



**Department of  
Environmental  
Conservation**

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Division of Materials Management

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**FINAL ANNUAL REPORT  
FOR  
NEW YORK STATE  
PESTICIDE SALES AND  
APPLICATIONS  
2010**

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## **ACKNOWLEDGMENTS**

The Department wishes to acknowledge the cooperation and assistance of Cornell University 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 report on the final 2010 pesticides sales and application data submitted under Environmental Conservation Law Article 33, Title 12, known as the Pesticide Reporting Law (PRL). 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 final data show there were greater than 6.7 million “records” of applications and sales reported for 2010, totaling over 589 million keystrokes of data. The total amount of pesticides reported as applied by commercial applicators in 2010 was 2,685,661 gallons and 24,457,634 pounds. This compares to 2,273,319 gallons and 25,836,419 pounds in 2009.

**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 the validity of the data received from the regulated community. Users of this data are strongly cautioned about limitations of the data. Users of the data are advised to go to the PRL Annual Reports page (<http://www.dec.ny.gov/chemical/96898.html>) to review information regarding data information.

For the 2010 report year, the total number of applicators, technicians and permittees reporting was:

16,284 Commercial Applicators and Technicians  
293 Commercial Permittees (Sales)

These figures indicate 93 percent of the 17,445 certified applicators and technicians, and 92 percent of the 317 commercial permittees reported for 2010. The Department will continue to provide outreach and education to the regulated community in an attempt to achieve maximum compliance with the reporting requirement.

The Department, in conjunction with Cornell, continues to operate a website for regulated entities to report their sales and applications data. The electronic reporting programs enable users to keep their pesticide records on a computer and to report their sales and applications to the Department. The data can be submitted to the Department via e-mail, floppy disk, zip disk, CD ROM, or FTP (File Transfer Protocol). This user-friendly approach to submission improves the quality of the data received. It is also a more cost effective method of reporting for both the regulated community and the Department.

Electronic submissions of PRL sales and applications reports for 2010 increased by 0.7%, compared with 2009. These submissions contained 5,482,481 records compared to 5,349,496 records in 2009, a 2.5% increase.

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. The corrected data were forwarded to Cornell to replace the original reports in the database.

The Department's long-term goal is to continually improve the reporting rate and data quality by raising the threshold for report acceptance each year. The Department continues to refine its front-line quality control program where Department staff evaluate incoming reports to ensure basic criteria were met. The criteria were established to maximize the volume of data that would 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.

The above procedures helped eliminate some of the constraints on data quality identified in previous annual reports; however, some constraints remain. The Department intends to eliminate as many constraints as possible by expanding the list of acceptance criteria. In this way, the acceptance threshold will rise continuously but gradually, paralleling the learning curve for the regulated community, the Department and Cornell. The goal is to maximize the quantity and quality of data available to health researchers and other users of the data.

The Department took enforcement actions against those entities who failed to report for the year 2010. An Order on Consent was sent to approximately 1,185 certified commercial pesticide applicators and technicians and commercial permit holders who did not report for the year 2010. As a result of this action, many of those entities were assessed a civil penalty. Many other applicators and technicians elected to voluntarily surrender their certification instead of paying a penalty. The result of this surrender is they are no longer certified to make commercial pesticide applications. Those entities who did not settle the violation will not be granted renewal privileges until their violation is resolved.

To make the information presented more easily understood and in response to recommendations, the Department is moving toward translating the volume (gallons) of pesticides reported into pounds. In order to convert the volume of a liquid into pounds, the specific gravity of the liquid must be known. The Department changed its product registration practices to capture the specific gravity of each liquid pesticide product as it is registered for sale or use in New York State. There are currently 14,020 registered products in New York State. Of these, approximately 7,862 are liquid formulations. To date, the specific gravity data for most of those products has been obtained. We expect to complete this transition within the coming months and at that point, will be able to provide the information as pounds only.

