



A Profile of Agriculture in New York State

Highlights

- New York farms generated \$5.7 billion in gross income in 2017, up more than 23 percent from a decade earlier. While agriculture is especially important in many upstate areas, farming takes place in all regions of the State.
- The State was home to more than 33,400 farms in 2017, and farmland was nearly 23 percent of New York's total land area.
- Most farmers in New York live on their farms, 96 percent of which are family-owned. Women represent a growing share, more than 37 percent, of farm producers.
- Milk is by far the State's largest agricultural commodity; New York ranks third nationally for milk sales. With 624,000 milk cows, the State leads the nation in the production of a variety of dairy products including cottage cheese, sour cream and yogurt.
- New York ranks second among the states for production of apples and maple syrup, and third for both wine and grapes.
- Among the State's top five counties ranked by farm sales, four are in the Finger Lakes or Central New York regions: Wyoming, Cayuga, Genesee and Wayne. Suffolk County on Long Island ranks fourth for farm sales.
- Emerging challenges for farmers include threats from climate change, such as summer heat stress, rain intensity and increased flooding risk.
- The State has created a variety of policy initiatives to address challenges to the agricultural sector, including efforts to limit local and state taxes on farmers and to help offset labor costs.

The integral role of farming in New York State's history, economy and quality of life is effectively enshrined in Article XIV of the State Constitution: *"The policy of the state shall be to conserve and protect its natural resources and scenic beauty and encourage the development and improvement of agricultural lands for the production of food and other agricultural products."* Farms contribute to employment, incomes and tax revenues across the Empire State, with farmland occupying over one-fifth of the State's land area. A national leader for a variety of commodities, the State's agricultural sector also enhances New Yorkers' quality of life in numerous ways, including providing access to fresh, locally sourced food, preserving open space, and invigorating communities through farmers' markets and other activities.

The broadest measure of direct economic activity from farms is the \$5.7 billion in gross income in New York during 2017, an increase of more than 23 percent from a decade earlier. Including agriculture support industries and industries that process farm products, total estimated agricultural impact was \$44.8 billion in 2014.¹ Farms in the State employed more than 55,000 workers, including migrants. Related activity, such as food production involving New York's dairy and other agricultural products, adds thousands of other jobs.

Unless otherwise noted, data for this report is drawn primarily from the 2017 U.S. Department of Agriculture (USDA) Census of Agriculture, the most recently available data, and supplemented by data from the USDA National Agricultural Statistics Service and the USDA Economic Research Service.

¹ Schmit, Todd. "The Contribution of Agriculture to the New York Economy." Research & Policy Brief Series. Community & Regional Development Institute. Ithaca, N.Y.: Cornell University, August 2016, available at: <http://publications.dyson.cornell.edu/outreach/extensionpdf/2016/Cornell-Dyson-eb1609.pdf>.

Farms in New York

In 2017, the State was home to more than 33,400 farms. Although the number of farms and total farm acreage declined by 8 percent and 4 percent, respectively, from 10 years earlier, overall economic impact increased. As shown in Figure 1, net farm income rose by more than 21 percent over the decade. In addition, the number of certified organic farms in New York has increased dramatically, from 824 in 2012 to 1,340 in 2017, putting New York third in the nation for the number of these enterprises.² Certified organic farms constituted over 264,000 acres of farmland in 2016 (the latest data available), an increase of nearly 26,000 acres from the prior year.

FIGURE 1
New York State Farm Statistics, Select Years

	2007	2012	2017
Number of Farms	36,352	35,537	33,438
Land in Farms (Acres)	7,174,743	7,183,576	6,866,171
Farmland as a Share of Total State Land Area	23.8%	23.8%	22.8%
Average Farm Size (Acres)	197	202	205
Net Farm Income (Millions)	\$1,182.6	\$1,216.8	\$1,433.7

Source: U.S. Department of Agriculture

Of the total farmland in the State, almost two-thirds is dedicated to crops, 21 percent is woodland, and 16 percent is used for pastureland, conservation or other uses. Over the ten-year period, the share of farmland dedicated to crops increased while that used for pastureland decreased.

Overall, the average size of a farm in New York increased by eight acres, from 197 acres to 205 acres, from 2007 to 2017. The national average also rose over the period, reaching 441 acres in 2017.

Figure 2 shows the share of farms in New York by acreage. While those with 50 to 499 acres of land represented over half of all farms, their share has been decreasing. In comparison, farms with less than 50 acres have been increasing, with more than one in three in this category as of 2017.

