

# FARMS UNDER THREAT: THE STATE OF AMERICA'S FARMLAND

## *Farms Under Threat: The State of America's Farmland*

is a comprehensive spatial analysis of the location, quantity, type, and quality of agricultural land lost to development in the continental United States between 1992 and 2012. It is the first assessment from American Farmland Trust's multi-year initiative examining threats to U.S. farmland and rangeland and evaluating policies and programs to stem the loss.

## The Lay of the Land

Agricultural land encompasses about 912 million acres or 47 percent of the total land area in the continental United States. *Farms Under Threat* defines agricultural land as non-federal land that includes a diverse array of land cover/use types: cropland, pastureland, rangeland, and woodland associated with farms. Farmers and ranchers use an additional 158 million acres of federal land for grazing. Agricultural land plus federal land used for grazing comprises 55 percent of the total land area.

THE EXTENT AND DISTRIBUTION OF AGRICULTURAL LAND IN 2012



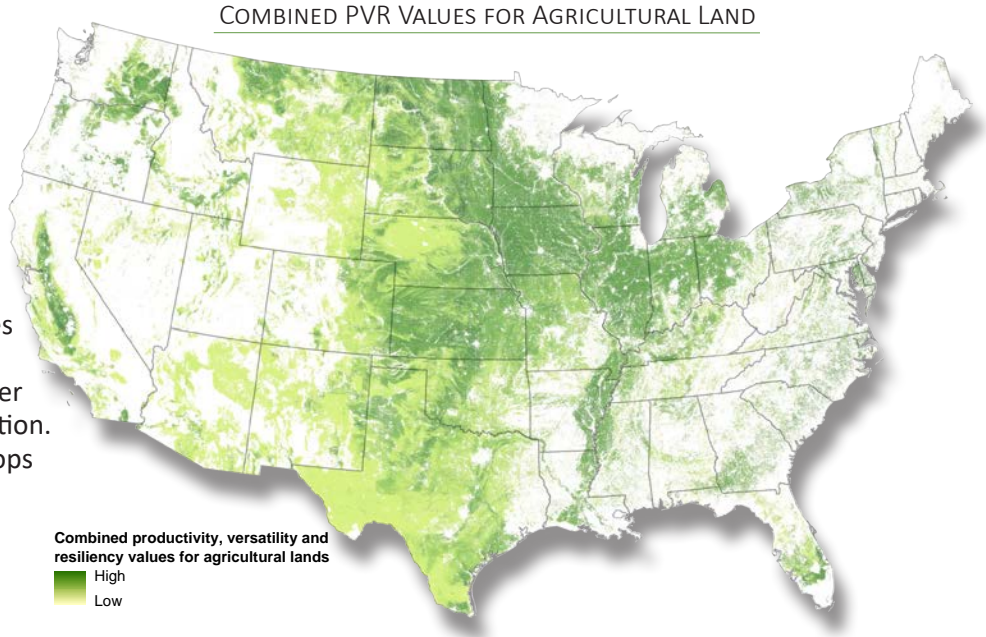
## KEY STATISTICS

|  |               |
|--|---------------|
| Total land area in the continental United States (acres)     | 1,937,713,000 |
| Agricultural land (acres)                                    | 911,666,000   |
| Cropland   | 313,845,000   |
| Pastureland  | 108,410,000   |
| Rangeland  | 409,275,000   |
| Woodland   | 80,136,000    |
| Agricultural land as proportion of total land area (percent) | 47.0          |
| Federal land used for grazing (acres)                        | 158,418,000   |
| Proportion of land used for agriculture (percent)            | 55.2          |