**The following totals are those most frequently requested:**

Total amount of pesticides applied by commercial applicators in New York State in 2010:

- 2,685,661 Gallons
- 24,457,634 Pounds

The three largest total amounts of pesticide products applied by commercial applicators, by weight, were:

- Andersons Prof. Turf Products Fertilizer with Barricade Herbicide (EPA Registration No. 9198-124) \*
- Dimension 0.10% PLUS FERTILIZER (EPA Registration No: 10404-85)\*
- Andersons Turf Products Fertilizer with 0.2% Merit Insecticide (EPA Registration No. 432-1349-9198) \*

\*This product contains small amounts of pesticides combined with large amounts of fertilizer and other ingredients. The weight reported here is the weight of all ingredients, not the weight of pesticides alone.

The three largest total amounts of pesticide products applied by commercial applicators, by volume, were:

- Superchlor Disinfectant (EPA Registration No. 59074-20001)
- Surchlor Disinfectant (EPA Registration No. 9359-2)
- Lumax Selective Herbicide (EPA Registration No: 100-1152)

Total amount of pesticides sold to private applicators for agricultural use in New York State in 2010:

- 783,131 Gallons
- 2,614,687 Pounds

The three largest total amounts of pesticide products sold to private applicators, by weight, were:

- Penncozeb 75 DF Fungicide (EPA Registration No. 70506-185)
- Drexel Captan 80 WDG (EPA Registration No: 66222-58-19713)
- Dupont Manzate Pro-Stick Fungicide (EPA Registration No: 352-704)

The three largest total amounts of pesticide products sold to private applicators, by volume, were:

- Lumax Selective Herbicide (EPA Registration No. 100-1152)
- Four Power Plus/ Kleenup Pro/ Mad Dog Plus/ Makaze (EPA Registration No: 34704-890)
- Touchdown Total/ Traxion (EPA Registration No: 100-1169)

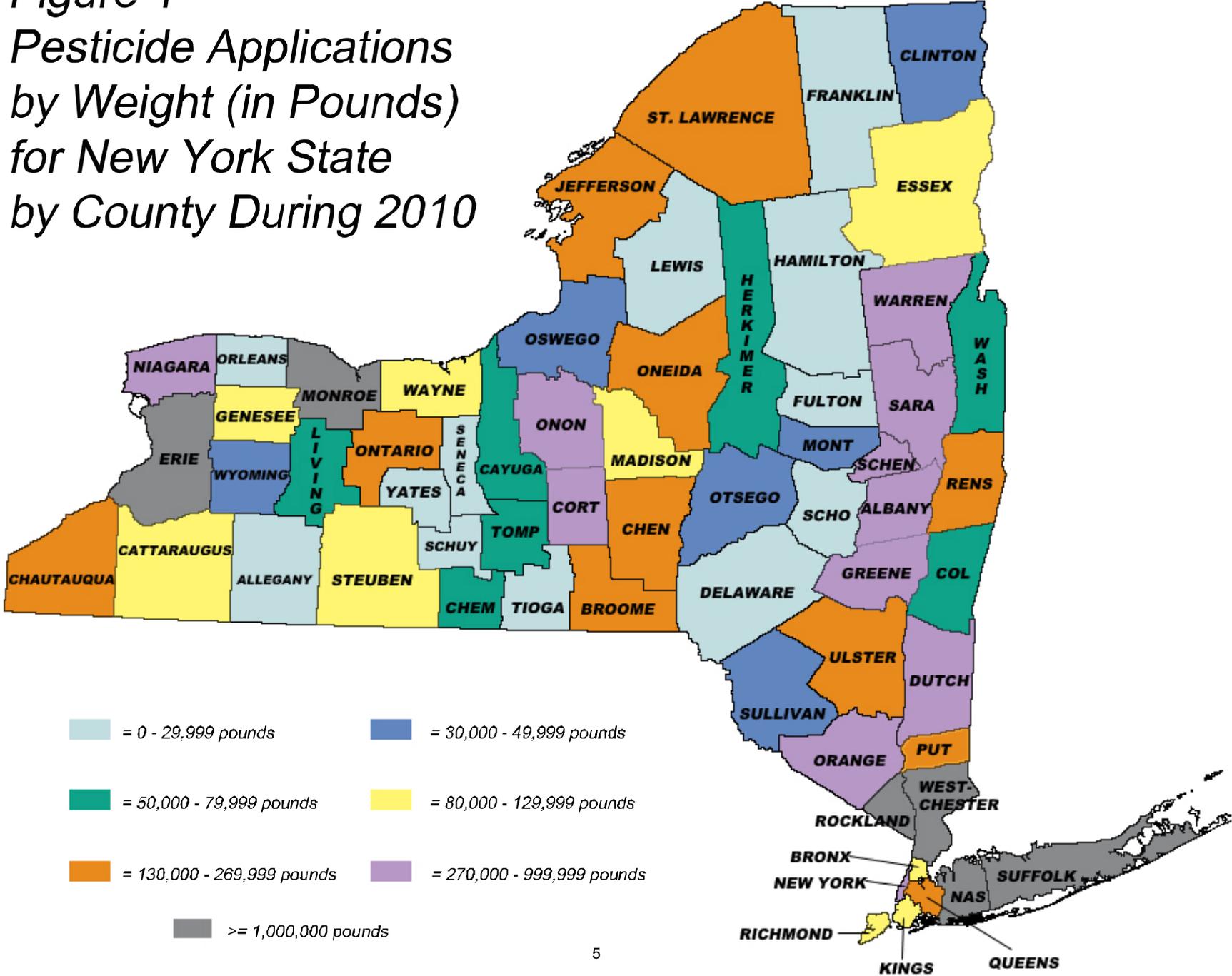
Total amount of pesticides sold to distributors for resale in New York State in 2010 was:

