



**Department of  
Environmental  
Conservation**

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**Summary Report  
For  
New York State  
Pesticide Sales and  
Applications  
2017**

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## **ACKNOWLEDGMENTS**

The Department wishes to acknowledge the cooperation and assistance of Cornell University, and specifically the Pesticide Sales and Use Reporting unit within the Pesticide Management Education Program in the College of Agriculture and Life Sciences, in the preparation and development of this annual report.

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## **Executive Summary**

The New York State Department of Environmental Conservation (Department), in conjunction with Cornell University, presents this summary report to the Governor and Legislature under Environmental Conservation Law Article 33, Title 12, known as the Pesticide Reporting Law (PRL). This report summarizes the pesticide sales and application data submitted to the Department for the calendar year 2017. The finalized data have been incorporated into a master database maintained by Cornell University. This database is accessible by the public and is an information source for health researchers or other users of the data.

The department received reports from 16,130 certified applicators and technicians, which is 95% of the 16,977 applicators and technicians required to submit a report for 2017.

The following is the total amount of pesticide products applied in New York State by certified commercial applicators and technicians in 2017:

- 3,279,087 Gallons of liquid formulation products
- 28,297,142 Pounds of solid formulation products
- Number of Products: 4,422

A summary of the quantity of pesticide products applied for each county can be found in Table 2 on pages 4 – 5 and in Figures 1 and 2 on pages 6 – 7.

The following is the total amount of pesticide products sold to private applicators for agricultural use in New York State in 2017:

- 925,346 Gallons
- 2,726,920 Pounds
- Number of Products: 1,331

The total quantity of pesticide products sold to private applicators reflects the sales of restricted use and general use pesticide products by commercial permit holders to private applicators to use for the purposes of producing an agricultural commodity. A summary of the quantity of pesticide products sold to private applicators by county can be found in Table 3 on pages 8 - 9 and in Figures 3 and 4 on pages 10 – 11.

The following is the total amount of restricted use pesticide products sold to commercial applicators for end use in New York State:

- 518,259 Gallons
- 17,401,669 Pounds

- Number of Products: 738

These numbers reflect sales by commercial permit holders to certified commercial applicators that intend to apply the pesticides.

The following is the total amount of restricted use pesticide products sold to distributors for resale in New York State:

- 248,940 Gallons
- 8,096,128 Pounds
- Number of Products: 590

These numbers reflect sales to commercial permit holders that intend to resell the pesticide product. Some or all of these quantities are also reflected in the quantities of products mentioned above that are sold to private or commercial applicators or used by commercial applicators and technicians.

Also provided in this report are summaries of the top ten pesticide products used and sold in New York State during 2017. See pages 12 – 16 for these summaries which include information such as the amount of the product used or sold, the product's active ingredients and the type of product.

**Please note:** Although the Department and Cornell University have gone to great lengths to assure the quality of the data, there are still significant concerns regarding potential inaccuracies in the data received from the regulated community. Users of this data are strongly cautioned about limitations of the data and are advised to go to the PRL Annual Reports page <https://www.dec.ny.gov/chemical/96898.html> to review information regarding data quality. The Department continues to reach out to regulated entities and provide information and technical assistance to them, and many times even works one on one with them to ensure they are accurately complying with the reporting requirements of the PRL. The Department also takes actions to hold entities accountable for any identifiable inaccuracies in reports provided and requires correction and re-submission where necessary.

For more information about the 2017 data and to use the searchable database, users can access this information at Cornell's Pesticide Sales and Use Reporting website: <https://psur.cce.cornell.edu/>.

## **I. INTRODUCTION**

The New York State Department of Environmental Conservation (Department), in conjunction with work conducted by Cornell University, presents this summary report of the final pesticide sales and application data for calendar year 2017 submitted under Environmental Conservation Law Article 33, Title 12, known as the Pesticide Reporting Law (PRL). This report summarizes the data as submitted to the Department, with some corrections as noted below. The finalized data have been incorporated into a master database maintained by Cornell University. This database is accessible to the public and is an information source for health researchers and other users of the data.

## **II. 2017 Pesticide Reporting Program**

### **A. Reports Received**

As of May 14, 2018, the Department received reports from 16,130 of the 16,977 commercial applicators and technicians required to report for the calendar year 2017. The Department also received reports from 278 of the 292 commercial permittees required to report for 2017. These figures indicate that 95% of commercial applicators and technicians as well as 95% of commercial permittees were in compliance with the PRL. The Department will continue to provide outreach and education to the regulated community to achieve maximum compliance with the reporting requirement.

