



Division of Materials Management

**FINAL ANNUAL REPORT
FOR
NEW YORK STATE
PESTICIDE SALES AND
APPLICATIONS
2008**

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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 2008 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 2008, totaling over 374 million keystrokes of data. The total amount of pesticides reported as applied by commercial applicators in 2008 was 2,485,590 gallons and 24,799,403 pounds. This compares to 3,169,372 gallons and 22,952,854 pounds in 2007.

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 to review information regarding data quality limitations.

For the 2008 report year, the total number of applicators, technicians and permittees reporting was:

16,775 Commercial Applicators and Technicians
313 Commercial Permittees (Sales)

These figures indicate 92 percent of the 18,180 certified applicators and technicians, and 94 percent of the 337 commercial permittees reported for 2008. 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 2008 increased by 5.3%, compared with 2007. These submissions contained data for 10,278 applicators/technicians and 173 commercial permit holders, compared to 9,758 applicators/technicians and 162 commercial permit holders in 2007. The total number of 2008 records was 5,054,442 compared to 4,720,441 records in 2007, a 7.1% 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 supercede 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 2008. An Order on Consent was sent to approximately 1,421 certified commercial pesticide applicators and technicians and commercial permit holders who did not report for the year 2008. 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 13,793 registered products in New York State. Of these, approximately 6,173 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 2008 as required by ECL §33-1205.1 and reported using the Applicator/Technician Annual Report Form 44-15-26 was:

- 2,485,590 Gallons
- 24,799,403 Pounds

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

- Lesco Merit Plus Turf Fertilizer (EPA Registration No. 432-1349-10404) *
- Andersons Fertilizer with Barricade Herbicide (EPA Registration No. 9198-123) *
- Lesco Weed and Feed (EPA Registration No. 228-281-10404) *

*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:

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

Total amount of pesticides sold to private applicators for agricultural use in New York State in 2008 as required by ECL §33-1205.2 and reported using the Annual Report for Pesticide Sales to Certified Private Applicators Form 44-15-27 was:

- 888,474 Gallons
- 5,295,101 Pounds

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

- Captan 80 WDG (EPA Registration No: 66222-58-51036)\
- Penncozeb 75 DF Fungicide (EPA Registration No. 4581-370-82695)
- Signature Dimension 0.10 Plus Fertilizer (EPA Registration No. 62719-486-34704)

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

- Lumax Selective Herbicide (EPA Registration No. 100-1152)
- Chloronil 720/ Bravo Weather Stik Agricultural Fungicide (EPA Registration No: 50534-188-100)

- Rascal Plus/ Agrisolutions Cornerstone Plus (EPA Registration No: 1381-192)