FIGURE 2
Farms in New York by Acreage, Select Years

	Share of Total Farms		
	2007	2012	2017
1 to 9 Acres	8.0%	8.2%	10.9%
10 to 49 Acres	24.2%	24.4%	25.8%
50 to 179 Acres	38.1%	38.1%	35.3%
180 to 499 Acres	21.3%	21.0%	19.5%
500 to 999 Acres	5.5%	5.3%	5.2%
1,000 to 1,999 Acres	2.1%	2.1%	2.1%
2,000 Acres or more	0.8%	1.0%	1.2%

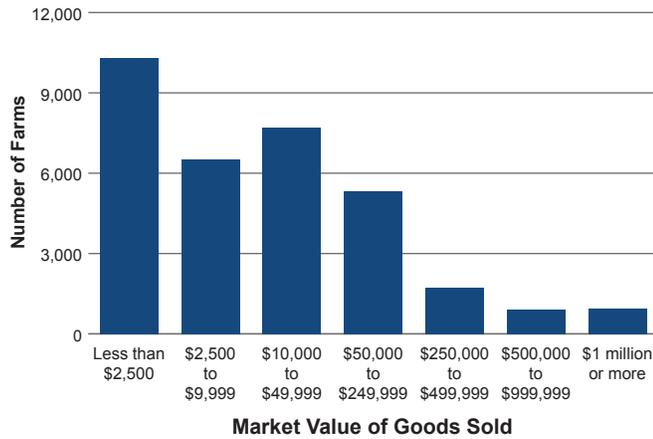
Source: U.S. Department of Agriculture

Note: Numbers may not add due to rounding.

Since the yield from the acreage in a farm can differ based upon the type of agricultural product, the U.S. Department of Agriculture (USDA) classifies the size of a farm based on its gross income, including the market value of goods sold (sales). Using this metric, almost three-quarters of New York farms are small farms (sales of less than \$50,000), with the majority being those with less than \$2,500 in sales, as shown in Figure 3. In 2017, small farms accounted for just over 4 percent of all sales, while farms with sales ranging from \$50,000 to \$999,999 were responsible for over one-third of the total. Although the number of large farms (those with sales over \$1 million) increased since 2012, these farms account for less than 3 percent of all farms in New York. However, they generate over 60 percent of all sales.

² Total number of organic farms represents those that are certified by the USDA for organic production.

FIGURE 3
Number of Farms by Market Value of Goods Sold, 2017



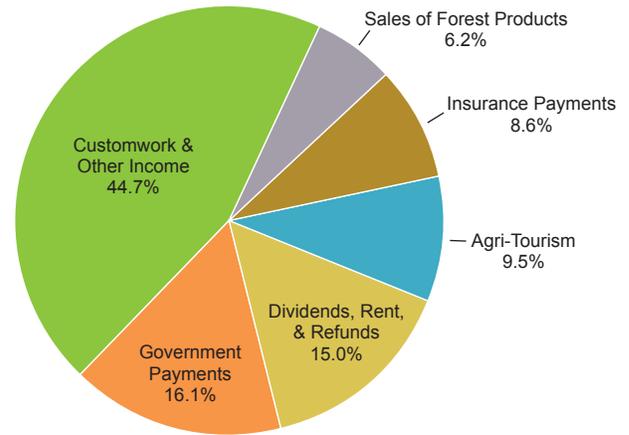
Source: U.S. Department of Agriculture

Although farms in New York can be formed under a variety of business structures, the majority (82.4 percent) are sole proprietorships. Regardless of structure, 96 percent of farms are family owned, including family corporations or partnerships.

Total gross income earned by New York farms in 2017 was over \$5.7 billion. While 93 percent of income is earned through the sales of crops and livestock, farms also receive income from other farm-related services and government payments, including those made under federal farm and conservation programs, federal disaster payments, and State and local government programs. In 2017, farms earned nearly \$390 million from these other sources of income, an increase of 15.7 percent from 2012.

As shown in Figure 4, the largest sources of income earned by farms, after sales of crops and livestock, are customwork and other income. These include payments made for services the farmer may provide to others, such as planting, plowing, and harvesting as well as fees for animal boarding and breeding. Agri-tourism represents a growing share of total farm income, more than doubling over the past 10 years.

FIGURE 4
Other Farm Income by Source, 2017



Source: U.S. Department of Agriculture

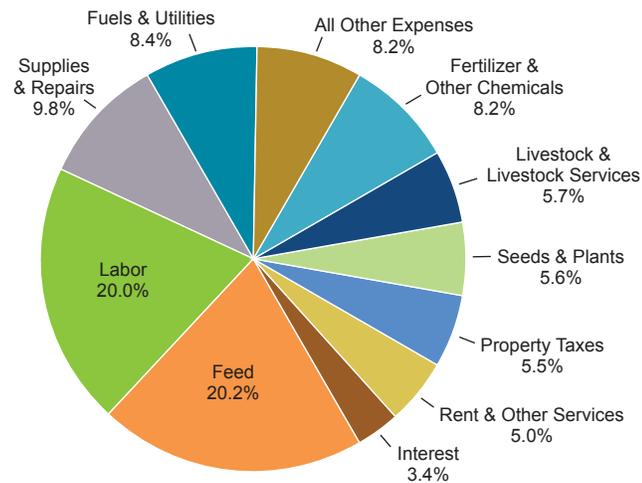
Note: Other Farm Income excludes earnings from sales of crops and livestock. Numbers may not add due to rounding.

The \$5.7 billion of gross income earned by New York farms in 2017 yielded net income of \$1.4 billion after accounting for \$4.3 billion in production expenses paid by farmers. Of these costs, the largest shares were for feed and labor, each more than \$800 million and around 20 percent of the total, as shown in Figure 5. These proportions can vary widely among the different agricultural sectors.