### **B. Quality Control**

The Department continues to enhance and streamline the process for reporting, as well as the system for managing the 16,000 reports that are received annually.

Department staff continue to use a system of front-line quality control procedures to evaluate incoming reports to ensure basic criteria are met, regardless of whether the report was submitted on paper or electronically. Paper reports are checked for certain criteria to maximize the volume of data that will be transferrable into Cornell's master database. If a report did not meet these criteria, Department staff sought to correct the report with the person filing the report. If the errors were too numerous, the report was rejected and returned to the business or applicator to be corrected and resubmitted. Electronic reports are subjected to several validation processes including validating file format and certain data values. This process enables staff to contact report submitters for corrections in a timely manner.

As part of our standard quality assurance processes, the Department and Cornell identified reports that contained quantities that appeared to fall outside of accepted parameters. Staff reviewed reports containing these “out-of-range” quantities and the responsible applicators and businesses were contacted. Reporting errors were corrected by staff with the approval of the applicator or business. These corrected data were forwarded to Cornell to replace the original reports in the database.

### **C. Data Qualifications**

The reporting community, the Department and Cornell University work together to provide the best information possible for health researchers. However, the data is neither perfectly accurate nor complete. Although the Department and Cornell have gone to great lengths to assure the quality of the data, there are still significant concerns regarding potential inaccuracies in the data received from the regulated community. Users of this data are advised to go to the PRL Annual Reports page (<http://dec.ny.gov/chemical/96898.html>) to review information regarding data quality.

The Department continues to reach out to regulated entities and provide information and technical assistance to them, and many times even works one on one with them to ensure they are accurately complying with the reporting requirements of the PRL. The Department also takes actions to hold entities accountable for any identifiable inaccuracies in reports provided and requires correction and re-submission where necessary.



### III. 2017 Reporting Data

#### A. General Synopsis of Data

The following table provides a summary of pesticide sales and use reported by commercial applicators and technicians and commercial permit holders:

**Table 1**  
Calendar Year 2017  
Summary of Total Quantities Statewide

<b>Category</b>	<b>Number of Pesticide Products</b>	<b>Quantity (Gallons)**</b>	<b>Quantity (Pounds)**</b>
Applied by Commercial Applicators and Technicians	4,422	3,279,087	28,297,142
Sold to Private Applicators	1,331	925,346	2,726,920
Sold for End Use*	738	518,259	17,401,669
Sold for Resale*	590	248,940	8,096,128

\* Restricted use pesticides only

\*\* The total quantity of pesticides commercially applied and sold is a combination of the amount expressed in gallons and the amount expressed in pounds reported above. In other words, the quantity in gallons is separate from the quantity in pounds.

#### B. County Data Summary Tables and Maps

The following tables and maps summarize commercial pesticide applications and sales for 2017 by county:

**Table 2**  
**Calendar Year 2017**  
**Summary of Commercial Pesticide Applications by County\***

<b>County</b>	<b>Number of Pesticide Products</b>	<b>Amount (Gallons)**</b>	<b>Amount (Pounds)**</b>
Albany	827	124,607	1,058,579
Allegany	260	3,179	29,304
Bronx	836	35,116	126,755
Broome	512	14,325	191,372
Cattaraugus	394	15,903	75,002
Cayuga	582	75,545	53,624
Chautauqua	504	15,801	182,116
Chemung	375	5,311	82,018
Chenango	299	8,492	39,209
Clinton	268	17,308	19,344
Columbia	514	10,077	139,616
Cortland	352	7,725	1,091,445
Delaware	354	4,595	29,178
Dutchess	933	20,738	1,469,759
Erie	1,038	102,326	1,759,898
Essex	335	359,092	38,678
Franklin	214	7,812	27,573
Fulton	309	4,002	43,342
Genesee	543	26,386	54,895
Greene	330	3,489	22,950
Hamilton	142	650	11,905
Herkimer	338	10,489	40,955
Jefferson	415	46,998	270,818
Kings	866	41,199	156,992
Lewis	230	14,335	18,390
Livingston	581	30,046	63,025
Madison	428	10,122	100,479
Monroe	1,077	61,752	2,195,954
Montgomery	342	7,058	77,859
Nassau	1,368	137,774	1,764,570
New York	872	284,464	260,254
Niagara	683	103,962	323,032