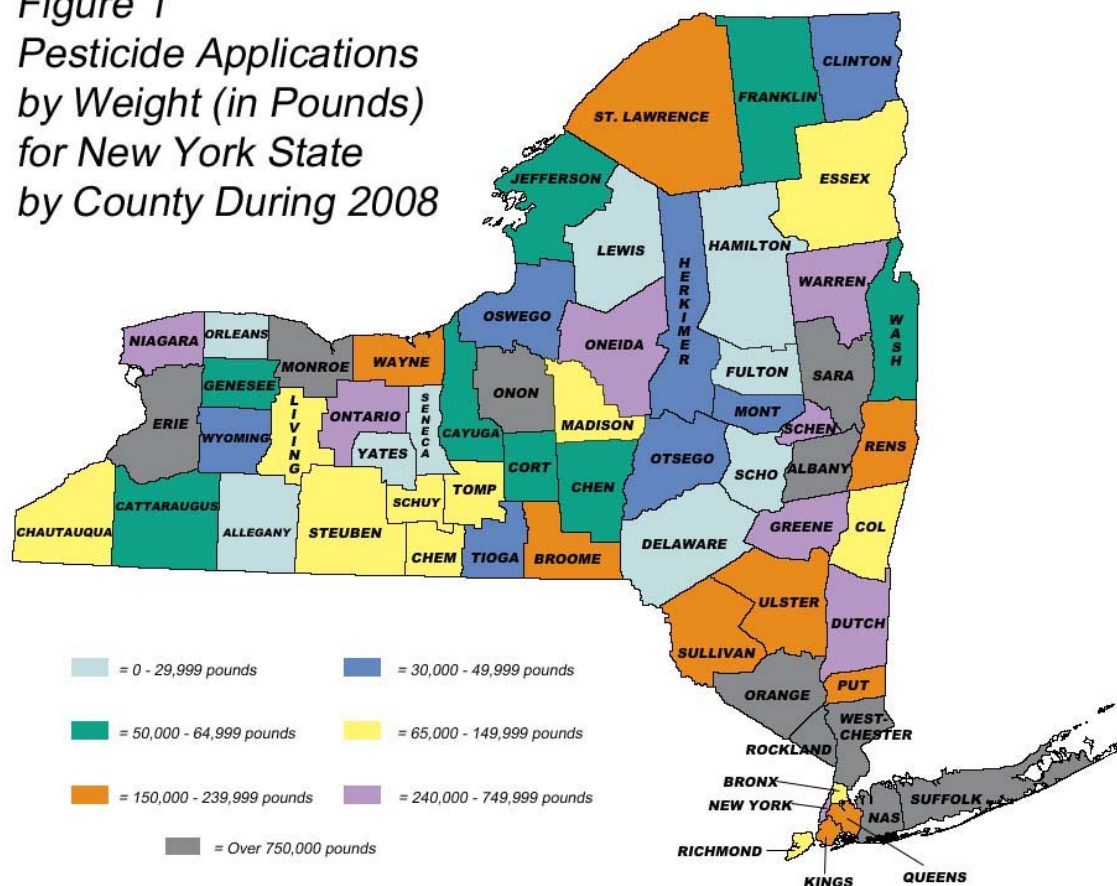
Total amount of restricted use pesticides sold to distributors for resale to commercial and private applicators in New York State in 2008 as required by ECL §33-1207 and reported using the Annual Report for Restricted Pesticide Sales Form 44-15-25 was:

- 625,164 Gallons
- 11,805,287 Pounds

Total amount of restricted use pesticides sold to commercial and private applicators for end use in New York State in 2008 as required by ECL §33-1207 and reported using the Annual Report for Restricted Pesticide Sales Form 44-15-25 was:

- 202,352 Gallons
- 5,916,927 Pounds

Figure 1
Pesticide Applications
by Weight (in Pounds)
for New York State
by County During 2008



Pesticide Applications by Weight (in Pounds) for New York State by County During 2008

