State Program Examples

Illinois Fall Covers for Spring Savings (FCSS)

<u>Iowa Cover Crop Insurance Discount Program</u>

Iowa Resource Enhancement and Protection (REAP)

Iowa Water Quality Initiative (WQI)

Iowa Financial Incentive Program (IFIP)

Minnesota Agricultural Water Quality Certification Program (MAWQCP)

See Sustainable Farming Association's Case Studies here

Minnesota EECO Implementation Program

Minnesota Organic & Transitioning Organic Cost Share

Minnesota Soil Health Grant

Wisconsin Crop Insurance Rebates for Planting Cover Crops

County Program Examples

Check with your local SWCD or NRCS office and organizations in your area - there may be cost shares for cover crops, no-till, and more. Some offer equipment rental, such as no-till seeders, or custom planting services. For examples, see A Landowner's Guide to Conservation Practices and Programs in Rice County.

Nonprofit Program Examples

<u>Conservation Practice Cost-Shares</u> - Western Wisconsin Conservation Council

Cost-shares for cover crops, no- and low-till, harvestable buffers, and double cropping

Cover crop cost share - Practical Farmers of Iowa

➤ In 2023, PFI offered a \$20/acre small grains cost-share and \$10/acre cover crop cost-share.

Expanding Agroforestry Program - The Nature Conservancy

Grants Advising Program - Michael Fields Agricultural Institute

> Free help applying to public and private grant or cost-share programs, and other resources.

Intertribal Agriculture Council - Technical Assistance Network

Helps connect individuals and tribal communities to USDA programs, services, and training.

Funding Opportunity Databases

Conservation Connection - Renewing the Countryside

Cover Crop Incentives Directory - Illinois Sustainable Ag Partnership

Farmer Funding Opportunities Database - Community Alliance with Family Farmers

Minnesota Funding Available - Land Stewardship Project

Funding Library - Ambrook (search by state, type, organization and more to find funding opportunities)

Economic Impacts of CLC

Conservation Economics & Finance Resource Hub - Soil Health Nexus

Cover Crop Economics - SARE

Economic drivers of cover crop adoption - Iowa State University

Economics Resources - Minnesota Office for Soil Health

Farmers' Guides to Soil Health Economics - Farmland Information Center

The Financial Implications of Conservation Agriculture - Soil Health Nexus

Financial Impacts of Conservation Practices Virtual Trainings - Soil Health Nexus

Financial Solutions for Agricultural Resilience - Environmental Defense Fund

How Conservation Practices Influence Agronomic Returns - AGree

Quantifying Economic and Environmental Benefits of Soil Health - American Farmland Trust

Soil Health Case Studies - American Farmland Trust

White Paper: Strengthening Crop Insurance through Soil Health - American Farmland Trust

Financial Tools

Tillage Energy Estimator - USDA

Farmland Access Financial Decision Making Tool - Land Stewardship Project

Native Warm Season Grass Planning Budget - University of Missouri Center for Regenerative Agriculture

GrazeScape - Grassland 2.0

The Heifer Grazing Compass and Beef Grazing Compass - Grassland 2.0

Section 5: Social Sustainability, Equity, and Communication

Communicating with Farmers and Landowners

Changing Non-Operator Landowner Conservation Behavior: Workshop Lessons and Resources - GLBW

Communication Skills for Conservation Professionals - (Book) Island Press

Conservation Leases Resources - Land Stewardship Project

<u>Conservation Conversation Part 3: Engaging Your Landowner in Conservation Activities</u> - The Nature Conservancy

Non-Operating Landowners and Conservation on Rented Farmland - The Nature Conservancy

Understanding and Activating Non-Operator Landowners - American Farmland Trust

Land Access

See also in Organizations:

- American Farmland Trust
- Land Stewardship Project
- Marbleseed
- Renewing the Countryside

Agrarian Trust

Agrarian Trust supports next-generation farmers by working with communities to acquire and steward land for equitable access, cultural reconnection, regenerative ag, and ecological restoration.

Farmland Access Hub

Farmland Access Navigators - Renewing the Countryside

Farmland Access Financial Decision Making Tool - Land Stewardship Project

Farmland Access Legal Toolkit - University of Vermont Center for Agriculture and Food Systems

Farmland Clearinghouse - Land Stewardship Project

➤ Post or search for farmland listings - aimed at beginning farmers looking to rent or purchase farmland in the Midwest and established farmers/landowners in the Midwest seeking a beginning farmer to purchase or rent and, or to work with them in a partnership situation

Illinois FarmLink: Connecting and Empowering Farmers & Farmland Owners

Land Access Resources - Marbleseed

Land Link Up - Marbleseed

Minnesota Beginning Farmer Tax Credit

Minnesota Rural Finance Authority Loan (Low-interest loans)

Minnesota Down Payment Assistance Grant - Minnesota Department of Agriculture

> Offers up to \$15,000 for qualified farmers purchasing their first farm.

Minnesota FarmLink - Minnesota Department of Agriculture

A free, online program that helps connect retiring farmers and new farmers; buyers and sellers; renters and landlords; amd employers and employees

Resources for Underserved Farmers, Beginning Farmers, and Veterans

Organizations:

- Midwest Farmers of Color Collective
- Intertribal Agriculture Council
- Black Farmer Fund
- National Black Food & Justice Alliance's Resource Commons
- Latino Economic Development Center
- 40 Acre Co-op
- Native American Agriculture Fund
- First Nations Development Institute
- Indigenous Food Systems Network
- Midwest Farmers of Color Collective
- HEAL Food Alliance (Info on the Farm Bill, historic discrimination and efforts for justice, and more)
- National Young Farmers Coalition (Resources including land access, farmer mental health, and more)
- Women Food and Ag Network
- Wisconsin Women in Conservation

Programs and Information:

Beginning or Veteran Farmers Benefits for Crop Insurance - USDA

Beginning and Military Veteran Farmers - Emerging Farmers

DEI Guidebook for Conservation Professionals - Soil and Water Conservation Society

Discrimination Financial Assistance Program

> Section 22007 of the Inflation Reduction Act (IRA) provides financial assistance for farmers, ranchers, and forest landowners who experienced discrimination by USDA in farm lending prior to 2021.