<b>County</b>	<b>Number of Pesticide Products</b>	<b>Amount (Gallons)**</b>	<b>Amount (Pounds)**</b>
Oneida	642	18,002	507,653
Onondaga	895	96,801	840,773
Ontario	966	24,136	313,629
Orange	862	16,503	899,152
Orleans	428	15,049	41,674
Oswego	407	176,005	47,215
Otsego	327	10,099	24,937
Putnam	546	14,234	351,114
Queens	869	65,798	321,649
Rensselaer	557	137,307	236,896
Richmond	536	47,394	110,379
Rockland	732	32,157	835,308
Saratoga	730	70,361	1,600,728
Schenectady	559	9,970	478,025
Schoharie	260	5,261	6,319
Schuyler	204	4,990	5,463
Seneca	390	8,087	12,236
St Lawrence	295	30,833	58,995
Steuben	480	14,383	139,824
Suffolk	1,873	217,837	5,438,369
Sullivan	368	3,987	106,039
Tioga	321	3,118	26,723
Tompkins	665	11,263	104,994
Ulster	627	6,414	260,776
Warren	462	34,161	369,051
Washington	371	63,978	109,436
Wayne	582	86,108	177,729
Westchester	1,405	382,526	3,000,141
Wyoming	434	47,563	27,885
Yates	314	13,798	15,164

\* The above table does not include quantities which were reported where the county information was either missing, invalid or illegible.

\*\* The total quantity of pesticides sold in a county is a combination of the gallons and pounds reported above. In other words, the quantity in gallons is separate from the quantity in pounds.