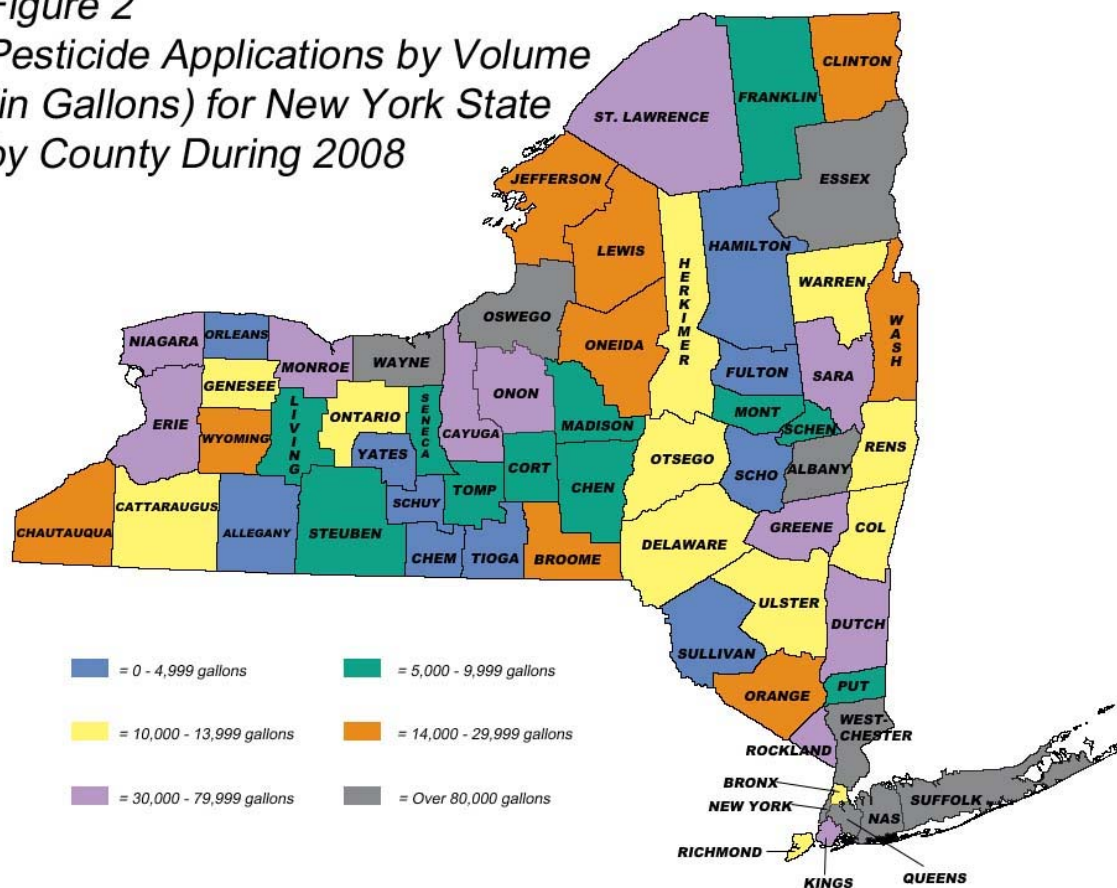
County	Amount*
Albany	916,878
Allegany	18,850
Bronx	131,570
Broome	168,388
Cattaraugus	61,438
Cayuga	52,209
Chautauqua	101,766
Chemung	86,930
Chenango	55,130
Clinton	48,535
Columbia	68,121
Cortland	58,439
Delaware	17,148

County	Amount*
Dutchess	618,884
Erie	1,936,771
Essex	137,250
Franklin	50,692
Fulton	29,592
Genesee	52,713
Greene	537,153
Hamilton	16,288
Herkimer	45,123
Jefferson	56,117
Kings	174,184
Lewis	23,109
Livingston	96,139
Madison	78,133
Monroe	2,394,004
Montgomery	47,823
Nassau	1,841,065
New York	555,070
Niagara	271,482
Oneida	332,327
Onondaga	771,777
Ontario	240,877
Orange	766,766
Orleans	19,460
Oswego	38,819
Otsego	31,026
Putnam	223,778
Queens	202,934
Rensselaer	155,697
Richmond	106,513
Rockland	1,052,414
St. Lawrence	226,303
Saratoga	1,009,106
Schenectady	374,093
Schoharie	4,889
Schuyler	94,365
Seneca	16,216

County	Amount*
Steuben	71,367
Suffolk	4,603,615
Sullivan	215,742
Tioga	41,257
Tompkins	88,919
Ulster	225,707
Warren	270,303
Washington	61,177
Wayne	165,406
Westchester	2,524,628
Wyoming	31,248
Yates	10,426

*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 2008



Pesticide Applications by Volume (in Gallons) for New York State by County During 2008

