

Why Preserve Farmland?



Farms feed us and provide a host of other public benefits. However, every day, the amount of fertile farmland diminishes as development spreads. This guide describes the importance of preserving productive agricultural lands.

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Introduction

Farms feed us. They provide a host of economic, environmental, and socio-cultural benefits. They are also threatened.

In recent decades, residential and commercial development has decimated America's agricultural lands.¹ Nationwide, 24 million acres of farmland were lost between 1982 and 2012; Pennsylvania saw 706,000 acres eliminated in that timespan.² This loss of farmland is essentially permanent. It takes natural forces millennia to build richly productive soils; bulldozers can destroy fertile farmland in minutes.

Government farmland preservation programs and many private land trusts work to ensure that we don't destroy the resource that feeds us. They work to keep enough fertile land available for farming so we don't

¹ Often referred to as "urban sprawl," which is defined by EPA as the "unplanned development of open land." Commonly associated with low-density residential planning (three dwellings per acre or less) outside the urban core.

² "2012 National Resources Inventory" (United States Department of Agriculture, 2012) Note: this is the most recent data available on land cover.

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risk becoming dependent on other nations to feed our growing population. They also provide a variety of other public benefits.

This guide explores both the benefits of farms and the value of farmland preservation efforts.

Farmland Preservation Anchors the Farm Economy

Farms do not stand alone. Each is an anchor of stability for other nearby farms. Each is a thread in a web of neighboring farms, farm businesses, and other human endeavors that support and rely upon each other. When one thread is lost, the negative consequences ripple through the community. When many threads are lost, there comes a point when the web fails—when farms and farm businesses no longer have the mutual support needed to keep the local farm economy viable.

A farmer nearing retirement decides to sell his land to a developer. His neighbor worries about the disruptions the development will cause, and downsizes his operation. Having already struggled with declining revenues due to the loss of other farms, the local agriculture supply store closes. It lays off its employees, and they move their families elsewhere to find new jobs. Then a few farmers decide it's not worth the longer drive to buy supplies, and they sell. The nearby processing plant loses business and is forced to lay off workers too. Other farmers in the area watch their options narrow and fear that others will also sell their land for development. They conclude that their farms will inevitably be lost, so they stop investing in new machinery and labor. Eventually, they leave their fields fallow in anticipation of selling for development.³ The downward spiral of the local farm economy eventually becomes irreversible.

³ This disinvestment in the face of looming development is known as "impermanence syndrome," a term coined by D. Berry in 1978. It becomes a self-fulfilling prophecy as de-

Farmland preservation aims to prevent the downward spiral. It aims to secure enough farms as permanent anchors so that people can see that their local farm economy can weather the loss of a number of non-protected farms without capsizing. Farmland preservation provides assurance that farming is there to stay in a community.

Protects Our National Security

Twenty percent of the food Americans eat comes from other countries.⁴ The current system of food production and delivery has created a global supermarket, where all kinds of items are available to consumers year-round. While access to products that cannot be grown in the United States (coffee and bananas, for instance) is welcome, there are pitfalls to undue dependence on global trade networks to deliver many foods that can be grown here. Political upheaval in Asia, drought in South America, economic turmoil in Europe: any of these disruptive events could drastically affect food supplies and prices.⁵ When basic sustenance and nutrition rely upon a system prone to uncertainty and instability, food security becomes a concern.

The global population is projected to rise from today's 7.5 billion to 10 billion by 2050; for every three people that need to be fed today, one more will need to be fed in the not-too-distant future.⁶ Considering increasingly erratic weather patterns, political and economic upheavals, and evermore mouths to feed across the planet, prudent planning for the future would prioritize locally-grown food that is insulated from global trends and crises.⁷

clining investments in the farm business result in decreased productivity and competitiveness in the market.

⁴ "U.S Food Imports" (United States Department of Agriculture, 2015)

⁵ Ellen Messer and Marc Cohen, "Conflict, Food Insecurity, and Globalization," *Food, Culture, and Society: An International Journal of Multidisciplinary Research* (2007)

⁶ "World Population Updates" (Population Reference Bureau, 2016)

⁷ The White House is aware of these issues, releasing a paper titled "The National Security Implications of a

If the United States retains its best farm soils—if it refrains from building over its most productive farm lands, if it keeps sufficient capacity to feed its growing population—the possibility diminishes of shortages, conflicts, and crises that could result in untold human tragedy.

This logic extends to the state and local level: if regions within America can develop their own robust agricultural systems, they are less likely to be damaged by turmoil elsewhere.

National security requires fertile farmland—lots of it. Farmland preservation helps ensure this is possible.

Supports Our Economy

The economic impact of agriculture on Pennsylvania and the nation is enormous. The output of America's farms accounts for \$177 billion of the GDP; combined with agriculture-related industries, the total is nearly \$1 trillion.⁸ The reach of this impact is broad: farms play a critical role in the economic lives of their employees, customers, and communities. They provide a variety of direct and indirect economic benefits, especially when compared to the alternative types of land use currently threatening productive farmland.