Figure 1  
Commercial Pesticide Applications by Volume (Gallons) in 2017

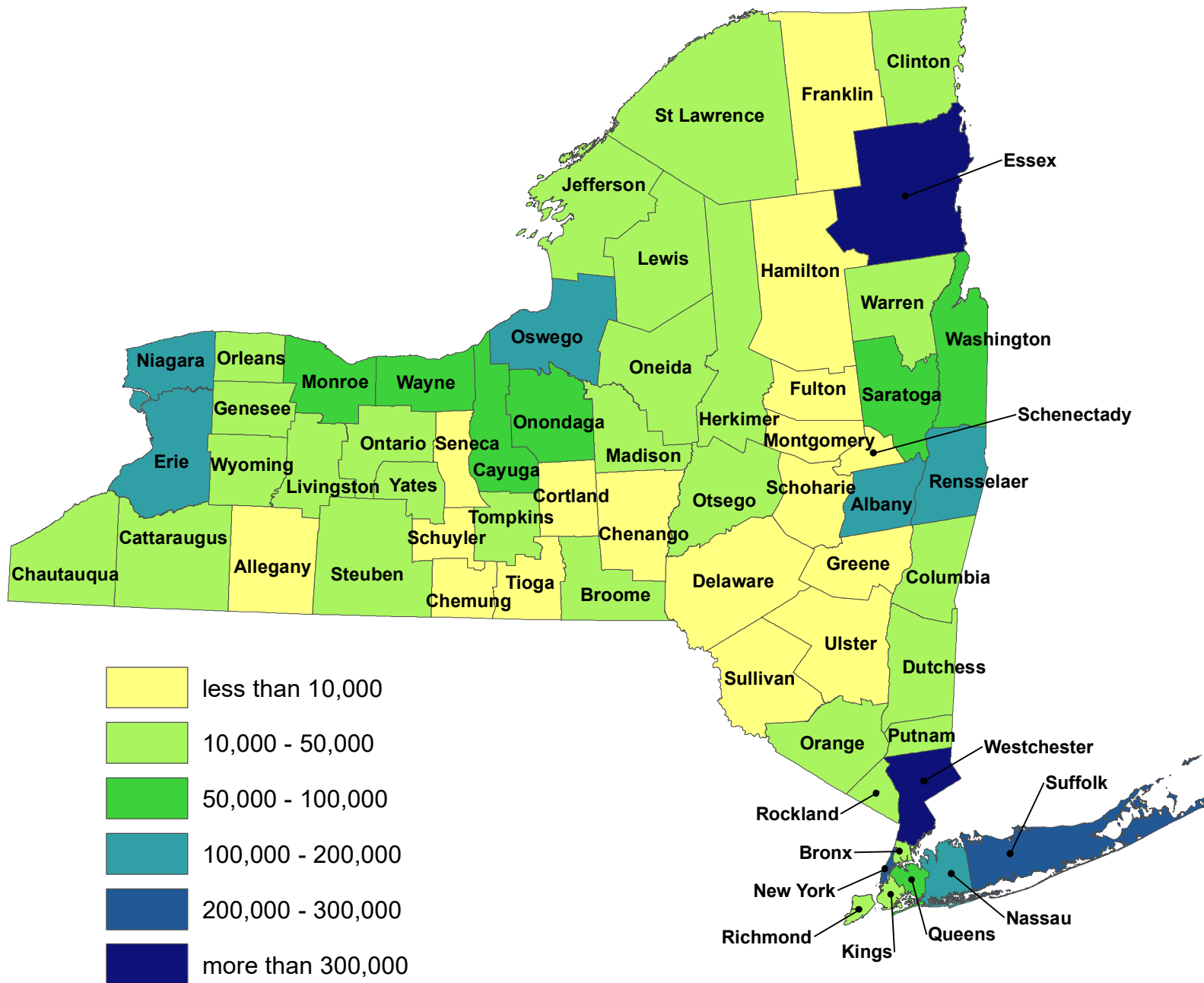
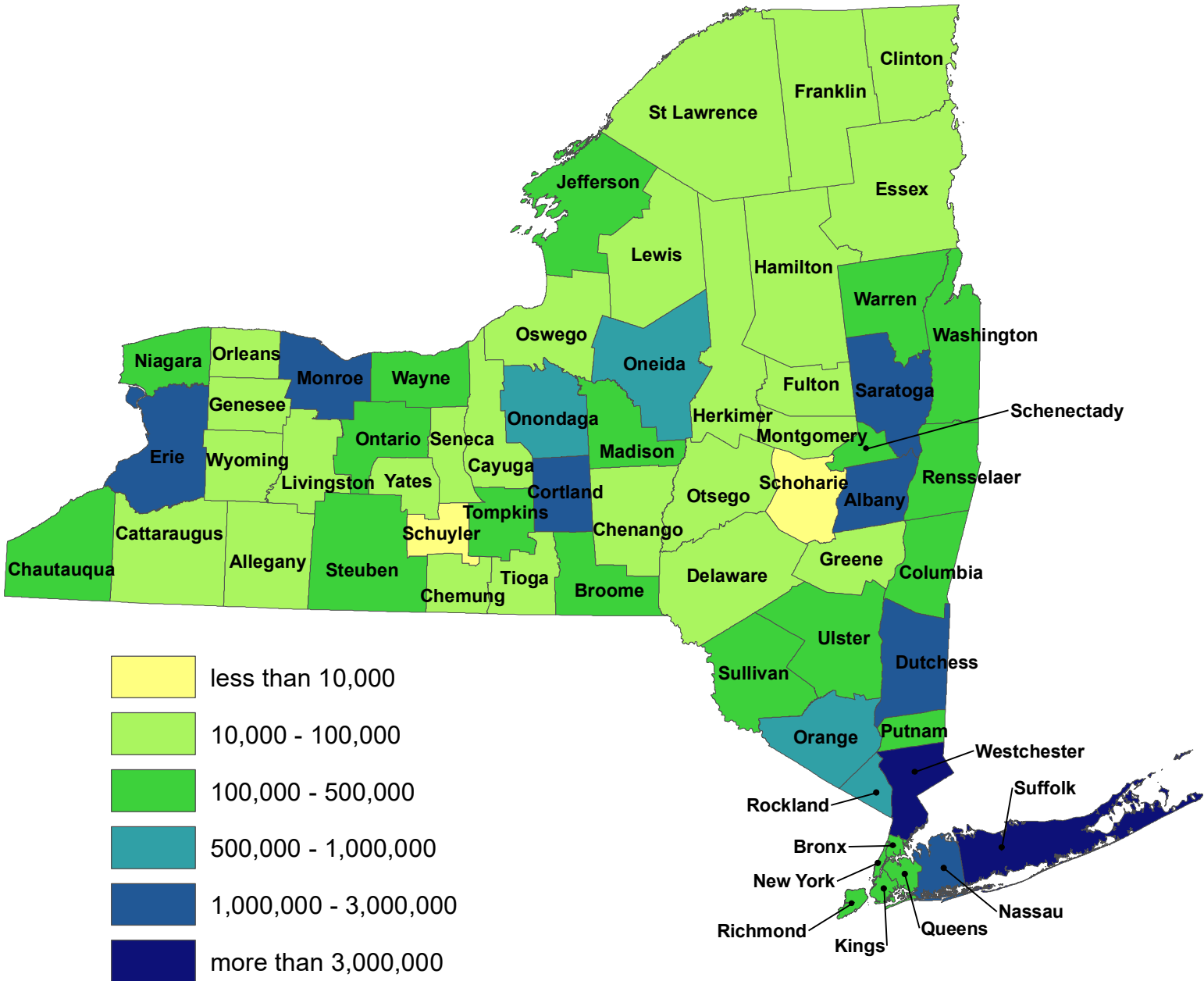


