



Pesticide Use by New York City Agencies in 2017

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EXECUTIVE SUMMARY

Local Law 54 of 2007 requires the New York City Department of Health and Mental Hygiene (DOHMH) to summarize pesticide use by City agencies annually. New York City agencies account for a small fraction of pesticides used in New York City. New York State receives pesticide use data from all commercial applicators. Comparing New York City agencies' use in 2013 (the last year for which New York State data has been processed), local government use accounts for an estimated 3% of the total volume of liquid pesticides, and 18% of the total pounds of solid pesticides applied within the five boroughs of New York City. In 2017, 36 municipal agencies reported their pesticide use to DOHMH. This report summarizes pesticides applied by or on behalf of agencies on city-owned or -leased property.

Key findings include:

- Pesticides were applied a total of 304,032 times by New York City agencies in 2017. Agencies used a total of 7,209 gallons of liquid and 142,735 pounds of solid pesticide products (Table 1).
- As in previous years, roaches were the most commonly targeted pests in 2017, with rats, mice, bed bugs and mosquitos making up the top 5 targets (by total number of applications in descending order) (Table 3).
- Most liquid pesticide products (42% by volume) used by City Agencies were fungicides, while most solid products (44% by weight) were insecticides (Table 1). Excluding DOHMH mosquito larviciding that was conducted to prevent spread of West Nile Virus and other mosquito-borne diseases, most solid pesticides products (58% by weight) were rodenticides.
- Insecticides
 - Insecticides were the most frequently applied type of pesticide, accounting for 71% of all applications (Table 1).
 - The volume of all liquid insecticides increased 31% in 2017, compared with 2016 (Figure 2). This increase was due to a change to liquid formulation for certain ant gel baits (Figure 6, Appendix 1), as well as an increased use of pyrethroids.
 - Liquid pyrethroid products targeting cockroaches increased 24% from 2016 to 2017, a smaller increase than 2016. In contrast, treatments targeting bedbugs decreased slightly (Figure 6).
 - The use of solid mosquito larvicide by weight dropped by 41% compared with 2016. This decrease was due to substantial rollback of preventive treatments by the DOHMH Vector Control Program to target container-breeding mosquito species that may carry the Zika virus. Based on extensive mosquito surveillance in 2016 and 2017, the Health Department does not expect local Zika transmission.

- Herbicides
 - Liquid herbicide product use continued to decline in 2017 (Figure 2). Volume declined 13%, mostly due to reduced use of glyphosate products (Figure 3).
 - The use of solid herbicide products in 2017 was similar to 2016, due to continued use of outdoor granular turf formulations, mainly on golf courses and large institutional lawns.
 - The Parks Department no longer applies pre-emergent herbicides near roadways and along walkways and perimeters of city parks.

- “Best Management Practices” (BMP)
 - BMP products (Appendix 3) include gel and bait insecticides with little potential for human exposure. They accounted for 33% of insecticide applications in 2017. BMP applications to treat cockroaches more than doubled, compared with 2016 (Figure 4).

- Rodenticides
 - Use of solid rodenticide products increased 33% by weight, compared with 2016. This increase is partly due to a 12% rise in applications by DOHMH associated with expansion of neighborhood rat ‘indexing’ and control (Figure 1).

Pesticide Use by New York City Agencies in 2017

I. BACKGROUND

When Local Law 37 was enacted on May 9, 2005, New York City became the largest municipality in the nation to regulate the use of pesticides on city-owned and -leased property. Local Law 37 established new requirements for pesticide use on property owned or leased by the City, including the prohibition of certain products, posting of warning notices prior to pesticide use, and the requirement that agencies report their pesticide use on annual basis. With the enactment of Local Law 37, prohibitions from use were phased in for certain pesticides used by agencies or their contractors on City-owned and -leased properties. By November 2005, EPA Toxicity Category 1 (signal word “danger”) was prohibited. By May 2006, use of pesticides classified by the EPA as of July 19, 2004 as possible, probable or known human carcinogens was prohibited. Finally, by November 2006, use of pesticides classified by the State of California’s Office of Environmental Health Hazard Assessment as of March 4, 2005 as developmental toxicants was prohibited.

Local Law 37 exempted from prohibition several uses and products that posed little or no risk of human exposure, including rodenticides placed in tamper-proof containers or applied directly into rat burrows or inaccessible areas, containerized insect baits, and certain other types of insecticides such as boric acid, silica, and diatomaceous earth. The New York City Department of Health and Mental Hygiene (DOHMH), under Local Law 37 authorization, further waived from prohibition the use of all insecticide gels containing the ingredients fipronil and hydramethylnon due to their effectiveness and low potential for human exposure. In addition, Local Law 37 empowered DOHMH to consider and grant requests for waivers from prohibition on a case-by-case basis. DOHMH maintains a webpage on Local Law 37 at <http://nyc.gov/health/ll37> that includes a list of all waivers granted to agencies.

In October 2007, New York City enacted Local Law 54, which requires City agencies to report their pesticide use to DOHMH, and DOHMH to issue a summary report to the City Council and the Mayor. This is the tenth annual summary report and fulfills these requirements. City agencies have made significant improvements since the enactment of Local Law 37 to the quality and delivery of pesticide use data. In 2006, only three agencies provided data in an electronic format that enabled summarization. In 2017, thirty-six agencies reported electronic data.

II. SOURCES OF PESTICIDE USE DATA

New York City agencies are required to report to DOHMH their pesticide use by February 1 for the preceding calendar year. This report summarizes data received by the DOHMH for pesticides applied during calendar year 2017.

Source data for each pesticide application includes the product name, Environmental Protection Agency (EPA) registration number, the quantity used (expressed as either weight or volume), the method of application, the target pest, and the date and location the product was

applied. DOHMH utilizes the EPA's pesticide information system to link these data - by registration number - to determine a product's pesticide type and class, toxicity score, and its active ingredients. In addition, DOHMH links these data to the EPA Office of Pesticide Programs' List of Chemicals Evaluated for Carcinogenic Potential and the State of California's List of Chemicals Known to the State to Cause Cancer or Reproductive Toxicity, both available for download at <http://nyc.gov/health/1137>.

III. METHODS AND LIMITATIONS

Data in a variety of electronic formats were imported into a single database, where they were checked for quality, accuracy and validity. Weight and volumetric units were standardized to pounds and gallons, respectively. Products sold in solid form will primarily be reported by weight and liquids primarily by volume. Each record of data was assigned an agency identifier corresponding to the source agency. Prior to analysis, DOHMH removed all apparent duplicate records from the dataset. Data were analyzed using SQL, Excel and Access. We analyzed data by pesticide type and chemical class, and report total numbers, pounds and gallons of applications for New York City, and by agency on whose behalf the pesticides were applied.

All reporting New York City agencies and their contractors provided data to DOHMH in electronic format. DOHMH launched and hosts an electronic reporting tool, the New York City Pesticide Use Reporting System (NYCPURS) that all agencies, contractors and licensed pest control applicators can register to use and allows for the importation of data maintained by other electronic systems.

Where DOHMH was able to evaluate the completeness of these records, it is reported by agency, below. It is still not possible to fully determine whether each agency was able to report each pesticide application. Many agencies depend upon contractors to maintain records of pesticides applied and may not be certain that all contractors have fully complied with Local Law 37 reporting requirements. There are some limitations in the data:

- Staff and contractor turnover has led to difficulty maintaining dependable and timely reporting from some agencies.
- Year-to-year variations in agency pesticide use can be due to a number of factors, including but not limited to changes in practice, budgets and the incidence in actual pest problems.

Despite the above mentioned limitations, the data being captured continue to improve over previous years as more agencies and their contractors are using NYCPURS:

- Reporting errors, especially in reporting the incorrect units, were further reduced in 2017 due to continued increased use of the NYCPURS system with input standardization and consistent formatting.

In 2017, 97% of records were either imported or directly entered into the NYCPURS system. We expect to see further improvements in the data over the next year as more agencies fully adopt electronic recordkeeping, migrating existing electronic or paper systems to the NYCPURS system developed by DOHMH for electronic recordkeeping. Additional information about NYCPURS is available at <http://nyc.gov/health/1137>.

IV. PESTICIDE USE FINDINGS

A. TYPES OF PESTICIDES USED BY AGENCIES

Four main types of pesticides were applied by agencies: rodenticides (products used to kill rodents); insecticides (to kill insects); herbicides (to kill plants); and fungicides (to kill molds and other fungi).

Rodenticides

Most rodenticides act as anticoagulants and all are acutely toxic if ingested in sufficient dosages. Common rodenticide active ingredients are bromodiolone, diphacinone, brodifacoum, zinc phosphide and warfarin. Some common rodenticide products used by agencies in 2017 were: Contrac All-Weather Blox®, Contrac Rodenticide®, Weatherblok Bait with Bitrex® and Difethialone Paste Place Packs®.

In 2017, a total of 52,146 pounds of rodenticides were applied by City agencies, accounting for 37% by weight of all pesticides applied, and 58% by weight when excluding mosquito larvicides (Table 1).

Insecticides

A total of 2,978 gallons and 62,734 pounds of insecticides were applied by New York City in 2017, accounting for 41% by volume, and 44% by weight of the total applications. Biological insecticides applied to target mosquito larvae account for 83% of insecticides by weight (Table 1). When those products are excluded, 10,485 pounds of insecticides by weight were applied, making up 12% of solid pesticides applied. Insecticides used by NYC agencies in 2017 fell largely into three classes of products: conventional pyrethrins and pyrethroids, organophosphates and carbamates, and “Best Management Practices” products, which either use active ingredients with very low toxicity or involve formulation or application methods that minimize potential exposure and environmental spread.

Pyrethrins, Pyrethroids, and Synergists

Pyrethrins and pyrethroids are less acutely toxic than the organophosphate and carbamate pesticides they have largely replaced. Accidental poisonings from professional applications are very rare, though personal use of aerosol and fogging product formulations have been associated with acute exposures, poisonings and fires. Some pyrethroids may be respiratory allergens for sensitized people, including asthmatics. Though these chemicals have lower acute toxicity, there is some emerging concern over the chronic neurotoxicity of pyrethrins, pyrethroids, and their synergists. EPA has classified pyrethrins, their synergists, and several pyrethroids as suspected human carcinogens. Pyrethrins and pyrethroids break down relatively quickly when used outdoors, but persist longer when applied indoors.

Common pyrethroid active ingredients are cypermethrin, cyfluthrin, cyhalothrin, esfenvalerate, and deltamethrin. Pyrethrin and pyrethroid products used by agencies in 2017

include Whitmere Optem ME PT 600®, Steri-Fab®, Demand CS Insecticide®, Temprid SC Insecticide®, Suspend SC Insecticide® and Tempo SC Insecticide®.

Together, pyrethrins and pyrethroids accounted in 2017 for 55% of total liquid insecticides applied by volume and 7% of solid insecticides by weight – 44% by weight when excluding mosquito larvicides. These products made up 64% of the total number of insecticide applications. There was a 14% increase in pyrethroids applied by volume in 2017, primarily due to increased applications by NYCHA targeting roaches.

Organophosphates and Carbamates

Organophosphate and carbamate insecticides both function by inhibiting the neurotransmitter cholinesterase. Until EPA banned their use for most indoor applications in 1999 and 2000, organophosphates were the most heavily used class of insecticides. EPA also allowed the registrations for several carbamates to lapse.

The main organophosphate active ingredients used in 2017 were outdoor applications of chlorpyrifos, acephate, and trichlorfon on certain golf courses, which are exempt from use prohibitions. The only carbamate active ingredient applied in 2017 was methomyl used in containerized baits. Organophosphate and carbamate products applied by agencies in 2017 include Orthene PCO Formula II®, Chlorpyrifos 4E AG®, Dylox 420 SL Turf and Ornamental Insecticide®, and Zoecon Flytek(TM) Fly Bait®.

Reports submitted by agencies showed that in 2017, the use of organophosphates and carbamates accounted for only 5% of total liquid insecticides applied by agencies by volume – a small increase from 2016 levels – and <1% of total solids by weight, 2% by weight excluding mosquito larvicides. These products remain a very small percentage of the insecticides used by city agencies, making up <1% of the total number of insecticide applications.

“Best Management Practices” Insecticides

Several highly effective insecticide products with little or no potential risk for human exposure have been introduced into the market. These products include biological pesticides for mosquito control, and gels and baits for cockroach and other insect control. These products are the preferred insecticides used by agencies as part of their integrated pest management program and are referred to as “Best Management Practices” Insecticides (BMP). A complete list of these products is listed in Appendix 3.

Common active ingredients for these products include boric acid, silica gel, diatomaceous earth, the bacteria *Bacillus sphaericus* and *Bacillus thuringiensis*, hydramethylnon, fipronil, avermectin, and indoxacarb. Some of the products used by agencies for this reporting year were Maxforce Roach Bait F.05®, Redzone Bait®, Vectomax FG®, VBC-60394 FG Biological Larvicide Fine Granule®, MGK Roach Bait 2822®, and DuPont Advion Cockroach Gel Bait®.

In 2017, 33% of the total insecticides applied by volume, and 91% by weight, were insecticidal dusts, gels and baits, or biological larvicides. Excluding mosquito larvicides, the totals equal 47% of solid insecticide products by weight. These products made up 33% of the total

number of insecticide applications, a 58% increase in the number of applications compared with 2016.

Herbicides

The herbicides used by New York City agencies in 2017 were used primarily for vegetation control in parks and for the maintenance of highways and street medians. The active ingredients most commonly used in 2017 were glyphosate, dinitroanilines, chlorophenoxyacetic acids and ureas. Herbicides were a major contributor of pesticide use by agencies.

A total of 1,006 gallons and 21,132 pounds were applied in 2017, accounting for 14% of total volume and 15% of total weight –when excluding mosquito larviciding, 23% of all pesticides reported by weight. (Table 1)

Glyphosate

The most heavily used liquid herbicides were glyphosates, best known as Roundup® products. Glyphosate is a broad-spectrum, non-selective systemic herbicide that can be used throughout the growing season. In early 2015, the International Agency for Research on Cancer (IARC), a branch of the World Health Organization (WHO), changed the classification for glyphosate to a “probable human carcinogen.” However, a risk assessment by the European Food Safety Authority (EFSA) determined that glyphosate is “unlikely to pose a carcinogenic hazard to humans.”¹ Glyphosate shows little acute toxicity, but there has been growing concern that chronic exposure may increase risk of certain cancers. There is also some evidence that heavy use of the chemical in warm climates with soil high in certain toxic metals could present significant risk in developing severe kidney damage in agricultural workers. Currently no regulatory determination has been made by the federal EPA or at the NY State level that would change the prohibition status of these herbicide products under Local Law 37. However, DOHMH encourages the pursuit of alternative weed control methods that would reduce the need for these herbicides. Glyphosate use had increased as agencies phased out the use of other herbicides prohibited under Local Law 37, but began to decline in 2013. In 2017, 36% of liquid herbicide use (by volume) contained glyphosate compared to over half the herbicide applications in 2016 (Figure 3).

Dinitroaniline

Dinitroaniline-based herbicides, which are often combined with fertilizers, are used early in the growing season as pre-emergents. They are of low acute toxicity to people, but several dinitroanilines are classified by EPA as suspected human carcinogens. Dinitroaniline herbicides break down slowly. Common dinitroaniline active ingredients are pendimethalin, trifluralin, benefin, benfluralin and prodiamine. Dinitroaniline products used by agencies in 2017 included Andersons Weed & Grass Preventer With 5% Trammel Herbicide® and Alligare Prodiamine 65 WG Herbicide®. In 2013, the Parks Department chose to no longer use pendimethalin-

1. ¹ European Food Safety Authority. Conclusion on the peer review of the pesticide risk assessment of the active substance glyphosate. *Efsa J* 2015;13:4302.

containing herbicides, after they had in previous years requested a waiver to use this herbicide around cobblestones and concrete surfaces of sidewalks or walkways in areas adjacent to roadways, such as park perimeters or “Greenstreets” or in areas adjacent to roadways with limited access from the public.

Chlorophenoxyacetic/Benzoic Acids

The chlorophenoxyacetic acid herbicides are a family of related chemicals that are often combined in products. EPA classifies one member of this class of pesticides - mecoprop-p – as a suspected carcinogen. Common chlorophenoxyacetic acid active ingredients are 2,4-D, MCPP, mecoprop-p, dicamba and MCPA. Common chlorophenoxyacetic acid products used by agencies in 2017 were Riverdale Vanquish Herbicide® and Lesco Three-Way Selective Herbicide®. In 2017, the only uses of these products were applications along city highways by the DOT and a small number of applications on the city’s golf courses and botanic gardens.

Ureas

Like dinitroaniline herbicides, urea herbicides are of low acute toxicity, but some may pose certain chronic risks. Classification as a possible human carcinogen varies within the group. Diuron, a urea herbicide among the twenty most heavily used herbicides reported by commercial applicators in the private market in the City in 2013 (most recent data available), is classified by the EPA as a likely human carcinogen. Sulfonylureas are of low acute toxicity and have been so classified. All urea herbicides are highly persistent. None of the ureas used by NYC agencies in 2017 is classified by the EPA as a human carcinogen. Common Urea active ingredients are Sulfometuron methyl, metsulfuron-methyl and Halosulfuron-methyl. Common urea products used by NYC agencies in 2017 were Dupont Oust Extra Herbicide®, Dupont Viewpoint Herbicide® and Nufarm Prosedge Selective Herbicide®. In 2017, the only uses of these products were applications along city highways by the DOT and a small number of applications on the city’s golf courses and botanic gardens.

Fungicides

Many of the commonly applied fungicides are classified by EPA as suspected carcinogens. The potential for exposure can exist throughout the growing season, because many of these fungicides are also persistent, with half-lives measured in months and years. Degradation does not necessarily reduce the hazard, because some fungicides also have highly toxic breakdown products. Fungicides were most commonly applied by NYC on golf courses, and these applications are exempt from Local Law 37 prohibitions.

The active ingredients of fungicides commonly used in NYC in 2017 were chlorothalonil, thiophanate-methyl, propiconazole, azoxystrobin, iprodione and triadimefon. Common fungicide products applied in 2017 include Daconil Action®, Heritage Fungicide®, Bayleton Flo Turf and Ornamental Fungicide® and Lesco Twosome Fungicide®.

Fungicides represented less than 1% of the total number of pesticide applications in 2017, but they made up 42% of total volume of liquid pesticides applied, 5% of total weight of solid products, and 7% of weight, after excluding mosquito larvicides (Table 1). Though the total volume of liquid fungicides reported has only increased slightly since 2012, they are now the most

heavily used type of pesticide reported by volume. Much of this increase could be due to a shift to a liquid formulation from a solid product (Figure 1 & 2).

B. SUMMARY OF CITYWIDE PESTICIDE USE

Pesticide use can be measured and compared in a number of ways. Throughout the remainder of this report, we describe frequency of applications and quantity applied. Quantities for liquid applications are measured as volume in gallons. Quantities for solid applications are measured as weight in pounds. Pesticides were applied a total of 304,032 times by New York City agencies in 2017, 28% more than in 2016, with large increases in the number of applications targeting roaches. The pesticides applied most frequently by New York City agencies were insecticides. Insecticides were the most heavily used solid products (44% by weight), and fungicides were the most heavily used liquid (42% by volume). In 2017, 83% of the insecticides reported by weight were bacterial or insect growth regulator products designed to kill or halt the development of mosquito larvae in stagnant waters away from human contact. Excluding these products used as part of mosquito-borne disease control programs, 12% of total solid pesticides by weight were insecticides and 58% were rodenticide. The majority of rodenticide applied by the City of New York is placed directly into rat burrows and poses little risk of exposure to the public. Table 1 summarizes these findings of applications by pesticide type.

Table 1. Total Applications Reported Applied by NYC Agencies in 2017, by Pesticide Type

Pesticide Type	Volume		Weight			Times Applied	
	Gallons	% of Total	Pounds	% of Total	% wo larvacide	Number	% of Total
Rodenticide	1.96	0.0%	52,146.02	36.5%	57.6%	84,730	Rodenticide
Insecticide	2,977.96	41.3%	62,734.44	44.0%	11.6%	215,285	Insecticide
Herbicide	1,006.09	14.0%	21,132.66	14.8%	23.4%	2,954	Herbicide
Fungicide	3,045.41	42.2%	6,721.78	4.7%	7.4%	984	Fungicide
Other	178.00	2.5%	0.26	0.0%	0.0%	79	Other
Totals	7,209.43		142,735.17			304,032	

Table 2 lists the ten most frequently used products used for each pesticide type on New York City owned or leased property in 2017. For each, we list the total volume, weight and number of applications, as well as the active ingredient(s), the EPA toxicity category, whether the product is considered a known, possible or suspect carcinogen by EPA, and whether the product is listed by the State of California as a reproductive or developmental hazard. For this and subsequent product tables, the toxicity category refers to the EPA’s assigned label warning to indicate the degree of acute toxicity from oral, dermal and inhalation exposures on a scale from 1 to 4. Toxicity Category 1 indicates pesticides considered highly toxic and whose label requires the signal word, “Danger”. Toxicity Category 2 products are considered moderately toxic and product labels carry the word “Warning”. Toxicity Category 3 products are considered to be slightly toxic, while Toxicity 4 products are considered relatively non-toxic. Both toxicity categories 3 and 4 carry the signal word “Caution.” A complete list of products used by New York City by pesticide class is included in Appendix 1.