Since 2007, total production expenses increased by 23.5 percent. The expenses that increased the most over this period were those for seeds and plants and labor costs. Mitigating these increased expenses were lower interest costs for farm real estate as well as for machinery, equipment, and other farm assets.

Agricultural property across the State generated \$236 million in local property taxes for school districts and local governments, an increase of almost 26 percent from 2007, according to USDA data.

FIGURE 5
Farm Production Expenses by Type, 2017



Source: U.S. Department of Agriculture

Farmers in New York

In 2017, almost 58,000 New Yorkers were considered farm producers (farmers), meaning they were responsible for making decisions regarding farm operations. These decisions include those related to land use, crop production, livestock management, and financial management. Most of these producers also live on the farms.

Over 55,000 individuals were counted as hired farm labor during the year, including hired farm managers and other producers who are on the farm payroll. One in five workers on farm payrolls were migrant workers. USDA statistics do not indicate the total number of individuals who directly benefit economically from farmwork. Because most farms are family enterprises, family members who are also farmworkers may or may not earn their income directly from wages. As a result, the number of New Yorkers who benefit economically from farming is likely significantly higher than those counted as hired labor.

Compared to many other occupations, farming tends to be a long-term occupation with relatively little turnover. Nearly three-quarters of farmers have been farming for 10 or more years,

either on their own farm or on another's. More than 15,600 farmers are new and beginning producers, those with 10 years or less overseeing operations—a positive sign for the future of New York agriculture. Slightly more than half of all farmers are primarily engaged in the occupation of farming (spending 50 percent or more of their worktime farming), with 42 percent having farming as their sole occupation.

From a demographic perspective, farmers are an aging population, with the average age of New York farmers at 57, up from 54 in 2007. Young farmers, 35 years old or less, are less than 9 percent of all farmers in the State. U.S. military veterans represent over 8 percent of farmers.

While farmers in New York are predominantly white, diversity is growing. Since 2012, the number of farmers from all other races, including African American, Asian, Native American, Pacific Islander and Multiracial, increased by nearly 14 percent. The total of farmers of Hispanic and Latino origin grew by 26 percent during this period. Multiple racial groups include individuals of Hispanic and Latino origin.

There has also been a marked increase in the number of female farmers, especially in the past five years. In 2017, over 37 percent of farmers were women, a figure that has been rising in recent years. Of these, nearly 9,300 had primary responsibility for running the farm operations, almost 2,600 more than 10 years prior.

A National Leader in Farm Products

New York is a national leader in the production and sale of a wide range of farm goods, ranking at or near the top among the 50 states for a number of agricultural commodities. In 2017, New York ranked third nationally in sales of milk and in the top ten in sales of fruits, tree nuts and certain berries, as well as Christmas trees, floriculture and nursery products, and horses and other equine animals.

Milk is by far the largest agricultural commodity in New York, with sales topping \$2.5 billion, representing more than 47 percent of the State's total sales in 2017. As shown in Figure 6, the State's other top commodities in terms of share of sales include the following categories: grains, dry peas and beans; cattle and calves; and vegetables, melons, and potatoes.

FIGURE 6
New York Agricultural Commodities by Sales, 2017

	Sales (Millions)	Share of Total	U.S. Rank
Milk from Cows	\$2,528	47.1%	3
Grains, Oilseeds, Dry Beans, Dry Peas	\$572	10.6%	28
Cattle and Calves	\$426	7.9%	31
Fruits, Tree Nuts, and Berries	\$400	7.4%	7
Nursery, Greenhouse, Floriculture and Sod	\$386	7.2%	10
Vegetables, Melons, and Potatoes	\$379	7.1%	12
Other Crops and Hay	\$363	6.8%	12
Poultry and Eggs	\$195	3.6%	29
Horses, Ponies, Mules, and Donkeys	\$34	0.6%	9
Hogs and Pigs	\$25	0.5%	30
Other Animals and Other Animal Products	\$23	0.4%	20
Sheep, Goats, Wool, Mohair and Milk	\$18	0.3%	15
Aquaculture	\$13	0.2%	24
Christmas Trees and Woody Crops	\$9	0.2%	8
TOTAL	\$5,369	100.0%	27

Source: U.S. Department of Agriculture
Note: Totals may not add due to rounding.

New York is a leading producer of various specific agricultural products encompassed within these broad commodity categories. With respect to fruits and berries, New York ranks second nationwide in apple production, third for grapes and in the top ten for strawberries, cherries, and peaches. It also ranks among the top 10 producers nationwide for many types of vegetables, including cabbage, squash, peas, peppers, and pumpkins.

New York is also a leader in the production of goods made from these commodities, as shown in Figure 7. The State ranks first for a variety of dairy products such as cottage cheese (producing more than one-quarter of the nation's total), yogurt and sour cream. New York is the nation's second largest producer of maple syrup behind Vermont, and ranks eighth for the production of honey.