Figure 2  
Commercial Pesticide Applications by Weight (Pounds) in 2017



**Table 3**  
**Calendar Year 2017**  
**Summary of Pesticide Sales to Private Applicators by County**

<b>County</b>	<b>Number of Pesticide Products</b>	<b>Amount (Gallons)**</b>	<b>Amount (Pounds)**</b>
Albany	158	2,426	5,214
Allegany	78	2,496	3,421
Bronx	1	0	0
Broome	97	369	5,364
Cattaraugus	157	10,563	4,635
Cayuga	370	34,006	31,202
Chautauqua	270	24,878	123,098
Chemung	55	772	559
Chenango	86	2,094	1,966
Clinton	181	26,213	125,617
Columbia	295	15,100	123,115
Cortland	55	2,569	2,185
Delaware	23	322	309
Dutchess	296	10,347	35,445
Erie	398	16,558	27,460
Essex	83	846	7,827
Franklin	80	3,295	9,971
Fulton	71	562	1,833
Genesee	334	85,675	62,666
Greene	136	781	2,952
Hamilton	0	0	0
Herkimer	100	4,894	1,313
Jefferson	141	10,291	7,864
Kings	12	84	6
Lewis	56	5,195	17,561
Livingston	225	34,958	10,668
Madison	188	7,030	7,028
Monroe	425	32,398	131,985
Montgomery	168	10,370	7,543
Nassau	28	122	946
New York	5	40	4,040
Niagara	377	40,775	155,065

<b>County</b>	<b>Number of Pesticide Products</b>	<b>Amount (Gallons)**</b>	<b>Amount (Pounds)**</b>
Oneida	235	16,013	16,880
Onondaga	355	25,148	50,096
Ontario	396	27,940	34,472
Orange	361	47,671	136,558
Orleans	413	58,781	170,802
Oswego	245	21,104	17,204
Otsego	101	1,656	1,681
Putnam	43	233	172
Queens	9	46	24
Rensselaer	170	6,394	7,794
Richmond	1	475	0
Rockland	74	1,721	2,127
Saratoga	142	6,083	8,602
Schenectady	96	516	495
Schoharie	143	3,650	2,830
Schuyler	168	5,924	36,865
Seneca	280	22,978	60,286
St Lawrence	102	9,304	7,086
Steuben	270	28,466	104,026
Suffolk	455	54,979	160,315
Sullivan	30	352	1,583
Tioga	103	3,538	4,036
Tompkins	174	4,206	6,042
Ulster	357	41,220	275,264
Warren	25	51	96
Washington	143	4,666	12,758
Wayne	461	87,431	524,500
Westchester	105	509	1,345
Wyoming	166	35,845	46,577
Yates	400	22,406	117,545

\* The above table does not include quantities which were reported where the county information was either missing, invalid or illegible.

\*\* The total quantity of pesticides sold in a county is a combination of the gallons and pounds reported above. In other words, the quantity in gallons is separate from the quantity in pounds.

