

# Illinois farmers and farmlands are part of the climate solution.

*Here's how.*



An Illinois farm family. (Photo by Mary Mackinson Faber)

Helping farmers be part of the climate solution is a low-cost, near-term, and untapped opportunity. Illinois can mitigate climate change with programs that help more farmers transition more acres to climate-smart systems of practices. These practices save farmers money, build resilience to extreme weather, and sequester carbon in the soil—all while also improving water quality and wildlife habitat.

## TOOLS FOR CLIMATE-SMART FARMING

Soil health management systems and climate-smart farming are approaches that include a suite of practices such as **cover crops, diverse crop rotations, and livestock integration**, among others. These practices minimize soil disturbance and maximize soil cover, biodiversity, and living roots as part of a holistic systems approach that also adapts technology as well as nutrient, pest, and manure management. These systems help farmers adapt to and mitigate climate change and they also benefit water quality.



Rye is a commonly planted cover crop. (Photo by AFT)

## A NET ZERO ILLINOIS AG SECTOR THROUGH SOIL HEALTH

### Agriculture contributes

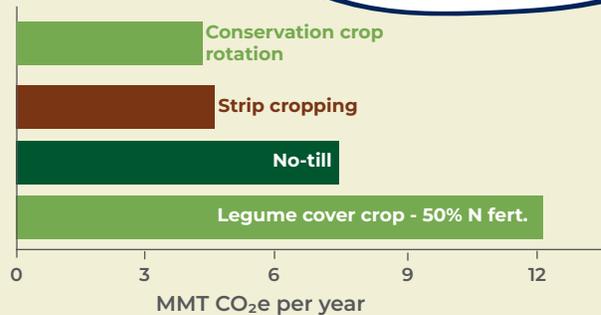
**17** MMT CO<sub>2</sub>e per year, or about 9% of Illinois's net GHG emissions

**BUT**

if farmers successfully adopted the below systems of practices on 80% of farmland, Illinois could mitigate a total of

**28** MMT CO<sub>2</sub>e per year for 20 years

That's about **14%** of Illinois's net emissions with just these few practices.



MMT CO<sub>2</sub>e stands for million metric tonnes of CO<sub>2</sub> equivalents, indicating for example, how much carbon is stored or greenhouse gas (GHG) emissions are reduced due to a practice.

## How farmers benefit

Climate-smart agriculture doesn't just benefit society. It helps farmers, too.

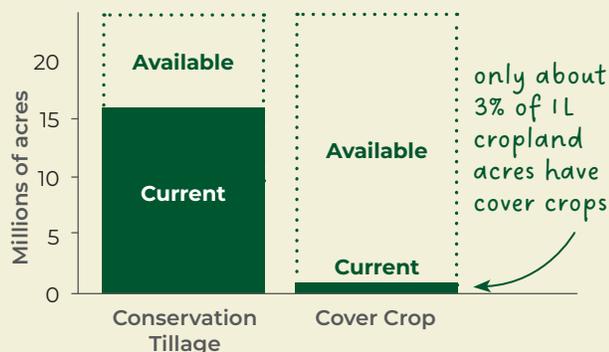


Farmers in Illinois are already facing more extreme wet and dry periods due to climate change.

Soil health practices rebuild soil structure and soil organic matter. These two characteristics **improve soil infiltration** and drainage during wet weather and **water storage** for crop use during dry weather. This also helps protect **water quality** and mitigate downstream **flood risk**.

**Farmers' benefit economically, too.** By transitioning to cover crops and no-till, the net income of two family farms (each about 1,500 acres) growing corn and soybeans in Illinois **rose by an average of \$50 per acre, an average ROI of 126%**. Learn more [here](#).

Illinois has much greater potential for climate benefits from agriculture



Illinois farmers at a field day in a no-till and cover cropped field in early spring. (Photo by AFT)



(Photo by Kevin Keenan for AFT)

## Policy Recommendations

Illinois state leaders, agencies, and elected officials can increase adoption of soil health practices by channeling federal, state, and private funding to:

- ▶ Develop a **Natural and Working Lands Plan** to guide investments to climate-smart agriculture in ways that protect farm viability, soil health and water quality
- ▶ Expand and update **financial assistance** programs like Partners for Conservation and Fall Covers for Spring Savings to support climate-smart practice adoption
- ▶ Offer financial incentives, like **revenue loss guarantee**, during the early stages of transition to reduce producer risk
- ▶ Boost **technical assistance** capacity at Soil and Water Conservation Districts and University of Illinois Extension
- ▶ Include climate-smart practices in **ag in the classroom** education opportunities

County-level estimates for potential C sequestration from soil health practices are available from CarPE Tool™ ([carpe.shinyapps.io/CarpeTool](http://carpe.shinyapps.io/CarpeTool)).

## How will your state achieve resilient, climate-smart agriculture?

Read more about these carbon estimates at [farmland.org/carpe-results](http://farmland.org/carpe-results). **Partner with us to achieve climate mitigation goals by empowering the agricultural community.**

Contact us: [climate@farmland.org](mailto:climate@farmland.org).

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