



Agricultural Land Protection

An Essential Tool for Fighting Climate Change





SHAWN LINEHAN

As states and the federal government seek solutions to climate change, an important strategy is the protection of working farms and ranches. Agricultural conservation easements—the primary means of permanently protecting working lands from development—are an essential tool in our efforts to combat climate change.

Agricultural conservation easements (referred to simply as “easements” throughout this document) are already recognized for providing many public benefits. At a time when 2,000 acres of productive farmland and rangeland a day across the U.S. are lost to or threatened by development, these easements offer a means of ensuring that our best agricultural land remains available for agricultural production and protected from development.¹ In addition, easements for which a landowner receives compensation, either directly through a payment or indirectly through a transferable tax credit, promote agricultural business investment and strengthen rural economies, with the proceeds of most easement sales being reinvested directly into farm operations and local economies.²

Such easements also help with land transfer and succession.³ With record agricultural land prices, the dream of farmland ownership has never been further out of reach for many aspiring producers. Because their development potential is restricted, permanently conserved lands can offer more

affordable purchase opportunities for younger and historically underserved producers. They also provide a way for current farm families to facilitate the transfer of their farms to heirs or a non-family successor such as a neighbor or employee.

Perhaps the most underappreciated benefits of easements are their contributions to addressing climate change. Permanently protecting farmland:

- Avoids the conversion of agricultural land to developed uses with higher greenhouse gas (GHG) emissions.
- Encourages greater adoption of practices that sequester carbon, reduce GHG emissions, and build climate resilience.
- Retains the benefits of conservation practices and the potential of lands to serve as a carbon sink.
- Reduces the threat of converting grasslands and more marginal land into production.
- Protects other lands associated with farms and ranches—like woods and wetlands—that often provide valuable carbon sequestration.

This document presents a short summary of each of these benefits, showing how protecting agricultural land in perpetuity is critical to any efforts addressing climate change.

Permanently protecting farmland avoids the conversion of land to developed uses with higher GHG emissions.

AFT's Greener Fields reports examining California and New York found that an acre of farmland, based on a variety of crops and emission sources, produces far fewer GHG emissions than an acre of developed land. This is especially the case for the type of low-density residential development that is the lead cause of farmland conversion across the country.⁴ In California, on average, urban areas emit 58 times more GHG per acre than the state's farmland.⁵ In New York, the emissions rate is 66 times more.⁶

In recognition of the potential of land permanently protected with an easement to avoid GHG emissions associated with poorly planned development, the State of California established its Sustainable Agricultural Lands Conservation (SALC) Program. Since 2015, this statewide program has earmarked over \$373 million of cap-and-trade dollars largely toward purchasing easements on 194,000 acres that support smart growth and thus reduce energy use, vehicle miles traveled, and soil carbon loss.⁷ In FY21 alone, the state invested \$65 million to permanently protect 27,000 acres of agricultural land, estimating that this investment will help limit sprawl and prevent the release of 2.4 million metric tons of carbon dioxide equivalents.⁸

AFT is currently exploring how the SALC program quantification methodology can be adapted to calculate the climate benefits associated with easements across other

What is an agricultural conservation easement?

An agricultural conservation easement is a powerful tool for ensuring that agricultural land remains forever available for the production of food, feed, fiber, and fuel. With such easements, landowners voluntarily place deed restrictions on their property. While these restrictions can be tailored to meet the unique goals of the landowner, all agricultural conservation easements limit non-agricultural development in perpetuity and spell out allowable uses of the land. An easement can be donated or sold to a qualified entity such as a public agency or a private land trust. The entity that holds the easement is then responsible for making sure that the restrictions are followed. The value of the easement is typically determined by appraisal. Land under easement remains in private ownership and on local tax rolls, and the landowner is free to transfer the land to a new owner at any time with the conditions of the easement transferring along with the land.