Figure 3  
Pesticide Sales to Private Applicators by Volume (Gallons) in 2017

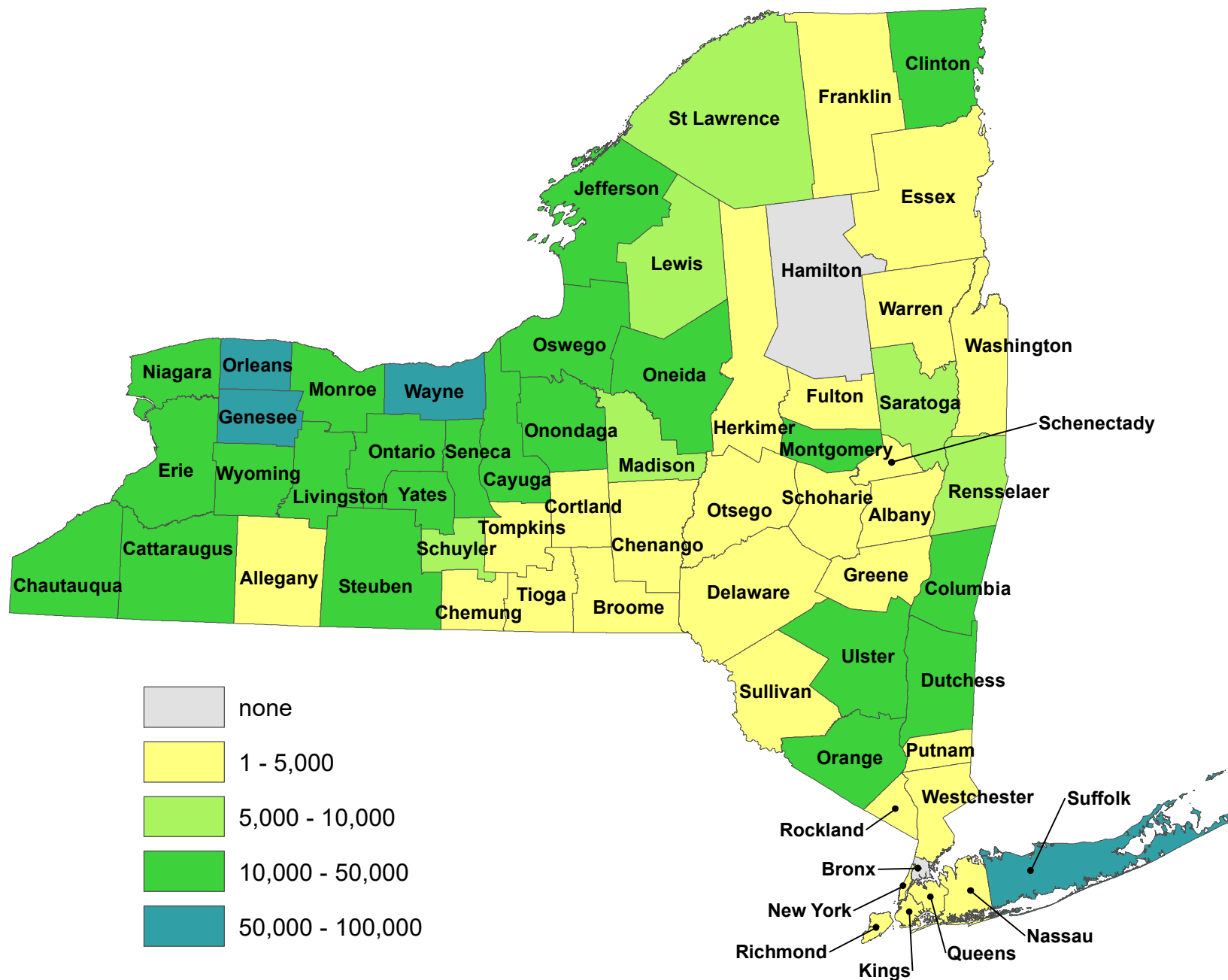
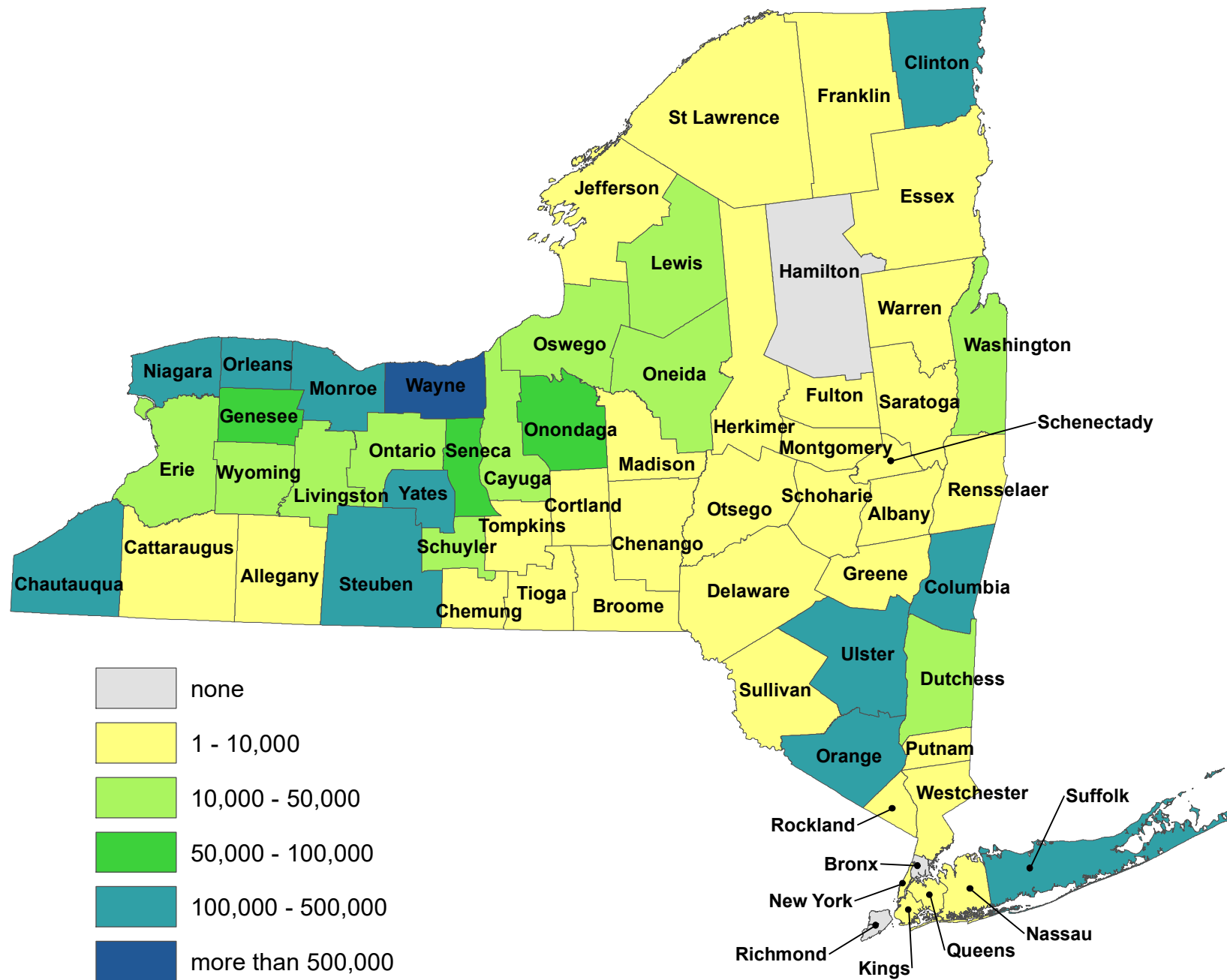