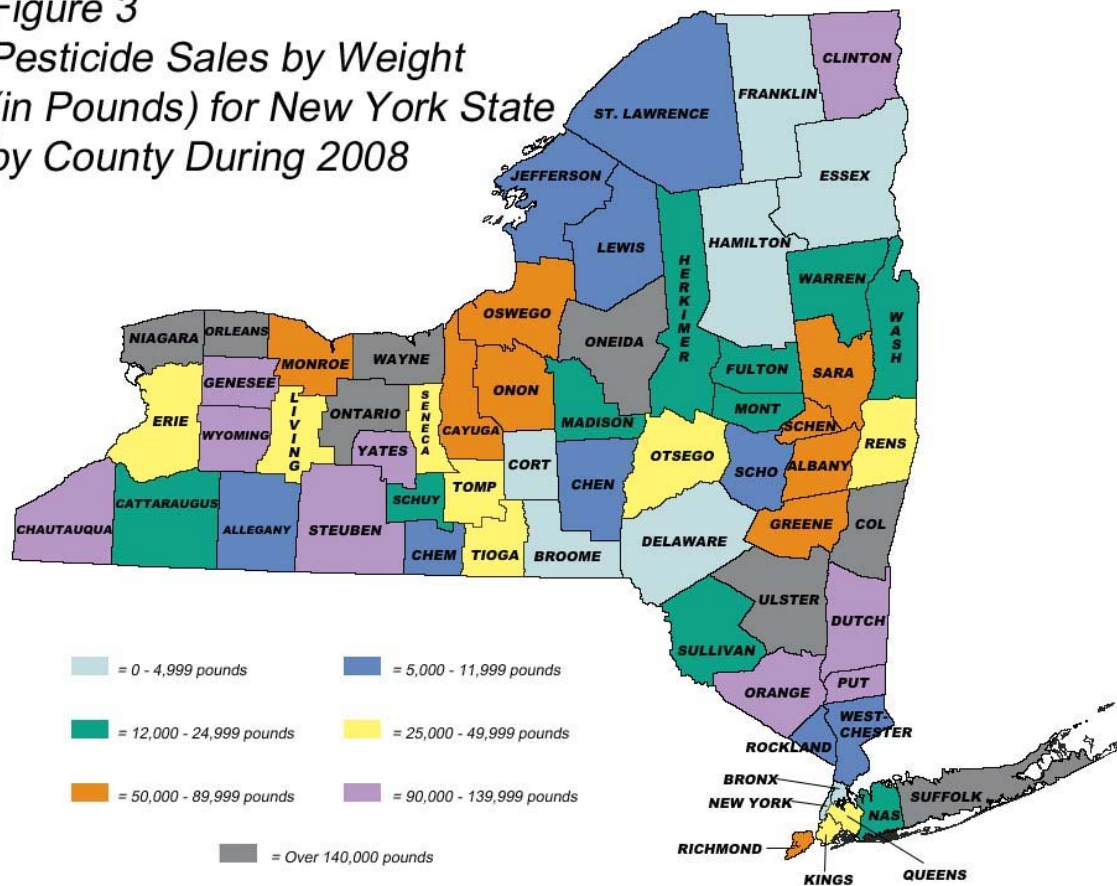
County	Amount*
Albany	116,837
Allegany	4,919
Bronx	11,305
Broome	16,958
Cattaraugus	11,776
Cayuga	50,484
Chautauqua	28,155
Chemung	3,522
Chenango	8,476
Clinton	20,701
Columbia	13,313
Cortland	7,748

County	Amount*
Delaware	10,151
Dutchess	40,077
Erie	42,342
Essex	254,616
Franklin	9,388
Fulton	1,678
Genesee	11,030
Greene	45,354
Hamilton	349
Herkimer	13,450
Jefferson	29,963
Kings	37,924
Lewis	19,247
Livingston	8,915
Madison	9,433
Monroe	50,743
Montgomery	6,851
Nassau	145,780
New York	123,287
Niagara	36,695
Oneida	14,701
Onondaga	79,362
Ontario	13,949
Orange	20,853
Orleans	4,332
Oswego	143,219
Otsego	10,697
Putnam	9,609
Queens	100,389
Rensselaer	12,410
Richmond	11,359
Rockland	33,219
St. Lawrence	32,274
Saratoga	44,546
Schenectady	8,093
Schoharie	3,338
Schuyler	1,547

County	Amount*
Seneca	7,675
Steuben	7,163
Suffolk	215,085
Sullivan	3,877
Tioga	3,209
Tompkins	6,095
Ulster	10,187
Warren	11,995
Washington	17,825
Wayne	80,844
Westchester	358,488
Wyoming	21,952
Yates	1,883

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

Figure 3
Pesticide Sales by Weight
(in Pounds) for New York State
by County During 2008