FIGURE 7
Select New York Agricultural Products Ranked within the Top 5 Nationwide, 2017

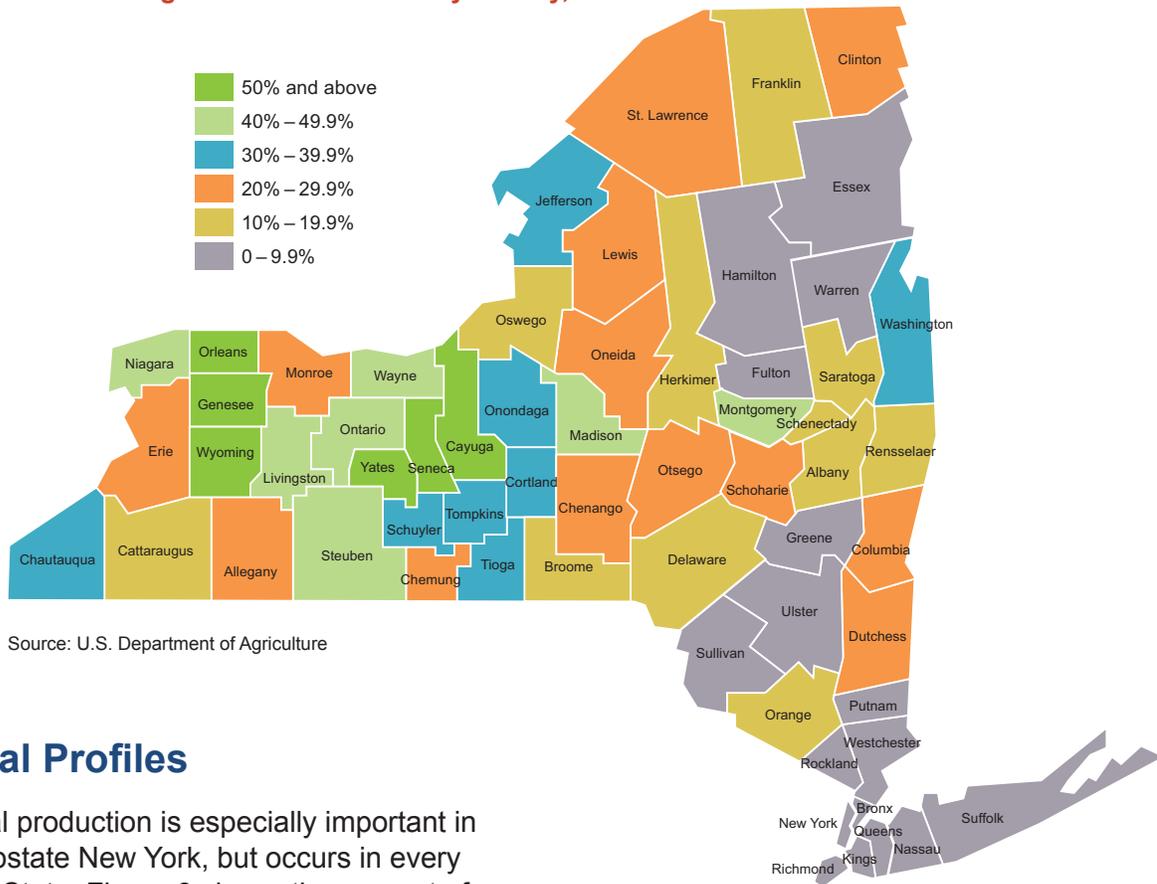
	U.S. Rank	Share of U.S. Production
Cottage Cheese	1	26.7%
Sour Cream	1	19.5%
Maple Syrup	2	17.8%
Yogurt	1	15.8%
Cabbage	2	14.7%
Apples	2	11.4%
Snap Beans	2	11.3%
Calves	4	11.8%
Milk	3	6.9%
Corn for Silage	4	6.9%
All Other Cheese	4	6.8%
Italian Cheese	3	6.5%
Tart Cherries	5	3.1%
Grapes	3	2.5%

Source: U.S. Department of Agriculture
Note: Rankings based on number of units produced.

As a national leader in the production of milk and other dairy products, New York was home to 624,000 milk cows at over 4,600 farms in 2017. These cows produced nearly 15 billion pounds of milk. Milk production has increased over the past decade with average production per cow, nearly 24,000 pounds in 2017, up by 4,600 pounds.

New York is the third largest producer of wine, behind California and Washington. In 2017, New York wineries produced nearly 32 million gallons of wine, according to the Alcohol and Tobacco Tax and Trade Bureau. In addition, New York ranked eleventh for the production of beer, over eight million barrels, and sixth for the amount of hops harvested.

FIGURE 8
Farmland as a Percentage of Total Land Area by County, 2017



Source: U.S. Department of Agriculture

Regional Profiles

Agricultural production is especially important in much of upstate New York, but occurs in every part of the State. Figure 8 shows the amount of farmland as a percentage of each county’s total land area.

FIGURE 9
Top Ten Counties for Farming in New York by Sales, 2017

	Total Sales (Millions)	Number of Farms
Wyoming	\$307.5	729
Cayuga	\$287.9	842
Genesee	\$234.9	485
Suffolk	\$225.6	560
Wayne	\$221.3	829
Ontario	\$205.2	833
Steuben	\$195.9	1,542
St. Lawrence	\$191.1	1,253
Livingston	\$183.7	661
Onondaga	\$178.5	623
Total Top 10 Counties	\$2,231.6	8,357
Total New York State	\$5,369.2	35,537

Source: U.S. Department of Agriculture

From the Finger Lakes to Long Island, each region makes a contribution to the strength and diversity of New York’s agricultural sector. One illustration of this point is the geographical distribution of sales of agricultural products across the State. Half of the State’s 10 regions—the Finger Lakes, the Southern Tier, Central New York, North Country and Long Island— contain counties that were in the State’s top ten for overall farm sales in 2017. These counties generated over 40 percent of all New York sales, as shown in Figure 9.