Table 2. Ten Most Frequently Applied Pesticide Products by NYC Agencies in 2017 by Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.22	11,007.34	33636	Difethialone	3	NO	NO
12455-69	CONTRAC RODENTICIDE	0.00	18,198.34	19465	Bromadiolone	3	NO	NO
12455-90	FINAL RODENTICIDE	0.00	5,134.90	8655	Brodifacoum	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.10	5,757.75	6560	Bromadiolone	3	NO	NO
12455-133	CONTRAC WITH LUMITRACK	0.00	1,032.34	3292	Bromadiolone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.51	2,713.54	2953	Bromadiolone	3	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.05	1,806.68	2765	Bromadiolone	3	NO	NO
100-1055	WEATHERBLOK BAIT WITH BITREX	0.00	662.48	1612	Brodifacoum	3	NO	NO
12455-56	DITRAC TRACKING POWDER	0.00	1,911.06	1576	Diphacinone	2	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	2,412.24	1396	Bromadiolone	3	NO	NO
Insecticides								
432-763	SUSPEND SC	490.69	22.92	59,013	Deltamethrin	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	172.14	0.00	52,726	Cyfluthrin, beta; Imidacloprid	3	NO	NO
432-1257	MAXFORCE ROACH BAIT F.05	0.12	1,557.56	23,572	Fipronil	3	YES	NO
432-1460	MAXFORCE FC ROACH KILLER BAIT GEL F.05	0.00	545.15	15,536	Fipronil	3	YES	NO
432-1259	PRODUCT: RBF5	0.00	597.82	11,548	Fipronil	3	YES	NO
432-763	SUSPEND SC INSECTICIDE	78.59	0.00	8,085	Deltamethrin	3	NO	NO
499-304	WHITMIRE OPTEM ME PT 600	58.52	1.75	7,497	Cyfluthrin	3	NO	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	1.64	254.35	6,414	Indoxacarb	3	NO	NO
397-13	STERI-FAB	513.58	1,136.23	4,502	Phenothrin; Isopropyl alcohol; Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride; Didecyl dimethyl ammonium chloride	2	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
73049-429	VECTOMAX FG	0.00	36,128.99	3,643	Bacillus sphaericus; Bacillus thuringiensis, subsp. israelensis, strain AM 65-52	3	NO	NO
Herbicides								
524-579	ROUNDUP PROMAX	163.72	18.16	490	Glyphosate, potassium salt	3	NO	NO
62719-556	ACCORD XRT II	105.82	9.38	422	Glyphosate, dimethylammonium salt	3	NO	NO
228-397	RIVERDALE VANQUISH HERBICIDE	48.12	0.00	324	Dicamba, diglycolamine salt	3	NO	NO
432-1580	DUPONT VIEWPOINT HERBICIDE	0.05	20.50	306	Aminocyclopyrachlor; Imazapyr; Metsulfuron-methyl	3	NO	NO
432-1516	ESPLANADE 200 SC	4.27	0.00	290	Indaziflam	3	NO	NO
62719-527	GARLON 4 ULTRA	50.50	0.00	251	Triclopyr	2	NO	NO
62719-176	PATHFINDER II	87.09	0.00	245	Triclopyr, butoxyethyl ester	3	NO	NO
62719-324	GLYPRO	32.07	0.00	103	Glyphosate, isopropylamine salt	3	NO	NO
100-937	PRIMO MAXX	24.44	0.00	74	Trinexapac-ethyl	3	NO	NO
241-346	ARSENAL HERBICIDE	69.89	0.00	32	Imazapyr, isopropylamine salt	3	NO	NO
Fungicides								
100-1364	DACONIL ACTION	558.62	0.00	100	Acibenzolar-S-methyl; Chlorothalonil	2	YES	NO
71065-3	COMPANION LIQUID BIOLOGICAL FUNGICIDE	312.10	0.00	53	Bacillus subtilis GBO3	3	NO	NO
100-1093	HERITAGE FUNGICIDE	0.00	118.42	53	Azoxystrobin	3	NO	NO
432-942	BANOL TURF AND ORNAMENTAL FUNGICIDE	103.89	0.00	39	Propamocarb hydrochloride	3	NO	NO
53883-353	QUALI-PRO T-NEX	44.59	0.00	39	Trinexapac-ethyl	3	NO	NO
84059-3	REGALIA PTO BIOFUNGICIDE FOR USE ON TURF AND ORNAMENTALS	67.50	0.00	29	Reynoutria sachalinensis	3	NO	NO
70506-272	PEGASUS DFX	0.00	1,269.90	29	Chlorothalonil	1	YES	NO
50534-202	MANICURE ULTREX TURF & ORNAMENTAL	0.34	443.90	25	Chlorothalonil	1	YES	NO
432-890	ALIETTE WDG BRAND FUNGICIDE	0.00	846.34	24	Fosetyl-Al	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
70127-2	NOVOZYMES BIOFUNGICIDE GREEN RELEAF 710-140	101.00	0.00	22	Bacillus licheniformis SB3086; IBA	3	NO	NO
Other								
52483-1	HYPOCHLORITE SOLUTION	107.25	0.00	32	Sodium hypochlorite	1	NO	NO
60061-71	PETTIT MARINE PAINT PREMIUM SINGLE SEASON ABLATIVE	18.00	0.00	16	Copper oxide (ous)	2	NO	NO
14802-8	MICROBE LIFE ALGAWAY 5.4 ALGAECIDE FOR PONDS	2.50	0.00	10	Poly(oxyethylene) (dimethylimino) ethylene (dimethylimino) ethylene dichloride	3	NO	NO
63838-5	CHEM-AQUA 42171	13.25	0.00	9	Sodium bromide; Sodium hypochlorite	1	NO	NO
59807-4	HORMODIN 1	0.00	0.26	6	IBA	3	NO	NO
73049-15	PROGIBB 4% PLANT GROWTH REGULATOR SOLUTION	0.00	0.00	4	Gibberellins	2	NO	NO
58616-1	PCT 3026	36.00	0.00	1	Sodium bromide; Sodium hypochlorite	1	NO	NO
60061-134	PETTIT ULTIMA ECO ABLATIVE ANTIFOULING PAINT	1.00	0.00	1	1H-Pyrrole-3- carbonitrile,4- bromo-2-(4- chlorophenyl)-5- (trifluoromethyl)-; Zinc 2- pyridinethiol-1- oxide	2	NO	NO

C. CHANGES IN PESTICIDE USE

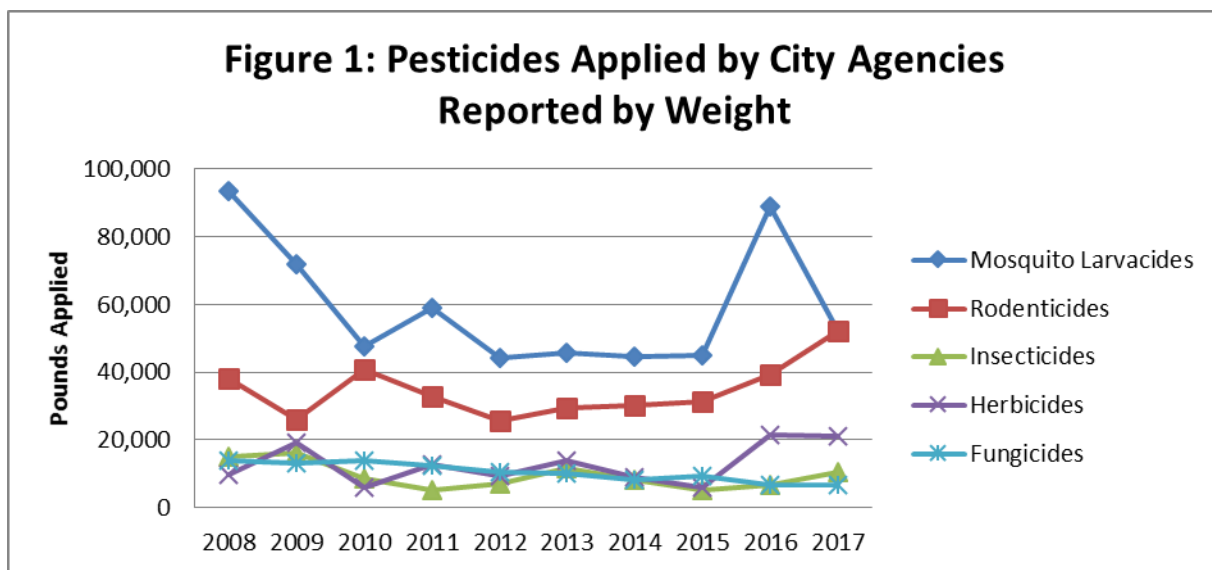
The level of completeness of city agency pesticide reporting has improved dramatically over the past ten years, making analysis of trends in pesticide use possible since 2008. A complete listing of application amounts by target pest is listed in Table 3.

Table 3: Complete listing of pesticide applications by New York City Agencies by Target Pest, 2017

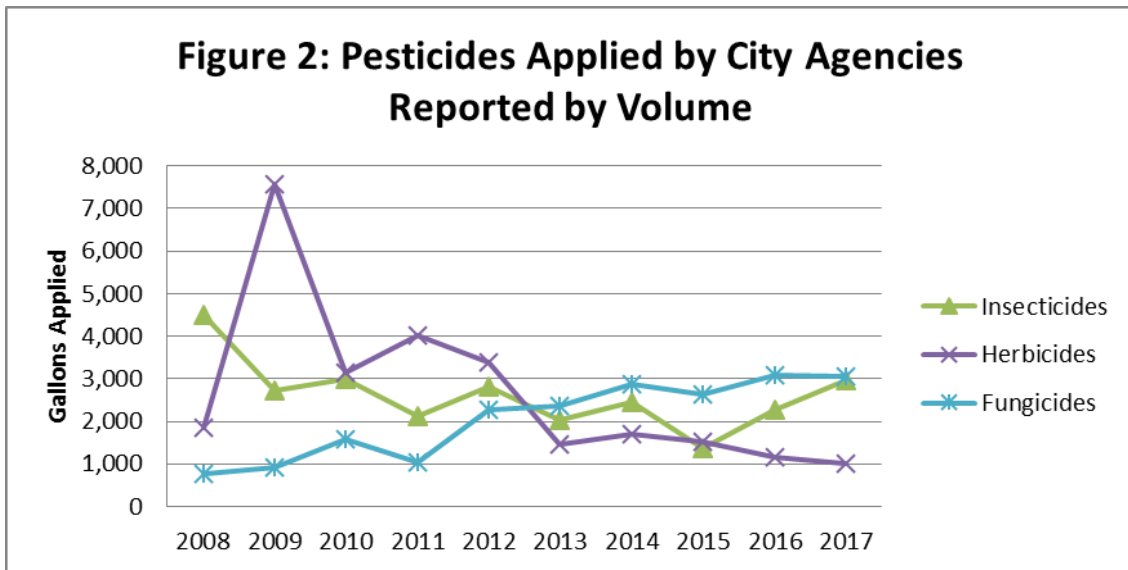
Target Pest	Volume in Gallons	Weight in Pounds	Total Applications	% of Total Applications
Roaches	1,281	4,032	190,842	63%
Rats	0	43,226	55,846	18%
Mice	15	8,852	28,575	9%
Bedbugs	501	773	11,758	4%
Mosquitoes	4	56,673	4,633	2%
Weeds, vines, or grasses	1,006	21,133	2,954	1%
Flying insects	392	418	2,463	1%
Ants	381	156	2,129	1%
Other Crawling Insects	189	403	2,008	1%
Other Pests	394	348	1,837	1%

Target Pest	Volume in Gallons	Weight in Pounds	Total Applications	% of Total Applications
Fungal Disease or Infestation	3,045	6,722	984	0%
Other Rodents	0	0.4	3	0%
Totals:	7,209	142,735	304,032	

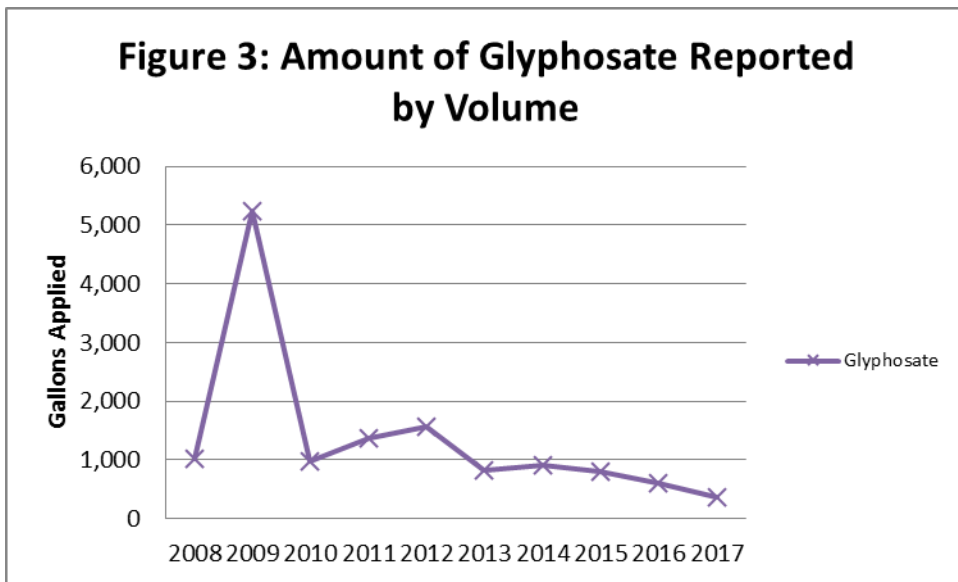
Figures 1 and 2 show trends from 2008 through 2017 in use of pesticides by city agencies by type of pesticide, with solid and liquid products reported by weight and volume, respectively. In Figure 1, DOHMH mosquito control program larvicides are charted separately from other insecticides because they represent a large proportion of city insecticide use, and because their year-to-year use varies more with weather than other insecticides. Use of solid rodenticide products showed a considerable increase (33% by weight) from 2016 to 2017, but there was an overall 13% decrease in use of all pesticides reported by weight. The decrease was mainly due to a 34% decline from levels reported in 2016 of solid insecticides, primarily due to a rollback of prophylactic treatments by DOHMH vector control to target container breeding mosquito that may carry the Zika virus. Based on extensive mosquito surveillance in 2016 and 2017, the Health Department does not expect local Zika transmission. The increased amount of solid herbicide applied in 2016 and 2017 is due to the use of outdoor granular turf formulations that include fertilizer, mainly on golf courses and large institutional lawns (Figure 1).



Rodenticides and mosquito larvacides are not included in Figure 2 as the products are almost exclusively solid formulations.



In 2017 overall, liquid herbicide use decreased 13% by volume (Figure 2) due to a 39% decrease in gallons of glyphosate applied (Figure 3). The high volume of herbicide (mostly glyphosate) used in 2009 was due in part to large discrete projects by the Parks Department to control invasive species in remote, often wooded, parkland.

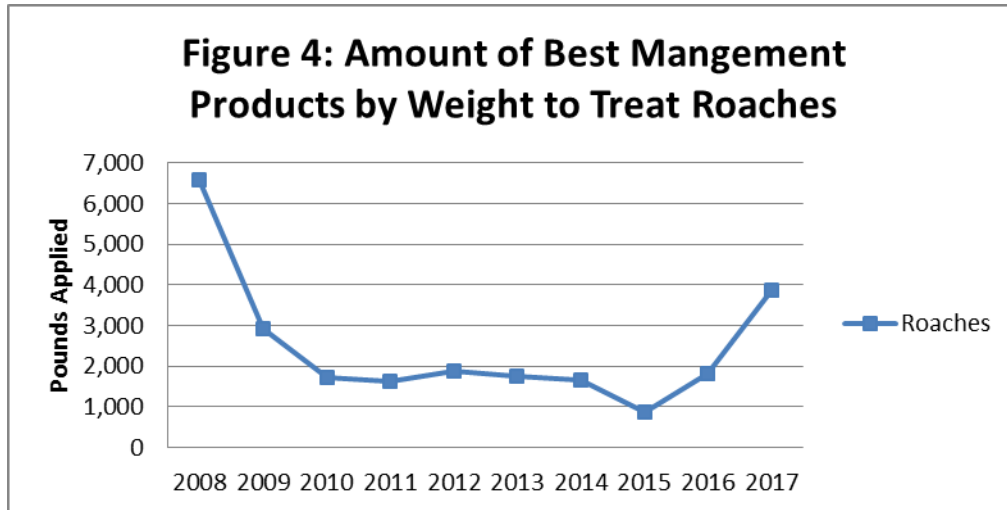


There was also a 31% increase in liquid insecticide use, reported by volume, driven by an increase at NYCHA of roach applications, further discussed below. Additionally, an ant gel bait in a liquid formulation is now commonly used (Appendix 1).

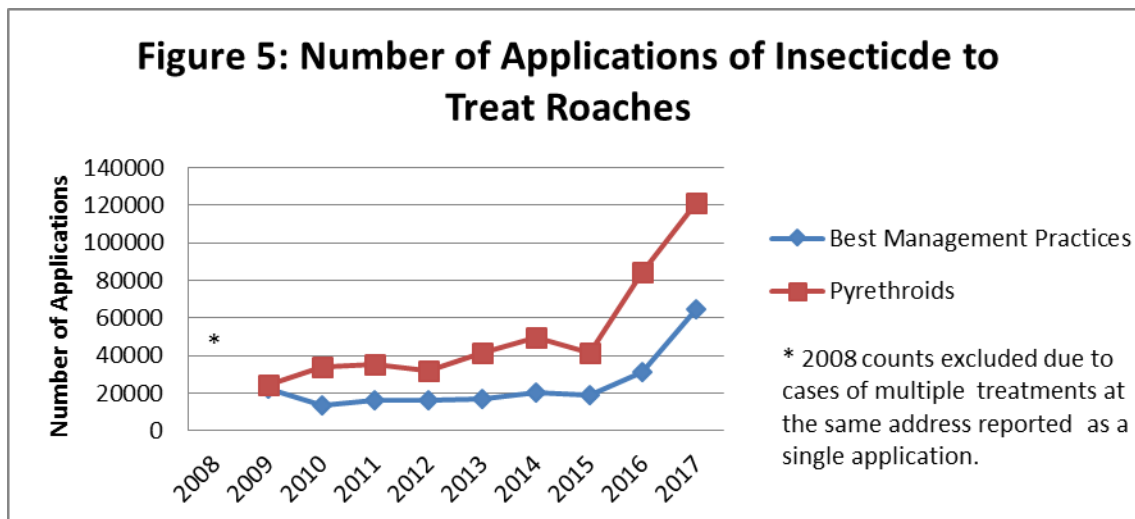
From 2008 to 2017, there was a 34% decrease in the volume of liquid insecticides used, with most of the change occurring between 2008 and 2009 (Figure 2). There had been a consistent decline in larvicide use until an increase in 2016 that declined to similar levels of previous years after the broader larvicide application plan in response to the threat of Zika virus in 2016 (Figure 1).

Use of spray formulations vs. Best Management Practices

After a large reduction in BMP products to combat roaches from 2008 to 2010, the reported use of these products had leveled off. However in 2017 there were more than double the amount used in 2016 targeting roaches (Figure 4).

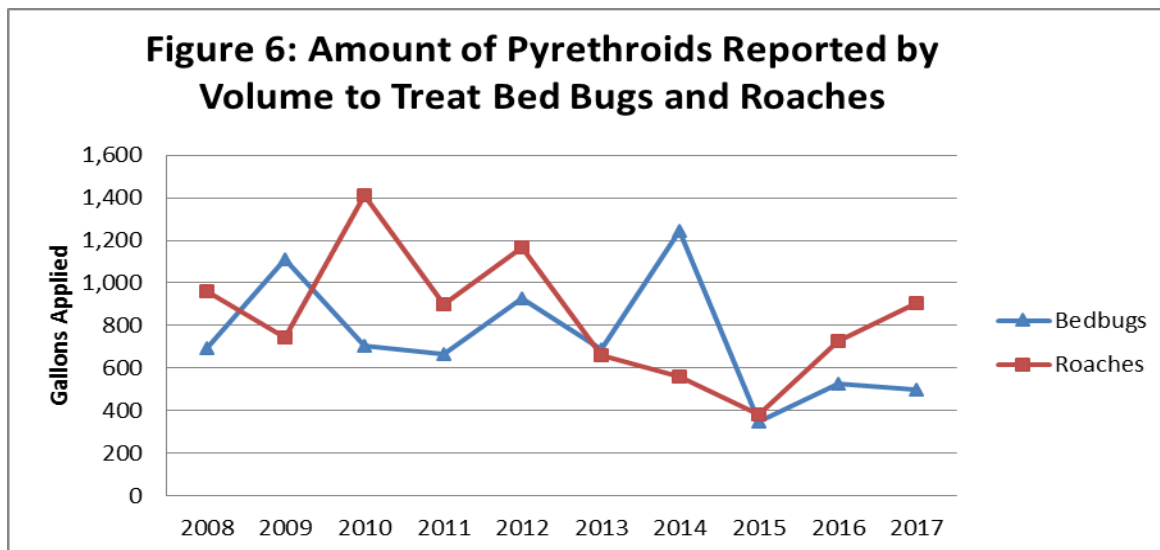


There was a 44% increase in the number of pyrethroid applications to treat roaches from 2016 to 2017, while the number of applications of BMP products also more than doubled (Figure 5). These increases in applications numbers for both pyrethroids and Best Management Products corresponded to higher application amounts by volume and weight, respectively (Figure 6 and Figure 4). In 2017, pyrethroid applications by NYCHA had a slightly smaller average amount of product used per application, compared with average amount used in 2016, suggesting a tendency to report application by individual residence rather than by building or floor of NYCHA residences. However, the overall use of both classes of insecticides was higher in 2017 than in 2016.



Bed Bugs vs. Roaches

Use of pyrethroid spray products targeting roaches increased 24% by volume, and number of applications increased by 44% from 2016 to 2017 (Figure 6 and Figure 5). There was a 5% decrease from 2016 to 2017 in gallons of pyrethroids used by city agencies to treat bed bugs (Figure 6). Citywide, the number of pyrethroid applications to treat bed bugs decreased 26% in 2017, mostly due to a decrease in the number of applications for bed bugs reported by NYCHA (data not shown). The total volume of use for control of bed bugs remains low compared with previous years, while use volume for cockroaches has climbed in the past 2 years to mid-level across all years.



Rodents

Rodenticide use went up with a 33% increase in 2017 by weight (Figure 1). There was also an increase of 12% in the number of rodenticide applications. This variability year to year is due in part to the varying frequency of neighborhood rat indexing and control activity by DOHMH.

Mosquitoes

Mosquito control measures include larviciding (killing larvae) and adulticiding (killing flying adults). The DOHMH Vector Control program applied 52,249 pounds of mosquito larvicide and 3,198 pounds of adulticide in 2017. This was a 41% decline in the larvicide reported by weight in 2016 (Figure 1), due to a rollback of practices to target a mosquito species that may carry Zika virus. Based on extensive mosquito surveillance in 2016 and 2017, the Health Department does not expect local Zika transmission. Nevertheless, the agency will continue to monitor mosquito populations across the five boroughs, especially the populations which commonly carry mosquito-borne illnesses such as the West Nile virus. The amount of adulticide applied by DOHMH has varied year-to-year, depending on weather and severity of

mosquitoes. Volume of liquid adulticide use decreased 2% in 2017, compared with 2016 (data not shown).