Figure 4  
Pesticide Sales to Private Applicators by Weight (Pounds) in 2017



### **C. Summary of Top Ten Pesticide Products Applied and Sold**

The following tables summarize the top ten pesticide products applied by certified commercial applicators or technicians and the top ten pesticide products sold by commercial permit holders to certified private applicators. Each table presents information about each top ten product including the EPA registration number for each product, the quantity sold or the quantity applied, the percentage that the product quantity represents compared with the total quantities all products sold or all products applied, the active ingredients in each product, the percentage of that active ingredient in the product as well as the product's main type of use.

These summaries are product based. The amount of product applied or sold is the quantity reported for the product(s) with the corresponding EPA registration number. These products contain different amounts of active ingredients. The weight or volume reported here is the amount of all ingredients, not the amount of active ingredients alone.

**Table 4**  
**Calendar Year 2017**  
**Top Ten Pesticide Products by Volume (Gallons)**  
**Applied by Commercial Applicators or Technicians**

EPA Registration Number	Quantity (GL)	Percentage of All Products	Active Ingredients	Percentage of Active Ingredient	Product Type
59074-20001	596,681	18.2%	sodium hypochlorite	12.50%	antimicrobial
9359-2	435,873	13.3%	sodium hypochlorite	12.50%	antimicrobial
279-3206	105,950	3.2%	bifenthrin	7.90%	insecticide
1706-240	84,456	2.6%	ammonium sulfate	20.00%	antimicrobial
9613-20001	65,745	2.0%	sodium hypochlorite	12.50%	antimicrobial
100-1466	64,576	2.0%	bicyclopyrone	0.65%	herbicide
			atrazine	10.93%	
			s-metolachlor	23.40%	
			mesotrione	2.60%	
1706-179	53,565	1.6%	sodium bromide sodium hypochlorite	9.23% 6.36%	antimicrobial, fungicide
524-549	48,837	1.5%	potassium salt of glyphosate	48.70%	herbicide
5905-368	39,381	1.2%	mineral oil	98.00%	insecticide, nematicide
63838-5	38,075	1.2%	sodium bromide sodium hypochlorite	10.28% 7.45%	antimicrobial
Top 10 Products	1,534,139	46.8%			
All Products	3,279,087				

**Table 5**  
**Calendar Year 2017**  
**Top Ten Pesticide Products by Weight (Pounds)**  
**Applied by Commercial Applicators and Technicians**