Creates Jobs

Working farms create direct and indirect employment opportunities. There are positions on the farms themselves—the managers, machinery operators, field hands, and other workers needed for all the aspects of production. Some farming positions are highly skilled and require talented and experienced people, while other jobs are available to younger workers or those new to farming. The jobs are filled by family members or locals, or can attract people from elsewhere who relocate to the community. Farms also create and maintain jobs in secondary markets such as food pro-

Changing Climate" in 2015. The CIA and Pentagon have also committed resources to studying and preparing for the security risks posed by climate change.

⁸ "Ag and Food Sectors of the Economy" (United States Department of Agriculture, 2016)

cessing, retail stores, insurance, veterinary care, and equipment sales. A Michigan State University study found that the employment multiplier for the agriculture industry was 1.668, meaning that for every 1,000 full-time job in on-farm production there were on average 668 jobs in industries that supply or assist farms.⁹ During the decade studied, as prime farmland was swallowed by sprawling residential developments, these secondary industries were hit the hardest: while 10% of on-farm jobs disappeared, the agricultural service sector lost 43% of its jobs.¹⁰ The larger data further emphasizes this relationship between farms and jobs: in America there are 17 million jobs tied to agriculture, nearly 500,000 of them in Pennsylvania.¹¹

Keeps Money in Local Communities

A growing number of farms—nearly 150,000 nationwide, according to the 2012 USDA census—offer food products to their local communities through farmers markets, CSA programs, farm stands, and other channels.¹² The shorter the distance between the farmer’s field and the customer’s plate, the less transportation and fewer intermediaries required. Therefore, a local food transaction benefits both the farmer and consumer: the farmer receives a greater percentage of the sale, while the consumer enjoys fresh food produced for its taste rather than its ability to endure weeks of transportation and storage. The money spent in the community stays in the community, circulating to other businesses that offer goods and services and create jobs. One study concluded that *agricultural exports generate \$1.70 of*

⁹ Gerhardus Schultink, “Land Use Planning and Open Space Preservation: Economic Impacts of Low-Density Urbanization and Urban Sprawl,” *Journal of Civil, Environmental, and Architectural Engineering* 3, no. 1 (2009)

¹⁰ Ibid

¹¹ “Ag and Food Statistics” (United States Department of Agriculture, 2015); “Fast Facts on Agriculture and Food Careers in Pennsylvania” (Pennsylvania Department of Agriculture, 2015)

¹² “Agriculture Census” (United States Department of Agriculture, 2012)

*community income for every dollar of sales, while local sales can generate over \$3.00.*¹³ Farmers markets, especially when located in a downtown area, can also have a spillover effect, boosting the sales of surrounding businesses.

Pennsylvania is a national leader in direct-to-consumer sales, trailing only California and New York, and preserving farmland ensures the continued viability of local food suppliers in communities throughout the state.¹⁴ Markets for locally produced food help sustain local economies, while enhancing opportunities for farmers to make a living and for consumers to buy fresh food directly from the people who produce it.

Provides Tax Revenue; Requires Little Government Service

Only by considering both the local tax revenues generated by a land use and the local government expenditures necessitated by that land use can you identify the use’s overall impact on local government finances. Farms and other open lands unambiguously provide a net fiscal benefit. Owners of agricultural lands pay more in local taxes than government spends in support of those lands and the people who live and work on them.¹⁵

Although agricultural land generates less tax revenue per acre than residential, commercial, or industrial property, it requires fewer public services such as schooling, road maintenance, and policing. The difference means that non-agricultural lands receive more services and pay less in taxes than they could in the absence of agricultural land.

According to *Cost of Community Service Studies* by American Farmland Trust, agricultural lands on average receive only \$0.37 in public services for every dollar they contribute; housing developments, on the

¹³ Viki Sonntag, “Why Local Linkages Matter,” *Sustainable Seattle* (2008)

¹⁴ “Agriculture Census” (United States Department of Agriculture, 2012)

¹⁵ “Cost of Community Services Studies: Fact Sheet” (Farmland Information Center, 2016)

other hand, receive \$1.16 in services for every dollar they contribute.¹⁶ Agriculture subsidizes¹⁷ the costs of residential development.¹⁸

Supports Agritourism

The natural beauty of farmland appeals to many people. Agricultural-based tourism (known as agritourism) offers people a chance to interact with farmland in a variety of ways: they might pick their own strawberries in the summer, take a tour of a vineyard, or hold their wedding in a bucolic farm setting. This tourism provides income to the farmer, and has ancillary benefits for the community. When agritourists visit a farm, they might spend money in the nearby hotels, stores, and restaurants. They might visit other local attractions. If they enjoy the experience, they might return or recommend the area to friends. While agritourism possibilities are highly variable depending on location, the financial impact can be significant. For example, in Lancaster County, agritourism accounts for half of all tourism revenues, totaling \$580 million each year.¹⁹

Delivers Ecosystem Goods and Services

Ecosystem goods and services are the benefits people derive from ecosystems: clean air, drinkable water, stable weather patterns, fertile soil, flood protection. Though often overlooked in discussions of fiscal resources, natural assets can be viewed as capital assets; like tractors or office buildings, they have tangible real-world economic value. And unlike other capital assets, they are renewable and self-sustaining. If man-

aged properly, their value does not depreciate over time.