Although the number of farms and total farm acreage declined on a statewide basis in 2017 compared to 2007, eight counties experienced growth in these measures. County-by-county information for the number of farms, farm acreage, farmland as a share of total land area and sales of agricultural products appears in Figure 10.

Finger Lakes

This region includes the counties of Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates. This region has the largest amount of farmland in the State, nearly 48 percent of its land area, and ranked first in the State for total farm sales in 2017. The 5,945 farms in the Finger Lakes Region represented the highest number of any region in New York, although that figure was down about 8 percent from a decade earlier. Total farmland in Ontario and Wyoming counties increased during this period.

For many individual commodities, counties in the Finger Lakes Region rank in the top ten statewide for sales. Wyoming County is the top producer of milk in the State with over \$201 million in sales, as well as sales of cattle and maple syrup.

Other counties in the Finger Lakes also ranked first statewide in sales of various products. These include: Genesee for sales of vegetables, melons, potatoes and sweet potatoes; Livingston for grains, oilseeds, dry beans and dry peas; and Wayne for fruits, tree nuts and berries. In addition, the Finger Lakes was home to 111 wineries, the most of any region in New York.³

North Country

The region includes Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence counties and is home to nearly 4,200 farms. It ranks second in the State for total agricultural sales. While 15.5 percent of the total land area is farmland, the North Country ranks second in total farm acreage, with over 1.1 million acres. This region was the only one in the State that saw an increase in farmland from 2007 to 2017, a gain of 25,811 acres. Essex, Franklin, and Lewis counties collectively added 83 farms during this period.

The North Country is the leading producer of maple syrup in the State, and the second largest source of milk. It also ranks first for sales of hay

and other crops (which includes grass seed, hops, and grass silage). Lewis County is the top producer of Christmas trees.

Central New York

The region includes Cayuga, Cortland, Madison, Onondaga, and Oswego counties. It has more than 3,300 farms and 757,000 acres of farmland, one-third of Central New York's land area. Farmland in Onondaga County increased by over 10,000 acres from 2007 to 2017.

Central New York ranks third among the State's regions for agricultural sales. Among counties, Cayuga County ranks second in the State for sales. Ranking in the top 10 New York counties for a variety of agricultural commodities, Cayuga County is the second largest producer of milk, cattle, and soybeans. Onondaga County ranks first for poultry and eggs. Oswego County is the largest producer of dry onions and has the second highest aquaculture sales.

Western New York

This region includes the counties of Allegany, Cattaraugus, Chautauqua, Erie, and Niagara. Among New York regions, Western New York lost the largest number of farms from 2007 to 2017, a total of 1,104 or 19.3 percent, with the largest decline in Chautauqua County. Gains within the period included Allegany County's increased farmland of approximately 11,000 acres. Western New York has 835,000 acres of farmland and is home to 43 wineries.

Counties in this region rank in the top 10 statewide for sales of a variety of livestock, including hogs, cattle, poultry and eggs, and other animals. Chautauqua County has the most farm acreage dedicated to growing grapes in the State, while Cattaraugus County is the largest producer of honey.

Southern Tier

This region, comprising Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins counties, has the State's second

³ New York State Liquor Authority, Quarterly List of Active Licenses, July 2019, <https://data.ny.gov/Economic-Development/Liquor-Authority-Quarterly-List-of-Active-Licenses/hrvs-fxs2>.

largest number of farms, over 5,300, and ranks third for number of wineries. Its nearly 1.1 million acres of farmland rank third-highest among regions in the State. Although total farmland in the region decreased from 2007 to 2017, half of the counties saw increases, most notably over 25,000 acres in Steuben County.

Ranking in the top 10 counties for total agricultural sales, Steuben is also the leading producer of hay and other crops in the State. Tioga County ranks first for sales of sheep and goats, while Chenango is second for hogs and pigs. The region is also a top producer of maple syrup.

Capital Region

The region includes Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington counties, with over 3,400 farms and nearly 561,000 acres of farmland.

Saratoga County leads the State in sales of horses and ponies; two other counties in the Capital Region are also among the top 10 statewide. The region is also a leader in the sales of nursery and greenhouse products with Albany County having the second highest total in the State.

Long Island

Suffolk and Nassau counties together have 592 farms and approximately 31,000 acres of farmland, most of it in Suffolk. With 69 wineries, Suffolk County has the largest number in the State.

The region is ranked first in the State for aquaculture. Suffolk County ranks fourth in the State for overall agricultural sales. It is also first for sales of bedding and garden plants as well as for the amount of tomatoes harvested.

Hudson Valley

The region includes Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster, and Westchester counties, with over 2,200 farms and 317,000 acres of farmland. Over half of the farms and farmland are located in the counties of Dutchess and Orange. Farmland losses from 2007 to 2017 included over 16,000 acres in Ulster County,

while over 12,000 acres of farmland were added in the counties of Orange, Putnam, Rockland and Sullivan. Putnam, Sullivan, and Westchester counties saw modest growth in the number of farms during the period.