D. SUMMARY OF AGENCIES' PESTICIDE USE

For each reporting agency, we summarize below total pesticide use by pesticide type, followed by a listing of pesticide products used by reporting City agencies.

Administration for Children's Services

The New York City Administration for Children's Services (ACS) provides for the protection of New York City's children from abuse and neglect. Along with their community partners, Children's Services provides neighborhood-based services to help ensure children grow up in safe, permanent homes with strong families. The Department of Juvenile Justice (DJJ) was merged into this agency in December 2010. The agency contracts for pest management services. Table 4 summarizes pesticide use by pesticide type. Table 5 lists all pesticide products used by ACS in 2017, primarily at facilities previously under management of the DJJ.

Table 4: Types of Pesticides Used by ACS in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	17.2	60.7%	75	20.2%
Insecticide	0.0	0.0%	11.1	39.3%	296	79.8%
Totals	0.0		28.4		371	

Table 5: Pesticide Products Used by ACS in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	9.24	56	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	8.00	19	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	8.26	232	Indoxacarb	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.58	34	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	2.30	30	Boric acid	3	NO	NO

Aging, Department for the

The Department for the Aging (DFTA) promotes, administers and coordinates the development and provision of services for older New Yorkers to help them maintain their independence and participation in their communities. It contracts with non-profit senior service

providers to administer 76 different city-owned and city-leased sites, 33 of which engage in food preparation or storage. These facilities are privately operated and contract individually with private vendors for pest control to address typical structural urban pest issues, such as roaches, rodents, and flies. Pesticide use arranged by privately operated facilities by their subcontractors is not required to be reported and is not included in this report, which includes only pest management services contracted directly by DFTA. The agency reported that no pesticides were used during 2017.

Brooklyn Public Libraries

The Brooklyn Public Library (BPL) serves Brooklyn’s 2.5 million residents, offering thousands of public programs, millions of books and use of more than 850 free Internet-accessible computers at its 66 locations. Contractors are hired for pest management as needed and the major pest infestations are roaches and mice. Table 6 summarizes pesticide use by pesticide type. Table 7 lists all pesticide products used by BPL in 2017.

Table 6: Types of Pesticides Used by BPL in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	72.6	51.4%	411	30.5%
Insecticide	0.0	100.0%	68.6	48.6%	938	69.5%
Totals	0.0		141.2		1,349	

Table 7: Pesticide Products Used by BPL in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	71.98	405	Difethialone	3	NO	NO
7173-113	ROZOL TRACKING POWDER	0.00	0.63	6	Chlorophacinone	2	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	6.01	377	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	44.09	277	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	4.70	202	Indoxacarb	3	NO	NO
279-9554	CB INSECTICIDE WITH DELTAMETHRIN	0.00	9.44	26	Deltamethrin	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	0.01	0.00	22	Cyfluthrin, beta; Imidacloprid	3	NO	NO
432-763	SUSPEND SC	0.01	0.00	12	Deltamethrin	3	NO	NO
432-1373	TEMPO 1% PROFESSIONAL INSECTICIDE	0.00	1.69	10	Cyfluthrin	3	NO	NO
432-1455	BES 0026 FLY SPOT BAIT	0.00	0.08	4	Imidacloprid; (Z)-9-Tricosene	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
1021-1641	CONQUER RESIDUAL INSECTICIDE CONCENTRATE	0.00	0.00	2	Esfenvalerate	3	NO	NO
499-550	TC-323	0.00	2.50	2	Prallethrin	3	NO	NO
100-1485	DUPONT ADVION ANT BAIT ARENA	0.00	0.06	2	Indoxacarb	3	NO	NO
2724-351	ZOECON GENCOR 9% EMULSIFIABLE CONCENTRATE	0.00	0.00	1	(7S)-Hydroprene	3	NO	NO
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	0.03	1	Indoxacarb	3	NO	NO

Board of Elections

The Board of Elections is the administrative body that oversees elections through its staff at its main and five borough offices. The agency contracts for pest control through the city-wide contract administered by DCAS. Table 8 summarizes pesticide use by pesticide type. Table 9 lists all pesticide products used by BOE in 2017.

Table 8: Types of Pesticides Used by BOE in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	3.5	91.3%	11	34.4%
Insecticide	0.0	0.0%	0.3	8.7%	21	65.6%
Totals	0.0		3.8		32	

Table 9: Pesticide Products Used by BOE in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	0.66	7	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	2.81	4	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.30	20	Indoxacarb	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.03	1	Indoxacarb	3	NO	NO

Chief Medical Examiner

The Office of Chief Medical Examiner (OCME) is responsible for investigating deaths in unusual circumstances, approving requests for cremation, providing additional forensic services to support criminal investigations, and managing all functions of the City mortuary. The agency contracts for pest control through the city-wide contract administered by DCAS. Table 10 summarizes pesticide use by pesticide type. Table 11 lists all pesticide products used by OCME in 2017.

Table 10: Types of Pesticides Used by OCME in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	21.8	96.4%	29	38.2%
Insecticide	0.0	0.0%	0.8	3.6%	47	61.8%
Totals	0.0		22.6		76	

Table 11: Pesticide Products Used by OCME in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	21.44	28	Bromadiolone	3	NO	NO
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	0.33	1	Difethialone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.63	36	Indoxacarb	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.13	8	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	0.04	3	Boric acid	3	NO	NO

City University of New York

The City University of New York (CUNY) is the nation's largest urban public university and consists of 23 institutions. The University serves more than 260,000 degree-credit students and 273,000 adult, continuing and professional education students. Individual institutions contracts for pest control services through private vendors. The data reported is information received from 15 colleges, Baruch College, Borough of Manhattan Community College, Brooklyn College, Bronx Community College, City College, College of Technology, The Graduate Center, Hostos Community College, John Jay College, Kingsborough Community College, La Guardia Community College, Lehman College, Medgar Evers College, Queens Borough Community College, and York College. Table 12 summarizes pesticide use by pesticide type. Table 13 lists all pesticide products used by CUNY in 2017.

Table 12: Types of Pesticides Used by CUNY in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.9	1.8%	170.7	3.1%	602	38.0%
Insecticide	43.7	87.8%	77.6	1.4%	968	61.0%

Pesticide Use by NYC in 2017

Herbicide	5.2	10.4%	5320.0	95.5%	16	1.0%
Totals	49.8		5,568.3		1,586	

Table 13: Pesticide Products Used by CUNY in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	77.23	398	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	57.16	90	Bromadiolone	3	NO	NO
100-1055	WEATHERBLOK BAIT WITH BITREX	0.00	25.03	38	Brodifacoum	3	NO	NO
47629-17	PRESCRIPTION TREATMENT BRAND SOREXA PELLETT PLACE PACK	0.80	0.00	26	Difenacoum	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	2.25	18	Bromadiolone	3	NO	NO
82744-2	RATIMOR SOFT BAIT	0.00	3.55	13	Bromadiolone	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.00	2.75	8	Bromadiolone	3	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.05	0.22	3	Bromadiolone	3	NO	NO
56-42	BAIT BLOCK RODENTICIDE WITH PEANUT BUTTER FLAVORIZ	0.00	0.16	3	Diphacinone	3	NO	NO
12455-91	FINAL RODENTICIDE READY-TO-USE PLACE PAC	0.03	0.00	2	Brodifacoum	3	NO	NO
12455-80	ALL-WEATHER DI-BLOX	0.00	2.19	2	Diphacinone	3	NO	NO
87235-1	BRIGAND SB SOFT BAIT RODENTICIDE	0.00	0.22	1	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	5.30	282	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	21.11	154	Boric acid	3	NO	NO
1021-1828	MGK ROACH BAIT 2822	0.00	4.08	101	Avermectin	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	1.43	62	Indoxacarb	3	NO	NO
432-1363	TEMPO SC INSECTICIDE	0.00	0.00	47	Cyfluthrin, beta	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	0.04	0.00	42	Cyfluthrin, beta; Imidacloprid	3	NO	NO
279-3206	TALSTAR TC FLOWABLE TERMITICIDE/INSECTICIDE	0.11	0.00	27	Bifenthrin	3	YES	NO
73079-4	BORACTIN INSECTICIDE POWDER	0.00	13.94	25	Boric acid	3	NO	NO
5481-8973	ORTHENE PCO FORMULA II	20.75	0.00	23	Acephate	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
432-1262	MAXFORCE IBH10	0.68	0.00	23	Hydramethylnon	3	YES	YES
64405-8	NIBOR BORATE INSECTICIDE AND FUNGICIDE	9.00	3.06	20	Disodium octaborate tetrahydrate	3	NO	NO
432-1255	MAXFORCE GRANULAR INSECT BAIT	0.38	0.00	18	Hydramethylnon	3	YES	YES
432-763	SUSPEND SC	0.08	0.00	15	Deltamethrin	3	NO	NO
1021-1603	NYLAR 10EC	9.00	0.00	13	Pyriproxyfen	3	NO	NO
53883-276	DELTA 4.75% SC	0.10	0.00	13	Deltamethrin	3	NO	NO
1021-1424	PYROCIDE FOGGING CONCENTRATE 7338	0.00	15.81	13	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
100-1483	ADVION INSECT GRANULE	0.00	0.00	9	Indoxacarb	3	NO	NO
100-1066	DEMAND CS INSECTICIDE	0.16	0.00	8	Cyhalothrin, lambda	3	NO	NO
1677-43	STER-BAC	2.75	0.00	7	Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride	1	NO	NO
62577-12	ECOPCO ACU	0.09	0.00	6	Phenylethyl propionate	3	NO	NO
499-515	MOTHEREARTH GRANULAR SCATTER BAIT	0.14	0.00	5	Boric acid	3	NO	NO
432-1257	MAXFORCE ROACH BAIT F.05	0.12	0.10	5	Fipronil	3	YES	NO
1021-1177	PYROCIDE FOGGING CONCENTRATE 5628	0.00	6.25	5	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
499-444	WHITMIRE MICRO-GEN TC 164	0.03	0.00	4	Pyrethrins; Piperonyl butoxide	3	YES	NO
73079-14	IMIDACLOPRID GRANULAR BAIT	0.00	1.63	4	Imidacloprid	3	NO	NO
432-1260	MAXFORCE ANT BAIT F3	0.02	0.00	3	Fipronil	3	YES	NO
499-507	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT RESERVOIR	0.02	0.00	3	Dinotefuran	3	NO	NO
432-1256	MAXFORCE FC ANT BAIT STATIONS	0.01	0.02	3	Fipronil	3	YES	NO
73079-10	INVICT (TM) COCKROACH GEL	0.01	0.00	3	Imidacloprid	3	NO	NO
2724-469	ZOECON (S)-HYDROPRENE ROACH CONTROL STATION II	0.00	0.00	3	(7S)-Hydroprene	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
279-9554	CB INSECTICIDE WITH DELTAMETHRIN	0.00	1.04	3	Deltamethrin	3	NO	NO
279-3443	D-FOAM INSECTICIDE	0.06	0.00	2	Deltamethrin	3	NO	NO
432-1264	MAXFORCE FC ANT KILLER BAIT GEL	0.03	0.00	2	Fipronil	3	YES	NO
73079-2	INTICE GRANULAR BAIT	0.02	0.00	2	Boric acid	3	NO	NO
73079-9	INTICE SMART ANT GEL	0.00	0.07	2	Borax	3	NO	NO
499-492	PRESCRIPTION TREATMENT BRAND 388B ADVANCE ANT GEL BAIT	0.00	0.06	2	Borax	3	NO	NO
499-362	BOLT WASP & HORNET KILLER	0.13	0.00	1	D-trans Allethrin; Phenothrin	3	YES	NO
499-496	PRESCRIPTION TREATMENT BRAND ADVANCE 360A DUAL CHOICE ANT BAIT STATIONS	0.02	0.00	1	Avermectin	3	NO	NO
73079-2	HASTA LA VISTA, ANT!	0.01	0.00	1	Boric acid	3	NO	NO
47000-73	SSI-50 INSECTICIDE	0.00	3.00	1	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
499-370	PT 370 ASCEND FIRE ANT STOPPER BAIT	0.00	0.63	1	Avermectin	3	NO	NO
432-1304	TEMPO 10 WP INSECTICIDE	0.00	0.02	1	Cyfluthrin, beta	3	NO	NO
432-1506	MAXFORCE QUANTUM ANT BAIT	0.00	0.01	1	Imidacloprid	3	NO	NO
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	0.00	1	Indoxacarb	3	NO	NO
241-392	PHANTOM TERMITICIDE-INSECTICIDE	0.00	0.00	1	Chlorfenapyr	3	YES	NO
Herbicides								
524-579	ROUNDUP PROMAX	3.92	0.00	10	Glyphosate, potassium salt	3	NO	NO
538-317	0.08% MESO + FERTILIZER	0.00	5,160.00	4	Mesotrione	3	NO	NO
9198-237	THE ANDERSONS WEED & GRASS PREVENTER WITH 5% TRAMMEL HERBICIDE (DISPER	1.25	160.00	2	Trifluralin	3	YES	NO

Citywide Administrative Services, Department of

The Department of Citywide Administrative Services (DCAS) supports government recruitment, oversees surplus city-owned property and the commercial real estate portfolio for the City and provides supplies and equipment. Of the 14,000 city-owned lots, DCAS is directly

responsible for the management of approximately 2,400 of these properties. DCAS cleans and maintains 53 DCAS-managed buildings with 13,365,398 square feet of space throughout the city. These include City Hall, the four Borough Halls, the Manhattan and Brooklyn Municipal Buildings, and all state and municipal court buildings. DCAS manages the city-wide contract for pest management services which city agencies can buy into. This contract is effective from May 1, 2016 to April 30, 2017. Several agencies are housed in DCAS managed buildings and the report submitted reflects these applications. Table 14 summarizes pesticide use by pesticide type. Table 15 lists all pesticide products used by DCAS in 2017.

Table 14: Types of Pesticides Used by DCAS in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	185.6	89.1%	236	35.4%
Insecticide	0.0	0.0%	22.7	10.9%	430	64.6%
Totals	0.0		208.3		666	

Table 15: Pesticide Products Used by DCAS in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	43.46	120	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	142.06	115	Bromadiolone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	0.13	1	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	6.78	305	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	14.97	62	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.90	62	Indoxacarb	3	NO	NO
432-772	DELTA DUST	0.00	0.01	1	Deltamethrin	3	NO	NO

Corrections, Department of

The Department of Corrections (DOC) is responsible for New York City's inmates, housing the majority of them on Riker's Island. It oversees 44 facilities, including ten correctional facilities that have food preparation areas, laundries, residential areas for inmates, and office space. DOC does not employ contractors for pest management purposes, but relies on in-house pest control professionals and works with DCAS and HHC in maintaining certain facilities. Table 16 summarizes pesticide use by pesticide type. Table 17 lists all pesticide products used by DOC in 2017.

Table 16: Types of Pesticides Used by DOC in 2017

Pesticide Use by NYC in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	808.7	89.4%	209	11.3%
Insecticide	368.5	100.0%	96.0	10.6%	1633	88.7%
Totals	368.5		904.7		1,842	

Table 17: Pesticide Products Used by DOC in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	748.01	105	Difethialone	3	NO	NO
7173-218	GENERATION MINI BLOCKS	0.00	22.08	38	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.02	22.14	29	Bromadiolone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	4.38	10	Bromadiolone	3	NO	NO
12455-76	ZEP TOTAL CONTROL PELLET PACKS TOTAL CONTROL SYSTEMS	0.00	4.20	8	Bromadiolone	3	NO	NO
12455-56	DITRAC TRACKING POWDER	0.00	3.19	8	Diphacinone	2	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.00	3.16	8	Bromadiolone	3	NO	NO
7173-172	ROZOL BLUE TRACKING POWDER	0.00	0.75	2	Chlorophacinone	2	NO	NO
7173-258	D-CON BAIT PASTE POUCHES	0.00	0.79	1	Difethialone	3	NO	NO
Insecticides								
432-763	SUSPEND SC	13.07	0.00	445	Deltamethrin	3	NO	NO
499-507	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT RESERVOIR	0.00	22.22	430	Dinotefuran	3	NO	NO
432-1363	TEMPO SC INSECTICIDE	2.11	0.00	234	Cyfluthrin, beta	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	351.00	6.85	185	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.27	25.17	94	Boric acid	3	NO	NO
73079-4	BORACTIN INSECTICIDE POWDER	0.03	14.63	54	Boric acid	3	NO	NO
432-1460	MAXFORCE FC ROACH KILLER BAIT GEL F.05	0.00	2.14	43	Fipronil	3	YES	NO
432-1455	BES 0026 FLY SPOT BAIT	0.09	6.39	33	Imidacloprid; (Z)-9-Tricosene	3	NO	NO
73049-20	VECTOLEX CG BIOLOGICAL LARVICIDE	0.00	7.65	19	Bacillus sphaericus	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
397-13	STERI-FAB	1.69	0.00	16	Phenothrin; Isopropyl alcohol; Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride; Didecyl dimethyl ammonium chloride	2	NO	NO
432-1262	MAXFORCE IBH10	0.00	1.67	16	Hydramethylnon	3	YES	YES
432-1257	MAXFORCE ROACH BAIT F.05	0.00	1.63	14	Fipronil	3	YES	NO
73049-429	VECTOMAX FG	0.00	1.41	11	Bacillus sphaericus; Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
2724-274	ZOECON FLYTEK(TM) FLY BAIT	0.00	5.19	8	Methomyl; (Z)-9- Tricosene	3	NO	NO
9688-255	SPECTRACIDE COMMERCIAL WASP & HORNET KILLER 3	0.24	0.00	7	Deltamethrin; S- Bioallethrin	3	YES	NO
432-1304	TEMPO 10 WP INSECTICIDE	0.00	0.26	4	Cyfluthrin, beta	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	0.01	0.00	3	Cyfluthrin, beta; Imidacloprid	3	NO	NO
432-1259	PRODUCT: RBF5	0.00	0.28	3	Fipronil	3	YES	NO
432-1264	MAXFORCE FC ANT KILLER BAIT GEL	0.00	0.14	3	Fipronil	3	YES	NO
9444-131	BAYER ADVANCED ANT KILLER POWER PEN READYTO-USE BAIT	0.00	0.08	3	Boric acid	3	NO	NO
432-1251	MAXFORCE ROACH CONTROL SYSTEM	0.00	0.04	3	Hydramethylnon	3	YES	YES
279-3385	BAYER ADVANCED ANT KILLER POWER PEN READYTO-USE BAIT	0.00	0.09	2	Boric acid	3	NO	NO
432-1375	PRE-EMPT FLY BAIT	0.00	0.13	1	Imidacloprid; (Z)- 9-Tricosene	3	NO	NO
432-1254	MAXFORCE PROFESSIONAL INSECT CONTROL ROACH KILLER	0.00	0.03	1	Hydramethylnon	3	YES	YES
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.01	1	Indoxacarb	3	NO	NO

Education, Department of

The Department of Education (DOE) provides primary and secondary education to over 1 million pre-kindergarten to grade 12 students. Pest management at all New York City public

Pesticide Use by NYC in 2017

schools is overseen by their Pest Control Unit. There are nineteen in-house licensed pest management professionals that conduct monthly monitoring inspections and respond to pest problems for approximately 900 schools. DOE contracts with several pest management companies to additionally provide services for an additional 300 schools. Table 18 summarizes pesticide use by pesticide type. Table 19 lists all pesticide products used by DOE in 2017.

Table 18: Types of Pesticides Used by DOE in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	3779.9	94.5%	5894	54.7%
Insecticide	83.9	100.0%	219.2	5.5%	4887	45.3%
Totals	83.9		3,999.1		10,781	

Table 19: Pesticide Products Used by DOE in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.02	1,858.23	4,875	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	498.25	725	Bromadiolone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	1,362.38	222	Bromadiolone	3	NO	NO
12455-75	CONTRAC RAT AND MOUSE BAIT READY TO USE PLACE PAC	0.00	56.92	68	Bromadiolone	3	NO	NO
7173-258	D-CON BAIT PASTE POUCHES	0.00	2.43	2	Difethialone	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.00	1.72	2	Bromadiolone	3	NO	NO
Insecticides								
1021-2593	MGK? Formula 2976	8.00	37.30	1,096	Avermectin; Pyriproxyfen	3	NO	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	8.25	857	Indoxacarb	3	NO	NO
62577-12	ECOPCO ACU	49.54	1.43	639	Phenylethyl propionate	3	NO	NO
64405-2	REDZONE BAIT	0.00	81.01	637	Boric acid	3	NO	NO
432-1460	MAXFORCE FC ROACH KILLER BAIT GEL F.05	0.00	16.66	622	Fipronil	3	YES	NO
73079-14	IMIDACLOPRID GRANULAR BAIT	0.00	58.09	473	Imidacloprid	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
432-1506	MAXFORCE QUANTUM ANT BAIT	10.00	3.63	140	Imidacloprid	3	NO	NO
67425-14	ECOPCO ACU	13.66	0.00	78	Phenylethyl propionate	3	NO	NO
432-1259	PRODUCT: RBF5	0.00	0.96	62	Fipronil	3	YES	NO
2724-484	RF 9707 AEROSOL	2.66	0.00	61	(7S)-Hydroprene	3	NO	NO
73766-1	ADIOS ANT & ROACH KILLER IN A GEL	0.00	1.02	51	Disodium octaborate tetrahydrate	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.33	44	Indoxacarb	3	NO	NO
499-370	JOHNSON WAX PROFESSIONAL BRAND GRANULAR ANT BAIT	0.00	5.41	37	Avermectin	3	NO	NO
432-1255	MAXFORCE GRANULAR INSECT BAIT	0.00	4.32	30	Hydramethylnon	3	YES	YES
73766-1	GOURMET ANT BAIT GEL	0.00	0.33	18	Disodium octaborate tetrahydrate	3	NO	NO
2724-469	ZOECON (S)-HYDROPRENE ROACH CONTROL STATION II	0.00	0.01	14	(7S)-Hydroprene	3	NO	NO
432-1256	MAXFORCE FC ANT BAIT STATIONS	0.00	0.18	11	Fipronil	3	YES	NO
432-1257	MAXFORCE ROACH BAIT F.05	0.00	0.09	8	Fipronil	3	YES	NO
73079-10	INVICT (TM) COCKROACH GEL	0.00	0.12	7	Imidacloprid	3	NO	NO
432-772	DELTA DUST	0.00	0.01	1	Deltamethrin	3	NO	NO
1021-2563	MGK ROACH BAIT 2958	0.00	0.01	1	Avermectin	3	NO	NO

Environmental Protection, Department of

The Department of Environmental Protection (DEP) has over 1,700 facilities upstate and downstate. These include water pollution control plants, well stations, pumping stations, shafts, chambers, reservoirs, aqueducts, tunnels, gate houses, office space, garages, repair shops, maintenance shops, and police precincts within New York City. DEP contracts for some pest control services and employ approximately 20 licensed applicators for upstate reservoir pest

control. Table 20 summarizes pesticide use by pesticide type. Table 21 lists all pesticide products used by DEP in 2017.