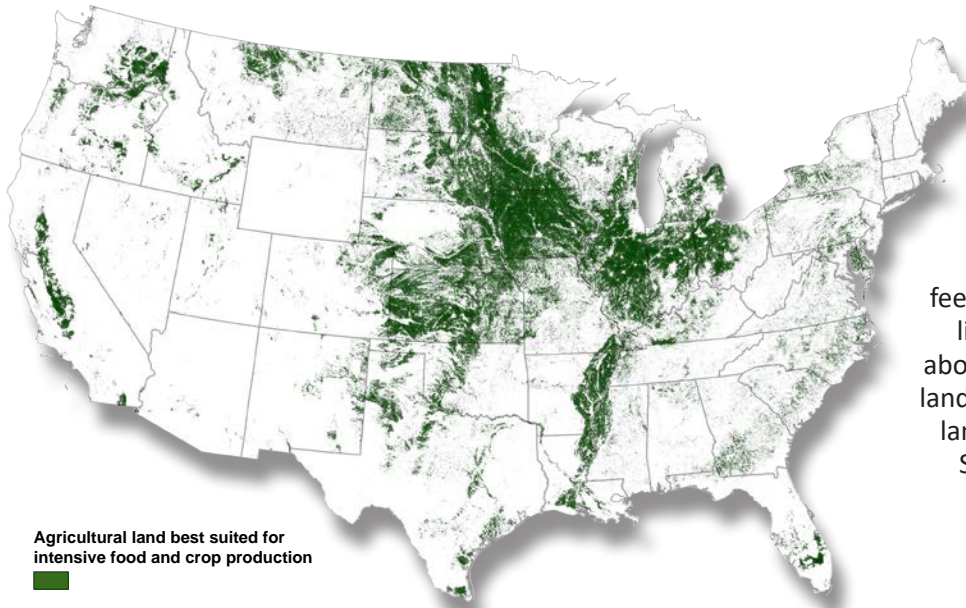
## Nationally Significant Agricultural Land

*Farms Under Threat* classifies agricultural land based on its productivity, versatility, and resiliency (PVR values). We used soil suitability, land cover/use, and food production as factors to assess the land's potential.

Higher PVR values are shown in darker green; lower values in pale green. Lower PVR values indicate land with relatively greater limitations and narrower choices for agricultural production. Farmers may need to adapt crops and practices and increase their level of management to use this land for cultivation.



### BEST AGRICULTURAL LAND FOR INTENSIVE FOOD AND CROP PRODUCTION IN 2012



Agricultural land with PVR values between 0.43 and 1.0 is the land best suited for intensive production of fruit and nut trees, vegetables, staple foods, grains, and animal feed with the fewest environmental limitations. This land represented about 36 percent of U.S. agricultural land or about 17 percent of the total land area in the continental United States in 2012.

## KEY STATISTICS

|   |             |
|---|-------------|
| Agricultural land best suited for intensive food and crop production in 2012 (acres)  | 324,103,000 |
| Agricultural land best suited for intensive food and crop production in 1992 (acres)  | 335,032,000 |
| Land area in the continental United States that qualifies as best land for intensive food and crop production in 2012 (percent) | 16.7        |
| Agricultural land classified as best land for intensive food and crop production in 2012 (percent)                              | 35.6        |