The region ranks first in the State for the sale of horses, ponies and donkeys, with Dutchess County ranking second. Dutchess County also ranked fourth for the sale of Christmas trees and other woody products. Sullivan County is the second largest producer of poultry and eggs, while Orange County ranks third for vegetables, melons, and potatoes.

Mohawk Valley

The region includes Fulton, Herkimer, Montgomery, Oneida, Otsego, and Schoharie counties, home to over 3,700 farms and 702,000 acres of farmland. Schoharie County added 16 farms and 1,450 acres of farmland from 2007 to 2017. Otsego County saw the largest decline in the number of farms, 100, while Herkimer experienced the largest loss of farm acreage, 22,237, during this period.

While the largest commodity is milk from cows, various counties in the Mohawk Valley rank in the top 10 statewide for a variety of livestock including sheep, horses, and aquaculture. Herkimer County is the second largest producer of honey in the State.

New York City

New York City was home to 36 farms in 2017, located in the counties of Kings, Queens, New York and Richmond.⁴ While its agricultural activity is limited, the City was the only region in the State with an increase in the number of farms, 16, from 2007 to 2017. Not surprisingly, most of these farms are small, less than 10 acres. Nursery stock and floriculture are the predominant products sold.

⁴ According to the USDA Census data, there are no farms in the Bronx.

FIGURE 10
Selected New York State Farm Statistics by County, 2017

	Farms	Farm Acreage	Farmland as a Share of Total Land Area	Total Sales (thousands)
Albany	440	59,564	17.8%	\$47,329
Allegany	789	161,713	24.5%	69,316
Bronx	0	0	0	0
Broome	494	62,467	13.8%	32,087
Cattaraugus	956	166,240	19.9%	93,412
Cayuga	842	225,204	50.9%	287,853
Chautauqua	1,228	223,634	33.0%	160,967
Chemung	398	66,904	25.7%	19,012
Chenango	770	148,982	26.1%	67,923
Clinton	588	161,605	24.3%	167,789
Columbia	518	99,179	24.4%	88,432
Cortland	536	113,519	35.6%	69,506
Delaware	689	140,225	15.2%	45,705
Dutchess	620	101,948	20.0%	43,906
Erie	940	143,081	21.4%	130,973
Essex	285	57,622	5.0%	13,178
Franklin	636	140,717	13.5%	86,384
Fulton	207	22,181	7.0%	10,268
Genesee	485	176,943	56.1%	234,935
Greene	206	34,979	8.4%	19,761
Hamilton	14	932	0.1%	N/A
Herkimer	596	117,780	13.0%	57,977
Jefferson	792	247,456	30.5%	165,056
Kings	19	23	0.1%	6,809
Lewis	625	182,457	22.4%	153,073
Livingston	661	189,488	46.9%	183,695
Madison	691	171,865	41.0%	113,630
Monroe	527	106,778	25.4%	76,643
Montgomery	564	114,990	44.6%	74,959
Nassau	32	910	0.5%	2,732
New York	7	11	0.1%	45

	Farms	Farm Acreage	Farmland as a Share of Total Land Area	Total Sales (thousands)
Niagara	690	140,259	42.0%	118,617
Oneida	967	192,767	24.8%	100,455
Onondaga	623	160,717	32.3%	178,409
Ontario	833	200,089	48.5%	205,160
Orange	621	81,192	15.6%	87,915
Orleans	498	129,573	51.7%	155,282
Oswego	612	86,167	14.1%	41,230
Otsego	880	154,634	24.1%	56,180
Putnam	89	7,472	5.1%	3,145
Queens	4	N/A	N/A	94
Rensselaer	470	82,766	19.8%	41,010
Richmond	6	N/A	N/A	N/A
Rockland	14	576	0.5%	2,142
Saratoga	591	342,595	13.8%	76,810
Schenectady	185	71,604	13.3%	5,462
Schoharie	541	17,360	25.1%	47,927
Schuyler	408	99,819	37.5%	45,753
Seneca	516	78,805	57.2%	90,843
St. Lawrence	1,253	118,545	20.0%	191,077
Steuben	1,542	397,157	44.6%	195,950
Suffolk	560	30,032	5.1%	225,578
Sullivan	366	59,942	9.7%	28,383
Tioga	535	113,182	34.1%	40,857
Tompkins	523	91,277	30.0%	64,702
Ulster	421	58,932	8.2%	54,346
Warren	80	10,086	1.8%	1,916
Washington	915	185,291	34.8%	135,813
Wayne	829	159,093	41.2%	221,295
Westchester	115	6,977	2.5%	6,956
Wyoming	729	234,861	61.9%	307,521
Yates	867	114,922	53.1%	114,657
New York State	33,438	6,866,171	22.8%	\$5,369,212

Source: U.S. Department of Agriculture

Note: The county-by-county figures for farm acreage and total sales do not sum to the total for New York State due to rules which prohibit the disclosure of certain county-level data. N/A indicates that data is not available.

