

# GREENER FIELDS

**Combating Climate Change  
by Keeping Land in Farming in New York**



By SANAZ ARJOMAND  
and DAVID HAIGHT



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American Farmland Trust (AFT) is the largest national organization dedicated to saving the land that sustains us by protecting farmland, promoting sound farming practices and keeping farmers on the land.

AFT unites farmers and environmentalists in developing practical solutions that protect farmland and the environment. We work from “kitchen tables to Congress”—tailoring solutions that are effective for farmers and communities and can be magnified to have greater impact. Since our founding, AFT has helped to protect more than five million acres of farmland and led the way for the adoption of conservation practices on millions more.

AFT has a national office in Washington, D.C., and a network of field offices across America where farmland is under threat. We established our New York office in 1990, as the state is home to some of the most threatened farmland in the nation.

AFT greatly appreciates the generous financial support of the individuals and organizations that made the *Greener Fields* report possible: The David and Lucile Packard Foundation; New York State Conservation Partnership Program, administered by the Land Trust Alliance, in coordination with New York’s Department of Environmental Conservation and Environmental Protection Fund; and AFT’s members.

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View the full report at [www.farmland.org/greenerfields](http://www.farmland.org/greenerfields).



New York State Office  
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PHOTO: JIM NEWTON

**Climate change has, and will continue to have, dramatic effects on all New Yorkers—**including farmers and citizens concerned about their food and where it comes from. In the future, farming and food production could be significantly affected by severe weather, including warmer winters with more lake-effect snowstorms; hotter summers with serious droughts; or intense storms with heavy rainfall. At the same time, sea-level rise along our coasts could encroach upon millions of people living along the state’s heavily-populated coastline, displacing residents and pushing new real estate development onto farmland.

New York State has made a strong commitment to fighting climate change, establishing a goal of reducing statewide greenhouse gas (GHG) emissions by 80 percent by 2050. AFT’s *Greener Fields* report has found that keeping land in farming and promoting good stewardship of the land—while encouraging new development in cities, villages and developed areas—offer important ways for New York to reduce GHG emissions, as farmland emits approximately 66 times fewer GHGs per acre than developed land in New York.



PHOTO: ALAMY/PAT BLACKLEY

## An acre of farmland in New York produces



**↓ 66x fewer greenhouse gases**



**than an acre of developed land**

Continuing the current rate of farmland conversion until 2050 would potentially add another nine million metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) emissions annually.\* However, if the annual loss of farmland to real estate development were gradually reduced 80%, by 2050, 130,000 acres would be kept in farming. That could provide a reduction of nearly 6 million MTCO<sub>2</sub>e emissions in that year alone—roughly the equivalent of removing more than 1 million cars from the road. Reducing the conversion of farmland by 80 percent is projected to generate four percent of the state’s overall GHG reduction goal.

