



**Department of
Environmental
Conservation**

**Summary Report
For
New York State
Pesticide Sales and
Applications
2015**

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 2015. 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 15,857 certified applicators and technicians, which is 95% of the 16,618 applicators and technicians required to submit a report for 2015.

The following is the total amount of pesticide products applied in New York State by certified commercial applicators and technicians in 2015:

- 3,013,253 Gallons of liquid formulation products
- 36,120,904 Pounds of solid formulation products
- Number of Products: 4,375

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 2015:

- 997,779 Gallons
- 4,172,622 Pounds
- Number of Products: 1,345

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:

- 823,284 Gallons
- 10,803,670 Pounds

- Number of Products: 706

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:

- 184,240 Gallons
- 6,785,187 Pounds
- Number of Products: 529

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 2015. 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 2015 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 2015 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. 2015 Pesticide Reporting Program

A. Reports Received

As of April 18, 2016, the Department received reports from 15,857 of the 16,618 commercial applicators and technicians required to report for the calendar year 2015. The Department also received reports from 298 of the 300 commercial permittees required to report for 2015. These figures indicate that 95% of commercial applicators and technicians and 99% 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. 2015 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 2015
Summary of Total Quantities Statewide

Category	Number of Pesticide Products	Quantity (Gallons)**	Quantity (Pounds)**
Applied by Commercial Applicators and Technicians	4,375	3,013,253	36,120,904
Sold to Private Applicators	1,345	997,779	4,172,622
Sold for End Use*	706	823,284	10,803,670
Sold for Resale*	529	184,240	6,785,187

* 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 2015 by county:

Table 2
Calendar Year 2015
Summary of Commercial Pesticide Applications by County*

County	Number of Pesticide Products	Amount (Gallons)**	Amount (Pounds)**
Albany	765	184,395	1,272,945
Allegany	239	6,198	33,715
Bronx	743	24,005	108,799
Broome	512	10,015	204,149
Cattaraugus	363	12,554	89,043
Cayuga	510	56,303	44,184
Chautauqua	511	19,040	3,703,856
Chemung	357	4,689	91,500
Chenango	299	9,021	38,188
Clinton	270	17,893	58,236
Columbia	495	10,180	126,229
Cortland	309	6,998	499,185
Delaware	311	5,140	20,469
Dutchess	847	35,886	1,306,562
Erie	1,003	118,721	4,712,028
Essex	308	98,245	128,165
Franklin	204	14,250	17,193
Fulton	289	3,527	43,868
Genesee	498	26,703	56,171
Greene	337	24,497	246,631
Hamilton	138	528	16,486
Herkimer	316	7,457	58,919
Jefferson	445	41,135	82,000
Kings	730	39,428	147,631
Lewis	233	13,501	21,424
Livingston	483	27,069	50,753
Madison	411	10,930	86,067
Monroe	986	45,267	2,545,508
Montgomery	337	27,396	67,602
Nassau	1,262	113,418	1,818,333
New York	846	166,301	218,732
Niagara	600	65,376	765,476

County	Number of Pesticide Products	Amount (Gallons)**	Amount (Pounds)**
Oneida	571	17,219	472,907
Onondaga	781	71,927	1,084,122
Ontario	921	34,294	304,590
Orange	744	22,404	687,988
Orleans	399	10,655	26,483
Oswego	370	96,313	60,327
Otsego	310	5,738	21,564
Putnam	509	7,969	270,837
Queens	796	59,750	185,188
Rensselaer	533	289,649	317,514
Richmond	473	27,212	105,042
Rockland	703	13,761	948,181
Saratoga	679	97,300	1,516,663
Schenectady	540	8,584	533,721
Schoharie	236	5,093	8,031
Schuyler	189	2,943	28,452
Seneca	324	9,089	17,495
St Lawrence	293	27,289	53,694
Steuben	412	11,098	77,045
Suffolk	1,612	219,664	7,041,727
Sullivan	341	4,595	73,042
Tioga	313	2,579	24,891
Tompkins	665	11,729	121,379
Ulster	600	7,993	289,507
Warren	416	23,085	375,750
Washington	360	47,941	87,402
Wayne	500	96,154	145,953
Westchester	1,279	419,950	2,536,722
Wyoming	410	38,748	30,188
Yates	253	18,503	13,672

