

New York State Department of Environmental Conservation



Division of Materials Management

**FINAL ANNUAL REPORT
FOR
NEW YORK STATE
PESTICIDE SALES AND
APPLICATIONS
2007**

TABLE OF CONTENTS

EXECUTIVE SUMMARY1

List of Figures:

Figure 1: Pesticide Applications by Weight (in Pounds) for New York State by County During 2007.....5

Figure 2: Pesticide Applications by Volume (in Gallons) for New York State by County During 2007.....8

Figure 3: Pesticide Sales by Weight (in Pounds) for New York State by County During 2007.....11

Figure 4: Pesticide Sales by Volume (in Gallons) for New York State by County During 2007.....14

Figure 5: Relative Use (in Pounds) of the Reported Top Ten Pesticide Products Applied by Certified Commercial Applicators - 2007.....17

Figure 6: Relative Use (in Gallons) of the Reported Top Ten Pesticide Products Applied by Certified Commercial Applicators - 2007.....19

Figure 7: Relative Amount (in Pounds) of Reported Top Ten Restricted and General Use Agricultural Pesticide Products Sold by Commercial Permit Holders to Certified Private Applicators - 2007.....21

Figure 8: Relative Amount (in Gallons) of Reported Top Ten Restricted and General Use Agricultural Pesticide Products Sold by Commercial Permit Holders to Certified Private Applicators - 2007.....22

Executive Summary

The New York State Department of Environmental Conservation (Department), in conjunction with Cornell University, presents this report on the final 2007 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 6.5 million "records" of applications and sales reported for 2007, totaling over 478 million keystrokes of data. The total amount of pesticides reported as applied by commercial applicators in 2007 was 3,169,372 gallons and 22,952,854 pounds. This compares to 3,116,212 gallons and 22,261,956 pounds in 2006.

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 2007 report year, the total number of applicators, technicians and permittees reporting was:

16,865 Commercial Applicators and Technicians
300 Commercial Permittees (Sales)

These figures indicate 93 percent of the 18,080 certified applicators and technicians, and 96 percent of the 313 commercial permittees reported for 2007. 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 2007 increased by 10.8%, compared with 2006. These submissions contained data for 9,758 applicators/technicians and 162 commercial permit holders, compared to 8,793 applicators/technicians and 155 commercial permit holders in 2006. The total number of 2007 records was 4,720,441 compared to 3,865,774 records in 2006, a 22.1% 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 2007. An Order on Consent was sent to approximately 1,228 certified commercial pesticide applicators and technicians and commercial permit holders who did not report for the year 2007. 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 2007 as required by ECL §33-1205.1 and reported using the Applicator/Technician Annual Report Form 44-15-26 was:

- 3,169,372 Gallons
- 22,952,854 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 Pre-M Plus Fertilizer Insecticide (EPA Registration No. 10404-82) *

*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)
- Command 3 ME Microencapsulated Herbicide (EPA Registration No. 279-3150)
- Superchlor Disinfectant (EPA Registration No. 59074-20001)

Total amount of pesticides sold to private applicators for agricultural use in New York State in 2007 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:

- 808,097 Gallons
- 5,587,013 Pounds

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

- Penncozeb 75 DF Fungicide (EPA Registration No. 4581-370)
- Force 3G Insecticide (EPA Registration No. 100-1075)
- Signature Dimension 0.10 Plus Fertilizer (EPA Registration No. 62719-486-65783)

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

- Lumax Selective Herbicide (EPA Registration No. 100-1152)
- Credit 41 Non-Selective Herbicide (EPA Registration No. 71368-20)
- Drexel Damoil (EPA Registration No. 19713-123)