- 1,468,909 Gallons
- 15,621,727 Pounds

Total amount of pesticides sold to applicators for end use in New York State in 2010 was:

- 164,964 Gallons
- 9,379,030 Pounds

**Figure 1**  
**Pesticide Applications**  
**by Weight (in Pounds)**  
**for New York State**  
**by County During 2010**



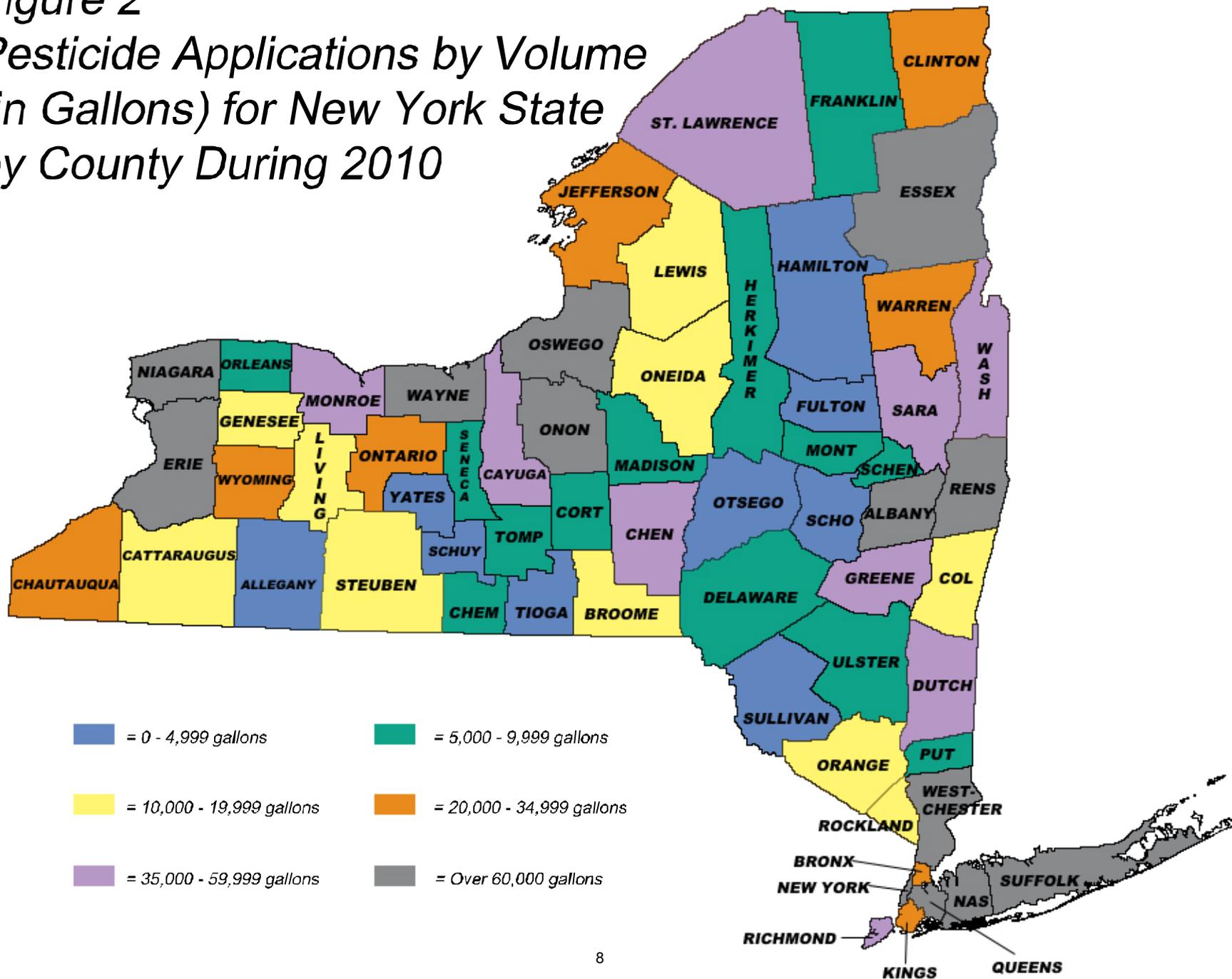
**Pesticide Applications by Weight (in Pounds)  
for New York State by County During 2010**