* 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 2015

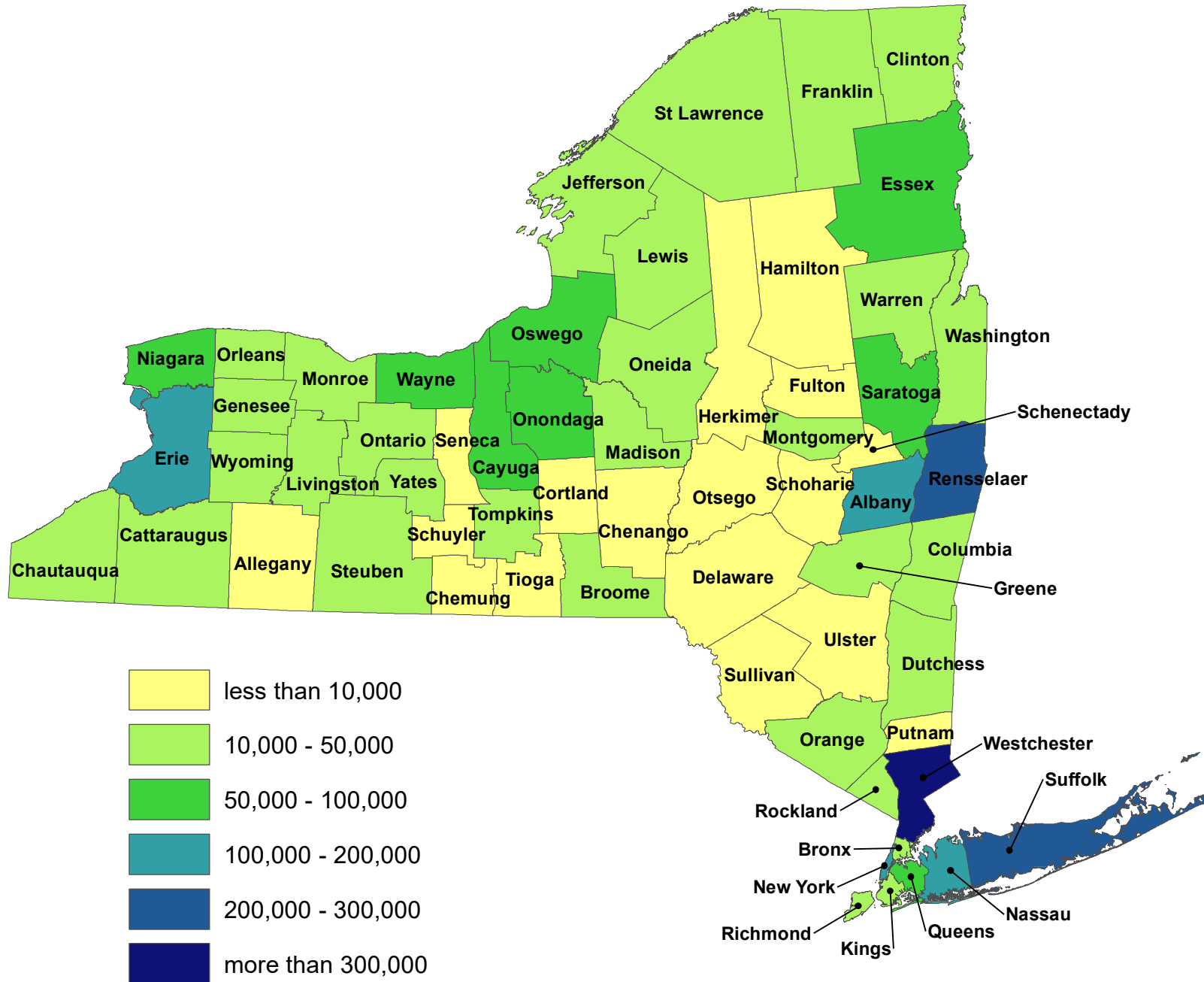


Table 3
Calendar Year 2015
Summary of Pesticide Sales to Private Applicators by County