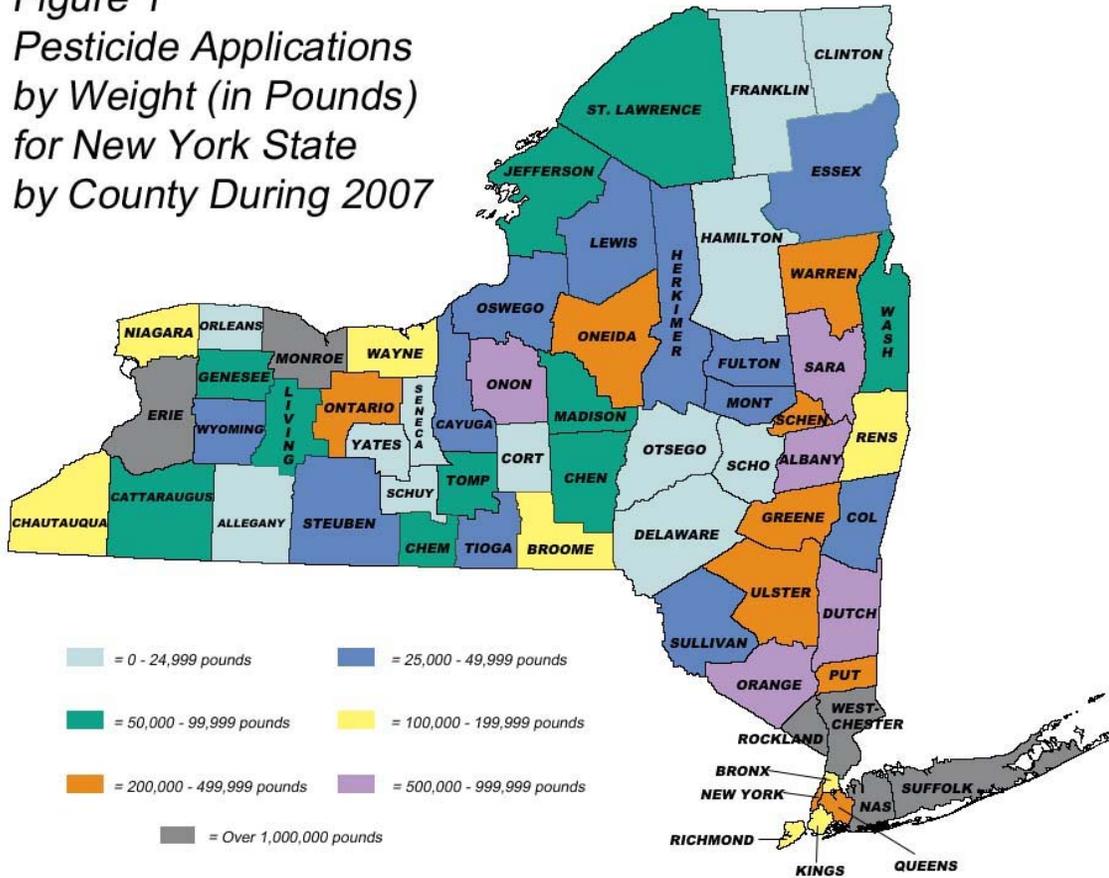
Total amount of restricted use pesticides sold to distributors for resale to commercial and private applicators in New York State in 2007 as required by ECL §33-1207 and reported using the Annual Report for Restricted Pesticide Sales Form 44-15-25 was:

- 829,232
- 5,230,255 Pounds

Total amount of restricted use pesticides sold to commercial and private applicators for end use in New York State in 2007 as required by ECL §33-1207 and reported using the Annual Report for Restricted Pesticide Sales Form 44-15-25 was:

- 186,216 Gallons
- 2,367,524 Pounds

Figure 1
Pesticide Applications
by Weight (in Pounds)
for New York State
by County During 2007



Pesticide Applications by Weight (in Pounds) for New York State by County During 2007