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parts of the country. Early results are promising: In a recent analysis of a 103-acre Illinois farm slated for protection by The Conservation Fund through the federal Regional Conservation Partnership Program (RCP), AFT found that avoiding conversion of the farm to residential development—assuming that the same type of residential development would occur more efficiently elsewhere—could avoid an estimated 19,541 metric tons of carbon dioxide equivalent emissions in the first 30 years. Of the avoided emissions, 40% would be from reduced electricity consumption, 38% from reduced driving, and 20% from avoided soil carbon loss.⁹

Easements encourage greater adoption of practices that sequester carbon, reduce GHG emissions, and build climate resilience.

In collaboration with USDA’s Natural Resources Conservation Service (NRCS) and research partners, AFT has conducted three comprehensive surveys of owners of agricultural land protected with funding from the federal Farm and Ranch Lands Protection Program (FRPP), the predecessor to USDA’s current Agricultural Conservation Easement Program (ACEP).

The most recent survey, conducted with Purdue University in 2022, queried 1,778 landowners about aspects of their land management, including adoption of conservation practices. In total, there were 502 survey responses.¹⁰

The survey results show high rates of conservation planning and adoption among owners of FRPP-protected land:

- 93% of respondents have adopted at least one conservation practice on their land.
- 78% of respondents have adopted at least three conservation practices on their land.
- 61% of respondents have an NRCS conservation plan that outlines recommended conservation practices on their protected land.


In addition, FRPP landowners tended to adopt “climate-smart” agricultural practices—the subset of practices identified by USDA NRCS as delivering quantifiable reductions in GHG emissions and/or increases in carbon sequestration—in higher proportion than the general farming population. The largest percentages of FRPP owners adopted the following climate smart practices: 65% of respondents adopted conservation tillage, 57% implemented cover crops or green manure crops, 62% engaged in nutrient management, and 39% are using rotational grazing. The National Agricultural Statistic Service’s 2017 Census of Agriculture, which only contains a few data points about climate-smart practices, found just 34% of farms with cropland reported using no-till or reduced tillage and 10% reported planting cover crops.

Results suggest several ways in which easement programs support practice adoption. Permanent protection, however, emerged as the most significant driver. When asked to rate the importance of different aspects of FRPP in implementing conservation practices, 81% of first-generation and 72% of second-generation owners said the protected status of the land was “very” or “extremely” important. Farmers who believe their land is safe from non-farm development feel more secure making longer-term investments into the potential of their land and the viability of their operations.


In addition, respondents said that the proceeds from the sale of an easement helped them implement conservation practices. For instance, 35% of first-generation FRPP landowners reported using proceeds to adopt practices. Moreover, 50% of owners who sold easements rated proceeds as “very” or “extremely” important to practice adoption.

It should also be noted that a growing number of farmland protection entities are working with landowners to improve conservation on permanently protected land. FRPP owners reported that interactions with land protection organizations and agencies encouraged the implementation of conservation practices: 46 percent of first-generation and 21 percent of second-generation owners said this relationship was “very” or “extremely” important. In addition, the Regional Conservation Partnership Program (RCP) has invested in multiple projects that link farmland protection with financial assistance for conservation practices. Furthermore, the role that easements can play in transferring land to new farmers can translate into the implementation of new farming practices.