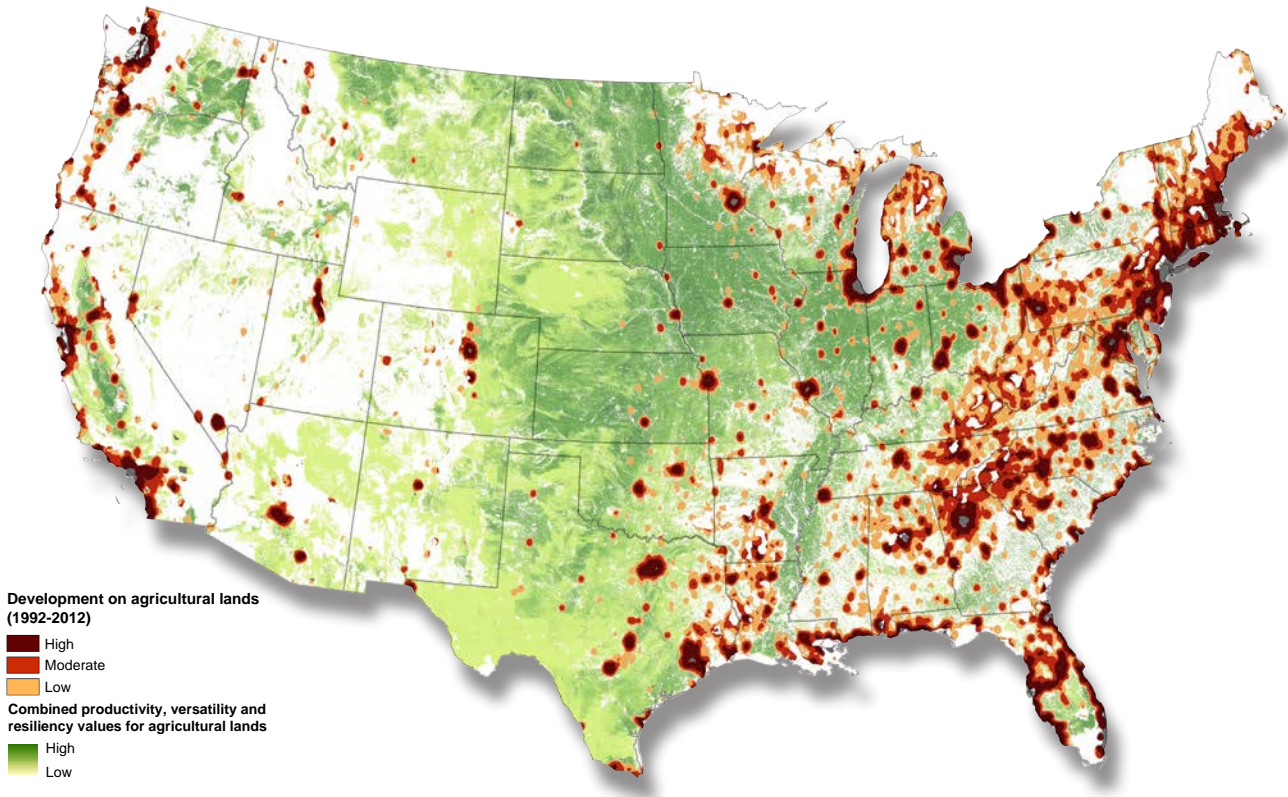
## Agricultural Land Lost to Development

Between 1992 and 2012, the United States converted about 31 million acres of agricultural land to development—nearly double the amount previously reported. This is equivalent to all of the agricultural land in Iowa and roughly the size of the state of New York. Development disproportionately occurred on agricultural land—62 percent of development occurred on agricultural land even though agricultural land only

accounted for 49 percent of the total land area in 1992. Lastly, during the same time period, the United States lost nearly 11 million acres of its best land.

Development is shown in dark brown (High, 25% conversion of agricultural land in a 10-kilometer radius), red (Moderate, 10–25% conversion), and orange (Low, 5–10% conversion).

CONVERSION OF AGRICULTURAL LAND TO DEVELOPMENT BETWEEN 1992 AND 2012



## KEY STATISTICS

|  |   |
|--|---|
| Agricultural land converted to development between 1992 and 2012 (acres)         | 30,727,000  |
| Acres converted by urban development   | 18,029,000  |
| Acres converted by low-density residential development                           | 12,698,000  |
| Average rates of conversion to development                                       | 1.5 million acres/year<br>175 acres /hour<br>2.9 acres/minute |
| Proportion of development on agricultural land (percent)                         | 62.3  |
| Percentage of urban development on agricultural land (percent)                   | 70.4  |
| Percentage of low-density residential development on agricultural land (percent) | 53.5  |
| Nationally significant agricultural land developed between 1992 and 2012 (acres) | 10,928,000  |
| Median PVR value of agricultural land lost to development                        | 0.39  |
| Median PVR value of agricultural land that stayed in production                  | 0.31  |