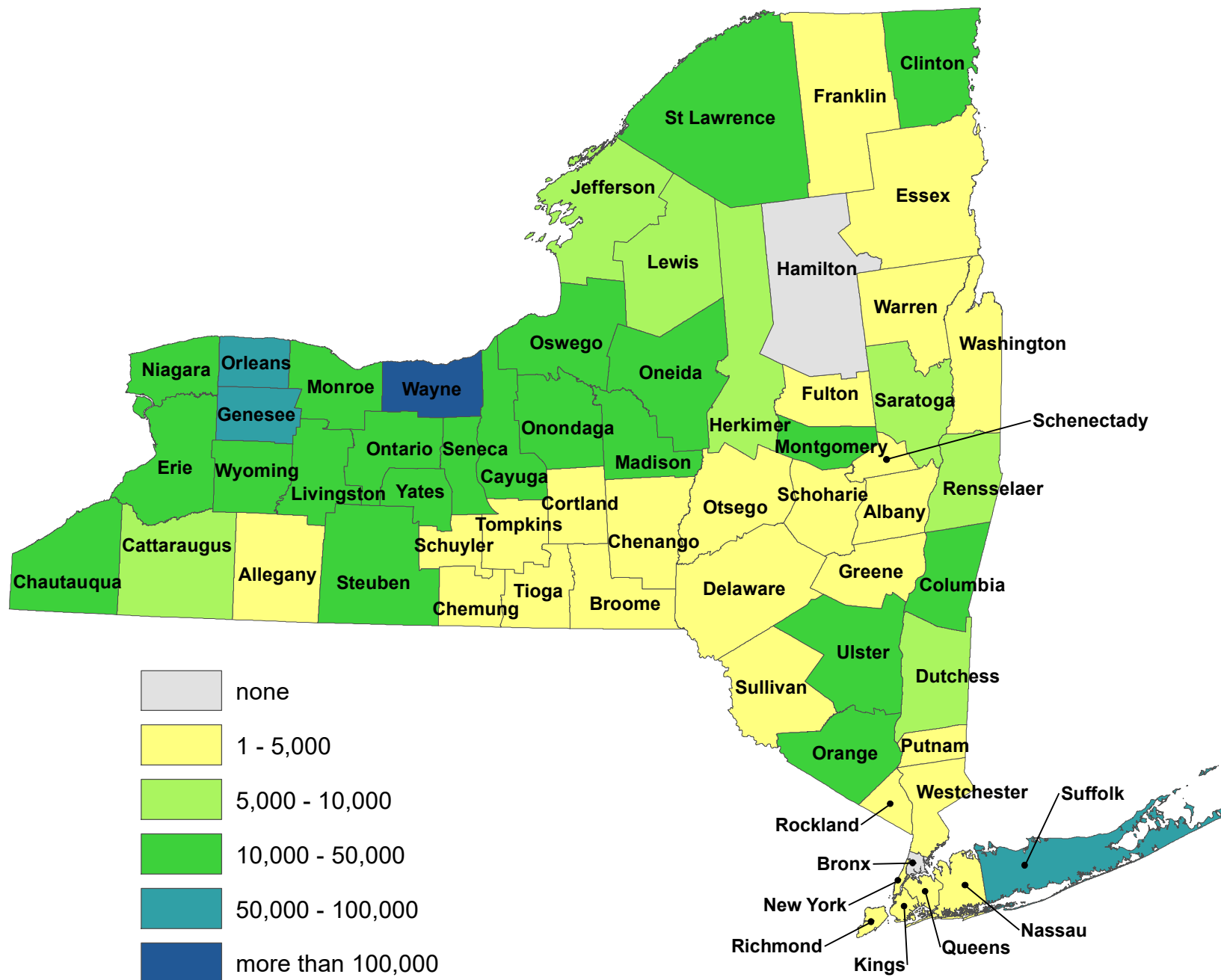
County	Number of Pesticide Products	Amount (Gallons)**	Amount (Pounds)**
Albany	188	2,488	6,362
Allegany	89	2,993	2,984
Bronx	0	0	0
Broome	112	1,949	5,924
Cattaraugus	150	6,446	3,127
Cayuga	320	29,554	24,411
Chautauqua	251	26,211	126,103
Chemung	55	599	16,360
Chenango	101	2,752	3,304
Clinton	162	19,235	223,765
Columbia	272	13,820	117,985
Cortland	60	2,501	1,669
Delaware	27	452	434
Dutchess	259	8,800	24,439
Erie	408	15,655	27,901
Essex	62	822	18,219
Franklin	79	3,191	5,360
Fulton	52	696	2,109
Genesee	347	87,237	127,962
Greene	144	1,742	3,359
Hamilton	0	0	0
Herkimer	88	5,176	2,934
Jefferson	110	6,783	3,548
Kings	11	58	18
Lewis	64	6,757	6,790
Livingston	229	39,379	17,816
Madison	192	10,681	12,229
Monroe	468	34,748	116,204
Montgomery	176	10,909	9,558
Nassau	19	492	270
New York	4	9	12
Niagara	393	38,414	178,066