**AGRICULTURAL CONSERVATION EASEMENTS
ENCOURAGE FARMERS TO
ADOPT CLIMATE-SMART PRACTICES**




FARMERS WHO PROTECT THEIR LAND



ARE LIKELIER TO PLAN FOR A FUTURE IN AGRICULTURE



AND INVEST IN CLIMATE-SMART PRACTICES



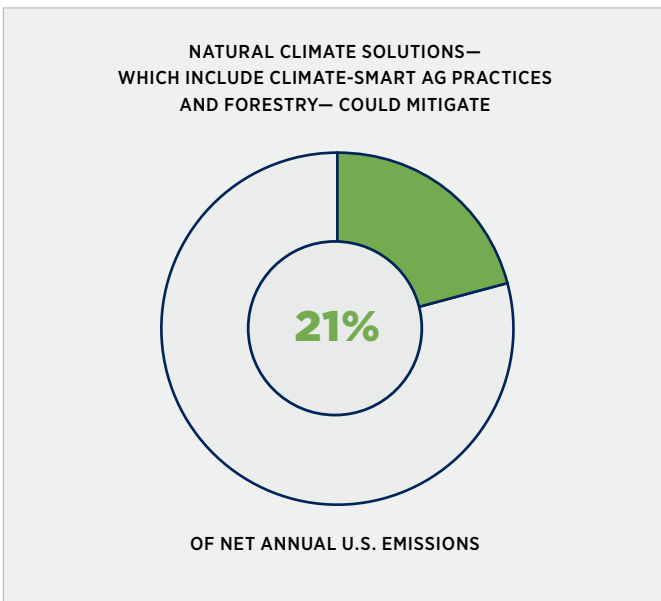
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FROM THE SALE OF THE EASEMENT.**



TREK AND SHOOT/ISTOCKPHOTO

Permanently protecting farmland retains conservation practice benefits and the potential of lands to serve as a carbon sink.

Agriculture is in a unique position to provide solutions to climate change, not just by reducing emissions, but by drawing down carbon from the atmosphere and sequestering it in the soil through practices such as reduced tillage, cover crops, and rotational grazing. Some estimates suggest that if economic, social, and technical barriers were eliminated, natural climate solutions—which includes climate-smart agricultural practices as well forestry and other land management interventions—have the potential to mitigate the equivalent of 21% of net annual U.S. emissions.¹¹



However, most of these benefits are lost when land is developed since the conversion of agricultural land is often preceded by removing topsoil, which causes some stored carbon to be released back into the atmosphere. This is why investments in conservation practices on eased lands are more likely to keep the carbon sequestered in the soil. Easements also retain for perpetuity the ability of the land to function as a carbon sink, even if those practices are not yet implemented.

Permanently protecting agricultural land reduces the threat of converting grasslands and more marginal land into production.

Most Purchase of Conservation Easement (PACE) programs focus on protecting agricultural lands with prime, statewide important, or unique soils. For instance, eligibility for the federal Agricultural Land Easements subprogram of ACEP is generally restricted to land which has at least 50% of its soils in these categories.¹² This emphasis is because these lands are both the most productive and—by virtue of being relatively flat, cleared, and well-drained—often the most at risk of development.

According to AFT’s Farms Under Threat 2040 modeling, about 9 million acres of the country’s most productive, versatile, and resilient farmland is projected for conversion by 2040.¹³ Development of this land is especially damaging to the climate and the environment, as it can shift crop production to more marginal farm ground. This results in more input use and increases the likelihood of soil carbon loss as well as soil erosion and water quality challenges.¹⁴ By permanently protecting our best agricultural lands, we reduce the demand for conversion of other lands.

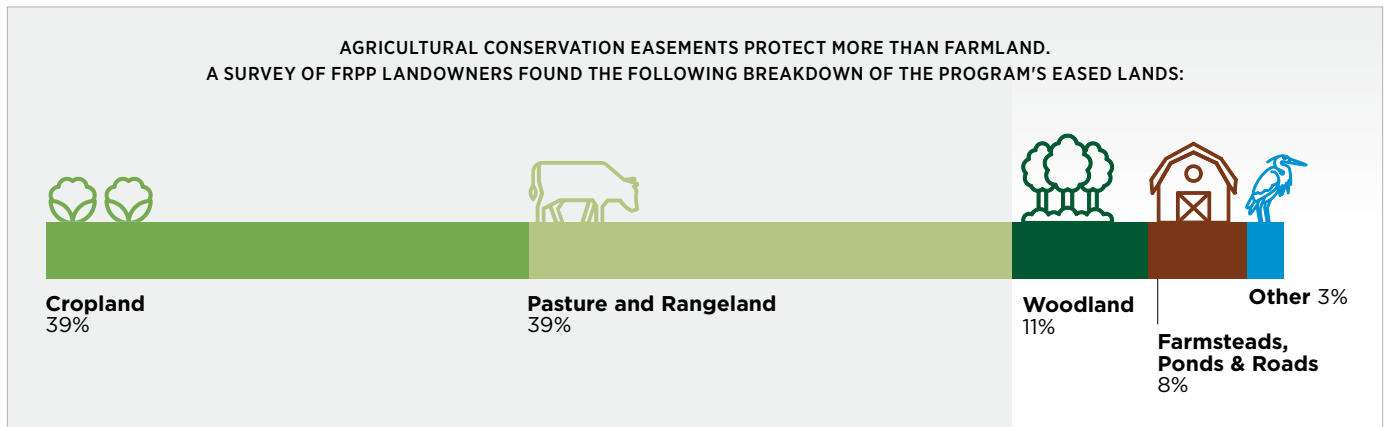
Easements protect other lands associated with farms or ranches that provide valuable carbon sequestration.