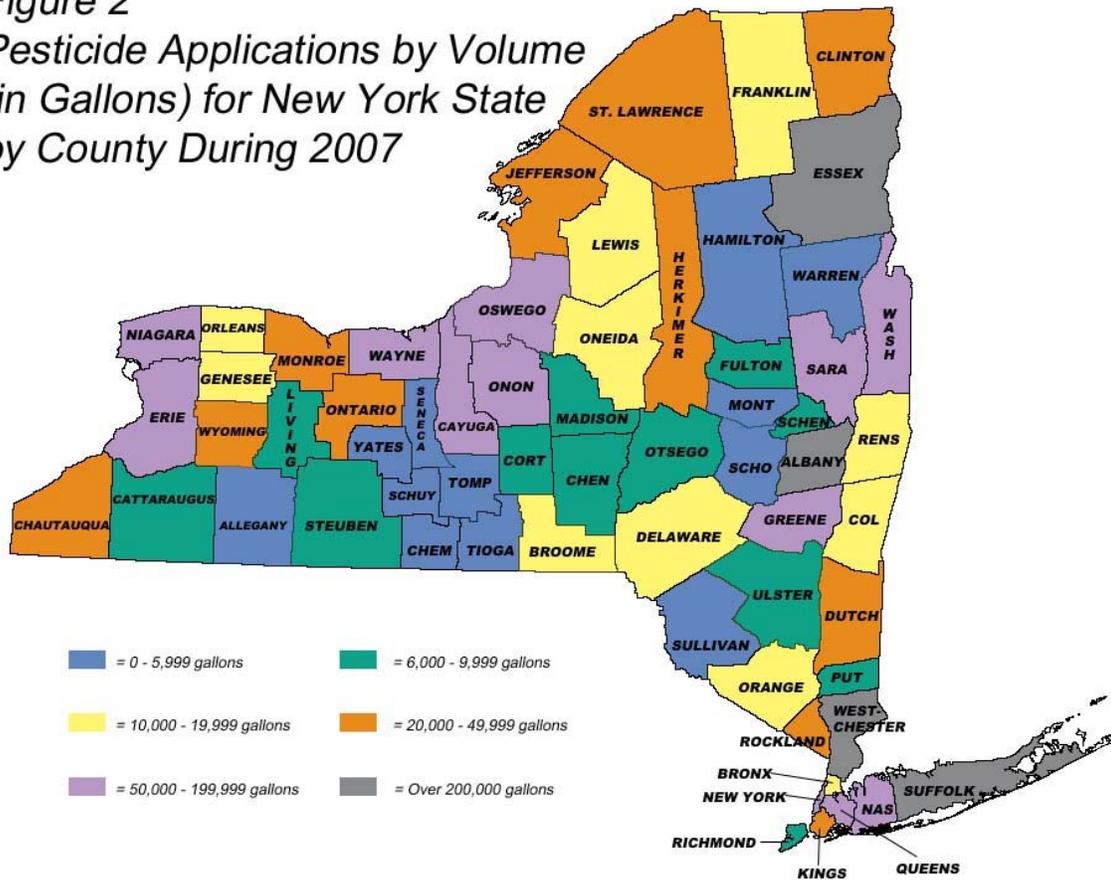
County	Amount*
Albany	877,119
Allegany	21,429
Bronx	128,706
Broome	148,715
Cattaraugus	66,706
Cayuga	45,527
Chautauque	165,547
Chemung	74,784
Chenango	60,825
Clinton	24,452
Columbia	49,316
Cortland	23,911
Delaware	9,893

County	Amount*
Dutchess	637,625
Erie	1,441,615
Essex	45,802
Franklin	21,734
Fulton	32,902
Genesee	52,793
Greene	377,948
Hamilton	16,368
Herkimer	36,285
Jefferson	69,421
Kings	176,440
Lewis	28,215
Livingston	65,343
Madison	67,138
Monroe	2,626,368
Montgomery	45,627
Nassau	1,878,435
New York	268,452
Niagara	191,464
Oneida	282,738
Onondaga	648,484
Ontario	247,461
Orange	717,804
Orleans	18,484
Oswego	40,238
Otsego	20,278
Putnam	278,507
Queens	205,378
Rensselaer	136,716
Richmond	109,969
Rockland	1,054,220
St. Lawrence	61,649
Saratoga	746,117
Schenectady	375,349
Schoharie	7,074
Schuyler	7,953
Seneca	17,767

County	Amount*
Steuben	44,592
Suffolk	4,729,333
Sullivan	33,364
Tioga	34,399
Tompkins	59,323
Ulster	278,461
Warren	208,522
Washington	54,481
Wayne	133,854
Westchester	2,500,129
Wyoming	41,166
Yates	8,781

*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 2007



Pesticide Applications by Volume (in Gallons) for New York State by County During 2007