<b>County</b>	<b>Amount*</b>
Albany	980,727.66
Allegany	29,373.14
Bronx	126,986.51
Broome	246,662.51
Cattaraugus	89,316.05
Cayuga	71,225.49
Chautauqua	161,010.87
Chemung	75,693.58
Chenango	266,843.93
Clinton	42,637.67
Columbia	60,907.05
Cortland	305,286.91
Delaware	16,593.25
Dutchess	622,006.73
Erie	1,625,426.77
Essex	100,067.13
Franklin	23,741.60
Fulton	28,835.30
Genesee	88,773.97
Greene	443,714.13
Hamilton	26,666.59
Herkimer	65,412.65
Jefferson	137,732.13
Kings	127,539.62
Lewis	13,295.72
Livingston	77,852.21
Madison	91,126.13
Monroe	2,282,622.93
Montgomery	40,194.88
Nassau	1,736,088.51
New York	291,599.08
Niagara	298,211.38
Oneida	177,961.43
Onondaga	972,653.28
Ontario	203,386.21
Orange	661,788.37
Orleans	24,216.14
Oswego	42,143.64

<b>County</b>	<b>Amount*</b>
Otsego	30,935.15
Putnam	208,962.87
Queens	178,976.96
Rensselaer	195,768.21
Richmond	115,180.73
Rockland	1,032,127.62
St. Lawrence	921,439.36
Saratoga	418,429.41
Schenectady	12,456.99
Schoharie	2,258.47
Schuyler	12,584.38
Seneca	251,133.98
Steuben	80,528.14
Suffolk	5,086,506.90
Sullivan	45,005.84
Tioga	23,014.16
Tompkins	79,495.08
Ulster	262,337.53
Warren	330,709.75
Washington	71,979.46
Wayne	121,736.41
Westchester	2,226,065.81
Wyoming	30,405.44
Yates	10,323.32

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

**Figure 2**  
**Pesticide Applications by Volume**  
**(in Gallons) for New York State**  
**by County During 2010**



**Pesticide Applications by Volume (in Gallons)  
for New York State by County During 2010**

<b>County</b>	<b>Amount*</b>
Albany	145,484.47
Allegany	3,465.84
Bronx	24,645.20
Broome	14,352.57
Cattaraugus	12,416.52
Cayuga	56,234.96
Chautauqua	25,142.84
Chemung	6,174.44
Chenango	38,106.16
Clinton	21,602.27
Columbia	11,000.34
Cortland	7,930.03
Delaware	5,528.39
Dutchess	47,023.74
Erie	83,420.59
Essex	135,988.41
Franklin	9,046.56
Fulton	3,032.42
Genesee	17,575.71
Greene	39,282.72
Hamilton	1,671.68
Herkimer	6,921.73
Jefferson	22,737.01
Kings	30,937.71
Lewis	14,524.50
Livingston	19,245.93
Madison	9,115.01
Monroe	43,731.10
Montgomery	5,796.27
Nassau	146,879.39
New York	159,899.26
Niagara	62,192.08
Oneida	12,513.27
Onondaga	69,220.31
Ontario	21,138.17
Orange	17,828.10
Orleans	6,768.72
Oswego	141,716.61
Otsego	4,777.78