Emerging Farmer Resource Directory - Marbleseed

Farm Beginnings Class - Land Stewardship Project

A Guide to USDA Resources for Historically Underserved Farmers and Ranchers - USDA

> Resources for Minority, Women, Veteran, Beginning, and Limited Resource Producers

How technical support could be improved to support historically disadvantaged groups - Grassland 2.0

Innovative Small Farmers' Outreach Program - Lincoln University

Leveling the Fields: Opportunities for Black People, Indigenous People, and Other People of Color - USC

Marbleseed Farmer-to-Farmer Mentorship Program

Minnesota Local Food Purchase Assistance Program

Small Farms Online Courses - Cornell University

USDA Beginning Farmer and Rancher Development Program - USDA NIFA

➤ Site includes information, links to grant applications, partner organizations, and other resources <u>Wisconsin Beginning Farmer Resource Guide</u> - USDA

Note: Some nonprofits also have grants and other opportunities available for BIPOC farmers. For example, in 2023 the Rodale Institute offered BIPOC Farmer Micro-grants. These vary over time and by organization.

Farmer Mental Health Resources

Coping with Farm and Rural Stress - Minnesota Department of Agriculture

Coping with Rural Stress - University of Minnesota Extension

<u>Down on the Farm: Supporting Farmers in Stressful Times</u>

➤ A 3-hour workshop that teaches people who live and work in agricultural communities how to recognize and respond when they suspect a farmer or farm family member might need help.

Family Farm Resource Initiative - FFRI, SIU Medicine & NAMI Illinois

Farm Mental Health - University of Illinois Extension

Farm State of Mind Resource Directory - Farm Bureau

Farm Stress Resources - USDA

Farm and Ranch Stress Assistance Network - USDA NIFA

Greener Pastures - Available on PBS

> This documentary follows four Midwestern farm families as they persevere through climate change, industrialization, and mental health crises.

<u>Iowa Concern</u> - Iowa State University Extension

Minnesota Farm Advocates - Minnesota Department of Agriculture - 800-600-2670

> Free, confidential, 1-on-1 help for Minnesota farmers dealing with natural disasters or financial crisis.

Mental Health Resources - Minnesota Farm Bureau

Mental Health Assistance for Farmers - Illinois Department of Agriculture

Minnesota Farm & Rural Helpline - Support for farmers and rural Minnesotans dealing with stress

➤ Phone: 833-600-2670 • Text: FARMSTRESS to 898211 • Email: farmstress@state.mn.us

Wisconsin Farmer Wellness Program - Department of Agriculture, Trade, and Consumer Protection

Helplines, counseling services, support groups, and more

Social Sustainability

Barriers For Farmers & Ranchers To Adopt Regenerative Ag Practices In The US - Guidelight Strategies/Patagonia

Resilient Farmers, Ranchers and Communities: Social Sustainability in Agriculture - SARE

What is Sustainable Agriculture: Episode 4 - Social Sustainability - SARE

Understanding and Measuring Social Sustainability - SARE

White Paper: A Human-Centered Approach to CLC - Green Lands Blue Waters

<u>Drivers and Deterrents of Small Grain Adoption in the Upper Midwest</u> - UW Madison, MFAI, Artisan Grain

Collaborative, UC Davis, Purdue University

Questions to Ask Farmers

Getting to know their operation

- Why do you farm, and why do you farm this way?
- What crops, livestock, and equipment are currently part of your operation? What else are you familiar with?
- What is your farm like? Are there vulnerable areas that could be prioritized for CLC strategies? (Steep slopes, sandy soil, porous bedrock, highly eroded land, streamside, marshy areas, etc.)
- Are you interested in adding livestock or considering contract grazing?
- Do you have time for things like installing fences or planting trees?
- Do you want to transform your farm, or are you looking for a low-risk strategy that you can incorporate into what you are already doing?
- What do you want to grow or enjoy growing?
- What are your goals for profitability?
- How much economic risk can you tolerate? Would it be feasible to purchase new equipment?
- What is important to you in addition to profitability? Leaving the farm to children? Soil
 conservation? Good yields? (Profitability does not automatically mean good quality of life for
 the farmer and their family.)
- Are you under additional stress, or do you have mental health concerns? (You will probably not ask about these directly, but may be able to infer them from the conservation).
- Will you get adequate social support? (Sometimes farmers are concerned about how they will be perceived by their peers for adopting new practices.)

Assessing what crops are a good fit for the location

- What crops or varieties are suited to this region, based on temperature and precipitation?
- What crops are suited to this particular site, based on soil type, slope, and acreage? Are there different suitabilities across the property?
- Does planting, harvest, and other fieldwork timing fit in with what they're already growing?

Assessing market potential

- What markets exist for the crop?
- Where are buyers (elevators, auction sites, or neighbors) located?
- Are storage and transportation equipment required to sell the crop?
- Are additional processing steps needed? If so, where are processors located and what additional costs are there?
- What characteristics are required by the end market? For example, protein, test weight, and disease presence or absence.
- What does their contracting process look like?



This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under agreement number 2022-38640-37486 through the North Central Region SARE program under project number ENC22-217. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.