Pesticide Sales by Weight (in Pounds) for New York State by County During 2008

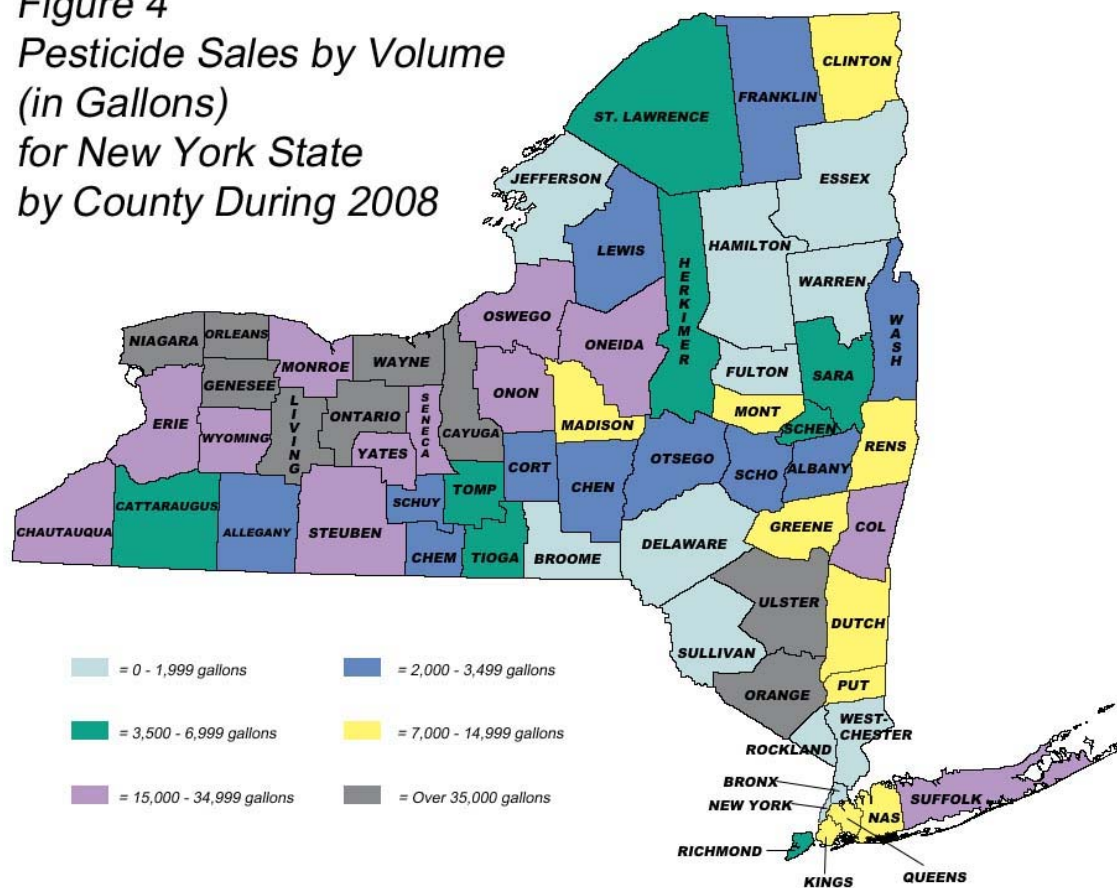
County	Amount*
Albany	58,053
Allegany	5,899
Bronx	0
Broome	2,553
Cattaraugus	12,446
Cayuga	61,698
Chautauqua	137,385
Chemung	6,733
Chenango	10,387
Clinton	129,867
Columbia	177,603
Cortland	4,602

County	Amount*
Delaware	4,454
Dutchess	91,514
Erie	49,409
Essex	2,575
Franklin	3,522
Fulton	13,571
Genesee	131,461
Greene	55,374
Hamilton	
Herkimer	12,385
Jefferson	5,630
Kings	33,450
Lewis	5,103
Livingston	41,098
Madison	18,820
Monroe	70,496
Montgomery	15,712
Nassau	21,590
New York	50
Niagara	172,143
Oneida	188,234
Onondaga	60,921
Ontario	140,343
Orange	134,471
Orleans	257,914
Oswego	77,731
Otsego	28,642
Putnam	105,581
Queens	36,289
Rensselaer	42,353
Richmond	54,435
Rockland	7,629
St. Lawrence	8,183
Saratoga	74,884
Schenectady	78,390
Schoharie	7,350
Schuyler	15,368