DEVELOPMENT BY LAND COVER/USE (THOUSANDS OF ACRES)

| Land cover/use          | Urban Development |               |                |                             | Low-Density Residential |                |                             | Total Developed |                |                             |
|-------------------------|-------------------|---------------|----------------|-----------------------------|-------------------------|----------------|-----------------------------|-----------------|----------------|-----------------------------|
|                         | % of ag land      | Acres lost    | % by land type | % of ag land type converted | Acres lost              | % by land type | % of ag land type converted | Acres lost      | % by land type | % of ag land type converted |
| Cropland                | 34.3%             | 7,408         | 28.9%          | 41%                         | 4,385                   | 18.5%          | 34.5%                       | 11,793          | 23.9%          | 38.4%                       |
| Pastureland             | 11.9%             | 4,662         | 18.2%          | 25.9%                       | 4,379                   | 18.5%          | 34.5%                       | 9,041           | 18.3%          | 29.4%                       |
| Rangeland               | 44.9%             | 4,285         | 16.7%          | 23.8%                       | 1,408                   | 5.9%           | 11.1%                       | 5,693           | 11.5%          | 18.5%                       |
| Woodland                | 8.8%              | 1,674         | 6.5%           | 9.3%                        | 2,527                   | 10.6%          | 19.9%                       | 4,201           | 8.5%           | 13.7%                       |
| <b>Total on ag land</b> |                   | <b>18,029</b> | <b>70.4%</b>   |                             | <b>12,698</b>           | <b>53.5%</b>   |                             | <b>30,727</b>   | <b>62.3%</b>   |                             |
| Forestland              |                   | 5,107         | 19.9%          |                             | 9,739                   | 41%            |                             | 14,846          | 30.1%          |                             |
| Other                   |                   | 2,463         | 9.6%           |                             | 1,297                   | 5.5%           |                             | 3,761           | 7.6%           |                             |
| <b>Total</b>            |                   | <b>25,600</b> |                |                             | <b>23,735</b>           |                |                             | <b>49,335</b>   |                |                             |

About the Project

*Farms Under Threat: The State of America’s Farmland* is the first report from a multi-year initiative to evaluate threats to agricultural land and the policies and programs that address them. This analysis advances our understanding of the nation’s agricultural land base by:

1. Estimating woodland associated with farm enterprises
2. Mapping grazing on federal land
3. Assigning values to agricultural land based on its productivity, versatility, and resiliency, and identifying a subset of nationally significant land best suited to intensive food and crop production
4. Showing spatial patterns of agricultural land use and conversion to development
5. Mapping the pattern and extent of low-density residential development

American Farmland Trust partnered with Conservation Science Partners (CSP), a nonprofit scientific collective,

to ensure the spatial analyses are grounded in reliable data and strong science. A national Advisory Committee provided additional guidance.

*Farms Under Threat* combines county-level estimates of land cover/use from the USDA Natural Resources Conservation Service (NRCS) National Resources Inventory (NRI) and the spatially explicit National Land Cover Database (NLCD). Additional datasets include:

- National Agricultural Statistics Service (NASS) Cropland Data Layer
- NASS Census of Agriculture farm size
- NRCS Soil Survey Geographic Database
- U.S. Census housing density
- U.S. Geological Survey Protected Areas Database

For a complete list of datasets, see the technical report: <https://www.farmlandinfo.org/farms-under-threat-technical-report>

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*Farms Under Threat: The State of America’s Farmland* is supported by the USDA Natural Resources Conservation Service (NRCS) and the members of American Farmland Trust. For more information about the initiative, visit AFT’s website: <https://www.farmland.org/initiatives/farms-under-threat>.

The Farmland Information Center (FIC) is a clearinghouse for information about farmland protection and stewardship. The FIC is a public/private partnership between USDA NRCS and American Farmland Trust.