County	Number of Pesticide Products	Amount (Gallons)**	Amount (Pounds)**
Oneida	229	20,819	14,152
Onondaga	368	34,439	104,710
Ontario	409	31,627	42,553
Orange	352	44,081	132,218
Orleans	387	54,360	206,509
Oswego	251	31,803	32,725
Otsego	99	2,897	1,543
Putnam	48	609	2,414
Queens	4	6	0
Rensselaer	204	6,762	7,936
Richmond	1	522	0
Rockland	64	1,045	3,692
Saratoga	162	5,420	10,853
Schenectady	76	836	563
Schoharie	170	2,526	5,932
Schuyler	146	4,608	23,816
Seneca	230	18,952	47,684
St Lawrence	112	10,738	7,524
Steuben	267	29,104	133,369
Suffolk	501	65,989	680,195
Sullivan	19	41	164
Tioga	94	3,681	4,633
Tompkins	136	4,510	4,778
Ulster	352	36,187	311,228
Warren	15	64	750
Washington	155	2,330	13,169
Wayne	460	130,567	1,088,779
Westchester	100	1,368	14,107
Wyoming	182	48,738	45,578
Yates	407	22,601	141,828

* 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 2015



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 2015
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
9359-2	528,990	17.6%	sodium hypochlorite	12.50%	antimicrobial
59074-20001	433,441	14.4%	sodium hypochlorite	12.50%	antimicrobial
279-3206-10404	165,731	5.5%	bifenthrin	7.9%	insecticide
279-3206	116,238	3.9%	bifenthrin	7.90%	insecticide
100-1442	82,666	2.7%	atrazine	10.20%	herbicide
			mesotrione	2.71%	
			s-metolachlor	27.10%	
9613-20001	77,455	2.6%	sodium hypochlorite	12.50%	antimicrobial
8622-64-74655	41,257	1.4%	ammonium bromide	35.00%	antimicrobial, algacide
1706-179	38,684	1.3%	sodium bromide	9.23%	antimicrobial fungicide
			sodium hypochlorite	6.36%	
5905-368	37,699	1.3%	mineral oil	98.00%	insecticide, nematicide
524-549	30,158	1.0%	potassium salt of glyphosate	48.70%	herbicide
Top 10 Products	1,552,319	51.5%			
All Products	3,013,253				