Table 20: Types of Pesticides Used by DEP in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.5	0.5%	307.6	86.0%	1017	55.6%
Insecticide	3.4	3.6%	50.2	14.0%	757	41.4%
Herbicide	91.0	95.9%	0.0	0.0%	56	3.1%
Totals	94.9		357.8		1,830	

Table 21: Pesticide Products Used by DEP in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	295.89	988	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.48	11.50	27	Bromadiolone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	0.25	2	Bromadiolone	3	NO	NO
Insecticides								
499-510	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT PISTON CAN	0.00	16.38	530	Dinotefuran	3	NO	NO
432-763	SUSPEND SC	0.00	22.88	90	Deltamethrin	3	NO	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.85	53	Indoxacarb	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.18	19	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	1.33	13	Boric acid	3	NO	NO
499-550	TC-323	0.00	6.00	10	Prallethrin	3	NO	NO
499-496	PRESCRIPTION TREATMENT BRAND ADVANCE 360A DUAL CHOICE ANT BAIT STATIONS	0.07	0.00	6	Avermectin	3	NO	NO
149-8	TERRO PCO LIQUID ANT BAIT	0.04	0.00	6	Borax	3	NO	NO
499-304	WHITMIRE OPTEM ME PT 600	0.00	1.75	6	Cyfluthrin	3	NO	NO
499-362	WHITMIRE PT 515 WASP FREEZE	1.23	0.00	4	D-trans Allethrin; Phenothrin	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
9688-190	SPECTRACIDE DESTROYER BRAND WASP & HORNET KILLER	0.61	0.00	4	Cyhalothrin, lambda; Prallethrin	3	NO	NO
499-527	PRESCRIPTION TREATMENT BRAND ALPINE DUST INSECTICIDE	0.00	0.39	3	Dinotefuran; Diatomaceous earth	3	NO	NO
73079-4	BORACTIN INSECTICIDE POWDER	0.00	0.38	3	Boric acid	3	NO	NO
1021-1691	TERRO ANT KILLER SPRAY 2	0.23	0.00	2	Esfenvalerate; Prallethrin; N-octyl bicycloheptene dicarboximide	3	YES	NO
2724-786	RF2050 SPRAY	0.07	0.00	2	Tetramethrin; Ethofenprox; Piperonyl butoxide	3	YES	NO
432-1534	BES0668 Insecticide	1.00	0.00	1	Deltamethrin	3	NO	NO
499-539	TC 278	0.08	0.00	1	Pyrethrins; Piperonyl butoxide	3	YES	NO
432-1527	TEMPRID RTU	0.03	0.00	1	Cyfluthrin, beta; Imidacloprid	0	NO	NO
44757-3	PIC ORTHOBORIC ACID ROACH & ANT KILLER	0.02	0.00	1	Boric acid	3	NO	NO
499-470	JOHNSON WAX PROFESSIONAL BRAND RESIDUAL INSECTICIDE CRAWLING INSECT	0.00	0.06	1	Cyfluthrin	3	NO	NO
432-772	DELTA DUST	0.00	0.00	1	Deltamethrin	3	NO	NO
Herbicides								
241-346	ARSENAL HERBICIDE	69.89	0.00	32	Imazapyr, isopropylamine salt	3	NO	NO
1381-192	CORNERSTONE PLUS	17.64	0.00	8	Glyphosate, isopropylamine salt	3	NO	NO
432-1229	FINALE HERBICIDE	2.06	0.00	6	Glufosinate-ammonium	2	NO	NO
228-366	RAZOR HERBICIDE	0.29	0.00	5	Glyphosate, isopropylamine salt	3	NO	NO
1381-241	CORNERSTONE PLUS 5	0.39	0.00	2	Glyphosate, isopropylamine salt	3	NO	NO
62719-556	ACCORD XRT II	0.31	0.00	2	Glyphosate, dimethylammonium salt	3	NO	NO
62719-31	TORDON 101R	0.43	0.00	1	2,4-D, triisopropanolamine salt; Picloram, triisopropanolamine salt	3	NO	NO

Finance, Department of

The Department of Finance (DOF) collects City revenues, ensures compliance with City tax and other revenue laws, evaluates all real property in the City, provides a forum for the public to dispute tax and parking violation liability, and maintains property records. The agency contracts for pest control through the city-wide contract administered by DCAS. Table 22 summarizes pesticide use by pesticide type. Table 23 lists all pesticide products used by DOF in 2010.

Table 22: Types of Pesticides Used by DOF in 2010

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	8.2	71.8%	18	23.4%
Insecticide	0.0	0.0%	3.2	28.2%	59	76.6%
Totals	0.0		11.5		77	

Table 23: Pesticide Products Used by DOF in 2010 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	1.68	11	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	6.56	7	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.56	39	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	2.63	12	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.04	8	Indoxacarb	3	NO	NO

Fire Department

The Fire Department of New York City (FDNY) is responsible for the protection against fires and fire hazards and providing emergency medical services, technical rescue and response to various biological, chemical and radioactive hazards. It manages some 350 facilities throughout the City and contracts for pest control services. Table 24 summarizes pesticide use by pesticide type. Table 25 lists all pesticide products used by FDNY in 2017.

Table 24: Types of Pesticides Used by FDNY in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	267.7	90.4%	658	49.5%
Insecticide	0.0	100.0%	28.3	9.6%	670	50.5%
Totals	0.0		296.0		1,328	

Pesticide Use by NYC in 2017

Table 25: Pesticide Products Used by FDNY in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	161.94	199	Bromadiolone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	0.63	4	Bromadiolone	3	NO	NO
7173-113	ROZOL TRACKING POWDER	0.00	0.50	1	Chlorophacinone	2	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	4.53	428	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	20.31	143	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.82	69	Indoxacarb	3	NO	NO
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	0.14	9	Indoxacarb	3	NO	NO
432-1531	BES0600 INSECTICIDE	0.00	0.08	7	Clothianidin	0	NO	NO
279-9554	CB INSECTICIDE WITH DELTAMETHRIN	0.00	1.88	6	Deltamethrin	3	NO	NO
279-3443	D-FOAM INSECTICIDE	0.00	0.56	2	Deltamethrin	3	NO	NO
1021-2593	MGK? Formula 2976	0.00	0.02	2	Avermectin; Pyriproxyfen	3	NO	NO
8033-114	ENDZONE INSECTICIDE STICKER	0.00	0.00	2	Acetamiprid	3	NO	NO
1021-1815	EVERCIDE ESFENVALERATE 6.4% CS	0.00	0.00	1	Esfenvalerate	3	NO	NO
432-772	DELTA DUST	0.00	0.01	1	Deltamethrin	3	NO	NO

Health and Hospitals Corporation

The New York City Health and Hospitals Corporation (HHC) is a \$6.7 billion integrated healthcare delivery system with its own 420,000 member health plan, MetroPlus, and is the largest municipal healthcare organization in the country. HHC serves 1.4 million New Yorkers every year and more than 475,000 are uninsured. HHC provides medical, mental health and substance abuse services through its 11 acute care hospitals, four skilled nursing facilities, six large diagnostic and treatment centers and more than 70 community based clinics. HHC Health and Home Care also provide in-home services for New Yorkers. Because each facility is managed separately, pest control protocols differ among facilities. A few facilities have pest control professionals on staff, but the majority relies on outside contractors. Table 26 summarizes pesticide use by pesticide type. Table 27 lists products by pesticide types.

Pesticide Use by NYC in 2017

Table 26: Types of Pesticides Used by HHC in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	729.3	28.9%	602	9.6%
Insecticide	711.7	100.0%	1795.7	71.1%	5699	90.4%
Totals	711.7		2,525.0		6,301	

Table 27: Pesticide Products Used by HHC in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	716.70	582	Difethialone	3	NO	NO
7173-113	ROZOL TRACKING POWDER	0.00	2.58	8	Chlorophacinone	2	NO	NO
12455-89	JAGUAR BAIT CHUNX	0.00	2.58	7	Brodifacoum	3	NO	NO
7173-202	MAKI MINI BLOCKS	0.00	4.63	2	Bromadiolone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	2.53	2	Bromadiolone	3	NO	NO
12455-95	FASTRAC ALL-WEATHER BLOX	0.00	0.26	1	Bromethalin	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	147.98	2,032	Indoxacarb	3	NO	NO
73079-4	BORACTIN INSECTICIDE POWDER	0.00	354.92	1,272	Boric acid	3	NO	NO
397-13	STERI-FAB	0.00	1,136.23	806	Phenothrin; Isopropyl alcohol; Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride; Didecyl dimethyl ammonium chloride	2	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	8.90	263	Indoxacarb	3	NO	NO
100-1501	DUPONT ARILON INSECTICIDE	254.49	0.00	233	Indoxacarb	3	NO	NO
100-1483	ADVION INSECT GRANULE	0.00	28.95	138	Indoxacarb	3	NO	NO
100-1066	DEMAND CS INSECTICIDE	78.76	0.00	135	Cyhalothrin, lambda	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	25.74	0.00	135	Cyfluthrin, beta; Imidacloprid	3	NO	NO
1021-1603	NYLAR 10EC	142.26	0.00	111	Pyriproxyfen	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
432-772	DELTA DUST	0.00	2.71	102	Deltamethrin	3	NO	NO
432-1363	TEMPO SC INSECTICIDE	37.16	0.00	98	Cyfluthrin, beta	3	NO	NO
64405-2	REDZONE BAIT	0.00	101.31	92	Boric acid	3	NO	NO
1677-43	STER-BAC	25.66	0.00	87	Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride	1	NO	NO
64405-8	NIBOR BORATE INSECTICIDE AND FUNGICIDE	121.75	2.25	84	Disodium octaborate tetrahydrate	3	NO	NO
432-763	SUSPEND SC	0.42	0.00	47	Deltamethrin	3	NO	NO
432-1304	TEMPO 10 WP INSECTICIDE	15.47	0.00	18	Cyfluthrin, beta	3	NO	NO
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	1.94	11	Indoxacarb	3	NO	NO
73766-1	ADIOS ANT & ROACH KILLER IN A GEL	0.00	0.35	9	Disodium octaborate tetrahydrate	3	NO	NO
5481-8973	ORTHENE PCO FORMULA II	9.00	0.00	8	Acephate	3	YES	NO
47000-73	SSI-50 INSECTICIDE	0.00	6.75	7	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
100-1485	DUPONT ADVION ANT BAIT ARENA	0.00	0.40	3	Indoxacarb	3	NO	NO
6218-47	SUMMIT B.T.I. BRIQUETS	0.00	0.42	2	Bacillus thuringiensis subspecies israelensis strain BMP 144	3	NO	NO
8033-96	TRANSPORT (R) GHP INSECTICIDE	1.00	0.00	1	Acetamiprid; Bifenthrin	3	YES	NO
1021-1424	PYROCIDE FOGGING CONCENTRATE 7338	0.00	1.50	1	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
100-1481	DUPONT ADVION FIRE ANT BAIT	0.00	0.63	1	Indoxacarb	3	NO	NO
279-3384	ROACH KIL COMMERCIAL	0.00	0.38	1	Boric acid	3	NO	NO
432-992	DRIONE INSECTICIDE	0.00	0.06	1	Pyrethrins; Piperonyl butoxide; Silica gel	3	YES	NO
432-1262	MAXFORCE IBH10	0.00	0.02	1	Hydramethylnon	3	YES	YES

Health and Mental Hygiene, Department of

The Department of Health and Mental Hygiene (DOHMH) protects and promotes the health and mental well being of all New Yorkers. The Bureau of Veterinary and Pest Control Services at DOHMH protects the public from animal- and vector-borne diseases and other hazards, including those that result from uncontrolled or unregulated rodents and other animals, and from mosquito-borne pathogens. Two programs, Pest Control Services (PCS) and Vector Surveillance and Control (VSC) have pest management responsibilities. PCS focuses on rodent control – performing inspections, cleanups and treatments of both private and public property. Currently, PCS employs twenty-one pest management professionals to bait properties that have signs of active rodents with rodenticide placed either directly in rat burrows or in tamper resistant bait stations. Pest management in facilities operated by the DOHMH is done through private contractors. Though Local Law 37 requires the reporting of pesticide use on only public property, applications on private property done by PCS are included in Tables 24 and 25. VSC is charged with mosquito management and uses licensed pest management staff as well as outside contractors. Table 28 summarizes pesticide use by pesticide type. Table 29 lists all pesticide products used by DOHMH in 2017.

Table 28 Types of Pesticides Used by DOHMH in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	31968.6	36.4%	41624	90.5%
Insecticide	0.0	0.0%	55948.9	63.6%	4349	9.5%
Totals	0.0		87,917.6		45,973	

Table 29 Pesticide Products Used by DOHMH in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-69	CONTRAC RODENTICIDE	0.00	17,829.97	19,099	Bromadiolone	3	NO	NO
12455-90	FINAL RODENTICIDE	0.00	5,134.90	8,655	Brodifacoum	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.00	5,635.92	6,308	Bromadiolone	3	NO	NO
12455-133	CONTRAC WITH LUMITRACK	0.00	1,032.34	3,292	Bromadiolone	3	NO	NO
100-1055	WEATHERBLOK BAIT WITH BITREX	0.00	637.46	1,571	Brodifacoum	3	NO	NO
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	279.44	902	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	399.43	768	Bromadiolone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	696.74	560	Bromadiolone	3	NO	NO
100-1050	TALON-G RODENTICIDE BAIT PACK MINI-PELLETS WITH BI	0.00	50.37	298	Brodifacoum	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
7173-205	D-CEASE LOOSE PELLETS MOUSE AND RAT BAIT	0.00	172.94	106	Difethialone	3	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.00	24.03	43	Bromadiolone	3	NO	NO
12455-75	CONTRAC RAT AND MOUSE BAIT READY TO USE PLACE PAC	0.00	46.36	17	Bromadiolone	3	NO	NO
12455-56	DITRAC TRACKING POWDER	0.00	28.75	5	Diphacinone	2	NO	NO
Insecticides								
73049-429	VECTOMAX FG	0.00	36,127.31	3,629	Bacillus sphaericus; Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
73049-20	VECTOLEX CG BIOLOGICAL LARVICIDE	0.00	531.94	291	Bacillus sphaericus	3	NO	NO
1021-1688	ANVIL 10+10 ULV	0.00	3,106.40	159	Phenothrin; Piperonyl butoxide	3	YES	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	1.57	89	Indoxacarb	3	NO	NO
73049-501	VBC-60394 FG BIOLOGICAL LARVICIDE FINE GRANULE	0.00	411.25	68	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
73049-19	VECTOBAC CG BIOLOGICAL LARVICIDE GRANULES	0.00	77.19	54	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
73049-10	VECTOBAC G BIOLOGICAL LARVICIDE GRANULES	0.00	15,600.00	23	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
64405-2	REDZONE BAIT	0.00	1.44	16	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.14	13	Indoxacarb	3	NO	NO
1021-1795	DUET DUAL-ACTION ADULTICIDE	0.00	91.68	7	Phenothrin; Piperonyl butoxide; Prallethrin	3	YES	NO

Homeless Services, Department of

The Department of Homeless Services (DHS) manages homeless shelters and dormitory facilities across the City. Of these, six are Family Services operated, five provide dormitory facilities for families with children and one facility, Preventative Assistance and Temporary Housing (PATH), is an intake facility. There are five adult facilities which also provide housing for men. DHS also operates and manages warehouses. Pest management services, which primarily address rodent and cockroach infestations, are provided by an outside contractor. Table 30 summarizes pesticide use by pesticide type. Table 31 lists all pesticide products used by DHS in 2017.

Table 30: Types of Pesticides Used by DHS in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	272.9	62.9%	3200	35.7%
Insecticide	45.7	100.0%	160.9	37.1%	5755	64.3%
Totals	45.7		433.8		8,955	

Table 31: Pesticide Products Used by DHS in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	259.97	2,926	Difethialone	3	NO	NO
56-42	BAIT BLOCK RODENTIICDE WITH PEANUT BUTTER FLAVORIZ	0.00	11.08	272	Diphacinone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	1.81	2	Bromadiolone	3	NO	NO
Insecticides								
53883-276	DELTA 4.75% SC	19.51	0.00	1923	Deltamethrin	3	NO	NO
1021-1828	MGK ROACH BAIT 2822	0.00	117.29	1905	Avermectin	3	NO	NO
432-763	SUSPEND SC	8.51	0.00	784	Deltamethrin	3	NO	NO
279-3206	TALSTAR TC FLOWABLE TERMITICIDE/INSECTICIDE	11.37	0.00	735	Bifenthrin	3	YES	NO
64405-2	REDZONE BAIT	0.00	27.97	178	Boric acid	3	NO	NO
397-13	STERI-FAB	3.14	0.00	34	Phenothrin; Isopropyl alcohol; Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride; Didecyl dimethyl ammonium chloride	2	NO	NO
8033-109	TRANSPORT (R) MIKRON INSECTICIDE	0.40	0.00	34	Acetamiprid; Bifenthrin	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
499-470	JOHNSON WAX PROFESSIONAL BRAND RESIDUAL INSECTICIDE CRAWLING INSECT	2.54	0.00	31	Cyfluthrin	3	NO	NO
279-3081	CYNOFF EC INSECTICIDE	0.12	0.00	31	Cypermethrin, beta	3	YES	NO
2724-274	ZOECON FLYTEK(TM) FLY BAIT	0.00	1.36	24	Methomyl; (Z)-9-Tricosene	3	NO	NO
53883-283	DM DUST 0.05% INSECTICIDE	0.00	1.30	20	Deltamethrin	3	NO	NO
1021-1767	MULTICIDE LICE & DUST MITE SPRAY 27911	0.00	5.42	18	Phenothrin; N-octyl bicycloheptene dicarboximide	3	YES	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	4.15	18	Indoxacarb	3	NO	NO
5481-553	AMVAC SMALL PRO-STRIP	0.00	3.44	16	DDVP	2	YES	NO
2724-351	ZOECON GENCOR 9% EMULSIFIABLE CONCENTRATE	0.08	0.00	3	(7S)-Hydroprene	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.00	1	Indoxacarb	3	NO	NO

Housing Authority

The New York City Housing Authority (NYCHA) manages more than 2,400 residential buildings and more than 176,000 apartments, as well as office space and grounds that cover approximately 2,400 acres. NYCHA currently has a staff of some more than 100 pest management professionals that perform routine inspections and treatments, carry out specialized intensive IPM interventions, apply pesticides, and respond to complaints and requests from other agencies. NYCHA staff members regularly address a range of insect and rodent problems, including interior mice, cockroaches and bedbugs and exterior rats, weeds, and mosquito control. Table 32 summarizes pesticide use by pesticide type. Table 33 lists the products used by NYCHA in 2017.