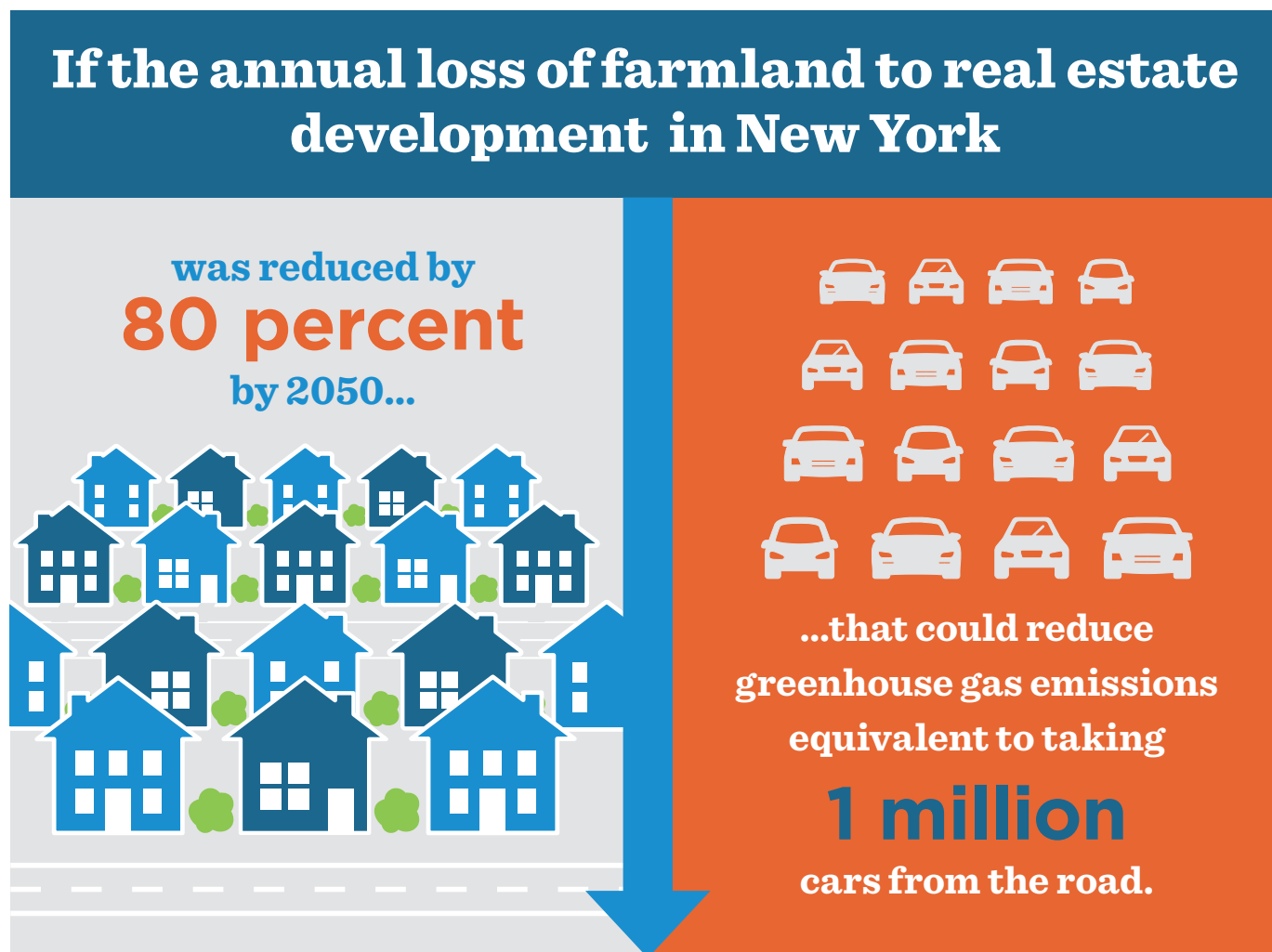
If land is kept in agriculture, there are also significant opportunities for farmers to take additional steps to reduce GHG emissions. These include:

- Adopting soil health practices, such as cover crops, reduced tillage, crop rotations and composting that enhance soil carbon levels;

- Storing carbon in permanent pasture and woodlands;
- Capturing and destroying methane from manure handling facilities;
- Generating electricity from renewable sources, such as biodigesters, solar and wind, in ways that are compatible with farming and keep productive farmland in agriculture;
- Increasing energy efficiency and reducing energy demand.

AFT’s *Greener Fields* report suggests that taking steps to protect farmland and reduce the conversion of farmland to real estate development is an important component of New York’s efforts to reduce GHG emissions 80 percent by 2050. For farmers to continue growing food and bolstering New York’s economy—while contributing to the state’s climate change goals—action must be taken.

\* Metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) is a metric measure used to compare the emissions from different greenhouse gases based upon their global warming potential.





# Ways to Combat Climate Change by Keeping Land in Farming in New York



## For Farmers

- Investigate options for permanently protecting your farmland. Go to [www.farmlandinfo.org](http://www.farmlandinfo.org) to find a land trust and learn more.
- Adopt climate smart farming practices, such as cover crops and reduced tillage.
- Generate renewable energy in ways compatible with farming and keep productive farmland in agriculture.

PHOTO: LINDSAY MORRIS



## For Interested Citizens

- Shop at farm stands, farmers markets and other places that sell local farm products. Talk with farmers about challenges they face in keeping their land in farming.
- Reach out to a local land trust about their efforts to protect farmland.
- Encourage public leaders to support funding and initiatives that protect farmland and climate smart farming practices.

PHOTO: ALAMY/LEN HOLSBORG



## For Land Trusts

- Help farm families permanently protect the most valuable and resilient land for farming and growing food.
- Educate your community about the importance of keeping land in farming and the connection with increasing resilience to a changing climate.
- Work with partners to help farmers adopt soil health practices and generate renewable energy in ways compatible with agriculture and keep productive land in farming.



PHOTO: LINDSAY MORRIS



## For Planners and Local Officials

- Make agriculture and protecting farmland a priority in land use, economic development and climate change plans.
- Participate in the Department of Environmental Conservation's Climate Smart Communities Program and integrate farms into community climate strategies.
- Work with the Department of Agriculture and Markets Agricultural and Farmland Protection Planning Grants Program to develop pro-active plans to keep land in farming and support the economic viability of farming.



## For State and Federal Leaders

- Incorporate farmland protection into public policy agendas for combatting climate change.
- Include the protection of farmland and local food systems in state or federal plans for land conservation and economic development.
- Commit resources to helping farm families permanently protect their land for farming and adopt conservation practices that build soil health.



