

New Hampshire farmers and farmlands are part of the climate solution.

Here's how.



New Hampshire farmers. (Photo courtesy of Andal Sundaramurthy and Nalla Farm)

Helping farmers be part of the climate solution is a low-cost, near-term, and untapped opportunity. New Hampshire 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.



A winter rye cover crop in New Hampshire. (Photo by NRCS)

A CLIMATE-SMART NEW HAMPSHIRE AG SECTOR THROUGH SOIL HEALTH

Agriculture contributes

300,000

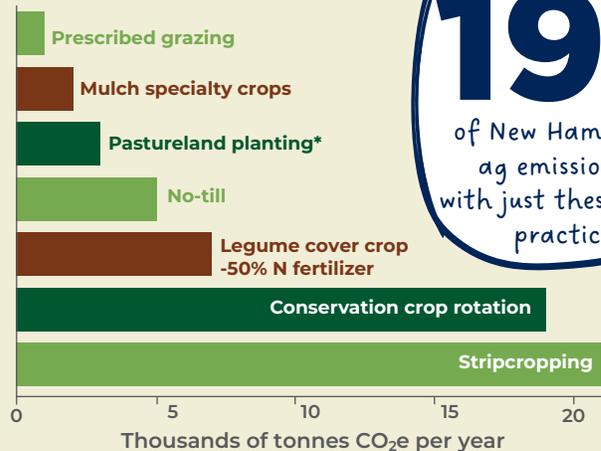
metric tonnes (t) CO₂e per year, or about 4% of New Hampshire's net GHG emissions

BUT

if farmers successfully adopted these systems of practices on 80% of farmland, New Hampshire could mitigate

60,000

t CO₂e per year for 20 years



That's about **19%** of New Hampshire's ag emissions with just these few practices.

*Plantings on 20% of pastureland.

t CO₂e stands for metric tonnes of CO₂ 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.

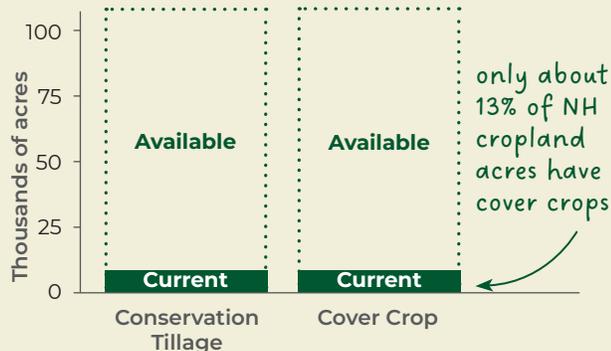


Farmers in NH are already facing more extreme wet and dry periods due to climate change.

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. For example, three New York family farms growing corn and other row crops (average size 840 acres) found that transitioning to cover crops and no-till **improved their bottom line between \$69-\$77 per acre per year, a ROI of 18% to 343%**. Learn more [here](#).

New Hampshire has much greater potential for climate benefits from agriculture



ROTATIONAL GRAZING



Angus cattle managed with rotational grazing. (Photo by AFT)



(Photo by Kevin Keenan for AFT)

New Hampshire state leaders, agencies, and elected officials can advance soil health practices by **channeling federal, state, and private funding** to:

- ▶ Create state **soil health and purchase of agricultural conservation easement (PACE) programs**
- ▶ Increase locally relevant **financial and technical assistance**, including peer to peer farmer networks
- ▶ Provide **revenue loss guarantees for farmers** during the early stages of transition to reduce risk
- ▶ Advance outreach to **non-operating landowners** ([more info](#))
- ▶ **Increase staff capacity** at the New Hampshire Department of Agriculture, Markets, and Food to support producers in implementing healthy soil practices and protecting farmland

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

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

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

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