Table 32: Types of Pesticides Used by NYCHA in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.3	0.0%	11771.8	76.4%	27344	12.8%
Insecticide	1348.1	98.0%	3644.1	23.6%	185801	87.1%
Herbicide	27.7	2.0%	0.0	0.0%	52	0.0%
Totals	1,376.2		15,415.9		213,197	

Table 33: Pesticide Products Used by NYCHA in 2017 by Pesticide Type

Pesticide Use by NYC in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.21	6,340.46	21,250	Difethialone	3	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.00	1,771.21	2,709	Bromadiolone	3	NO	NO
12455-56	DITRAC TRACKING POWDER	0.00	1,878.45	1,558	Diphacinone	2	NO	NO
7173-113	ROZOL TRACKING POWDER	0.00	532.56	415	Chlorophacino ne	2	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	833.56	313	Bromadiolone	3	NO	NO
12455-75	CONTRAC RAT AND MOUSE BAIT READY TO USE PLACE PAC	0.00	69.81	294	Bromadiolone	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.10	100.84	200	Bromadiolone	3	NO	NO
12455-108	FORMUS ALL-WEATHER BLOX	0.00	12.08	164	Brodifacoum	3	NO	NO
56-42	BAIT BLOCK RODENTICIDE WITH PEANUT BUTTER FLAVORIZ	0.00	71.94	163	Diphacinone	3	NO	NO
82744-2	RATIMOR SOFT BAIT	0.00	52.78	125	Bromadiolone	3	NO	NO
87235-1	BRIGAND SB SOFT BAIT RODENTICIDE	0.00	12.32	46	Bromadiolone	3	NO	NO
12455-80*	ALL-WEATHER DI-BLOX	0.00	50.50	43	Diphacinone	3	NO	NO
12455-139	Final Soft Bait	0.00	8.99	15	Brodifacoum	3	NO	NO
12455-80	DITRAC ALL-WEATHER BLOX	0.00	15.00	14	Diphacinone	3	NO	NO
12455-69	CONTRAC RODENTICIDE	0.00	6.03	10	Bromadiolone	3	NO	NO
12455-89	FINAL ALL-WEATHER BLOX	0.00	4.50	8	Brodifacoum	3	NO	NO
7173-288	DIFETHIALONE BLOCK 0707	0.00	1.28	7	Difethialone	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	2.81	5	Bromadiolone	3	NO	NO
10551-1	THE GIANT DESTROYER	0.04	0.00	1	Carbon; Sodium nitrate; Sulfur	2	NO	NO
12455-95	FASTRAC ALL-WEATHER BLOX	0.00	2.81	1	Bromethalin	3	NO	NO
7173-202	MAKI MINI BLOCKS	0.00	1.75	1	Bromadiolone	3	NO	NO
36488-63	DIFENACOUM RAT AND MOUSE BLOCK IV	0.00	1.50	1	Difenacoum	3	NO	NO
7173-208	MAKI RODENTICIDE BAIT PACKS (PELLETS)	0.00	0.55	1	Bromadiolone	3	NO	NO
Insecticides								
432-763*	SUSPEND SC	468.26	0.00	57,493	Deltamethrin	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	146.34	0.00	52,521	Cyfluthrin, beta; Imidacloprid	3	NO	NO
432-1257	MAXFORCE ROACH BAIT F.05	0.00	1,555.69	23,541	Fipronil	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
432-1460	MAXFORCE FC ROACH KILLER BAIT GEL F.05	0.00	526.35	14,871	Fipronil	3	YES	NO
432-1259	PRODUCT: RBF5	0.00	596.59	11,483	Fipronil	3	YES	NO
432-763	SUSPEND SC INSECTICIDE	78.59	0.00	8,085	Deltamethrin	3	NO	NO
499-304	WHITMIRE OPTEM ME PT 600	58.52	0.00	7,491	Cyfluthrin	3	NO	NO
397-13	STERI-FAB	508.75	0.00	3,646	Phenothrin; Isopropyl alcohol; Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride; Didecyl dimethyl ammonium chloride	2	NO	NO
2724-351	ZOECON GENCOR 9% EMULSIFIABLE CONCENTRATE	17.98	0.00	2,286	(7S)- Hydroprene	3	NO	NO
2724-351	ZOECON RF-259 EMULSIFIABLE CONCENTRATE	10.27	0.00	1,313	(7S)- Hydroprene	3	NO	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	1.64	51.48	1,035	Indoxacarb	3	NO	NO
64405-2	ECOLOGICAL ANT & INSECT BAIT	0.00	41.11	372	Boric acid	3	NO	NO
279-9554	CB INSECTICIDE WITH DELTAMETHRIN	27.77	8.53	335	Deltamethrin	3	NO	NO
2724-421	ZOECON RF-292 BRIQUET	0.00	663.65	241	S-Methoprene	3	NO	NO
432-1531	BES0600 INSECTICIDE	1.41	17.52	227	Clothianidin	0	NO	NO
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	2.85	136	Indoxacarb	3	NO	NO
62577-12	ECOPCO ACU	15.03	0.00	128	Phenylethyl propionate	3	NO	NO
432-1375	PRE-EMPT FLY BAIT	0.00	43.44	112	Imidacloprid; (Z)-9- Tricosene	3	NO	NO
7173-304	BROMETHALIN SOFT BAIT	0.00	88.41	93	Bromethalin	3	NO	NO
1021-1815	EVERCIDE ESFENVALERATE 6.4% CS	0.30	0.00	74	Esfenvalerate	3	NO	NO
499-467	WHITMIRE AVERT TC 181	0.00	2.97	73	Avermectin	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
1021-2569	MULTICIDE SPRAY 29511	12.73	0.00	65	Imidacloprid; Phenothrin; N-octyl bicycloheptene dicarboximide	0	YES	NO
100-1498	DUPONT ADVION ANT GEL	0.00	1.50	37	Indoxacarb	3	NO	NO
73079-4	BORACTIN INSECTICIDE POWDER	0.00	7.59	28	Boric acid	3	NO	NO
1021-1603	NYLAR 10EC	0.10	0.00	23	Pyriproxyfen	3	NO	NO
2724-484	RF 9707 AEROSOL	0.00	17.64	23	(7S)-Hydroprene	3	NO	NO
64405-2	REDZONE BAIT	0.00	5.08	20	Boric acid	3	NO	NO
1001-73	ECOLOGIX COCKROACH BAIT	0.00	0.27	10	Xanthine; Oxypurinol	3	NO	NO
241-313	SIEGE PBS GEL INSECTICIDE	0.00	9.00	9	Hydramethylnon	3	YES	YES
100-1485	DUPONT ADVION ANT BAIT ARENA	0.00	0.03	9	Indoxacarb	3	NO	NO
6218-47	SUMMIT B.T.I. BRIQUETS	0.00	0.47	7	Bacillus thuringiensis subspecies israelensis strain BMP 144	3	NO	NO
100-1483	ADVION INSECT GRANULE	0.00	0.75	4	Indoxacarb	3	NO	NO
499-370	PT 370 ASCEND FIRE ANT STOPPER BAIT	0.00	0.37	3	Avermectin	3	NO	NO
89459-59	ENVI ACU CONTACT Insecticide	0.13	0.53	2	Phenylethyl propionate	3	NO	NO
499-550	TC-323	0.00	2.25	2	Prallethrin	3	NO	NO
2724-786	RF2050 SPRAY	0.25	0.00	1	Tetramethrin; Ethofenprox; Piperonyl butoxide	3	YES	NO
432-1455	BES 0026 FLY SPOT BAIT	0.06	0.00	1	Imidacloprid; (Z)-9-Tricosene	3	NO	NO
499-507	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT RESERVOIR	0.00	0.07	1	Dinotefuran	3	NO	NO
Herbicides								
71995-33	ROUNDUP WEED & GRASS KILLER READY-TO-USE PLUS	8.40	0.00	18	Glyphosate, isopropylamine salt; Nonanoic acid	3	NO	NO
524-517	ACCORD XL HERBICIDE	0.26	0.00	11	Glyphosate, isopropylamine salt	3	NO	NO
524-579	ROUNDUP PROMAX	5.77	0.00	10	Glyphosate, potassium salt	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
9688-264	SPECTRACIDE WEED & GRASS KILLER WITH EXTENDED CONTROL	8.30	0.00	9	Dicamba, dimethylamine salt; Diquat dibromide; Fluazifop-P-butyl; Oxyfluorfen	3	YES	NO
71995-47	RD 1653 HERBICIDE	4.00	0.00	2	Glyphosate, isopropylamine salt; Imazapic, ammonium salt; Nonanoic acid	3	NO	NO
71995-7	ACE Weed & Grass Killer Concentrate	1.00	0.00	1	Glyphosate, isopropylamine salt	2	NO	NO
62719-322	PROKOZ GLYPHOSATE PRO	0.00	0.00	1	Glyphosate, isopropylamine salt	3	NO	NO

Housing Preservation and Development

Housing Preservation and Development (HPD) oversees occupied and vacant residential and commercial buildings, vacant lots as well as a limited number of agency offices. In addition, its Emergency Repair Program occasionally encounters and responds to rats and fleas in occupied private buildings. There are no certified applicators on staff and the agency contracts for pest management services. Table 34 summarizes pesticide use by pesticide type. Table 35 lists all pesticide products used by HPD in 2017.

Table 34: Types of Pesticides Used by HPD in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.1	61.8%	85.2	93.6%	182	13.4%
Insecticide	0.1	38.2%	5.8	6.4%	1173	86.6%
Totals	0.2		91.0		1,355	

Table 35: Pesticide Products Used by HPD in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-202	MAKI MINI BLOCKS	0.11	81.20	166	Bromadiolone	3	NO	NO
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	1.57	10	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	2.44	6	Bromadiolone	3	NO	NO
Insecticides								
432-1363	TEMPO SC INSECTICIDE	0.07	5.63	1161	Cyfluthrin, beta	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.18	12	Indoxacarb	3	NO	NO

Human Resources Administration

The New York City Human Resources Administration/ Department of Social Services (HRA/DSS) provides temporary help to individuals and families with social service and economic needs to assist them in reaching self-sufficiency. HRA serves more than 3 million New Yorkers through essential and diverse programs and services. HRA/DSS has numerous offices and public service centers throughout the 5 boroughs. Table 36 summarizes pesticide use by pesticide type. Table 37 lists the products used by HRA/DSS in 2017.

Table 36: Types of Pesticides Used by HRA in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	56.9	92.7%	109	44.3%
Insecticide	0.0	0.0%	4.5	7.3%	137	55.7%
Totals	0.0		61.4		246	

Table 37: Pesticide Products Used by HRA in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	30.73	92	Difethialone	3	NO	NO
12455-79	CONTRAC ALL- WEATHER BLOX	0.00	26.19	17	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	1.78	113	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	2.58	13	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.13	11	Indoxacarb	3	NO	NO

New York Public Libraries

The New York Public Library (NYPL), through its 85 branches libraries services residents in the boroughs of Manhattan, the Bronx and Staten Island. Pest management is provided by private contractors. No application data was provided by NYPL for 2017.

Parks and Recreation

New York City's has 28,000 acres of parks, playgrounds, athletic fields, natural areas, recreational facilities, comfort stations, beaches, historic buildings, and parkways maintained by the Department of Parks and Recreation (DPR). The major pest issues facing DPR are weeds (including weed shrubs and weed trees) and rodents. Rarer infestations of exotic insect pests and diseases, often targeting trees, also occur. To address these, DPR employs 104 certified pesticide applicators. Herbicides account for the largest share of DPR's total pesticide use. Contractors are hired for pest management when peripheral rodent problems arise on capital projects.

This data includes pesticides applied on all city-owned golf courses. Local Law 37 exempts these locations from pesticide prohibitions. The table also includes the data from sister organizations that operate on DPR property such as zoos, conservancies, and botanic gardens. Table 38 summarizes pesticide use by pesticide type. Table 39 below lists for each pesticide type, all products used, unless there were more than 10, in which case the 10 most frequently applied products are listed. Appendix 2 includes a complete product listing for DPR.

Table 38: Types of Pesticides Used by DPR in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	988.6	4.1%	1,596	33.8%
Insecticide	371.7	8.7%	569.3	2.4%	685	14.5%
Herbicide	693.4	16.2%	15782.8	65.6%	1,378	29.2%
Fungicide	3045.4	71.0%	6721.8	27.9%	984	20.8%
Other	178.0	4.2%	0.3	0.0%	79	1.7%
Totals	4288.5		24,062.6		4,722	

Table 39: Ten Most Frequently Applied Pesticide Products by DPR in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	342.31	571	Bromadiolone	3	NO	NO
12455-69	CONTRAC RODENTICIDE	0.00	362.35	356	Bromadiolone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	133.94	264	Bromadiolone	3	NO	NO
12455-106	TERAD3 BLOX	0.00	44.13	192	Cholecalciferol	3	NO	NO
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	34.52	62	Difethialone	3	NO	NO
7173-202	MAKI MINI BLOCKS	0.00	19.80	52	Bromadiolone	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.00	16.51	42	Bromadiolone	3	NO	NO
7173-218	GENERATION MINI BLOCKS	0.00	17.81	23	Difethialone	3	NO	NO
12455-75	CONTRAC RAT AND MOUSE BAIT READY TO USE PLACE PAC	0.00	5.34	10	Bromadiolone	3	NO	NO
12455-139	Final Soft Bait	0.00	2.31	9	Brodifacoum	3	NO	NO
Insecticides								

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	1.87	94	Indoxacarb	3	NO	NO
9688-190	SPECTRACIDE DESTROYER BRAND WASP & HORNET KILLER	3.76	73.13	45	Cyhalothrin, lambda; Prallethrin	3	NO	NO
62719-291	CONSERVE SC TURF AND ORNAMENTAL	3.02	0.00	30	Spinosad	3	NO	NO
48813-1	SUFFOIL-X	5.65	0.00	26	Petroleum distillates	3	NO	NO
53883-300	CSI MFG 4-4	58.01	0.00	24	Permethrin; Piperonyl butoxide	3	YES	NO
70051-2	TRIACT 70	2.92	0.00	24	Neem oil	3	NO	NO
53883-371	QUALI-PRO ABAMECTIN 0.15 EC	0.47	0.00	22	Avermectin	2	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.28	20	Indoxacarb	3	NO	NO
100-1088	SCIMITAR GC INSECTICIDE	2.74	0.00	19	Cyhalothrin, lambda	3	NO	NO
432-1506	MAXFORCE QUANTUM ANT BAIT	0.00	0.58	19	Imidacloprid	3	NO	NO
Herbicides								
524-579	ROUNDUP PROMAX	154.03	18.16	470	Glyphosate, potassium salt	3	NO	NO
62719-527	GARLON 4 ULTRA	45.51	0.00	232	Triclopyr	2	NO	NO
62719-556	ACCORD XRT II	42.62	0.00	120	Glyphosate, dimethylammonium salt	3	NO	NO
62719-324	GLYPRO	32.07	0.00	103	Glyphosate, isopropylamine salt	3	NO	NO
100-937	PRIMO MAXX	24.44	0.00	74	Trinexapac-ethyl	3	NO	NO
524-529	ROUNDUP PRO CONCENTRATE	31.91	0.00	32	Glyphosate, isopropylamine salt	3	NO	NO
89442-7	TRIN-PAC SELECT	12.97	0.00	31	Trinexapac-ethyl	3	NO	NO
62719-445	DIMENSION* ULTRA 40WP	5.63	481.03	31	Dithiopyr	3	NO	NO
228-397	RIVERDALE VANQUISH HERBICIDE	4.42	0.00	24	Dicamba, diglycolamine salt	3	NO	NO
53883-373	QUALI-PRO T-NEX 1 AQ	38.75	0.00	20	Trinexapac-ethyl	3	NO	NO
Fungicides								
100-1364	DACONIL ACTION	558.62	0.00	100	Acibenzolar-S-methyl; Chlorothalonil	2	YES	NO
71065-3	COMPANION LIQUID BIOLOGICAL FUNGICIDE	312.10	0.00	53	Bacillus subtilis GBO3	3	NO	NO
100-1093	HERITAGE FUNGICIDE	0.00	118.42	53	Azoxystrobin	3	NO	NO
432-942	BANOL TURF AND ORNAMENTAL FUNGICIDE	103.89	0.00	39	Propamocarb hydrochloride	3	NO	NO
53883-353	QUALI-PRO T-NEX	44.59	0.00	39	Trinexapac-ethyl	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
84059-3	REGALIA PTO BIOFUNGICIDE FOR USE ON TURF AND ORNAMENTALS	67.50	0.00	29	Reynoutria sachalinensis	3	NO	NO
70506-272	PEGASUS DFX	0.00	1,269.90	29	Chlorothalonil	1	YES	NO
50534-202	MANICURE ULTREX TURF & ORNAMENTAL	0.34	443.90	25	Chlorothalonil	1	YES	NO
432-890	ALIETTE WDG BRAND FUNGICIDE	0.00	846.34	24	Fosetyl-Al	3	NO	NO
70127-2	NOVOZYMES BIOFUNGICIDE GREEN RELEAF 710-140	101.00	0.00	22	Bacillus licheniformis SB3086; IBA	3	NO	NO
Other								
52483-1	HYPOCHLORITE SOLUTION	107.25	0.00	32	Sodium hypochlorite	1	NO	NO
60061-71	PETTIT MARINE PAINT PREMIUM SINGLE SEASON ABLATIVE	18.00	0.00	16	Copper oxide (ous)	2	NO	NO
14802-8	MICROBE LIFE ALGAWAY 5.4 ALGAECIDE FOR PONDS	2.50	0.00	10	Poly(oxyethylene) (dimethylimino) ethylene (dimethylimino) ethylene dichloride	3	NO	NO
63838-5	CHEM-AQUA 42171	13.25	0.00	9	Sodium bromide; Sodium hypochlorite	1	NO	NO
59807-4	HORMODIN 1	0.00	0.26	6	IBA	3	NO	NO
73049-15	PROGIBB 4% PLANT GROWTH REGULATOR SOLUTION	0.00	0.00	4	Gibberellins	2	NO	NO
58616-1	PCT 3026	36.00	0.00	1	Sodium bromide; Sodium hypochlorite	1	NO	NO
60061-134	PETTIT ULTIMA ECO ABLATIVE ANTIFOULING PAINT	1.00	0.00	1	1H-Pyrrole-3-carbonitrile,4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-; Zinc 2-pyridinethiol-1-oxide	2	NO	NO

Police Department

The Police Department (NYPD) is committed to providing a safe and secure environment for the public. It manages 76 precincts, 12 Transit Districts, and nine Housing Police Service Areas and other investigative and specialized units. The major pest issues facing its facilities are

structural pests and are managed by private contractors as needed. Table 40 summarizes pesticide use by pesticide type. Table 41 lists all pesticide products used by NYPD in 2017.

Table 40 Types of Pesticides Used by NYPD in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	452.4	95.6%	596	56.2%
Insecticide	0.0	0.0%	20.8	4.4%	464	43.8%
Totals	0.0		473.2		1,060	

Table 41: Pesticide Products Used by NYPD in 2017 by Pesticide Type

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	111.75	301	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	340.66	295	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	3.54	344	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	16.94	86	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.35	33	Indoxacarb	3	NO	NO
432-772	DELTA DUST	0.00	0.01	1	Deltamethrin	3	NO	NO

Queens Public Libraries

The Queens Public Library (QPL) manages 64 libraries as well as indoor, outdoor and office facilities. Contractors are hired for pest management as needed and the major pest infestations are roaches and mice. Table 42 summarizes pesticide use by pesticide type. Table 43 lists all pesticide products used by QPL in 2017.

Table 42: Types of Pesticides Used by QPL in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	9.4	99.8%	16	72.7%
Insecticide	0.0	100.0%	0.0	0.2%	6	27.3%
Totals	0.0		9.4		22	

Table 43: Pesticide Products Used by QPL in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-89	FINAL ALL-WEATHER BLOX	0.00	9.39	16	Brodifacoum	3	NO	NO
Insecticides								
432-1483	TEMPRID SC INSECTICIDE	0.00	0.00	3	Cyfluthrin, beta; Imidacloprid	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
64405-2	REDZONE BAIT	0.00	0.01	2	Boric acid	3	NO	NO
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.00	1	Indoxacarb	3	NO	NO

Sanitation, Department of

The Department of Sanitation (DSNY) manages garages, office buildings, transfer stations, and various publicly-owned lots throughout the city. DSNY employs two certified pesticide applicators that make routine visits to facilities and responds to emergency calls because of the nature of the agency's work – managing garbage – pest problems are endemic at some facilities. DSNY also contracts for weed control on some of the City's rights-of-way. Table 44 summarizes pesticide use by pesticide type. Table 45 lists the products used by DSNY.

Table 44: Types of Pesticides Used by DSNY in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.1	7.9%	101.7	95.1%	161	26.1%
Insecticide	1.2	92.1%	5.3	4.9%	455	73.9%
Totals	1.3		106.9		616	

Table 45: List of Pesticides Applied by DSNY in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-89	FINAL ALL-WEATHER BLOX	0.10	71.19	108	Brodifacoum	3	NO	NO
12455-76	CONTRAC RODENTICIDE READY TO USE PLACE PAC	0.00	29.66	52	Bromadiolone	3	NO	NO
12455-76	ZEP TOTAL CONTROL PELLET PACKS TOTAL CONTROL SYSTEMS	0.00	0.81	1	Bromadiolone	3	NO	NO
Insecticides								
100-1066	DEMAND CS INSECTICIDE	0.46	0.13	281	Cyhalothrin, lambda	3	NO	NO
432-763	SUSPEND SC	0.34	0.05	127	Deltamethrin	3	NO	NO
73766-1	GOURMET ANT BAIT GEL	0.08	2.11	34	Disodium octaborate tetrahydrate	3	NO	NO
432-1256	MAXFORCE FC ANT BAIT STATIONS	0.00	0.11	4	Fipronil	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
432-1257	MAXFORCE ROACH BAIT F.05	0.00	0.05	4	Fipronil	3	YES	NO
499-465	PRO-CONTROL FOGGER II	0.27	0.00	3	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
9444-168	COUNTRY VET ROACH EMBARGO WITH GROWTH INHIBITOR	0.00	2.81	1	Esfenvalerate; Prallethrin; Pyriproxyfen	3	NO	NO
432-1258	MAXFORCE LARGE ROACH BAIT F.03	0.00	0.03	1	Fipronil	3	YES	NO

Taxi and Limousine Commission

The Taxi and Limousine Commission (TLC) licenses and regulates over 50,000 vehicles and approximately 100,000 drivers, performs safety and emissions inspections of the more than 13,000 medallion taxicabs three times each year, and holds numerous hearings for violations of City and TLC rules and regulations, making it the most active taxi and limousine licensing regulatory agency in the United States. The agency contracts for pest control through the city-wide contract administered by DCAS. Table 46 summarizes pesticide use by pesticide type. Table 47 lists all pesticide products used by TLC in 2017.

Table 48: Types of Pesticides Used by TLC in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	23.2	98.8%	33	50.8%
Insecticide	0.0	0.0%	0.3	1.2%	32	49.2%
Totals	0.0		23.5		65	

Table 49: Pesticide Products Used by TLC in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	21.69	26	Bromadiolone	3	NO	NO
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	1.50	7	Difethialone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.27	30	Indoxacarb	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.01	2	Indoxacarb	3	NO	NO

Transportation, Department of

The Department of Transportation (DOT) has a staff of over 4,000 that oversees one of the most complex urban transportation networks in the world. They manage approximately 5,800 miles of streets, sidewalks, and highways and 789 bridge structures, including six tunnels. They operate the Staten Island Ferry, oversee ferry operations on City-owned piers and operate approximately 75 facilities throughout the City. DOT is responsible for pest management at maintenance yards, lots, and agency offices throughout the city, as well as on rights-of-way along city highways. DOT is also contracted by New York State to provide right-of-way maintenance on state highways within city borders. Table 48 summarizes pesticide use by pesticide type. Table 49 lists all pesticide products used by DOT in 2017.