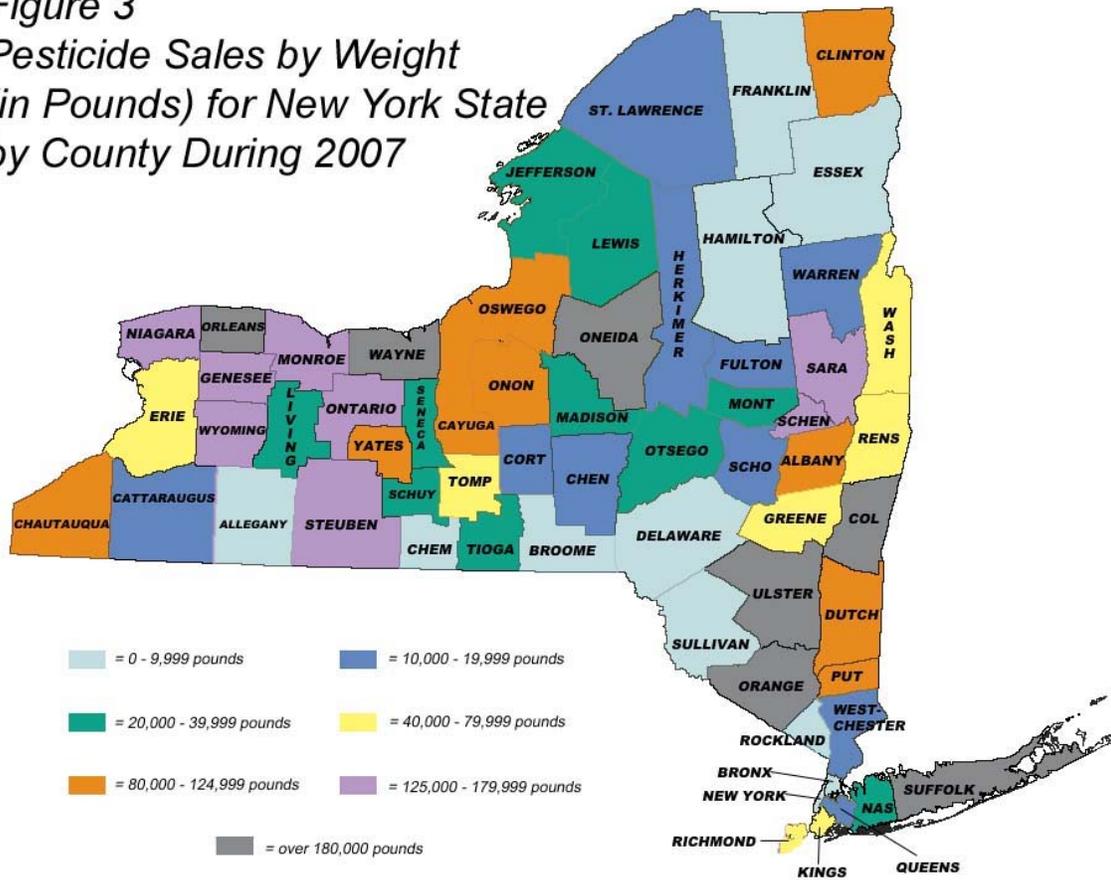
County	Amount*
Albany	360,395
Allegany	5,887
Bronx	17,552
Broome	10,083
Cattaraugus	9,381
Cayuga	60,555
Chautauqua	24,105
Chemung	2,591
Chenango	8,546
Clinton	26,890
Columbia	11,755

County	Amount*
Cortland	7,767
Delaware	13,072
Dutchess	30,726
Erie	110,576
Essex	298,488
Franklin	10,948
Fulton	8,778
Genesee	11,428
Greene	153,766
Hamilton	333
Herkimer	24,514
Jefferson	25,890
Kings	26,647
Lewis	18,207
Livingston	6,966
Madison	9,855
Monroe	42,510
Montgomery	5,160
Nassau	126,872
New York	127,156
Niagara	57,620
Oneida	13,155
Onondaga	77,811
Ontario	20,517
Orange	12,047
Orleans	15,558
Oswego	157,999
Otsego	7,604
Putnam	6,110
Queens	66,915
Rensselaer	13,999
Richmond	6,233
Rockland	35,777
St. Lawrence	21,052
Saratoga	106,245
Schenectady	7,731
Schoharie	3,115