New York’s Agricultural Policy Initiatives

As noted, the Conservation article of the State Constitution provides that the State shall “encourage the development and improvement of its agricultural lands for the production of food and other agricultural products.”⁵ In recognition of the importance of farming to the economy and to New Yorkers’ quality of life, the State has created a variety of policy initiatives to address challenges to the agricultural sector.

5 Article XIV, Section 4.

Agricultural Districts Law

New York’s Agricultural Districts Law, established in 1971, authorizes the creation of agricultural districts to support continued farming through a combination of landowner incentives and protections.⁶ For example, within these districts, certain levies and fees may not be imposed on land used in agricultural production, and farmers are protected from unreasonable local regulation of farm practices and from private nuisance suits. According to the Department of Agriculture and Markets, as of January 1, 2019, there were approximately 174 agricultural districts established in the State, encompassing 25,673 farms.⁷

6 New York State Department of Agriculture and Markets at <https://www.agriculture.ny.gov/ap/agsservices/agdistricts.html>.

7 Ibid.

Agricultural Assessments

Under New York's Agricultural Assessment program, property tax assessments on farmland can be limited to agricultural assessed value rather than full assessed value. The Department of Agriculture and Markets estimates that the program reduces property tax costs for New York farmers by \$170 million annually.

Farmland Protection Program and New Farmers Grant Fund

Since 1994, the Farmland Protection Program has supported local government efforts to conduct agricultural inventories, create farm-friendly zoning rules and develop agricultural economic development projects. The program also provides grants to land trusts to support local governments in these efforts. In addition, this program has supported local efforts to purchase development rights on farmland to ensure that working farmland cannot be converted to another land use. Over its history, this program has provided more than \$180 million of Farmland Protection Implementation Grants to purchase development rights on approximately 76,300 acres of farmland on 299 farms in the State.⁸

The New Farmers Grant Fund has provided \$4.2 million to 124 farms since 2014.⁹ The program funds capital investments for farms in which all owners are in their first 10 years of farm operation ownership.

Nonpoint Source Pollution Control

New York's Agricultural Nonpoint Source Abatement and Control Grant Program awards grants to county soil and water conservation districts for projects to prevent storm water or snowmelt from carrying manure, sediments, fertilizers and other pollutants into surface waters or aquifers. Since 1994, approximately

\$153 million in grants have been awarded through this program.¹⁰

Locally Sourced Food for Schools

The State provides incentives to encourage schools to source foods for school lunch programs from local farms or food processors. Beginning July 1, 2019, the State increased the additional subsidy it provides for school lunches to 25 cents for those schools that source at least 30 percent of all food products locally.

Tax Benefits for Farmers

New York provides a variety of tax benefits for farmers. These include a State tax deduction equal to 5 percent of their farm income and tax credits for all or a portion of the following: school property taxes paid on the farmland, capital investments, farm employees, and donations to food pantries. These benefits are estimated to save New York farmers over \$57 million in 2019.¹¹ These benefits are in addition to those related to the Agricultural Assessments program discussed above.

Challenges for New York's Farmers

Farmers in New York face a variety of challenges, some of long standing and others more recently emerging or intensifying.

Climate Change

The bane of unpredictable weather, a concern since agriculture began, may become even more of a threat due to global climate change. Research indicates that effects from ongoing climate change are likely to include:

- Broadly higher temperatures;

⁸ New York State Department of Agriculture and Markets. <https://www.agriculture.ny.gov/ap/agservices/farmprotect.html>.

⁹ New York State New Farmers Grant Fund Program. Empire State Development Corporation. <https://esd.ny.gov/new-farmers-grant-fund-program>.

¹⁰ New York State Soil and Water Conservation Committee, Agricultural Environmental Management, "NYS Agricultural Nonpoint Source Abatement and Control Program" at <https://www.nys-soilandwater.org/aem/nonpoint.html>.

¹¹ FY 2020 Annual Report on New York State Tax Expenditures, at <https://www.budget.ny.gov/pubs/archive/fy20/exec/ter/fy20ter.pdf>.

- Increasing rainfall intensity generally, but with potential declines in precipitation during summer months; and
- Shorter, less pronounced winters, and longer transitions out of winter into the growing season.¹²

The potential harmful effects of climate change on New York farmers are wide-ranging—including significant impacts on the State’s important dairy industry. “Even moderately warm temperatures, e.g. above 75° F, when combined with moderate humidity, can lead to milk production decline,” Cornell University researchers have warned. Heat stress can also interfere with plant development, reducing yields and quality. Certain leading New York crops, such as apples, cabbages and snap beans, would be more difficult to grow. “The frequency of heat-stress events is expected to increase with climate change.”¹³

Apples and maple syrup, both signature New York State products, may also be affected. Longer transitions from winter to growing season can result in early budding followed by hard freezes, producing extensive loss of fruit crops such as the damage to New York’s apple crop in 2012. Shorter, more moderate winters may shift the timing and duration of maple tapping season.¹⁴

Other new or increased challenges for farmers that result from climate change may include risk of flooding, and more intense pest and weed pressures.