Table 48: Types of Pesticides Used by DOT in 2017

Pesticide Type	Volume		Weight		Times Applied	
	Gallons	% of Total	Pounds	% of Total	Number	% of Total
Rodenticide	0.0	0.0%	42.5	58.1%	107	6.8%
Insecticide	0.0	0.0%	0.8	1.1%	23	1.5%
Herbicide	188.8	100.0%	29.9	40.8%	1452	91.8%
Totals	188.8		73.2		1,582	

Table 49: Pesticide Products Used by DOT in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	22.33	84	Difethialone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	19.44	17	Bromadiolone	3	NO	NO
100-1057	TALON-G RODENTICIDE MINI-PELLETS WITH BITREX	0.00	0.38	3	Brodifacoum	3	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	0.38	3	Bromadiolone	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	0.04	16	Indoxacarb	3	NO	NO
64405-2	REDZONE BAIT	0.00	0.75	6	Boric acid	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.00	1	Indoxacarb	3	NO	NO
Herbicides								
432-1580	DUPONT VIEWPOINT HERBICIDE	0.05	20.50	306	Aminocyclopyrachl or; Imazapyr; Metsulfuron-methyl	3	NO	NO
62719-556	ACCORD XRT II	62.88	9.38	300	Glyphosate, dimethylammonium salt	3	NO	NO
228-397	RIVERDALE VANQUISH HERBICIDE	43.70	0.00	300	Dicamba, diglycolamine salt	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
432-1516	ESPLANADE 200 SC	4.27	0.00	290	Indaziflam	3	NO	NO
62719-176	PATHFINDER II	72.00	0.00	225	Triclopyr, butoxyethyl ester	3	NO	NO
62719-527	GARLON 4 ULTRA	4.99	0.00	19	Triclopyr	2	NO	NO
62719-40	GARLON 4	0.70	0.00	7	Triclopyr, butoxyethyl ester	3	NO	NO
432-1229	FINALE HERBICIDE	0.16	0.00	5	Glufosinate-ammonium	2	NO	NO

APPENDIX 1: Complete Listing of Pesticide Products Used by New York City Agencies by Pesticide Type in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
Rodenticides								
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.22	11,010.26	33636	Difethialone	3	NO	NO
12455-69	CONTRAC RODENTICIDE	0.00	18,198.34	19465	Bromadiolone	3	NO	NO
12455-90	FINAL RODENTICIDE	0.00	5,134.90	8655	Brodifacoum	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.10	5,757.75	6560	Bromadiolone	3	NO	NO
12455-133	CONTRAC WITH LUMITRACK	0.00	1,032.34	3292	Bromadiolone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.51	2,713.54	2953	Bromadiolone	3	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.05	1,806.68	2765	Bromadiolone	3	NO	NO
100-1055	WEATHERBLOK BAIT WITH BITREX	0.00	662.48	1612	Brodifacoum	3	NO	NO
12455-56	DITRAC TRACKING POWDER	0.00	1,911.06	1576	Diphacinone	2	NO	NO
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	2,412.24	1396	Bromadiolone	3	NO	NO
56-42	BAIT BLOCK RODENTIICDE WITH PEANUT BUTTER FLAVORIZ	0.00	83.18	438	Diphacinone	3	NO	NO
7173-113	ROZOL TRACKING POWDER	0.00	536.27	430	Chlorophacinone	2	NO	NO
12455-75	CONTRAC RAT AND MOUSE BAIT READY TO USE PLACE PAC	0.00	178.44	389	Bromadiolone	3	NO	NO
100-1050	TALON-G RODENTICIDE BAIT PACK MINI-PELLETS WITH BI	0.00	50.37	298	Brodifacoum	3	NO	NO
7173-202	MAKI MINI BLOCKS	0.11	107.37	221	Bromadiolone	3	NO	NO
12455-106	TERAD3 BLOX	0.00	44.13	192	Cholecalciferol	3	NO	NO
12455-108	FORMUS ALL-WEATHER BLOX	0.00	12.08	164	Brodifacoum	3	NO	NO
82744-2	RATIMOR SOFT BAIT	0.00	56.33	138	Bromadiolone	3	NO	NO
12455-89	FINAL ALL-WEATHER BLOX	0.10	85.08	132	Brodifacoum	3	NO	NO
7173-205	D-CEASE LOOSE PELLETS MOUSE AND RAT BAIT	0.00	172.94	106	Difethialone	3	NO	NO
7173-218	GENERATION MINI BLOCKS	0.00	39.89	61	Difethialone	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
12455-76	CONTRAC RODENTICIDE READY TO USE PLACE PAC	0.00	29.66	52	Bromadiolone	3	NO	NO
87235-1	BRIGAND SB SOFT BAIT RODENTICIDE	0.00	12.54	47	Bromadiolone	3	NO	NO
12455-80	ALL-WEATHER DI-BLOX	0.00	52.69	45	Diphacinone	3	NO	NO
47629-17	PRESCRIPTION TREATMENT BRAND SOREXA PELLET PLACE PACK	0.80	0.00	26	Difenacoum	3	NO	NO
12455-139	Final Soft Bait	0.00	11.31	24	Brodifacoum	3	NO	NO
12455-80	DITRAC ALL-WEATHER BLOX	0.00	15.00	14	Diphacinone	3	NO	NO
12455-76	ZEP TOTAL CONTROL PELLET PACKS TOTAL CONTROL SYSTEMS	0.00	5.01	9	Bromadiolone	3	NO	NO
12455-89	JAGUAR BAIT CHUNX	0.00	2.58	7	Brodifacoum	3	NO	NO
7173-288	DIFETHIALONE BLOCK 0707	0.00	1.28	7	Difethialone	3	NO	NO
61282-75	Top Gun Bait Blocks	0.00	0.44	4	Bromethalin	3	NO	NO
7173-258	D-CON BAIT PASTE POUCHES	0.00	3.22	3	Difethialone	3	NO	NO
100-1057	TALON-G RODENTICIDE MINI-PELLETS WITH BITREX	0.00	0.38	3	Brodifacoum	3	NO	NO
12455-91	FINAL RODENTICIDE READY-TO-USE PLACE PAC	0.03	0.00	2	Brodifacoum	3	NO	NO
12455-95	FASTRAC ALL-WEATHER BLOX	0.00	3.08	2	Bromethalin	3	NO	NO
36488-63	DIFENACOUM RAT AND MOUSE BLOCK IV	0.00	1.88	2	Difenacoum	3	NO	NO
7173-172	ROZOL BLUE TRACKING POWDER	0.00	0.75	2	Chlorophacinone	2	NO	NO
10551-1	THE GIANT DESTROYER	0.04	0.00	1	Carbon; Sodium nitrate; Sulfur	2	NO	NO
7173-208	MAKI RODENTICIDE BAIT PACKS (PELLETS)	0.00	0.55	1	Bromadiolone	3	NO	NO
Insecticides								
432-763	SUSPEND SC	490.69	22.92	59,013	Deltamethrin	3	NO	NO
432-1483	TEMPRID SC INSECTICIDE	172.14	0.00	52,726	Cyfluthrin, beta; Imidacloprid	3	NO	NO
432-1257	MAXFORCE ROACH BAIT F.05	0.12	1,557.56	23,572	Fipronil	3	YES	NO
432-1460	MAXFORCE FC ROACH KILLER BAIT GEL F.05	0.00	545.15	15,536	Fipronil	3	YES	NO
432-1259	PRODUCT: RBF5	0.00	597.82	11,548	Fipronil	3	YES	NO
432-763	SUSPEND SC INSECTICIDE	78.59	0.00	8,085	Deltamethrin	3	NO	NO
499-304	WHITMIRE OPTEM ME PT 600	58.52	1.75	7,497	Cyfluthrin	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
100-1484	DUPONT ADVION COCKROACH GEL BAIT	1.64	254.35	6,414	Indoxacarb	3	NO	NO
397-13	STERI-FAB	513.58	1,136.23	4,502	Phenothrin; Isopropyl alcohol; Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride; Didecyl dimethyl ammonium chloride	2	NO	NO
73049-429	VECTOMAX FG	0.00	36,128.99	3,643	Bacillus sphaericus; Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
2724-351	ZOECON GENCOR 9% EMULSIFIABLE CONCENTRATE	18.88	0.00	2,304	(7S)-Hydroprene	3	NO	NO
1021-1828	MGK ROACH BAIT 2822	0.00	121.96	2,020	Avermectin	3	NO	NO
53883-276	DELTA 4.75% SC	19.61	0.00	1,936	Deltamethrin	3	NO	NO
64405-2	REDZONE BAIT	0.27	369.30	1,849	Boric acid	3	NO	NO
432-1363	TEMPO SC INSECTICIDE	39.33	5.63	1,540	Cyfluthrin, beta	3	NO	NO
73079-4	BORACTIN INSECTICIDE POWDER	0.03	391.45	1,382	Boric acid	3	NO	NO
2724-351	ZOECON RF-259 EMULSIFIABLE CONCENTRATE	10.27	0.00	1,313	(7S)-Hydroprene	3	NO	NO
1021-2593	MGK? Formula 2976	8.00	37.32	1,098	Avermectin; Pyriproxyfen	3	NO	NO
100-1498	DUPONT ADVION ANT GEL	351.00	27.29	1,075	Indoxacarb	3	NO	NO
62577-12	ECOPCO ACU	64.66	1.43	773	Phenylethyl propionate	3	NO	NO
279-3206	TALSTAR TC FLOWABLE TERMITICIDE/INSECTICIDE	11.48	0.00	762	Bifenthrin	3	YES	NO
499-510	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT PISTON CAN	0.00	16.38	530	Dinotefuran	3	NO	NO
73079-14	IMIDACLOPRID GRANULAR BAIT	0.00	59.72	477	Imidacloprid	3	NO	NO
499-507	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT RESERVOIR	0.02	22.31	437	Dinotefuran	3	NO	NO
100-1066	DEMAND CS INSECTICIDE	79.38	0.13	424	Cyhalothrin, lambda	3	NO	NO
64405-2	ECOLOGICAL ANT & INSECT BAIT	0.00	41.11	372	Boric acid	3	NO	NO
279-9554	CB INSECTICIDE WITH DELTAMETHRIN	27.77	20.88	370	Deltamethrin	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
73049-20	VECTOLEX CG BIOLOGICAL LARVICIDE	0.00	559.59	314	Bacillus sphaericus	3	NO	NO
2724-421	ZOECON RF-292 BRIQUET	0.00	663.65	241	S-Methoprene	3	NO	NO
432-1531	BES0600 INSECTICIDE	1.41	17.60	234	Clothianidin	0	NO	NO
100-1501	DUPONT ARILON INSECTICIDE	254.49	0.00	233	Indoxacarb	3	NO	NO
432-1506	MAXFORCE QUANTUM ANT BAIT	10.00	4.22	160	Imidacloprid	3	NO	NO
1021-1688	ANVIL 10+10 ULV	0.00	3,106.40	159	Phenothrin; Piperonyl butoxide	3	YES	NO
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	4.96	158	Indoxacarb	3	NO	NO
100-1483	ADVION INSECT GRANULE	0.00	29.70	151	Indoxacarb	3	NO	NO
1021-1603	NYLAR 10EC	151.36	0.00	147	Pyriproxyfen	3	NO	NO
432-1375	PRE-EMPT FLY BAIT	0.00	43.57	113	Imidacloprid; (Z)-9-Tricosene	3	NO	NO
432-772	DELTA DUST	0.00	2.75	107	Deltamethrin	3	NO	NO
64405-8	NIBOR BORATE INSECTICIDE AND FUNGICIDE	130.75	5.32	104	Disodium octaborate tetrahydrate	3	NO	NO
1677-43	STER-BAC	28.41	0.00	94	Alkyl (60%C14, 25%C12, 15%C16) dimethylbenzyl ammonium chloride	1	NO	NO
7173-304	BROMETHALIN SOFT BAIT	0.00	88.41	93	Bromethalin	3	NO	NO
2724-484	RF 9707 AEROSOL	2.66	17.64	84	(7S)-Hydroprene	3	NO	NO
67425-14	ECOPCO ACU	13.66	0.00	78	Phenylethyl propionate	3	NO	NO
1021-1815	EVERCIDE ESFENVALERATE 6.4% CS	0.30	0.00	75	Esfenvalerate	3	NO	NO
499-467	WHITMIRE AVERT TC 181	0.00	2.97	73	Avermectin	3	NO	NO
73049-501	VBC-60394 FG BIOLOGICAL LARVICIDE FINE GRANULE	0.00	431.25	69	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
1021-2569	MULTICIDE SPRAY 29511	12.73	0.00	65	Imidacloprid; Phenothrin; N-octyl bicycloheptene dicarboximide	0	YES	NO
73766-1	ADIOS ANT & ROACH KILLER IN A GEL	0.00	1.38	60	Disodium octaborate tetrahydrate	3	NO	NO
73049-19	VECTOBAC CG BIOLOGICAL LARVICIDE GRANULES	0.00	77.19	54	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
73766-1	GOURMET ANT BAIT GEL	0.08	2.44	52	Disodium octaborate tetrahydrate	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
9688-190	SPECTRACIDE DESTROYER BRAND WASP & HORNET KILLER	4.37	73.13	49	Cyhalothrin, lambda; Prallethrin	3	NO	NO
432-1255	MAXFORCE GRANULAR INSECT BAIT	0.38	4.32	48	Hydramethylnon	3	YES	NO
432-1262	MAXFORCE IBH10	0.68	1.69	40	Hydramethylnon	3	YES	YES
432-1455	BES 0026 FLY SPOT BAIT	0.16	6.46	38	Imidacloprid; (Z)-9-Tricosene	3	NO	YES
499-370	JOHNSON WAX PROFESSIONAL BRAND GRANULAR ANT BAIT	0.00	5.41	37	Avermectin	3	NO	NO
8033-109	TRANSPORT (R) MIKRON INSECTICIDE	0.40	0.00	34	Acetamiprid; Bifenthrin	3	YES	NO
499-470	JOHNSON WAX PROFESSIONAL BRAND RESIDUAL INSECTICIDE CRAWLING INSECT	2.54	0.06	32	Cyfluthrin	3	NO	NO
2724-274	ZOECON FLYTEK(TM) FLY BAIT	0.00	6.55	32	Methomyl; (Z)-9-Tricosene	3	NO	NO
5481-8973	ORTHENE PCO FORMULA II	29.75	0.00	31	Acephate	3	YES	NO
279-3081	CYNOFF EC INSECTICIDE	0.12	0.00	31	Cypermethrin, beta	3	YES	NO
62719-291	CONSERVE SC TURF AND ORNAMENTAL	3.02	0.00	30	Spinosad	3	NO	NO
48813-1	SUFFOIL-X	5.65	0.00	26	Petroleum distillates	3	NO	NO
53883-300	CSI MFG 4-4	58.01	0.00	24	Permethrin; Piperonyl butoxide	3	YES	NO
70051-2	TRIACT 70	2.92	0.0	24	Neem oil	3	NO	NO
432-1304	TEMPO 10 WP INSECTICIDE	15.47	0.29	23	Cyfluthrin, beta	3	NO	NO
73049-10	VECTOBAC G BIOLOGICAL LARVICIDE GRANULES	0.00	15,600.00	23	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
53883-371	QUALI-PRO ABAMECTIN 0.15 EC	0.47	0.00	22	Avermectin	2	NO	NO
53883-283	DM DUST 0.05% INSECTICIDE	0.00	1.30	20	Deltamethrin	3	NO	NO
100-1088	SCIMITAR GC INSECTICIDE	2.74	0.00	19	Cyhalothrin, lambda	3	NO	NO
432-1256	MAXFORCE FC ANT BAIT STATIONS	0.01	0.31	18	Fipronil	3	YES	NO
1021-1767	MULTICIDE LICE & DUST MITE SPRAY 27911	0.00	5.42	18	Phenothrin; N-octyl bicycloheptene dicarboximide	3	YES	NO
100-1489	DUPONT ACELEPRYN INSECTICIDE	14.92	0.00	17	DPX-E2Y45	0	NO	NO
83100-6	PRIMERAONE IMIDACLOPRID 2F INSECTICIDE	1.20	0.00	17	Imidacloprid	3	NO	NO
2724-469	ZOECON (S)-HYDROPRENE ROACH CONTROL STATION II	0.00	0.01	17	(7S)-Hydroprene	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
53883-145	LAMBDA 9.7 EW INSECTICIDE	6.28	0.00	16	Cyhalothrin, lambda	2	NO	NO
5481-553	AMVAC SMALL PRO-STRIP	0.00	3.44	16	DDVP	2	YES	NO
59639-96	DISTANCE INSECT GROWTH REGULATOR	0.55	0.00	14	Pyriproxyfen	3	NO	NO
1021-1424	PYROCIDE FOGGING CONCENTRATE 7338	0.00	17.31	14	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
499-550	TC-323	0.00	10.75	14	Prallethrin	3	NO	NO
100-1485	DUPONT ADVION ANT BAIT ARENA	0.00	0.49	14	Indoxacarb	3	NO	NO
432-1369	MARATHON II GREENHOUSE AND NURSERY INSECTICIDE	0.03	0.00	13	Imidacloprid	3	NO	NO
70051-9	SUPERNEEM 4.5-B	0.47	0.00	11	Azadirachtin	3	NO	NO
6218-47	SUMMIT B.T.I. BRIQUETS	0.00	1.48	11	Bacillus thuringiensis subspecies israelensis strain BMP 144	3	NO	NO
432-1464	DYLOX 420 SL TURF AND ORNAMENTAL INSECTICIDE	56.69	0.00	10	Trichlorfon	3	YES	NO
70506-24	UP-STAR GOLD INSECTICIDE	18.93	0.00	10	Bifenthrin	3	YES	NO
73079-10	INVICT (TM) COCKROACH GEL	0.01	0.12	10	Imidacloprid	3	NO	NO
432-1373	TEMPO 1% PROFESSIONAL INSECTICIDE	0.00	1.69	10	Cyfluthrin	3	NO	NO
1001-73	ECOLOGIX COCKROACH BAIT	0.00	0.27	10	Xanthine; Oxypurinol	3	NO	NO
69526-17	CIVITAS ONE	55.00	0.00	9	Mineral oil	3	NO	NO
100-1543	MAINSRING GH & N	0.19	0.00	9	Cyantraniliprole	0	NO	NO
100-1487	PROVAUNT	0.00	57.63	9	Indoxacarb	3	NO	NO
241-313	SIEGE PBS GEL INSECTICIDE	0.00	9.00	9	Hydramethylnon	3	YES	NO
4-80	BONIDE HORTICULTURAL AND DORMANT SPRAY OIL	1.46	0.00	8	Mineral oil	3	NO	YES
432-1318	MERIT 75 WSP	0.00	24.80	8	Imidacloprid	3	NO	NO
47000-73	SSI-50 INSECTICIDE	0.00	9.75	8	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
83529-2	AMORTECH IMD 2 SC	12.29	0.00	7	Imidacloprid	3	NO	NO
70506-121	UPI-2005 EXP-06 RUP INSECTICIDE	1.45	0.00	7	Cyhalothrin, lambda	2	NO	NO
62719-523	BLACKHAWK	0.81	45.00	7	Spinosad	3	NO	NO
9688-255	SPECTRACIDE COMMERCIAL WASP & HORNET KILLER 3	0.24	0.00	7	Deltamethrin; S-Bioallethrin	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
499-496	PRESCRIPTION TREATMENT BRAND ADVANCE 360A DUAL CHOICE ANT BAIT STATIONS	0.08	0.00	7	Avermectin	3	NO	NO
1021-1795	DUET DUAL-ACTION ADULTICIDE	0.00	91.68	7	Phenothrin; Piperonyl butoxide; Prallethrin	3	YES	NO
228-624	NUFARM CHLORPYRIFOS SPC 4 INSECTICIDE	13.09	0.00	6	Chlorpyrifos	2	NO	NO
53883-229	QUALI-PRO IMIDACLOPRID 2F TURF & ORNAMENTAL INSECT	9.34	0.00	6	Imidacloprid	3	NO	NO
53883-366	QUALI-PRO BIFENTHRIN GOLF & NURSERY 7 9F	4.06	0.00	6	Bifenthrin	3	YES	NO
432-1312	GARANT T&O 2F	3.13	1.31	6	Imidacloprid	3	NO	NO
524-597	MON 89034 SEED BLEND	0.37	0.00	6	Bacillus thuringiensis Cry1A.105 protein and genetic material necessary (vector PV-ZMIR245) for its production in corn; Bacillus thuringiensis Cry2Ab2 protein and the genetic material necessary (vector PV-ZMIR245) for its production in corn	3	NO	NO
149-8	TERRO PCO LIQUID ANT BAIT	0.04	0.00	6	Borax	3	NO	NO
73049-39	DIPEL DF DRY FLOWABLE BIOLOGICAL INSECTICIDE	0.00	0.58	6	Bacillus thuringiensis, subsp. Kurstaki, strain ABTS-351, fermentation solids and solubles	3	NO	NO
66222-19	CHLORPYRIFOS 4E AG	13.43	0.00	5	Chlorpyrifos	2	NO	NO
279-3457	TRIPLE CROWN GOLF INSECTICIDE	10.54	0.00	5	Bifenthrin; Cypermethrin, zeta; Imidacloprid	2	YES	NO
66222-19	QUALI-PRO CHLORPYRIFOS 4E	5.25	0.00	5	Chlorpyrifos	2	NO	NO
71711-4	SEPRO AKARI 5SC MITICIDE/INSECTICIDE	0.25	0.00	5	Fenpyroximate	2	NO	NO
8033-106	TRISTAR 8.5 SL INSECTICIDE	0.20	0.00	5	Acetamiprid	3	NO	NO
499-515	MOTHEREARTH GRANULAR SCATTER BAIT	0.14	0.00	5	Boric acid	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
66222-40	PEDESTAL	0.11	0.00	5	Novaluron	3	NO	NO
432-1471	KONTOS	0.04	0.00	5	Spirotetramat	3	NO	NO
432-1264	MAXFORCE FC ANT KILLER BAIT GEL	0.03	0.14	5	Fipronil	3	YES	NO
1021-1177	PYROCIDE FOGGING CONCENTRATE 5628	0.00	6.25	5	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
86203-11	SAFARI 20SG INSECTICIDE	0.00	4.92	5	Dinotefuran	3	NO	NO
432-1402	DECATHLON 20 WP GREENHOUSE AND NURSERY INSECTICIDE	0.00	0.27	5	Cyfluthrin	3	NO	NO
66222-199	QUALI-PRO IMIDACLOPRID 75 WSB	3.50	0.00	4	Imidacloprid	3	NO	NO
53883-244	QUALI-PRO LAMBDA GC-0	2.78	0.00	4	Cyhalothrin, lambda	2	NO	NO
499-362	WHITMIRE PT 515 WASP FREEZE	1.23	0.00	4	D-trans Allethrin; Phenothrin	3	YES	NO
279-3443	D-FOAM INSECTICIDE	0.06	0.56	4	Deltamethrin	3	NO	NO
499-444	WHITMIRE MICRO-GEN TC 164	0.03	0.00	4	Pyrethrins; Piperonyl butoxide	3	YES	NO
499-370	PT 370 ASCEND FIRE ANT STOPPER BAIT	0.00	0.99	4	Avermectin	3	NO	NO
1021-1862	TAT FLYING INSECT KILLER 2	0.00	0.94	4	Phenothrin; Tetramethrin	3	YES	NO
69526-5	PURESPRAY SPRAY OIL 10E	12.04	0.00	3	Mineral oil	3	NO	NO
66222-19	CHLORPYRIFOS 4E	4.33	0.00	3	Chlorpyrifos	2	NO	NO
100-1551	Ference	4.28	0.00	3	Cyantraniliprole	0	NO	NO
2724-786	RF2050 SPRAY	0.32	0.00	3	Tetramethrin; Ethofenprox; Piperonyl butoxide	3	YES	NO
499-465	PRO-CONTROL FOGGER II	0.27	0.00	3	Pyrethrins; Piperonyl butoxide; N-octyl bicycloheptene dicarboximide	3	YES	NO
2724-476	ENSTAR II INSECT GROWTH REGULATOR (ENSTAR 5E)	0.15	0.00	3	(S)-Kinoprene	2	NO	NO
400-508	FLORAMITE SC	0.05	0.00	3	Bifenazate	3	NO	NO
432-1260	MAXFORCE ANT BAIT F3	0.02	0.00	3	Fipronil	3	YES	NO
42697-60	SAFER BRAND O-INSECTICIDAL SOAP CONCENTRATE	0.02	0.00	3	Potassium laurate	2	NO	NO
432-1308	DYLOX 6.2 GRANULAR INSECTICIDE	0.00	225.00	3	Trichlorfon	3	YES	NO
499-527	PRESCRIPTION TREATMENT BRAND ALPINE DUST INSECTICIDE	0.00	0.39	3	Dinotefuran; Diatomaceous earth	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
9444-131	BAYER ADVANCED ANT KILLER POWER PEN READYTO-USE BAIT	0.00	0.08	3	Boric acid	3	NO	NO
432-1251	MAXFORCE ROACH CONTROL SYSTEM	0.00	0.04	3	Hydramethylnon	3	YES	NO
19713-123	DAMOIL DORMANT & SUMMER SPRAY OIL	12.00	0.00	2	Kerosene	3	NO	YES
19713-520	DREXEL CHLORPYRIFOS 4E-AG	3.63	0.00	2	Chlorpyrifos	2	NO	NO
2217-937	SAGACITY 10SL	0.75	0.00	2	Dinotefuran	3	NO	NO
1021-1691	TERRO ANT KILLER SPRAY 2	0.23	0.00	2	Esfenvalerate; Prallethrin; N-octyl bicycloheptene dicarboximide	3	YES	NO
89459-59	ENVI ACU CONTACT Insecticide	0.13	0.53	2	Phenylethyl propionate	3	NO	NO
73079-2	INTICE GRANULAR BAIT	0.02	0.00	2	Boric acid	3	NO	NO
1021-1641	CONQUER RESIDUAL INSECTICIDE CONCENTRATE	0.00	0.00	2	Esfenvalerate	3	NO	NO
432-1318	LESCO SYSTEMIC INSECTICIDE CONTAINS MERIT IN WATER SOLUBLE PACKETS	0.00	9.15	2	Imidacloprid	3	NO	NO
228-588	MALLET 75 WP	0.00	6.38	2	Imidacloprid	3	NO	NO
432-1457	MERIT FXT TABLET INSECTICIDE	0.00	0.55	2	Imidacloprid	3	NO	NO
279-3385	BAYER ADVANCED ANT KILLER POWER PEN READYTO-USE BAIT	0.00	0.09	2	Boric acid	3	NO	NO
73079-9	INTICE SMART ANT GEL	0.00	0.07	2	Borax	3	NO	NO
499-492	PRESCRIPTION TREATMENT BRAND 388B ADVANCE ANT GEL BAIT	0.00	0.06	2	Borax	3	NO	NO
8033-114	ENDZONE INSECTICIDE STICKER	0.00	0.00	2	Acetamiprid	3	NO	NO
432-1227	SEVIN SL CARBARYL INSECTICIDE	8.78	0.00	1	Carbaryl	3	YES	NO
279-3155	TALSTAR NURSERY FLOWABLE INSECTICIDE/MITICIDE	4.68	0.00	1	Bifenthrin	3	YES	NO
432-1312	MERIT 2F INSECTICIDE	4.50	0.00	1	Imidacloprid	3	NO	NO
19713-49	DREXEL CARBARYL 4L	2.50	0.00	1	Carbaryl	3	YES	NO
8033-96	TRANSPORT (R) GHP INSECTICIDE	1.00	0.00	1	Acetamiprid; Bifenthrin	3	YES	NO
432-1534	BES0668 Insecticide	1.00	0.00	1	Deltamethrin	3	NO	NO
73049-38	VECTOBAC 12AS BIOLOGICAL LARVICIDE	0.25	0.00	1	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
499-362	BOLT WASP & HORNET KILLER	0.13	0.00	1	D-trans Allethrin; Phenothrin	3	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
499-539	TC 278	0.08	0.00	1	Pyrethrins; Piperonyl butoxide	3	YES	NO
432-1527	TEMPRID RTU	0.03	0.00	1	Cyfluthrin, beta; Imidacloprid	0	NO	NO
44757-3	PIC ORTHOBORIC ACID ROACH & ANT KILLER	0.02	0.00	1	Boric acid	3	NO	NO
73079-2	HASTA LA VISTA, ANT!	0.01	0.00	1	Boric acid	3	NO	NO
228-501	MALLET 0.5 G INSECTICIDE	0.00	60.00	1	Imidacloprid	3	NO	NO
73049-57	VECTOLEX WDG BIOLOGICAL LARVICIDE WATER DISPERSIBLE GRANULE	0.00	10.00	1	Bacillus sphaericus 2362, serotype H5a5b, strain ABTS 1743 solids, spores and insecticidal toxins	3	NO	NO
9444-168	COUNTRY VET ROACH EMBARGO WITH GROWTH INHIBITOR	0.00	2.81	1	Esfenvalerate; Prallethrin; Pyriproxyfen	3	NO	NO
279-3365	F8028-2 AEROSOL	0.00	2.19	1	Bifenthrin; Prallethrin	3	YES	NO
84059-17	GRANDEVO	0.00	1.20	1	Chromobacterium subtsugae strain PRAA4-1 cells and spent fermentation media	3	NO	NO
4822-553	RWH 33	0.00	0.88	1	Cypermethrin, beta; Prallethrin	3	YES	NO
82074-2	BOTANIGARD 22WP	0.00	0.75	1	Beauveria bassiana GHA	3	NO	NO
100-1481	DUPONT ADVION FIRE ANT BAIT	0.00	0.63	1	Indoxacarb	3	NO	NO
279-3384	ROACH KIL COMMERCIAL	0.00	0.38	1	Boric acid	3	NO	NO
73079-6	GREEN ZONE GRANULAR BAIT	0.00	0.13	1	Boric acid	3	NO	NO
432-992	DRIONE INSECTICIDE	0.00	0.06	1	Pyrethrins; Piperonyl butoxide; Silica gel	3	YES	NO
432-1254	MAXFORCE PROFESSIONAL INSECT CONTROL ROACH KILLER	0.00	0.03	1	Hydramethylnon	3	YES	NO
432-1258	MAXFORCE LARGE ROACH BAIT F.03	0.00	0.03	1	Fipronil	3	YES	YES
1021-2563	MGK ROACH BAIT 2958	0.00	0.01	1	Avermectin	3	NO	NO
241-392	PHANTOM TERMITICIDE- INSECTICIDE	0.00	0.00	1	Chlorfenapyr	3	YES	NO
Herbicides								
524-579	ROUNDUP PROMAX	163.72	18.16	490	Glyphosate, potassium salt	3	NO	NO
62719-556	ACCORD XRT II	105.82	9.38	422	Glyphosate, dimethylammoniu m salt	3	NO	NO
228-397	RIVERDALE VANQUISH HERBICIDE	48.12	0.00	324	Dicamba, diglycolamine salt	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
432-1580	DUPONT VIEWPOINT HERBICIDE	0.05	20.50	306	Aminocyclopyrachlor; Imazapyr; Metsulfuron-methyl	3	NO	NO
432-1516	ESPLANADE 200 SC	4.27	0.00	290	Indaziflam	3	NO	NO
62719-527	GARLON 4 ULTRA	50.50	0.00	251	Triclopyr	2	NO	NO
62719-176	PATHFINDER II	87.09	0.00	245	Triclopyr, butoxyethyl ester	3	NO	NO
62719-324	GLYPRO	32.07	0.00	103	Glyphosate, isopropylamine salt	3	NO	NO
100-937	PRIMO MAXX	24.44	0.00	74	Trinexapac-ethyl	3	NO	NO
241-346	ARSENAL HERBICIDE	69.89	0.00	32	Imazapyr, isopropylamine salt	3	NO	NO
524-529	ROUNDUP PRO CONCENTRATE	31.91	0.00	32	Glyphosate, isopropylamine salt	3	NO	NO
89442-7	TRIN-PAC SELECT	12.97	0.00	31	Trinexapac-ethyl	3	NO	NO
62719-445	DIMENSION* ULTRA 40WP	5.63	481.03	31	Dithiopyr	3	NO	NO
53883-373	QUALI-PRO T-NEX 1 AQ	38.75	0.00	20	Trinexapac-ethyl	3	NO	NO
71995-33	ROUNDUP WEED & GRASS KILLER READY-TO-USE PLUS	8.40	0.00	18	Glyphosate, isopropylamine salt; Nonanoic acid	3	NO	NO
82052-1	AVENGER WEED KILLER CONCENTRATE	12.88	0.00	17	Limonene	3	NO	NO
86064-3	ARMOR TECH PGR 113 MC	7.06	0.00	17	Trinexapac-ethyl	3	NO	NO
62719-305	LONTREL TURF AND ORNAMENTAL	2.13	0.00	16	Clopyralid	3	NO	NO
62719-542	DIMENSION 2EW	29.08	6,500.00	15	Dithiopyr	2	NO	NO
432-1229	FINALE HERBICIDE	2.22	0.00	11	Glufosinate-ammonium	2	NO	NO
524-517	ACCORD XL HERBICIDE	0.26	0.00	11	Glyphosate, isopropylamine salt	3	NO	NO
100-1267	TENACITY	0.75	0.00	10	Mesotrione	3	NO	NO
10404-43	LESCO THREE-WAY SELECTIVE HERBICIDE	38.02	0.00	9	2,4-D, dimethylamine salt; Dicamba, dimethylamine salt; MCP-P, dimethylamine salt	1	NO	NO
9688-264	SPECTRACIDE WEED & GRASS KILLER WITH EXTENDED CONTROL	8.30	0.00	9	Dicamba, dimethylamine salt; Diquat dibromide; Fluazifop-P-butyl; Oxyfluorfen	3	YES	NO
62719-566	TURFLON ESTER ULTRA	1.37	0.00	9	Triclopyr, butoxyethyl ester	3	NO	NO
62719-560	EF-1343	0.17	0.00	9	Florasulam	3	NO	NO
279-3419	F7275 70 WG HERBICIDE	0.10	0.57	9	Carfentrazone-ethyl; Quinclorac	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
9198-213	THE ANDERSONS 0.25% GRANULAR DITHIOPYR HERBICIDE	0.00	1,670.00	9	Dithiopyr	3	NO	NO
1381-192	CORNERSTONE PLUS	17.64	0.00	8	Glyphosate, isopropylamine salt	3	NO	NO
62719-40	GARLON 4	0.73	0.00	8	Triclopyr, butoxyethyl ester	3	NO	NO
53883-374	QUALI-PRO DITHIOPYR 40 WSB	0.00	58.76	7	Dithiopyr	3	NO	NO
81880-1	SEDGEHAMMER	0.00	0.19	6	Halosulfuron- methyl	3	NO	NO
432-1230	PROXY GROWTH REGULATOR	33.23	0.00	5	Ethephon	1	NO	NO
228-453	BATTLESHIP 3	4.90	0.00	5	MCPA, dimethylamine salt; Triclopyr, triethylamine salt; Fluroxypyr 1- methylheptyl ester	1	NO	NO
100-1014	PACLOBUTRAZOL 2SC	3.73	0.00	5	Paclobutrazol	3	NO	NO
66330-421	ARY-0484-101	2.88	0.00	5	Dicamba, dimethylamine salt	3	NO	NO
228-366	RAZOR HERBICIDE	0.29	0.00	5	Glyphosate, isopropylamine salt	3	NO	NO
87373-4	HELENA T-METHYL 4.5 F-T&O	12.36	0.00	4	Thiophanate- methyl	3	YES	YES
80697-4	ARMOR TECH PAC 223	6.78	0.00	4	Paclobutrazol	3	NO	NO
53883-336	QUINCLORAC 1.5 L	1.81	0.00	4	Quinclorac, Dimethylamine Salt	3	NO	NO
86068-3	HDX WEED & GRASS KILLER CONCENTRATE	0.02	0.00	4	Glyphosate, isopropylamine salt	2	NO	NO
538-317	0.08% MESO + FERTILIZER	0.00	5,160.00	4	Mesotrione	3	NO	NO
66222-151	ETHEPHON 2SL	25.64	0.00	3	Ethephon	1	NO	NO
2217-768	EMBARK E-Z-TU-USE PLANT GROWTH REGULATOR	2.25	0.00	3	Mefluidide, diethanolamine salt	3	NO	NO
241-437	CLEARCAST HERBICIDE	0.50	0.00	3	Imazamox	3	NO	NO
432-950	ACCLAIM EXTRA HERBICIDE	0.40	0.00	3	Fenoxaprop-P (+)	3	NO	NO
352-401	DUPONT OUST HERBICIDE	0.00	0.10	3	Sulfometuron methyl	3	NO	NO
2217-833	SPEED ZONE BROADLEAF HERBICIDE	21.06	0.00	2	2,4-D, 2- ethylhexyl ester; Carfentrazone- ethyl; Dicamba; Mecroprop-p	3	YES	NO
100-1139	BARRICADE 4FL	17.00	0.00	2	Prodiamine	3	YES	NO
66222-151	QUALI-PRO ETHEPHON 2 SL	15.00	0.00	2	Ethephon	1	NO	NO
71995-47	RD 1653 HERBICIDE	4.00	0.00	2	Glyphosate, isopropylamine salt; Imazapic, ammonium salt; Nonanoic acid	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carcin	CA Dev. Toxin
4-480	BONIDE MMAX LAWN GRANULES	2.56	0.00	2	Ferrous sulfate (monohydrate)	3	NO	NO
53883-311	QUALI-PRO DITHIOPYR 2L	1.84	0.00	2	Dithiopyr	2	NO	NO
9198-237	THE ANDERSONS WEED & GRASS PREVENTER WITH 5% TRAMMEL HERBICIDE (DISPER	1.25	160.00	2	Trifluralin	3	YES	NO
2217-759	EMBARK 2-S PLANT GROWTH REGULATOR	0.55	0.00	2	Mefluidide, diethanolamine salt	3	NO	NO
1381-241	CORNERSTONE PLUS 5	0.39	0.00	2	Glyphosate, isopropylamine salt	3	NO	NO
62719-517	ACCORD XRT	0.26	0.00	2	Glyphosate, isopropylamine salt	3	NO	NO
7969-327	PYLEX HERBICIDE	0.07	0.00	2	Topramezone	3	NO	NO
10404-86	LESCO DIMENSION 0.15% PLUS FERTILIZER	0.00	5,800.00	2	Dithiopyr	3	NO	NO
10404-85	0.10% DIMENSION PLUS FERTILIZER	0.00	850.00	2	Dithiopyr	3	NO	NO
81927-36	ALLIGARE PRODIAMINE 65 WG HERBICIDE	0.00	40.00	2	Prodiamine	3	YES	NO
2217-696	BETAMEC 4 PRE-EMERGENCE GRASS KILLER	20.00	0.00	1	Bensulide	3	NO	NO
86064-5	ARMORTECH (R) THREESOME(TM)	17.80	0.00	1	2,4-D, dimethylamine salt; Dicamba, dimethylamine salt; MCP-P, dimethylamine salt	1	NO	NO
62719-579	GF-2003	1.50	0.00	1	2,4-D, triisopropanolamine salt; Aminopyralid, triisopropanolamine salt	1	NO	NO
70299-23	AXXE BROAD SPECTRUM HERBICIDE	1.25	0.00	1	Nonanoic acid, ammonium salt	2	NO	NO
71995-7	ACE Weed & Grass Killer Concentrate	1.00	0.00	1	Glyphosate, isopropylamine salt	2	NO	NO
62719-31	TORDON 101R	0.43	0.00	1	2,4-D, triisopropanolamine salt; Picloram, triisopropanolamine salt	3	NO	NO
2217-543	TRIMEC HERBICIDE	0.39	0.00	1	2,4-D, dimethylamine salt; MCP-P, dimethylamine salt; Dicamba, dimethylamine salt	1	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
524-535	ROUNDUP QUIKPRO HERBICIDE	0.35	0.00	1	Glyphosate, monoammonium salt; Diquat dibromide	3	NO	NO
239-2587	BRUSH-B-GON POISON IVY & POISON OAK KILLER	0.16	0.00	1	Triclopyr, triethylamine salt	3	NO	NO
10163-213	GORDON'S PROFESSIONAL TURF & ORNAMENTAL PRODUCTS TUPERAN HERBICIDE	0.06	0.00	1	Siduron	3	NO	NO
279-3265	F8426 HERBICIDE	0.06	0.00	1	Carfentrazone-ethyl	3	NO	NO
62719-483	CHOICE TURF PREMIUM LAWN CARE FERTILIZER WITH DIMENSION 0.125% HERBICI	0.00	300.00	1	Dithiopyr	3	NO	NO
8378-64	SHAW'S TUPERAN 470 GRANULES	0.00	60.00	1	Siduron	3	NO	NO
100-752	PRIMO WSB	0.00	3.00	1	Trinexapac-ethyl	3	NO	NO
66222-160	MANA QUINCLORAC 75	0.00	0.94	1	Quinclorac	3	NO	NO
228-711	NUFARM PROSEGE SELECTIVE HERBICIDE2	0.00	0.04	1	Halosulfuron-methyl	3	NO	NO
62719-322	PROKOZ GLYPHOSATE PRO	0.00	0.00	1	Glyphosate, isopropylamine salt	3	NO	NO
Fungicides								
100-1364	DACONIL ACTION	558.62	0.00	100	Acibenzolar-S-methyl; Chlorothalonil	2	YES	NO
71065-3	COMPANION LIQUID BIOLOGICAL FUNGICIDE	312.10	0.00	53	Bacillus subtilis GBO3	3	NO	NO
100-1093	HERITAGE FUNGICIDE	0.00	118.42	53	Azoxystrobin	3	NO	NO
432-942	BANOL TURF AND ORNAMENTAL FUNGICIDE	103.89	0.00	39	Propamocarb hydrochloride	3	NO	NO
53883-353	QUALI-PRO T-NEX	44.59	0.00	39	Trinexapac-ethyl	3	NO	NO
84059-3	REGALIA PTO BIOFUNGICIDE FOR USE ON TURF AND ORNAMENTALS	67.50	0.00	29	Reynoutria sachalinensis	3	NO	NO
70506-272	PEGASUS DFX	0.00	1,269.90	29	Chlorothalonil	1	YES	NO
50534-202	MANICURE ULTREX TURF & ORNAMENTAL	0.34	443.90	25	Chlorothalonil	1	YES	NO
432-890	ALIETTE WDG BRAND FUNGICIDE	0.00	846.34	24	Fosetyl-AI	3	NO	NO
70127-2	NOVOZYMES BIOFUNGICIDE GREEN RELAF 710-140	101.00	0.00	22	Bacillus licheniformis SB3086; IBA	3	NO	NO
66222-117	ARMOR TECH TEB360 XL	49.12	0.00	22	Tebuconazole	3	YES	NO
432-1446	TARTAN FLO FUNGICIDE	42.04	0.00	22	Triadimefon; Trifloxystrobin	3	YES	YES