While ACEP-ALE and many state and local PACE programs focus on permanently protecting highly productive farmland, easements also typically protect less productive land that is nevertheless integral to the agricultural operation. This land may be grasslands, wetlands, or forest land that buffer the operation from non-farming neighbors, or pasture or woodlots that are important to the economic viability of the farm or ranch. These types of associated lands often provide their own climate benefits.

While data on acreage of land in each land type is not publicly available for ACEP-ALE, data from the AFT-Purdue University survey of FRPP landowners show that, among survey respondents, the average size of protected agricultural

properties is 347 acres and the median is 148 acres. Owners reported that, on average, 39% of their protected land is cropland, 39% is permanent pasture or rangeland, 11% is woodland, 8% is devoted to farmstead areas, and a remaining 3% is predominantly wetlands.¹⁵

Landowners who are struggling financially often have few options but to sell a portion or all of their land for development to meet family or business needs. This can result in the conversion of not just cropland, but a farm or ranch's pasture, rangeland, and woodland. Purchased easements provide a means by which landowners can secure revenue from their assets without selling their land for development. Selling an easement financially supports the entire farm operation, which helps a farmer or rancher keep all of their land in agricultural use, including land not covered by the easement that still has value for carbon sequestration and conservation.



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More Support is Needed for Agricultural Land Protection.

To date, nearly 8 million acres of farmland and rangeland across the nation have been permanently protected.¹⁶ While this is a significant achievement, it represents less than 1% of our nation's total agricultural land. The sole federal program devoted to the purchase of agricultural conservation easements—ACEP-ALE—is significantly oversubscribed, and only 28 states have PACE programs.¹⁷ Given this limited support, a dramatic increase in local, state, and federal agricultural land protection funding is essential to help our nation reach its climate goals.

NOTES

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FRONT COVER PHOTOGRAPH COURTESY OF COLORADO CATTLEMEN'S AGRICULTURAL LAND TRUST (CCALT). BACK COVER PHOTOGRAPH BY SHAWN LINEHAN.

FOR MORE INFORMATION

American Farmland Trust is the nation's leading conservation organization dedicated to protecting farmland, promoting sound farming practices, and keeping farmers on the land. For more information, visit farmland.org or call (202) 331-7300.

The National Agricultural Land Network (NALN) is a project of AFT that works to strengthen the collective capacity of public agencies, planning entities, and land trusts to retain and protect agricultural land by providing opportunities to network, learn, and collaborate around

tools and strategies to save the land that sustains us. For more information about the NALN or to join the network, visit naln.farmland.org or contact AFT's NALN Director and Senior Policy Advisor Cris Coffin at ccoffin@farmland.org.

The Farmland Information Center is a clearinghouse for information about farmland protection and stewardship developed in partnership with the USDA Natural Resources Conservation Service. Visit farmlandinfo.org or call (800) 370-4879.




American Farmland Trust
SAVING THE LAND THAT SUSTAINS US

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