Agriculture in the Northeast may also benefit from climate change over the next half-century due to greater productivity over a longer growing season.¹⁵ The average growing season in New York State has lengthened by eight days, according to Cornell University researchers, and

longer growing seasons may allow expanded production of crops including peaches, melons, tomatoes, and European red wine grapes.¹⁶ In the national context, New York farmers may gain competitive advantage over some other states where drought and other climate-related impacts are especially severe. To the extent that new technology or other attempts to adapt to climate change require investment by farm owners, those who are unable to make such investments may be hindered in their ability to compete. At this point, the net effects of negative and positive impacts from climate change are uncertain.

New York has taken some steps to assist farmers in addressing changing weather patterns. The Climate Resilient Farms Program through the New York Soil & Water Conservation Committee provides grants to assist farmers in addressing agricultural waste management, enhancement of soil health and managing water challenges related to climate change. Since 2015, this program has provided grants totaling \$5.1 million, assisting 70 farms.¹⁷

Other resources include Cornell University’s Climate Smart Farming program, which provides county-specific information to assist farmers in predicting plant development, pest outbreaks, soil water deficits, and planting dates for cover crops, as well as providing historic records of changes in climate.¹⁸

Other Issues

Both in North America and globally, international trade is an important aspect of New York’s farming industry. The USDA estimated that more than \$1.4 billion, or 27.3 percent, of New York’s total cash receipts from a wide variety of agricultural products were related to exports to other countries in 2017. Exports of other plant products, including such items as planting seeds, sweeteners and

12 See, for example, U.S. Global Change Research Program, Fourth National Climate Assessment: Volume II Impacts, Risks and Adaptation in the United States (2018). See also Cornell College of Agriculture and Life Sciences, Climate Change Facts: Farming Success in an Uncertain Climate (December 2014), available at <http://cctompkins.org/resources/farming-success-in-an-uncertain-climate>.

13 Cornell College of Agriculture and Life Sciences, *ibid.*

14 Fourth National Climate Assessment, pp. 670 and 679.

15 Fourth National Climate Assessment, p. 682.

16 Cornell University College of Agriculture and Life Sciences, *ibid.*

17 “Governor Cuomo Announces \$2.3 Million in Funding Available to Help Farmers Address the Impacts of Climate Change,” March 8, 2019, at <https://www.governor.ny.gov/news/governor-cuomo-announces-23-million-funding-available-help-farmers-address-impacts-climate>.

18 Cornell University Climate Smart Farming. <http://climatesmartfarming.org/>.

other processed foods and dairy were by far the two largest categories, at just over 56 percent of the total. Other top New York products for export include fresh and processed fruits, processed vegetables, beef and veal, other livestock products, feeds and other grains, soybeans and corn. These other products combined represent over one-third of the overall amount. Recently imposed federal tariffs and trade disputes with certain countries have affected markets for a wide variety of agricultural products from New York and other states. Continued disruptions in U.S. trade relationships with China, for example, could have serious repercussions for New York farmers.

Farm commodity prices fluctuate in response to market conditions. Milk prices, in particular, have significant impacts on New York agriculture given the importance of the State's dairy industry. New York dairy farms are seeing some increases in milk prices in 2019 after struggling with several years of low prices.¹⁹ According to the National Agricultural Statistics Service, New York dairy farmers received \$18.60 per hundred weight of milk in June 2019, an increase of \$1.70 from a year previously. However, the June 2019 figure was substantially lower than the \$24.70 price reported by USDA for June 2014.²⁰

The State's Farm Laborers Fair Practices Act was signed into law on July 17, 2019. The legislation is intended to improve working conditions and economic security for thousands of farmworkers across New York. At the same time, some farmers express concern that the Act will increase costs and production challenges. The Act requires that farm laborers receive at least one day of rest a week, stipulates that these workers cannot be required to work more than 60 hours per week, and mandates overtime pay for hours beyond

that level. Among other provisions, the new law also permits farm laborers to engage in collective bargaining, but prohibits strikes or slowdowns against farms. The law also eliminates a requirement for employers to make unemployment insurance contributions for H-2A visa workers. Most provisions of the new law go into effect on January 1, 2020.²¹

New York farmers' ability to adapt to challenges and identify new opportunities is an essential factor in their longstanding resilience and success. Changes to State and federal laws in recent years have eased some legal restrictions on growth of industrial hemp, an emerging industry which may provide new opportunities for New York's agricultural community. However, certain legal restrictions and other challenges associated with the development of this market remain to be resolved.

Conclusion

Farming remains a critically important industry for New York. The State continues to be a national leader for production and sales of many agricultural products. Farms generate billions of dollars for the State's economy and provide jobs in communities across the State, especially in rural areas. Agriculture enhances New Yorkers' quality of life in other ways as well, including providing access to fresh, locally sourced food and preserving open space.

New York farmers will continue to face and adapt to both longstanding and emerging challenges, as well as new agricultural opportunities. Policy makers must give careful, ongoing attention to the ways in which State programs and policies affect this essential sector, and respond as needed, to ensure that agriculture continues to thrive in New York for generations to come.

19 2019 Milk Marketing Update. Farm Credit East. May 2019.

20 U.S. Department of Agriculture, agricultural price reports for July 31, 2019 and July 31, 2014, available at <https://usda.library.cornell.edu/concern/publications/c821qj76b?locale=en>.

21 Chapter 105 of the Laws of 2019.