<b>County</b>	<b>Amount*</b>
Putnam	8,161.38
Queens	70,678.62
Rensselaer	89,540.46
Richmond	42,084.80
Rockland	18,019.31
St. Lawrence	54,103.59
Saratoga	8,125.68
Schenectady	3,060.24
Schoharie	1,463.20
Schuyler	7,910.91
Seneca	36,257.92
Steuben	11,719.42
Suffolk	194,155.51
Sullivan	4,781.87
Tioga	3,624.74
Tompkins	9,090.44
Ulster	6,746.29
Warren	33,586.82
Washington	39,231.58
Wayne	78,232.47
Westchester	427,171.02
Wyoming	25,479.56
Yates	3,924.26

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



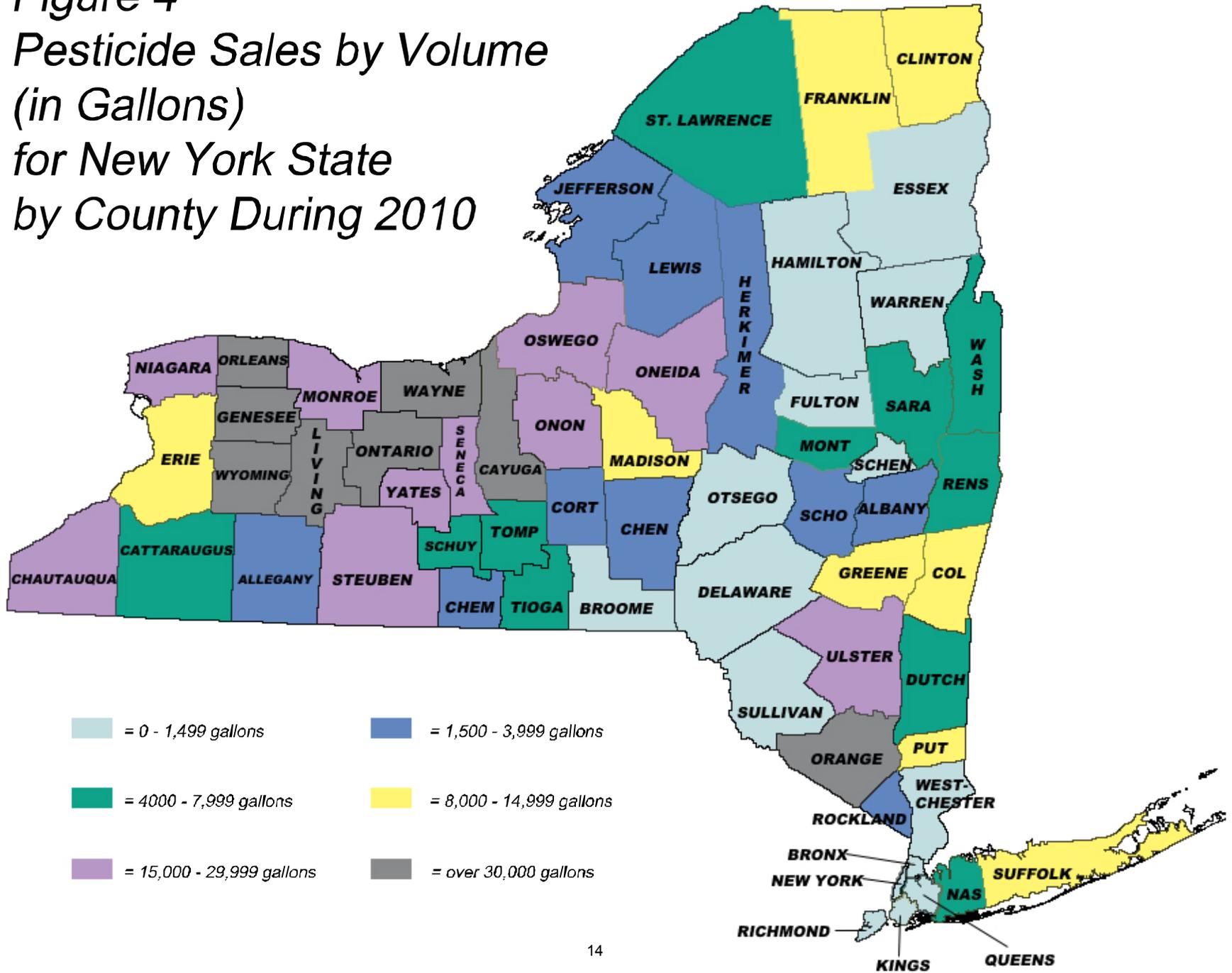
**Pesticide Sales by Weight (in Pounds)  
for New York State by County During 2010**

