

Michigan farmers can be an even greater part of the climate solution.

Here's how.



Sellers at a Michigan farmers market. (Photo by USDA)

Natural and working lands are essential to achieving net-zero emissions. Farmers are already adopting practices that sequester carbon in soils, but there is tremendous room for growth. Recent research estimates that accelerating national adoption of just six conservation practices and increasing perennial planting

on CRP acres could offset nearly one-fifth of current agricultural emissions in just ten years!

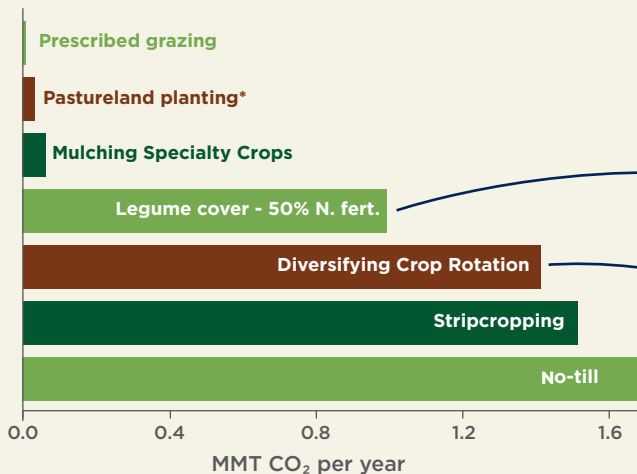
Helping farmers be part of the climate solution is a low-cost, near-term, and largely untapped opportunity that provides many benefits to farmers and the environment. Farmers can help mitigate climate change by transitioning to climate-smart practices that reduce emissions and sequester carbon. This includes soil health practices like improving nutrient management, planting cover crops, reducing tillage, diversifying crop rotations, integrating livestock, and more. These practices save farmers money and build resilience to extreme weather, while also improving water quality, biodiversity, and wildlife habitat.

APPROACHING A NET-ZERO MICHIGAN AGRICULTURE SECTOR

If Michigan farmers successfully adopted the following practices on 80% available acres they could offset

40%

of state agricultural sector emissions every year for 20 years



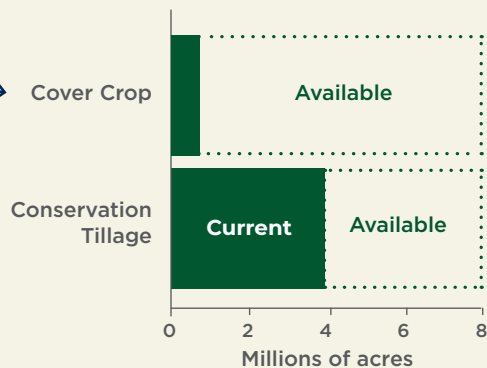
Agriculture currently accounts for 9% of Michigan's net GHG emissions.

*Plantings on 20% of pastureland.

Million metric tonnes of CO₂ equivalents (MMT CO₂e) is how much carbon is stored and/or greenhouse gas emissions are reduced due to a practice.

Potential climate benefits provided here are modeled estimates using the best available science. Many important unaccounted-for factors influence actual outcomes (e.g., soil type, weather, crops grown, carbon saturation point). While there is uncertainty around exact numbers, the direction of change is clearly positive.

To help achieve this, Michigan farmers could plant **cover crops on 7.3 million more acres** and **reduce tillage on 4 million more acres**



Climate-Smart Practices Benefit Farmers

Michigan farmers are already experiencing heavier rainfalls, higher temperatures, shifting seasons, and greater heat stress on animals due to climate change, resulting in lower yields and higher risks. These changes impact everything from farm viability to farmers' mental health. **Long-term adoption of soil health practices help farmers build resilience to these changes.** Cover crops and no-till improve infiltration, drainage, and water holding capacity to reduce the impact of floods and drought. Soil health practices also build economic resilience by improving yield stability and reducing reliance on expensive inputs like fertilizer.

Despite these benefits, farmers face financial, risk-related, and knowledge-based barriers to adopting these critical practices. Lack of secure land tenure also reduces conservation practice adoption since they carry upfront costs to implement and take several years to pay dividends. Farm Bill programs like EQIP and CSP help farmers overcome barriers to adopting climate-smart practices through financial and technical assistance.

SOIL HEALTH PRACTICES SUPPORT THE BOTTOM LINE

AFT's Soil Health Case Studies showed a return on investment of

7% to 343%

for soil health practices on row crop farms



Midwestern farmers in a no-till and cover cropped field. (AFT)



A diverse cover crop mix. Photo by Kevin Keenan for AFT

2023 Farm Bill Recommendations

Building on the success of the Inflation Reduction Act, **the 2023 Farm Bill presents a critical opportunity to increase adoption of these practices—both in Michigan and across the nation—in time to address the climate crisis.** This can be accomplished by:

- ▶ Ensuring adequate sustained conservation program funding and streamlining application processes, especially for climate-smart practices
- ▶ Increasing long-term adoption of soil health practices through EQIP's Conservation Incentive Contract program, augmented technical assistance, and peer-to-peer networks
- ▶ Providing tailored support to help small-scale and historically marginalized producers access USDA conservation programs
- ▶ Creating a program to provide federal matching funds for emerging and innovative state soil health programs
- ▶ Making crop insurance more compatible with conservation practices to harness the risk-reducing benefits of improved soil health
- ▶ Increasing secure land access, permanent farmland protection, and business technical assistance to help a diverse new generation of farmers build viable operations

To learn more about AFT's Farm Bill recommendations, visit www.farmland.org/2023-farm-bill

CONTACT: **Tim Fink**, AFT Policy Director, tfink@farmland.org
Samantha Levy, AFT Conservation and Climate Policy Manager, slevy@farmland.org

Published November 2022 at www.farmlandinfo.org/publications/carpe-results