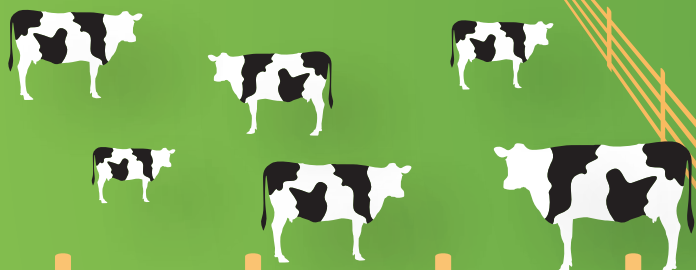
## For Researchers

- Conduct additional research related to alternative land use scenarios—such as higher density residential development compared with lower density residential development—and the associated impact on greenhouse gas emissions.
- Estimate the climate change impacts of farmers expanding the use of soil health and other climate-smart farming practices.
- Explore ways for farmers to successfully integrate renewable energy into active farm operations while keeping productive farmland in agriculture.

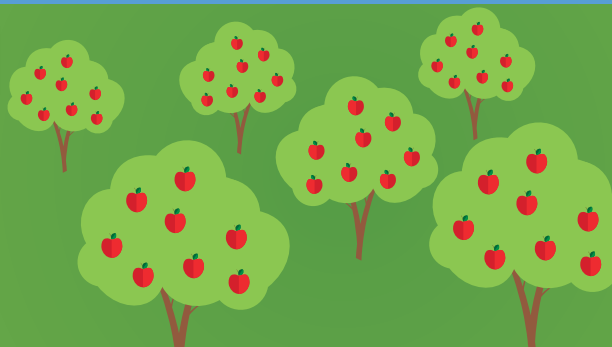


# Five Ways that Farmers in New York Can Reduce Greenhouse Gas Emissions

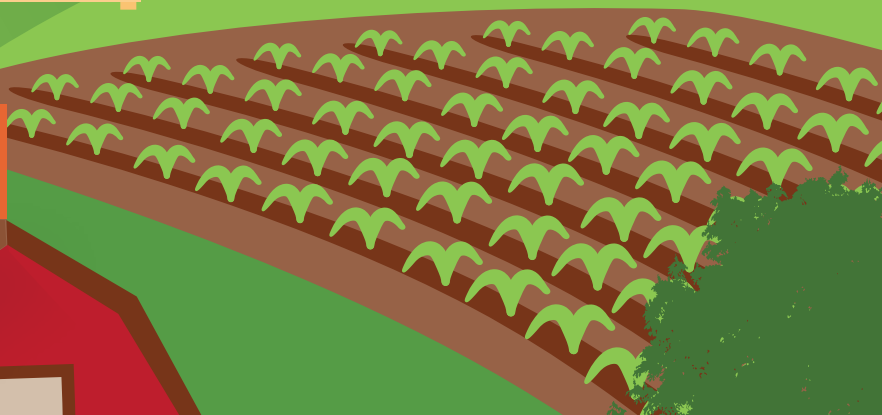
Store carbon in permanent pastures and forests



Adopt soil health practices, like cover crops



Generate renewable energy in ways compatible with farming



Increase energy efficiency

FARM NOT  
FOR SALE

Permanently protect  
land for farming

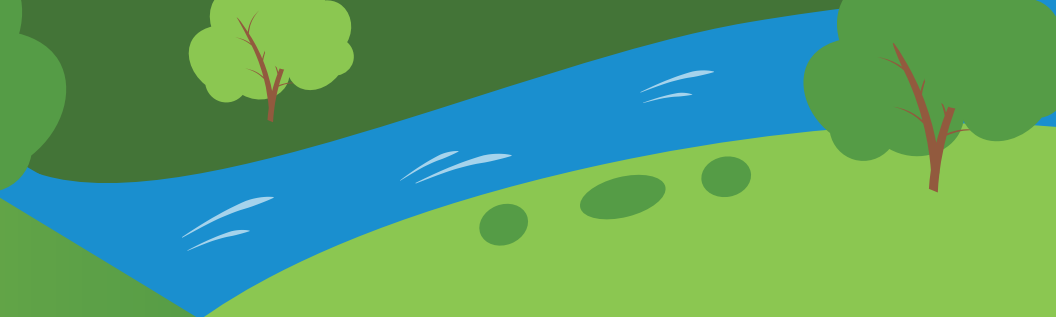






PHOTO: DIETRICH GEHRING

# No Farms No Food<sup>®</sup>



**Join American Farmland Trust in saving the land that sustains us.**

Visit [www.farmland.org/newyork](http://www.farmland.org/newyork) or contact (518) 581-0078; [newyork@farmland.org](mailto:newyork@farmland.org).

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