<b>County</b>	<b>Amount*</b>
Albany	5,466.11
Allegany	3,629.39
Bronx	0
Broome	2,708.95
Cattaraugus	6,079.40
Cayuga	24,672.22
Chautauqua	141,792.05
Chemung	4,303.20
Chenango	5,643.19
Clinton	78,266.68
Columbia	66,312.26
Cortland	3,423.78
Delaware	387.00
Dutchess	35,155.12
Erie	29,624.30
Essex	4,878.50
Franklin	2,845.95
Fulton	5,693.44
Genesee	69,893.32
Greene	26,046.10
Hamilton	690.13
Herkimer	7,476.66
Jefferson	3,830.57
Kings	0
Lewis	7,955.06
Livingston	24,858.25
Madison	11,951.25
Monroe	58,284.06
Montgomery	10,478.93
Nassau	17,760.12
New York	16,045.35
Niagara	114,939.96
Oneida	18,024.12
Onondaga	56,986.85
Ontario	111,796.74
Orange	80,787.78
Orleans	148,769.56
Oswego	21,738.20
Otsego	3,165.12

<b>County</b>	<b>Amount*</b>
Putnam	58,958.59
Queens	267.19
Rensselaer	6,584.47
Richmond	31.41
Rockland	3,049.57
St. Lawrence	25,046.03
Saratoga	1,291.06
Schenectady	7,931.75
Schoharie	27,567.98
Schuyler	73,195.83
Seneca	3,552.70
Steuben	69,753.58
Suffolk	76,248.93
Sullivan	139.44
Tioga	2,259.09
Tompkins	6,930.58
Ulster	268,753.61
Warren	93.47
Washington	10,664.83
Wayne	564,804.89
Westchester	610.92
Wyoming	70,949.38
Yates	102,020.81

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

Figure 4  
 Pesticide Sales by Volume  
 (in Gallons)  
 for New York State  
 by County During 2010



**Pesticide Sales by Volume (in Gallons)  
for New York State by County During 2010**

<b>County</b>	<b>Amount*</b>
Albany	2,526.81
Allegany	2,746.51
Bronx	0
Broome	572.63
Cattaraugus	4,417.01
Cayuga	40,926.86
Chautauqua	25,939.65
Chemung	3,299.23
Chenango	3,493.34
Clinton	9,798.13
Columbia	10,377.89
Cortland	2,983.41
Delaware	875.94
Dutchess	4,452.54
Erie	13,761.21
Essex	454.00
Franklin	8,120.77
Fulton	640.61
Genesee	65,795.16
Greene	9,061.82
Hamilton	453.50
Herkimer	1,986.20
Jefferson	1,963.35
Kings	589.00
Lewis	3,235.42
Livingston	35,151.60
Madison	13,298.32
Monroe	29,808.87
Montgomery	7,883.63
Nassau	4,929.51
New York	1,286.25
Niagara	18,988.95
Oneida	16,018.44
Onondaga	25,043.80
Ontario	48,251.97
Orange	40,600.02
Orleans	39,648.78
Oswego	16,935.01
Otsego	703.57

