Continuous Living Cover Success Stories

Hammer & Kavazanjian Farms

South Beaver Dam, Wisconsin

Continuous Living Cover (CLC) includes agroforestry; perennial grains, forage, and biomass; and cover crops and winter annuals. CLC keeps living cover on the landscape and roots in the ground year-round, providing both economic and environmental benefits. This series highlights farmers using dynamic CLC strategies and the research behind their practices.

Prairie strips are small areas of diverse native grasses and wildflowers incorporated into row crop fields. Their deep roots hold soil in place even in heavy rain, helping to protect soil and water quality while providing habitat for birds and pollinators. Prairie strips can be situated within fields or as filter strips at the edges, with the width adjusted based on slope and expected amount of water flow.

Nancy Kavazanjian and her husband Charles Hammer grow corn, soybean, winter wheat and barley on 1900 acres in south-central Wisconsin. While no-till and strip-tillage had helped reduce erosion on their rolling farmland, they were still seeing significant soil loss. Encouraged by their crop consultant Bill Stangel, they decided to try prairie strips.

Working with a Natural Resource Conservation Service engineer, Nancy, Charles, and Bill planned the strips and laid out contour lines, placed to maximize erosion control. The Fish and Wildlife Service office at Horicon Marsh provided a seed mix prescription. GPS-guided planters and sprayers with individual row controls made it feasible. Nancy explains:

"The main goal is to stop erosion and add some pollinator habitat. The rest of the land, you want to farm - you don't want to worry about whether you're going to get in that area, or mess up your corn rows, or have to do point rows. The satellite guided tractor was hugely helpful."

Establishment took some time. The first year, "it looked terrible," says Nancy. But by the third year, they saw bright, beautiful flowers after a spring rain.

Benefits and Opportunities

By converting just 10% of land to prairie, farmers can reduce sediment loss by up to 95% and nitrogen and phosphorus runoff losses by 85 to 90%. The habitat they create supports pollinators and insect predators that can help reduce insect pests of corn and soy.

"People don't realize there is a lot of help out there," Nancy says. "Don't hesitate to reach out to NRCS - they want to help!" The Sand County Foundation and local watershed groups are also good resources.

Conservation that Pays

Prairie strips are more economical than people might think. "You don't have to spend a lot of money on wildflowers," Nancy explains. Perennial grasses offer excellent soil and pollinator benefits at a lower cost, and NRCS agents are often able to help plan a seed mix for free.

The largest cost associated with prairie strip implementation is not planting or maintenance, but the loss of income on land not planted to crops. Losses can be mitigated by converting lower-yielding land, such as low-lying, wet areas. And, prairie strips don't affect yield in adjacent rows.

Overall, they are one of the most affordable conservation options and are eligible for federal and state cost-share programs including the Conservation Reserve Program.

Prairie strips are one of many strategies farmers can use to ensure that their land remains healthy and productive for generations. The cost of implementation is small relative to the long-term benefits they provide in erosion control, water quality, and pollinator biodiversity.

Practitioner Resources

- ISU-based STRIPS project: a leader in prairie strip research and extension.
- Local NRCS offices: resources for technical support and help accessing financial support options
- Sand County Foundation: info on prairie strips and videos with WI farmers who implemented them
- SnapPlus: A nutrient management planning software tool to help optimize on-farm nutrients, minimize losses, and evaluate options including prairie strips

Science Supporting the Practices

Prairie strips added to row crop fields increase pollinator and bird abundance, reduce water runoff, and increase soil and nutrient retention, benefits that are desired by both farm and non-farm populations (Schulte et al. 2017).

Prairie strips address agricultural related environmental impacts that matter to people: STRIPS researchers found that Iowans highly valued water quality, flood control, and wildlife habitat, facets that are all addressed by strips.

Prairie strips increase the availability of forage for bees and provide better nutrition (Zhang et al. 2021), and support larger bee colonies (Schulte Moore et al. 2020).

Photos courtesy of Nancy Kavazanjian

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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