County	Amount*
Seneca	32,203
Steuben	112,958
Suffolk	670,102
Sullivan	20,607
Tioga	29,942
Tompkins	42,615
Ulster	409,057
Warren	16,078
Washington	13,019
Wayne	1,059,049
Westchester	11,596
Wyoming	98,642
Yates	97,618

*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 2008



Pesticide Sales by Volume (in Gallons) for New York State by County During 2008

County	Amount*
Albany	3,206
Allegany	2,903
Bronx	1
Broome	430
Cattaraugus	5,012
Cayuga	48,244
Chautauqua	27,774
Chemung	2,969
Chenango	2,872
Clinton	7,709
Columbia	16,911
Cortland	2,678
Delaware	592

County	Amount*
Dutchess	7,251
Erie	21,260
Essex	306
Franklin	3,008
Fulton	1,638
Genesee	61,405
Greene	9,825
Hamilton	
Herkimer	3,841
Jefferson	1,853
Kings	12,171
Lewis	3,451
Livingston	41,781
Madison	9,392
Monroe	21,201
Montgomery	12,182
Nassau	7,608
New York	179
Niagara	35,929
Oneida	16,223
Onondaga	18,276
Ontario	41,769
Orange	42,591
Orleans	50,746
Oswego	30,749
Otsego	2,618
Putnam	10,241
Queens	8,277
Rensselaer	13,397
Richmond	5,040
Rockland	547
St. Lawrence	5,251
Saratoga	4,521
Schenectady	3,729
Schoharie	3,107
Schuyler	3,242
Seneca	16,900

County	Amount*
Steuben	31,210
Suffolk	27,140
Sullivan	246
Tioga	5,214
Tompkins	6,663
Ulster	42,658
Warren	298
Washington	3,442
Wayne	69,451
Westchester	1,890
Wyoming	30,203
Yates	16,550

*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 (in Pounds) of the Reported Top Ten Pesticide Products Applied by Certified Commercial Applicators - 2008*

EPA Registration Number‡	Weight Quantity (pounds)**	Percentage of All Products	Active Ingredients
10404-82	1,967,200.88	8.837%	PENDIMETHALIN
432-1349- 10404	1,878,552.30	8.438%	IMIDACLOPRID
9198-123	1,645,835.64	7.393%	TOLUENE-2,4-DIAMINE, ALPHA,ALPHA,ALPHA-TRIFLUORO-3,5- DINITRO-N4,N4-DIPROPYL-
228-281- 10404	1,265,109.39	5.683%	<ul style="list-style-type: none"> • DIMETHYLAMINE 2-(2-METHYL-4- CHLOROPHENOXY)PROPIONATE • DIMETHYLAMINE 2-(2,4- DICHLOROPHENOXY)PROPIONATE • ACETIC ACID, (2,4- DICHLOROPHENOXY)-, COMPD. WITH N-METHYLMETHANAMINE (1:1)
10404-85	1,207,055.18	5.422%	DITHIOPYR
279-3216- 10404	746,697.46	3.354%	BIFENTHRIN
9198-173	700,517.76	3.147%	PENDIMETHALIN
279-3168	555,734.49	2.496%	BIFENTHRIN
3125-474- 10404	508,955.23	2.286%	IMIDACLOPRID
8378-39	383,098.25	1.721%	TOLUENE-2,4-DIAMINE, ALPHA,ALPHA,ALPHA-TRIFLUORO-3,5- DINITRO-N4,N4-DIPROPYL-
Top 10 Products - Total Quantity (pounds) Used:	13,388,975.36		
All Products - Total Quantity (pounds) Used:	22,261,956.13		

EPA Registration Number†	Weight Quantity (pounds)**	Percentage of All Products	Active Ingredients
Top 10 Products as a Percentage of Total Quantity (pounds):		60.14%	

* 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](#).