County	Amount*
Schuyler	787
Seneca	5,933
Steuben	6,274
Suffolk	271,663
Sullivan	2,832
Tioga	2,916
Tompkins	5,732
Ulster	9,928
Warren	5,143
Washington	54,550
Wayne	69,380
Westchester	443,275
Wyoming	42,548
Yates	1,774

*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 2007



Pesticide Sales by Weight (in Pounds) for New York State by County During 2007

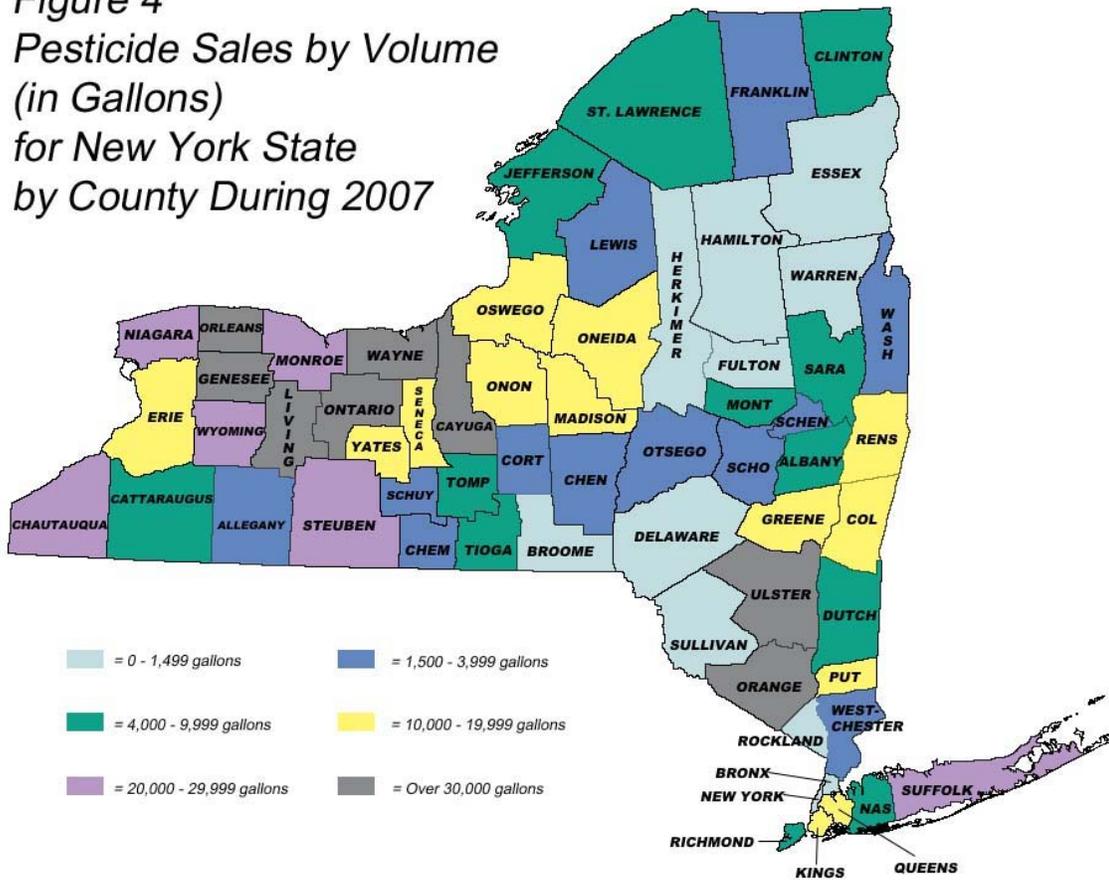
County	Amount*
Albany	84,980
Allegany	7,351
Bronx	0
Broome	4,510
Cattaraugus	12,817
Cayuga	111,638
Chautauqua	115,163
Chemung	3,704
Chenango	16,826
Clinton	114,839
Columbia	184,982
Cortland	12,533