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox. Cat.	EPA Carc in	CA Dev. Toxin
432-1445	BAYLETON FLO TURF AND ORNAMENTAL FUNGICIDE	27.61	0.00	21	Triadimefon	3	YES	YES
264-1155	RHAPSODY ASO	178.50	0.00	18	QST 713 strain of dried Bacillus subtilis	3	NO	NO
432-888	CHIPCO 26019 FLO BRAND FUNGICIDE	128.47	0.00	17	Iprodione	3	YES	NO
53883-375	QUALI-PRO IPRO 2SE	100.81	0.00	17	Iprodione	3	YES	NO
86064-1	ARMORTECH CLT 825 DF	15.00	600.00	17	Chlorothalonil	2	YES	NO
432-1541	12ESP705 FUNGICIDE	0.00	1,086.75	16	Fosetyl-Al	3	NO	NO
66222-154	QUALI-PRO CHLOROTHALONIL 720 SFT	112.81	0.00	15	Chlorothalonil	2	YES	NO
228-623	PRIMERAONE PROPICONAZOLE 14.3	22.52	0.00	14	Propiconazole	2	YES	NO
7969-349	Xzemplar Fungicide	16.03	0.00	14	Fluxapyroxad	3	NO	NO
68539-3	T-22G BIOLOGICAL PLANT PROTECTANT GRANULES	0.00	19.50	14	Trichoderma harzianum rifai strain KRL-AG2	3	NO	NO
59639-144	V-10116 VPP FUNGICIDE	0.00	117.66	13	Metconazole	3	NO	NO
432-1529	TEBUCONAZOLE SC TURF AND ORNAMENTAL FUNGICIDE	19.97	0.00	11	Tebuconazole	3	YES	NO
228-633	NUFARM PROPICONAZOLE SPC EC FUNGICIDE	13.71	0.00	11	Propiconazole	2	YES	NO
228-626	NUFARM T-METHYL PRO 4.5 F FUNGICIDE	97.98	0.00	10	Thiophanate-methyl	3	YES	YES
70299-1	ZEROTOL ALGAECIDE/FUNGICIDE	7.77	0.00	10	Hydrogen peroxide	1	NO	NO
53883-343	AZOXYSTROBIN 50 WG	0.13	13.83	10	Azoxystrobin	3	NO	NO
55260-9	PROPLANT TURF AND ORNAMENTAL FUNGICIDE	26.71	0.00	9	Propamocarb hydrochloride	3	NO	NO
7969-290	INSIGNIA SC INTRINSIC BRAND FUNGICIDE	22.32	0.00	9	Pyraclostrobin	2	NO	NO
7969-350	LEXICON INTRINSIC BRAND FUNGICIDE	6.85	0.00	9	Fluxapyroxad; Pyraclostrobin	3	NO	NO
432-1223	PROSTAR 70 WP	0.00	75.56	9	Flutolanil	3	NO	NO
228-630	LESCO TWOSOME FUNGICIDE	29.75	0.00	8	Iprodione; Thiophanate-methyl	3	YES	YES
70051-107	TRIATHLON BA	12.00	0.00	8	Bacillus subtilis var. amyloliquefaciens strain D747	3	NO	NO
66222-216	QUALI-PRO MEFENOXAM 2AQ	8.38	0.00	8	Mefenoxam	2	NO	NO
100-892	ARBOTECT 20-S FUNGICIDE	3.92	0.00	8	Thiabendazole	3	YES	NO
432-1505	CHIPCO 26019T FUNGICIDE	66.13	0.00	7	Iprodione; Trifloxystrobin	3	YES	NO
432-888	SEXTANT FUNGICIDE	45.82	0.00	7	Iprodione	3	YES	NO