<b>EPA Registration Number</b>	<b>Quantity (LB)</b>	<b>Percentage of All Products</b>	<b>Active Ingredients</b>	<b>Percentage of Active Ingredient</b>	<b>Product Type</b>
100-1456-82757	1,403,633	5.0%	prodiamine	0.29%	herbicide
432-1349-82757	1,162,045	4.1%	imidacloprid	0.20%	insecticide
34704-776	1,043,332	3.7%	prodiamine	0.375%	herbicide
10404-89	1,023,998	3.6%	prodiamine	0.43%	herbicide
75506-12	922,856	3.3%	copper carbonate, basic propiconazole tebuconazole	43.40% 0.50% 0.50%	wood preservative
432-1349-34704	816,877	2.9%	imidacloprid	0.20%	herbicide
10404-85	808,284	2.9%	dithiopyr	0.10%	herbicide
62719-504-34704	786,067	2.8%	dithiopyr	0.15%	herbicide
432-1417-10404	743,066	2.6%	bifenthrin imidacloprid	0.10% 0.125%	insecticide
432-1417-34704	732,403	2.6%	bifenthrin imidacloprid	0.10% 0.125%	insecticide
<b>Top 10 Products</b>	<b>9,422,560</b>	<b>33.4%</b>			
<b>All Products</b>	<b>28,297,142</b>				

**Table 6**  
**Calendar Year 2017**  
**Top Ten Pesticide Products by Volume (Gallons)**  
**Sold by Commercial Permit Holders to Certified Private Applicators**

<b>EPA Registration Number</b>	<b>Quantity (GL)</b>	<b>Percentage of All Products</b>	<b>Active Ingredients</b>	<b>Percentage of Active Ingredient</b>	<b>Product Type</b>
524-549	72,546	7.8%	potassium salt of glyphosate	48.70%	herbicide
100-1466	58,251	6.3%	bicyclopyrone atrazine s-metolachlor mesotrione	0.65% 10.93% 23.40% 2.60%	herbicide
34704-890	43,011	4.7%	isopropylamine salt of glyphosate	41.00%	herbicide
71368-20	28,908	3.1%	isopropylamine salt of glyphosate	41.00%	herbicide
34704-805	22,145	2.4%	mineral oil	98.00%	insecticide, miticide, fungicide
524-549-352	21,126	2.3%	potassium salt of glyphosate	48.70%	herbicide
5481-468	20,359	2.2%	metam-sodium	42.00%	herbicide, nematicide, fungicide
74530-43	20,091	2.2%	isopropylamine salt of glyphosate	41.00%	herbicide
524-454-534	20,055	2.2%	isopropylamine salt of glyphosate	41.00%	herbicide
62719-556	19,396	2.1%	dimethylammonium salt of glyphosate	50.20%	herbicide
<b>Top 10 Products</b>	<b>325,889</b>	<b>35.2%</b>			
<b>All Products</b>	<b>925,346</b>				

**Table 7**  
**Calendar Year 2017**  
**Top Ten Pesticide Products by Weight (Pounds)**  
**Sold by Commercial Permit Holders to Certified Private Applicators**

<b>EPA Registration Number</b>	<b>Quantity (LB)</b>	<b>Percentage of All Products</b>	<b>Active Ingredients</b>	<b>Percentage of Active Ingredient</b>	<b>Product Type</b>
66222-58	394,692	14.5%	captan	78.20%	fungicide
34704-1063	189,603	7.0%	mancozeb	75.00%	fungicide
70506-234	184,209	6.8%	mancozeb	75.00%	fungicide
70506-185	156,661	5.8%	mancozeb	75.00%	fungicide
61282-49	153,405	5.6%	zinc phosphide (ZN3P2)	2.00%	rodenticide
89333-1	139,440	5.1%	mancozeb	75.00%	fungicide
100-1075	107,281	3.9%	tefluthrin	3.00%	insecticide
74267-1	102,070	3.7%	Bacillus subtilis MBI 600	0.001%	fungicide
34704-1075	76,705	2.8%	captan	80.00%	fungicide
70506-187	75,694	2.8%	sulfur	80.00%	fungicide
<b>Top 10 Products</b>	<b>1,579,759</b>	<b>57.9%</b>			
<b>All Products</b>	<b>2,726,920</b>				

#### **D. The Pesticide Sales and Use Reporting Website**

The summarized data from the 2017 reporting year, as well as previous years dating back to 1997, can be accessed using the Pesticide Sales and Use Reporting Program's website provided by Cornell University. Users of this website can generate summarized data by performing searches of the pesticide sales and use database. Users can generate reports by product or active ingredient and can filter their searches by county, zip code, sales, or applications. Results of these searches can be viewed online or downloaded to a computer. Cornell's Pesticide Sales and Use Reporting Website can be accessed at this link: <https://psur.cce.cornell.edu/>