<b>County</b>	<b>Amount*</b>
Putnam	11,586.12
Queens	201.00
Rensselaer	7,763.96
Richmond	68.00
Rockland	1,508.00
St. Lawrence	4,115.83
Saratoga	4,364.34
Schenectady	570.01
Schoharie	3,013.63
Schuyler	6,248.86
Seneca	19,353.89
Steuben	29,538.00
Suffolk	11,079.91
Sullivan	57.50
Tioga	4,140.03
Tompkins	5,874.13
Ulster	24,033.30
Warren	16.92
Washington	7,581.41
Wayne	63,859.52
Westchester	339.13
Wyoming	38,611.43
Yates	22,084.77

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

Figure 5

Relative Use (Pounds) of Reported Top Ten Pesticide Products  
Applied by Certified Commercial Applicators during 2010\*

EPA Registration Number‡	Weight Quantity (pounds)**	Percentage of All Products	Active Ingredients
9198-124	1,615,033.99	6.603%	◇ Prodiamine
10404-85	1,303,628.31	5.330%	◇ Dithiopyr
432-1349-9198	1,202,464.08	4.917%	◇ Imidacloprid
10404-86	1,060,058.66	4.334%	◇ Dithiopyr
432-1349-10404	748,032.90	3.058%	◇ Imidacloprid
34704-776	643,756.57	2.632%	◇ Prodiamine
2217-795-9198	550,686.09	2.252%	◇ 2,4-D ◇ Mecoprop ◇ Dicamba
9198-120	444,884.13	1.819%	◇ Dithiopyr
10404-100	424,206.99	1.734%	◇ Pendimethalin
10404-89	423,289.43	1.731%	◇ Prodiamine
<b>Top 10 Products - Total Quantity (pounds) Used:</b>	<b>9,517,413.33</b>		
<b>All Products - Total Quantity (pounds) Used:</b>	<b>24,457,632.68</b>		
<b>Top 10 Products as a Percentage of Total Quantity (pounds):</b>		<b>38.91%</b>	

\* Excluding Illegible, Invalid, Irregular, and Unreported Categories.

\*\* Product quantities may be initially reported in weight-based or volume-based units of measurement. The total quantity for the product is the sum of the weight and volume totals. If no quantity is specified for a product, this indicates that the product was applied, but the reported unit of measure was invalid, or that the reported quantity was negligible (less than 0.01).

‡ See Pesticide Products by Name and EPA Registration Number for the names of the products for a given EPA Registration Number. Product information is also available from the Pesticide Sales and Use Reporting web site (URL = <http://pmep.cce.cornell.edu/psur>).

Figure 6

Relative Use (Gallons) of Reported Top Ten Pesticide Products  
Applied by Certified Commercial Applicators during 2010\*

EPA Registration Number‡	Volume Quantity (gallons)**	Percentage of All Products	Active Ingredients
59074-20001	484,217.58	18.030%	◇ Sodium Hypochlorite
9359-2	375,108.08	13.967%	◇ Sodium Hypochlorite
100-1152	98,368.46	3.663%	◇ Atrazine ◇ Metolachlor ◇ Mesotrione
5905-368	94,846.71	3.532%	◇ Aliphatic Petroleum Solvent
9613-20001	72,830.95	2.712%	◇ Sodium Hypochlorite
279-3206	65,513.15	2.439%	◇ Bifenthrin
499-304	39,123.21	1.457%	◇ Cyfluthrin
862-11	35,081.96	1.306%	◇ Aliphatic Petroleum Solvent
1706-179	34,761.50	1.294%	◇ Sodium Bromide ◇ Sodium Hypochlorite
75506-11	31,844.00	1.186%	◇ Copper Carbonate, Basic
<b>Top 10 Products - Total Quantity (gallons) Used:</b>	<b>1,563,191.02</b>		
<b>All Products - Total Quantity (gallons) Used:</b>	<b>2,685,659.65</b>		
<b>Top 10 Products as a Percentage of Total Quantity (gallons):</b>		<b>58.21%</b>	

\* Excluding Illegible, Invalid, Irregular, and Unreported Categories.

\*\* Product quantities may be initially reported in weight-based or volume-based units of measurement. The total quantity for the product is the sum of the weight and volume totals. If no quantity is specified for a product, this indicates that the product was applied, but the reported unit of measure was invalid, or that the reported quantity was negligible (less than 0.01).