Table 5
Calendar Year 2015
Top Ten Pesticide Products by Weight (Pounds)
Applied by Commercial Applicators and Technicians

EPA Registration Number	Quantity (LB)	Percentage of All Products	Active Ingredients	Percentage of Active Ingredient	Product Type
60063-41-82757	4,970,927	13.8%	prodiamine	0.29%	herbicide
9198-124	1,672,772	4.6%	prodiamine	0.28%	herbicide
34704-776	1,667,073	4.6%	prodiamine	0.375%	herbicide
432-1349-9198	1,260,334	3.5%	imidacloprid	0.20%	insecticide
9198-173	1,144,704	3.2%	pendimethalin	0.86%	herbicide
10404-89	1,070,011	3.0%	prodiamine	0.43%	herbicide
10404-85	1,019,134	2.8%	dithiopyr	0.10%	herbicide
432-1417-34704	859,575	2.4%	bifenthrin	0.10%	insecticide
			imidacloprid	0.125%	
9198-121	853,688	2.4%	dithiopyr	0.164%	herbicide
9198-120	832,733	2.3%	dithiopyr	0.103%	herbicide
Top 10 Products	15,350,951	42.5%			
All Products	36,120,904				

Table 6
Calendar Year 2015
Top Ten Pesticide Products by Volume (Gallons)
Sold by Commercial Permit Holders to Certified Private Applicators

EPA Registration Number	Quantity (GL)	Percentage of All Products	Active Ingredients	Percentage of Active Ingredient	Product Type
100-1442	58,427	5.9%	atrazine mesotrione s-metolachlor	10.20% 2.71% 27.10%	herbicide
34704-890	57,514	5.8%	isopropylamine salt of glyphosate	41.00%	herbicide
524-549	54,771	5.5%	potassium salt of glyphosate	48.70%	herbicide
71368-20	40,136	4.0%	isopropylamine salt of glyphosate	41.00%	herbicide
34704-805	27,218	2.7%	mineral oil	98.00%	insecticide, miticide, fungicide
100-1282	21,316	2.1%	s-metolachlor mesotrione glyphosate	20.50% 2.05% 20.50%	herbicide
5481-468	20,377	2.0%	metam-sodium	42.00%	herbicide, nematicide, fungicide
70506-194	15,719	1.6%	mancozeb	37.00%	fungicide
241-418	14,785	1.5%	pendimethalin	38.70%	herbicide
34704-69	14,594	1.5%	atrazine	42.60%	insecticide
Top 10 Products	324,856	32.6%			
All Products	997,779				

Table 7
Calendar Year 2015
Top Ten Pesticide Products by Weight (Pounds)
Sold by Commercial Permit Holders to Certified Private Applicators

EPA Registration Number	Quantity (LB)	Percentage of All Products	Active Ingredients	Percentage of Active Ingredient	Product Type
66222-58	564,406	13.5%	captan	78.20%	fungicide
34704-1063	281,750	6.8%	mancozeb	75.00%	fungicide
61282-49	246,132	5.9%	zinc phosphide (ZN3P2)	2.00%	rodenticide
70506-234	209,990	5.0%	mancozeb	75.00%	fungicide
70506-185	163,586	3.9%	mancozeb	75.00%	fungicide
89333-1	154,780	3.7%	mancozeb	75.00%	fungicide
62719-289-961	152,800	3.7%	trifluralin benefin	0.50% 0.50%	herbicide
34704-1075	126,960	3.0%	captan	80.00%	fungicide
70506-201	101,249	2.4%	basic copper sulfate	71.10%	fungicide
74267-1	100,735	2.4%	Bacillus subtilis MBI 600	0.001%	fungicide
Top 10 Products	2,102,388	50.4%			
All Products	4,172,622				

D. The Pesticide Sales and Use Reporting Website

The summarized data from the 2015 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/>