A 2014 study in Lancaster County found that lands used for agricultural purposes provide an annual flow of \$483 million in ecosystem service benefits.²⁰ These benefits include water regulation, soil retention, pollination, and biological control. This near-half billion dollars is *in addition to* the \$1.2 billion in total economic production and \$580 million in tourism-associated revenue. While most places are not as productive as Lancaster County, the fiscal benefits of ecosystem goods and services are noteworthy. There is financial value in healthy ecosystems because society relies heavily upon the goods and services they provide, and farmland is more effective than commercial and residential developments in supporting these ecosystems.

Sustains a Tradition

In the popular imagination, farming is synonymous with rural life in America. That perception isn't far from reality. Agriculture has occupied a prominent place in this country's history since its inception; Thomas Jefferson—a farmer himself—wrote that “cultivators of the Earth are the most virtuous and independent citizens” and envisioned an entire nation of farmers growing food on their own plots of land.²¹ In the centuries since, however, Jefferson's vision has not come to fruition. In 1900, there were 6 million farms and agriculture employed 41% of the American workforce; in 2015, there were 2 million farms and only 1% of people worked in farming.²²

Despite the fact that most people are now disconnected from agriculture, farming remains a primary element of rural heritage in the United States. This is due in large part to the economic ties between farms and communities (see “Supports Our Economy” section), but it is also a result of the multi-generational nature of family farms, which encourage the estab-

¹⁶ Ibid

¹⁷ Likewise for industrial and commercial uses.

¹⁸ Local governments typically find residential development attractive because of the initial injection of new tax dollars into their coffers and few demands on government services. However, over time, a development's infrastructure will age and require increasing amounts of municipal maintenance, children will grow up and require schooling, and residents will demand higher levels of services. Ultimately, the development begins receiving more in public service benefits than it is contributing through tax dollars.

¹⁹ Aaron Schwartz and Maya Kocian, “Beyond Food: The Environmental Benefits of Agriculture in Lancaster County, Pennsylvania,” *Earth Economics* (2014)

²⁰ Ibid

²¹ Thomas Jefferson, *Notes on the State of Virginia* (London: Stockdale, 1787)

²² “Census of Agriculture” (United States Department of Agriculture, 2012)

ishment of deep connections to land and place. The relationship between farms and other pillars of rural culture—clubs like 4 H and FFA, seasonal celebrations like fall harvest festivals, and community events like tractor pulls and rodeos—is important as well.

Farms are the lifeblood of this cultural lineage, places where history and knowledge converge. As the stewards of these places, farmers can be tremendous teachers, passing along a wealth of valuable skills and advice. Those who benefit most from their experience and insight are future farmers—people considering farming as a career choice, or who are eager to begin but lack the necessary skills or money to start their own operations. With the number of beginning farmers in America down 23% and the average age of farmers at nearly 60, preserving farms as gateways into the profession has never been more crucial.²³ As farmland disappears, so do the chances to educate the next generation of farmers.

Farms and farmers link Americans to a collective past, to a time when more people lived closer to the land and followed the contours of the seasons. As the world plunges into the new millennium and technology drives a modern, industrialized society where most people live in urban areas and work indoors, preserving this agricultural legacy is valuable. It is even more necessary for the rural communities that will see decades of traditions and long-standing cultural practices lost if there is no land to farm and no farmers to farm it.

Farmland Preservation Tools

Across the United States, land trusts, other private charitable organizations, and governments are working in various ways to protect our nation’s productive farmland.

Conservation easements, which permanently limit the development of a piece of land, are a highly effective tool in this work. In Pennsylvania, the state and county sponsored Agriculture Conservation Easement Purchase Program has supported the protection of thousands of farms and many hundreds of thousands

of acres of farmland since it began in 1988. Land trusts too have preserved substantial farming acreage. ConservationTools.org contains a wealth of information about conservation easements and their application to protecting farmland.

When land use planning aims to ensure the efficient use of space and resources, farmland can be protected while allowing room for communities to grow and thrive. Community planning and land use regulation offer tools that, depending on their specific design and the local political will, can protect farmland with varying degrees of efficacy. Land use regulations ranging from Agriculture Protection Zoning to Transfer of Development Rights have seen varying degrees of implementation success in communities. These regulatory tools are also described in various guides at ConservationTools.org.

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Resources at ConservationTools.org

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