County	Amount*
Delaware	3,212
Dutchess	99,197
Erie	50,627
Essex	1,129
Franklin	2,302
Fulton	13,605
Genesee	169,884
Greene	71,480
Hamilton	0
Herkimer	11,998
Jefferson	30,742
Kings	51,971
Lewis	29,862
Livingston	33,772
Madison	35,650
Monroe	178,709
Montgomery	36,213
Nassau	20,415
New York	0
Niagara	155,042
Oneida	226,756
Onondaga	114,169
Ontario	147,137
Orange	182,566
Orleans	363,985
Oswego	104,467
Otsego	34,347
Putnam	80,201
Queens	13,213
Rensselaer	46,450
Richmond	44,512
Rockland	7,129
St. Lawrence	11,114
Saratoga	140,780
Schenectady	136,034
Schoharie	16,892
Schuyler	24,317

County	Amount*
Seneca	27,410
Steuben	132,430
Suffolk	205,108
Sullivan	2,041
Tioga	31,592
Tompkins	54,399
Ulster	376,096
Warren	16,105
Washington	56,758
Wayne	1,064,311
Westchester	10,312
Wyoming	150,326
Yates	99,966

*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 2007



Pesticide Sales by Volume (in Gallons) for New York State by County During 2007

County	Amount*
Albany	4,143
Allegany	1,648
Bronx	2
Broome	1,206
Cattaraugus	4,541
Cayuga	34,280
Chautauqua	22,661
Chemung	3,327
Chenango	3,643
Clinton	7,627
Columbia	17,458
Cortland	1,949
Delaware	849

County	Amount*
Dutchess	4,651
Erie	19,546
Essex	444
Franklin	2,523
Fulton	1,430
Genesee	51,959
Greene	11,729
Hamilton	5
Herkimer	1,294
Jefferson	5,877
Kings	13,715
Lewis	3,400
Livingston	34,326
Madison	12,309
Monroe	24,270
Montgomery	8,359
Nassau	4,776
New York	45
Niagara	22,795
Oneida	19,884
Onondaga	19,163
Ontario	31,996
Orange	44,434
Orleans	58,758
Oswego	17,392
Otsego	2,501
Putnam	11,092
Queens	10,244
Rensselaer	11,728
Richmond	8,090
Rockland	1,097
St. Lawrence	8,639
Saratoga	4,040
Schenectady	1,721
Schoharie	2,355
Schuyler	3,037
Seneca	14,879

County	Amount*
Steuben	24,982
Suffolk	21,524
Sullivan	302
Tioga	4,124
Tompkins	6,675
Ulster	35,144
Warren	324
Washington	2,990
Wayne	73,777
Westchester	1,803
Wyoming	27,865
Yates	10,354

*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 - 2007*

EPA Registration Number‡	Weight Quantity (pounds)**	Percentage of All Products	Active Ingredients
432-1349-10404	1,952,774.80	8.508%	IMIDACLOPRID
9198-123	1,615,576.82	7.039%	PRODIAMINE
10404-82	1,361,502.79	5.932%	PENDIMETHALIN
10404-85	1,329,303.65	5.791%	DITHIOPYR
10404-100	854,269.74	3.722%	PENDIMETHALIN
8378-39-538	852,751.16	3.715%	PRODIAMINE
228-281-10404	844,464.60	3.679%	<ul style="list-style-type: none"> • MECOPROP, DIMETHYLAMINE SALT • DIMETHYLAMINE 2-(2,4-DICHLOROPHENOXY)PROPIONATE • DIMETHYLAMINE 2,4-DICHLOROPHENOXYACETATE
279-3216-10404	727,957.39	3.172%	BIFENTHRIN
10404-86	397,280.58	1.731%	DITHIOPYR
432-1349-538	380,147.61	1.656%	IMIDACLOPRID
Top 10 Products - Total Quantity (pounds) Used:	12,004,958.34		
All Products - Total Quantity (pounds) Used:	22,952,854.04		
Top 10 Products as a Percentage of Total Quantity (pounds):		52.30%	