Figure 6

Relative Use (in Gallons) of the Reported Top Ten Pesticide Products Applied by Certified Commercial Applicators During 2008*

EPA Registration Number‡	Volume Quantity (gallons)**	Percentage of All Products	Active Ingredients
9359-2	416,039.72	13.351%	SODIUM HYPOCHLORITE
59074-20001	191,787.27	6.154%	SODIUM HYPOCHLORITE
5905-368	152,610.52	4.897%	ALIPHATIC PETROLEUM HYDROCARBONS
7552008-4	131,313.00	4.214%	<ul style="list-style-type: none"> • 1H-1,2,4-TRIAZOLE-1-ETHANOL, .ALPHA.-(2-(4- CHLOROPHENYL)ETHYL)- .ALPHA.-(1,1-DIMETHYLETHYL)-, (+-), • BORIC ACID • COPPER CARBONATE
69526-5	118,726.57	3.810%	ALIPHATIC PETROLEUM HYDROCARBONS
100-1152	87,256.05	2.800%	<ul style="list-style-type: none"> • MESOTRIONE • ATRAZINE • S-METOLACHLOR
9613-20001	72,240.36	2.318%	SODIUM HYPOCHLORITE
52483-1	50,886.00	1.633%	SODIUM HYPOCHLORITE
19713-123	45,397.07	1.457%	ALIPHATIC PETROLEUM HYDROCARBONS
73049-46	41,280.00	1.325%	BACTUR
Top 10 Products - Total Quantity (gallons) Used:	1,744,674.66		
All Products - Total Quantity (gallons) Used:	3,116,212.22		
Top 10 Products as a Percentage of Total Quantity (gallons):		55.99%	

* 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](#).

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 2008***

EPA Registration Number[‡]	Weight Quantity (pounds)^{**}	Percentage of All Products	Active Ingredients
66222-58-51036	310,722.50	5.868%	CAPTAN
4581-370-82695	254,732.00	4.811%	MANCOZEB
62719-486-34704	240,900.00	4.549%	DITHIOPYR
62719-402	240,307.00	4.538%	MANCOZEB
432-1349-34704	210,800.00	3.981%	IMIDACLOPRID
4581-370	209,637.00	3.959%	MANCOZEB
100-1075	206,171.15	3.893%	TEFLUTHRIN
66222-58-19713	193,980.00	3.663%	CAPTAN
7969-105-34704	156,206.10	2.950%	METIRAM
51036-166	156,006.00	2.946%	CAPTAN
Top 10 Products - Total Quantity (pounds) Sold:	2,085,447.29		
All Products - Total Quantity (pounds) Sold:	5,295,101.20		
Top 10 Products as a Percentage of Total Quantity (pounds):		41.160%	

* 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 2008***

EPA Registration Number[‡]	Volume Quantity (gallons)^{**}	Percentage of All Products	Active Ingredients
100-1152	97,034.51	10.921%	<ul style="list-style-type: none"> • MESOTRIONE • ATRAZINE • S-METOLACHLOR
50534-188-100	24,151.57	2.718%	CHLOROTHALONIL
1381-192	21,739.80	2.447%	GLYPHOSATE- ISOPROPYLAMMONIUM
524-549	21,596.24	2.431%	GLYPHOSATE
524-454	21,396.50	2.408%	GLYPHOSATE
100-1282	19,711.75	2.219%	<ul style="list-style-type: none"> • S-METOLACHLOR • GLYPHOSATE • MESOTRIONE
19713-123	18,740.50	2.109%	ALIPHATIC PETROLEUM HYDROCARBONS
100-1182	18,429.00	2.074%	GLYPHOSATE
34704-890	18,269.45	2.056%	GLYPHOSATE
34704-805	15,455.00	1.739%	MINERAL OIL – INCLUDES PARAFFIN OIL FROM 063503
Top 10 Products - Total Quantity (gallons) Sold:	276,524.32		
All Products - Total Quantity (gallons) Sold:	888,474.95		
Top 10 Products as a Percentage of Total Quantity (gallons):		31.12%	

* 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>).