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## Figure 7

### Relative Amount (Pounds) of Reported Top Ten Restricted and General Use Agricultural Pesticide Products Sold by Commercial Permit Holders to Certified Private Applicators during 2010\*

EPA Registration Number‡	Weight Quantity (pounds)**	Percentage of All Products	Active Ingredients
70506-185	317,635.56	12.148%	◇ Mancozeb
66222-58-19713	237,105.00	9.0687%	◇ Captan
352-704	100,135.00	3.830%	◇ Mancozeb
61282-49	98,750.00	3.777%	◇ Zinc Phosphide (Zn3P2)
100-1075	93,573.00	3.579%	◇ Telfluthrin
66222-58-66330	92,903.75	3.553%	◇ Captan
6325-13	85,753.00	3.280%	◇ Sulfur
70506-187	82,040.00	3.138%	◇ Sulfur
7173-242	78,636.38	3.007%	◇ Chlorophacinone
70506-201	68,670.00	2.626%	◇ Basic Copper Sulfate
<b>Top 10 Products - Total Quantity (pounds) Sold:</b>	<b>1,255,201.69</b>		
<b>All Products - Total Quantity (pounds) Sold:</b>	<b>2,614,686.74</b>		
<b>Top 10 Products as a Percentage of Total Quantity (pounds):</b>		<b>48.01%</b>	

\* Excluding Illegible, Invalid, Irregular, and Unreported Categories.

\*\* Product quantities may be initially reported in weight-based or volume-based units of measurement. The total quantity for the product is the sum of the weight and volume totals. If no quantity is specified for a product, this indicates that the product was applied, but the reported unit of measure was invalid, or that the reported quantity was negligible (less than 0.01).

‡ See Pesticide Products by Name and EPA Registration Number for the names of the products for a given EPA Registration Number. Product information is also available from the Pesticide Sales and Use Reporting web site (URL = <http://pmep.cce.cornell.edu/psur>).

## Figure 8

### Relative Amount (Gallons) of Reported Top Ten Restricted and General Use Agricultural Pesticide Products Sold by Commercial Permit Holders to Certified Private Applicators during 2010\*

EPA Registration Number‡	Volume Quantity (gallons)**	Percentage of All Products	Active Ingredients
100-1152	72,509.03	9.259%	◇ Atrazine ◇ Metolachlor ◇ Mesotrione
34704-890	41,593.49	5.311%	◇ Glyphosate-Isopropylammonium
100-1169	31,779.14	4.058%	◇ Glyphosate-Isopropylammonium
241-418	22,856.00	2.919%	◇ Pendimethalin
100-1282	22,494.70	2.872%	◇ Metolachlor ◇ Glyphosate ◇ Mesotrione
34704-881	20,316.76	2.594%	◇ Chlorothalonil
4787-23	20,196.75	2.579%	◇ Glyphosate-Isopropylammonium
524-549	18,582.23	2.373%	◇ Glycine, N-(Phosphonomethyl)-Potassium Salt
1381-192	15,887.75	2.029%	◇ Glyphosate-Isopropylammonium
100-1182	15,884.50	2.028%	◇ Glycine, N-(Phosphonomethyl)-Potassium Salt
<b>Top 10 Products - Total Quantity (gallons) Sold:</b>	<b>472,107.81</b>		
<b>All Products - Total Quantity (gallons) Sold:</b>	<b>783,130.56</b>		
<b>Top 10 Products as a Percentage of Total Quantity (gallons):</b>		<b>60.28%</b>	

\* Excluding Illegible, Invalid, Irregular, and Unreported Categories.

\*\* Product quantities may be initially reported in weight-based or volume-based units of measurement. The total quantity for the product is the sum of the weight and volume totals. If no quantity is specified for a product, this indicates that the product was applied, but the reported unit of measure was invalid, or that the reported quantity was negligible (less than 0.01).

‡ See Pesticide Products by Name and EPA Registration Number for the names of the products for a given EPA Registration Number. Product information is also available from the Pesticide Sales and Use Reporting web site (URL = <http://pmep.cce.cornell.edu/psur>).