* 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 2007*

EPA Registration Number‡	Volume Quantity (gallons)**	Percentage of All Products	Active Ingredients
9359-2	437,268.94	13.797%	SODIUM HYPOCHLORITE
279-3150	253,306.48	7.992%	CLOMAZONE
59074-20001	170,516.83	5.380%	SODIUM HYPOCHLORITE
75506-4	148,606.00	4.689%	<ul style="list-style-type: none"> • TEBUCONAZOLE • BORIC ACID • COPPER CARBONATE, BASIC
5905-368	119,083.45	3.757%	ALIPHATIC PETROLEUM HYDROCARBONS
100-1152	117,136.49	3.696%	<ul style="list-style-type: none"> • MESOTRIONE • ATRAZINE • METOLACHLOR
10404-66	94,543.47	2.983%	ALIPHATIC PETROLEUM SOLVENT
73049-46	66,494.94	2.098%	BACILLUS THURINGIENSIS SUBSP. KURSTAK
9613-20001	57,828.25	1.825%	SODIUM HYPOCHLORITE
10404-43	47,245.80	1.491%	<ul style="list-style-type: none"> • DIMETHYLAMINE (R)-2-(2-METHYL-4-CHLOROPHENOXY)PROPIONATE • DICAMBA, DIMETHYLAMINE SALT • DIMETHYLAMINE 2,4-DICHLOROPHENOXYACETATE
Top 10 Products - Total Quantity (gallons) Used:	2,138,007.23		
All Products - Total Quantity (gallons) Used:	3,169,372.32		

Top 10 Products as a Percentage of Total Quantity (gallons):		67.46%	
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* 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 (in Pounds) of Reported Top Ten Restricted and General Use Agricultural Pesticide Products Sold by Commercial Permit Holders to Certified Private Applicators During 2007*

EPA Registration Number‡	Weight Quantity (pounds)**	Percentage of All Products	Active Ingredients
100-1075	338,219.90	6.238%	TEFLUTHRIN
4581-370	334,483.00	6.169%	MANCOZEB
62719-486-65783	222,115.00	4.097%	DITHIOPYR
62719-34	205,911.00	3.798%	CHLORPYRIFOS
432-1349-65783	200,900.00	3.705%	IMIDACLOPRID
51036-166	166,850.00	3.077%	CAPTAN
66222-58-51036	162,598.75	2.999%	CAPTAN
62719-402	155,572.00	2.869%	MANCOZEB
6325-13	153,390.00	2.829%	SULFUR
7969-105-34704	145,407.64	2.682%	METIRAM
Top 10 Products - Total Quantity (pounds) Sold:	2,085,447.29		
All Products - Total Quantity (pounds) Sold:	5,421,896.81		
Top 10 Products as a Percentage of Total Quantity (pounds):		38.46%	

* 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 8

Relative Amount (in Gallons) of Reported Top Ten Restricted and General Use Agricultural Pesticide Products Sold by Commercial Permit Holders to Certified Private Applicators During 2007*

EPA Registration Number‡	Volume Quantity (gallons)**	Percentage of All Products	Active Ingredients
100-1152	77,263.05	9.941%	<ul style="list-style-type: none"> • MESOTRIONE • ATRAZINE • S-METOLACHLOR
71368-20	28,926.89	3.722%	GLYPHOSATE-ISOPROPYLAMMONIUM
524-539	27,693.61	3.563%	GLYCINE, N-(PHOSPHONOMETHYL)-POTASSIUM SALT
1812-416	21,195.70	2.727%	MANCOZEB
69526-1	20,344.00	2.618%	MINERAL OIL - INCLUDES PARAFFIN OIL FROM 063503
19713-123	19,177.10	2.468%	ALIPHATIC PETROLEUM HYDROCARBONS
50534-188-100	18,740.50	2.411%	CHLOROTHALONIL
241-337	16,757.10	2.156%	PENDIMETHALIN
34704-868	14,243.06	1.833%	PENDIMETHALIN
524-344	13,950.98	1.795%	ALACHLOR
Top 10 Products - Total Quantity (gallons) Sold:	412,818.09		
All Products - Total Quantity (gallons) Sold:	777,184.15		
Top 10 Products as a Percentage of Total Quantity (gallons):		53.12%	

* 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](#).