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66222-117	ORIUS 3.6F	28.09	0.00	7	Tebuconazole	3	YES	NO
264-1155	CEASE	10.50	0.00	7	QST 713 strain of dried Bacillus subtilis	3	NO	NO
73512-1	KEYPLEX 350	8.59	0.00	7	Brewer's yeast extract hydrolysate from Saccharomyces cerevisiae	3	NO	NO
71512-13	SEGWAY FUNGICIDE	4.84	0.00	7	Cyazofamid	3	NO	NO
228-737	NUP-15013 Fungicide	4.83	0.00	7	Fluazinam	3	YES	NO
7969-255	HONOR FUNGICIDE	3.59	54.01	7	Nicobifen; Pyraclostrobin	3	YES	NO
66222-134	THIOPHANATE METHYL 4.5 F	44.50	0.00	6	Thiophanate-methyl	3	YES	YES
66222-41	BUMPER 14.3 EC (PROPICONAZOLE) FUNGICIDE	42.53	0.00	6	Propiconazole	2	NO	NO
89442-17	PROPICONAZOLE 14.3 SELECT	15.87	0.00	6	Propiconazole	3	YES	NO
89442-1	TEBUCONAZOLE 3.6 SELECT	14.07	0.00	6	Tebuconazole	3	YES	NO
432-890	LESCO PRODIGY SIGNATURE	0.00	299.50	6	Fosetyl-AI	3	NO	NO
4-62	BONIDE SULPHUR PLANT FUNGICIDE MICRONIZED SPRAY OR DUST	0.00	0.66	6	Sulfur	3	NO	NO
86064-2	ARMOR TECH CLT 720 FL	82.50	0.00	5	Chlorothalonil	2	YES	NO
100-1347	CONCERT II	57.00	240.00	5	Propiconazole	1	YES	NO
42750-292	AZOXY 11% + TEB 26% FL	16.00	0.00	5	Azoxystrobin; Tebuconazole	3	YES	NO
100-1433	BRISKWAY	9.29	0.00	5	Azoxystrobin; Difenconazole	3	YES	NO
70644-1	NUTROL	0.00	288.00	5	Phosphoric acid, monopotassium salt	3	NO	NO
68173-3	AFFIRM WDG	0.00	47.62	5	Polyoxin D zinc salt	3	NO	NO
50534-209	MANICURE 6 FLOWABLE	55.20	0.00	4	Chlorothalonil	3	YES	NO
66222-150	EQUUS 500 ZN	47.00	0.00	4	Chlorothalonil	2	YES	NO
100-1216	BANNER HERITAGE MAXX	21.00	0.00	4	Azoxystrobin; Propiconazole	3	YES	NO
432-1522	ES TC006A	17.00	0.00	4	Mono- and di-potassium salts of phosphorous acid	0	NO	NO
100-1451	APPEAR	16.57	0.00	4	Mono- and di-potassium salts of phosphorous acid	3	NO	NO
53883-380	QUALI-PRO IPRO 2	13.67	0.00	4	Iprodione	3	YES	NO
70506-114	TEBUCONAZOLE 3.6 F FUNGICIDE	11.58	0.00	4	Tebuconazole	3	YES	NO
228-623	LESCO SPECTATOR ULTRA 1.3 FUNGICIDE	11.20	0.00	4	Propiconazole	2	YES	NO
67702-2	CAMELOT O FUNGICIDE/BACTERICIDE	5.90	0.00	4	Copper octanoate	3	NO	NO

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87290-44	ARMORTECH ZOXY 2 SC	1.50	64.00	4	Azoxystrobin	3	NO	NO
400-521	TERRAGUARD SC	0.05	0.00	4	Triflumizole	3	NO	NO
10163-274	RUBIGAN A.S. TURF AND ORNAMENTAL	0.03	0.00	4	Fenarimol	3	NO	NO
89442-6	CHLOROTHALONIL 82.5DF SELECT	0.00	249.00	4	Chlorothalonil	2	YES	NO
70299-15	GC PRO	0.00	80.00	4	Sodium percarbonate	1	NO	NO
42750-252	PROPICONAZOLE 1.3 ME	45.16	0.00	3	Propiconazole	2	YES	NO
100-1326	BANNER MAXX II	22.25	0.00	3	Propiconazole	3	YES	NO
71512-20	SECURE	10.59	0.00	3	Fluazinam	2	YES	NO
89442-21	AZOXY 2SC SELECT	3.30	0.00	3	Azoxystrobin	3	NO	NO
7969-224	CURALAN EG	0.00	161.00	3	Vinclozolin	3	YES	YES
60063-3	LESCO MANICURE ULTRA	0.00	90.00	3	Chlorothalonil	2	YES	NO
66222-161	QUALI-PRO FOSETYL - AL 80 WDG	0.00	8.75	3	Fosetyl-Al	3	NO	NO
89442-28	IPRODIONE 2F SELECT	28.75	0.00	2	Iprodione	3	YES	NO
100-741	ALAMO FUNGICIDE	26.13	0.00	2	Propiconazole	2	YES	NO
5481-8992	TURFCIDE 4F	20.00	0.00	2	PCNB	3	YES	NO
53883-309	QUALI-PRO ENCLAVE 5.3F	12.93	0.00	2	Chlorothalonil; Thiophanate-methyl; Iprodione; Tebuconazole	3	YES	YES
228-684	PRIMERA ONE IPRODIONE 25E FUNGICIDE	9.38	0.00	2	Iprodione	3	YES	NO
70506-251	PRIMERAONE T-METHYL 4.5 TURF & ORNAMENTAL FUNGICIDE	5.40	5.00	2	Thiophanate-methyl	3	YES	YES
100-1323	HERITAGE G	0.00	60.00	2	Azoxystrobin	3	NO	NO
100-1434	MEDALLION WDG	0.00	0.13	2	Fludioxonil	3	NO	NO
464-693	CHEMICAR 15	22.00	0.00	1	Glutaraldehyde	1	NO	NO
228-623	NUFARM PROPICONAZOLE SPC 14.3 MEC FUNGICIDE	16.33	0.00	1	Propiconazole	2	YES	NO
53883-363	BUMPER 14.3 EC (PROPICONAZOLE) FUNGICIDE	11.62	0.00	1	Propiconazole	2	YES	NO
62719-396	LESCO 4 FLOWABLE MANCOZEB	10.00	0.00	1	Mancozeb	0	YES	NO
3377-78	STABROM PLUS BIOCID	5.00	0.00	1	Sodium N-bromosulfamate, mixture with sodium N-chlorosulfamate, potassium N-bromosulfamate, and potassium N-chlorosulfamate	1	NO	NO
33753-27	S445L	5.00	0.00	1	Glutaraldehyde	1	NO	NO
50534-211	DACONIL ZN FLOWABLE FUNGICIDE	2.10	0.00	1	Chlorothalonil	2	YES	NO

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86064-4	ARMOR TECH PPZ 143 MC	1.72	0.00	1	Propiconazole	2	YES	NO
48234-12	QUALI-PRO TM 4.5	1.22	0.00	1	Thiophanate-methyl	3	YES	YES
400-422	TERRAZOLE L	0.50	0.00	1	Terrazole	1	YES	NO
707-133	A102	0.50	0.00	1	2-methyl-4-isothiazolin-3-one; 5-chloro-2-methyl-4-isothiazolin-3-one	1	NO	NO
3377-55	BIO-99	0.25	0.00	1	Sodium N-bromosulfamate, mixture with sodium N-chlorosulfamate, potassium N-bromosulfamate, and potassium N-chlorosulfamate	1	NO	NO
71962-1	AGRI-FOS SYSTEMIC FUNGICIDE	0.00	0.00	1	Mono- and di-potassium salts of phosphorous acid	3	NO	NO
9198-115	THE ANDERSONS TURF FUNGICIDE WITH 5.0% DACONIL	0.00	475.00	1	Chlorothalonil	1	YES	NO
100-1550	HERITAGE ACTION	0.00	5.00	1	Acibenzolar-S-methyl; Azoxystrobin	3	NO	NO
400-416	TERRAZOLE 35% WETTABLE POWDER	0.00	2.25	1	Terrazole	3	YES	NO
Other (Repellents, Biochemical Pesticides, Etc.)								
52483-1	HYPOCHLORITE SOLUTION	107.25	0.00	32	Sodium hypochlorite	1	NO	NO
60061-71	PETTIT MARINE PAINT PREMIUM SINGLE SEASON ABLATIVE	18.00	0.00	16	Copper oxide (ous)	2	NO	NO
14802-8	MICROBE LIFE ALGAWAY 5.4 ALGAEICIDE FOR PONDS	2.50	0.00	10	Poly(oxyethylene) (dimethylimino) ethylene (dimethylimino) ethylene dichloride	3	NO	NO
63838-5	CHEM-AQUA 42171	13.25	0.00	9	Sodium bromide; Sodium hypochlorite	1	NO	NO
59807-4	HORMODIN 1	0.00	0.26	6	IBA	3	NO	NO
73049-15	PROGIBB 4% PLANT GROWTH REGULATOR SOLUTION	0.00	0.00	4	Gibberellins	2	NO	NO
58616-1	PCT 3026	36.00	0.00	1	Sodium bromide; Sodium hypochlorite	1	NO	NO
60061-134	PETTIT ULTIMA ECO ABLATIVE ANTIFOULING PAINT	1.00	0.00	1	1H-Pyrrole-3-carbonitrile, 4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-; Zinc 2-pyridinethiol-1-oxide	2	NO	NO

APPENDIX 2: Complete Listing of Pesticide Products Used by the Department of Parks and Recreation in 2017

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
Rodenticides								
12455-36	CONTRAC RAT AND MOUSE BAIT	0.00	342.31	571	Bromadiolone	3	NO	NO
12455-69	CONTRAC RODENTICIDE	0.00	362.35	356	Bromadiolone	3	NO	NO
12455-79	CONTRAC ALL-WEATHER BLOX	0.00	133.94	264	Bromadiolone	3	NO	NO
12455-106	TERAD3 BLOX	0.00	44.13	192	Cholecalciferol	3	NO	NO
7173-258	DIFETHIALONE PASTE PLACE PACKS	0.00	34.52	62	Difethialone	3	NO	NO
7173-202	MAKI MINI BLOCKS	0.00	19.80	52	Bromadiolone	3	NO	NO
7173-297	BROMADIOLONE PASTE 0901	0.00	16.51	42	Bromadiolone	3	NO	NO
7173-218	GENERATION MINI BLOCKS	0.00	17.81	23	Difethialone	3	NO	NO
12455-75	CONTRAC RAT AND MOUSE BAIT READY TO USE PLACE PAC	0.00	5.34	10	Bromadiolone	3	NO	NO
12455-139	Final Soft Bait	0.00	2.31	9	Brodifacoum	3	NO	NO
12455-56	DITRAC TRACKING POWDER	0.00	0.68	5	Diphacinone	2	NO	NO
61282-75	Top Gun Bait Blocks	0.00	0.44	4	Bromethalin	3	NO	NO
100-1055	WEATHERBLOK BAIT WITH BITREX	0.00	0.00	3	Brodifacoum	3	NO	NO
12455-86	CONTRAC RODENTICIDE PLACE PAC	0.00	8.06	2	Bromadiolone	3	NO	NO
36488-63	DIFENACOUM RAT AND MOUSE BLOCK IV	0.00	0.38	1	Difenacoum	3	NO	NO
Insecticides								
100-1484	DUPONT ADVION COCKROACH GEL BAIT	0.00	1.87	94	Indoxacarb	3	NO	NO
9688-190	SPECTRACIDE DESTROYER BRAND WASP & HORNET KILLER	3.76	73.13	45	Cyhalothrin, lambda; Prallethrin	3	NO	NO
62719-291	CONSERVE SC TURF AND ORNAMENTAL	3.02	0.00	30	Spinosad	3	NO	NO
48813-1	SUFFOIL-X	5.65	0.00	26	Petroleum distillates	3	NO	NO
53883-300	CSI MFG 4-4	58.01	0.00	24	Permethrin; Piperonyl butoxide	3	YES	NO
70051-2	TRIACT 70	2.92	0.00	24	Neem oil	3	NO	NO
53883-371	QUALI-PRO ABAMECTIN 0.15 EC	0.47	0.00	22	Avermectin	2	NO	NO
100-1498	DUPONT ADVION ANT GEL	0.00	0.28	20	Indoxacarb	3	NO	NO
100-1088	SCIMITAR GC INSECTICIDE	2.74	0.00	19	Cyhalothrin, lambda	3	NO	NO
432-1506	MAXFORCE QUANTUM ANT BAIT	0.00	0.58	19	Imidacloprid	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
100-1489	DUPONT ACELEPRYN INSECTICIDE	14.92	0.00	17	DPX-E2Y45	0	NO	NO
83100-6	PRIMERAONE IMIDACLOPRID 2F INSECTICIDE	1.20	0.00	17	Imidacloprid	3	NO	NO
53883-145	LAMBDA 9.7 EW INSECTICIDE	6.28	0.00	16	Cyhalothrin, lambda	2	NO	NO
2724-351	ZOECON GENCOR 9% EMULSIFIABLE CONCENTRATE	0.82	0.00	14	(7S)-Hydroprene	3	NO	NO
59639-96	DISTANCE INSECT GROWTH REGULATOR	0.55	0.00	14	Pyriproxyfen	3	NO	NO
1021-1828	MGK ROACH BAIT 2822	0.00	0.59	14	Avermectin	3	NO	NO
432-1369	MARATHON II GREENHOUSE AND NURSERY INSECTICIDE	0.03	0.00	13	Imidacloprid	3	NO	NO
70051-9	SUPERNEEM 4.5-B	0.47	0.00	11	Azadirachtin	3	NO	NO
64405-2	REDZONE BAIT	0.00	0.27	11	Boric acid	3	NO	NO
432-1464	DYLOX 420 SL TURF AND ORNAMENTAL INSECTICIDE	56.69	0.00	10	Trichlorfon	3	YES	NO
70506-24	UP-STAR GOLD INSECTICIDE	18.93	0.00	10	Bifenthrin	3	YES	NO
69526-17	CIVITAS ONE	55.00	0.00	9	Mineral oil	3	NO	NO
100-1543	MAINSRING GH & N	0.19	0.00	9	Cyantraniliprole	0	NO	NO
100-1487	PROVAUNT	0.00	57.63	9	Indoxacarb	3	NO	NO
4-80	BONIDE HORTICULTURAL AND DORMANT SPRAY OIL	1.46	0.00	8	Mineral oil	3	NO	NO
432-1318	MERIT 75 WSP	0.00	24.80	8	Imidacloprid	3	NO	NO
83529-2	AMORTECH IMD 2 SC	12.29	0.00	7	Imidacloprid	3	NO	NO
70506-121	UPI-2005 EXP-06 RUP INSECTICIDE	1.45	0.00	7	Cyhalothrin, lambda	2	NO	NO
62719-523	BLACKHAWK	0.81	45.00	7	Spinosad	3	NO	NO
228-624	NUFARM CHLORPYRIFOS SPC 4 INSECTICIDE	13.09	0.00	6	Chlorpyrifos	2	NO	NO
53883-229	QUALI-PRO IMIDACLOPRID 2F TURF & ORNAMENTAL INSECT	9.34	0.00	6	Imidacloprid	3	NO	NO
53883-366	QUALI-PRO BIFENTHRIN GOLF & NURSERY 7 9F	4.06	0.00	6	Bifenthrin	3	YES	NO
432-1312	GARANT T&O 2F	3.13	1.31	6	Imidacloprid	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
524-597	MON 89034 SEED BLEND	0.37	0.00	6	Bacillus thuringiensis Cry1A.105 protein and genetic material necessary (vector PV-ZMIR245) for its production in corn; Bacillus thuringiensis Cry2Ab2 protein and the genetic material necessary (vector PV-ZMIR245) for its production in corn	3	NO	NO
73049-39	DIPEL DF DRY FLOWABLE BIOLOGICAL INSECTICIDE	0.00	0.58	6	Bacillus thuringiensis, subsp. Kurstaki, strain ABTS-351, fermentation solids and solubles	3	NO	NO
66222-19	CHLORPYRIFOS 4E AG	13.43	0.00	5	Chlorpyrifos	2	NO	NO
279-3457	TRIPLE CROWN GOLF INSECTICIDE	10.54	0.00	5	Bifenthrin; Cypermethrin, zeta; Imidacloprid	2	YES	NO
66222-19	QUALI-PRO CHLORPYRIFOS 4E	5.25	0.00	5	Chlorpyrifos	2	NO	NO
71711-4	SEPRO AKARI 5SC MITICIDE/INSECTICIDE	0.25	0.00	5	Fenpyroximate	2	NO	NO
8033-106	TRISTAR 8.5 SL INSECTICIDE	0.20	0.00	5	Acetamiprid	3	NO	NO
66222-40	PEDESTAL	0.11	0.00	5	Novaluron	3	NO	NO
432-1471	KONTOS	0.04	0.00	5	Spirotetramat	3	NO	NO
86203-11	SAFARI 20SG INSECTICIDE	0.00	4.92	5	Dinotefuran	3	NO	NO
432-1402	DECATHLON 20 WP GREENHOUSE AND NURSERY INSECTICIDE	0.00	0.27	5	Cyfluthrin	3	NO	NO
66222-199	QUALI-PRO IMIDACLOPRID 75 WSB	3.50	0.00	4	Imidacloprid	3	NO	NO
53883-244	QUALI-PRO LAMBDA GC-0	2.78	0.00	4	Cyhalothrin, lambda	2	NO	NO
73049-20	VECTOLEX CG BIOLOGICAL LARVICIDE	0.00	20.00	4	Bacillus sphaericus	3	NO	NO
1021-1862	TAT FLYING INSECT KILLER 2	0.00	0.94	4	Phenothrin; Tetramethrin	3	YES	NO
69526-5	PURESpray SPRAY OIL 10E	12.04	0.00	3	Mineral oil	3	NO	NO
66222-19	CHLORPYRIFOS 4E	4.33	0.00	3	Chlorpyrifos	2	NO	NO
100-1551	Ference	4.28	0.00	3	Cyantraniliprole	0	NO	NO
2724-476	ENSTAR II INSECT GROWTH REGULATOR (ENSTAR 5E)	0.15	0.00	3	(S)-Kinoprene	2	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
400-508	FLORAMITE SC	0.05	0.00	3	Bifenazate	3	NO	NO
42697-60	SAFER BRAND O-INSECTICIDAL SOAP CONCENTRATE	0.02	0.00	3	Potassium laurate	2	NO	NO
432-1308	DYLOX 6.2 GRANULAR INSECTICIDE	0.00	225.00	3	Trichlorfon	3	YES	NO
73049-429	VECTOMAX FG	0.00	0.26	3	Bacillus sphaericus; Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
499-507	PRESCRIPTION TREATMENT BRAND ALPINE COCKROACH GEL BAIT RESERVOIR	0.00	0.02	3	Dinotefuran	3	NO	NO
19713-123	DAMOIL DORMANT & SUMMER SPRAY OIL	12.00	0.00	2	Kerosene	3	NO	NO
19713-520	DREXEL CHLORPYRIFOS 4E-AG	3.63	0.00	2	Chlorpyrifos	2	NO	NO
2217-937	SAGACITY 10SL	0.75	0.00	2	Dinotefuran	3	NO	NO
432-1318	LESCO SYSTEMIC INSECTICIDE CONTAINS MERIT IN WATER SOLUBLE PACKETS	0.00	9.15	2	Imidacloprid	3	NO	NO
228-588	MALLET 75 WP	0.00	6.38	2	Imidacloprid	3	NO	NO
6218-47	SUMMIT B.T.I. BRIQUETS	0.00	0.59	2	Bacillus thuringiensis subspecies Israelensis strain BMP 144	3	NO	NO
432-1457	MERIT FXT TABLET INSECTICIDE	0.00	0.55	2	Imidacloprid	3	NO	NO
432-1227	SEVIN SL CARBARYL INSECTICIDE	8.78	0.00	1	Carbaryl	3	YES	NO
279-3155	TALSTAR NURSERY FLOWABLE INSECTICIDE/MITICIDE	4.68	0.00	1	Bifenthrin	3	YES	NO
432-1312	MERIT 2F INSECTICIDE	4.50	0.00	1	Imidacloprid	3	NO	NO
19713-49	DREXEL CARBARYL 4L	2.50	0.00	1	Carbaryl	3	YES	NO
73049-38	VECTOBAC 12AS BIOLOGICAL LARVICIDE	0.25	0.00	1	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO
228-501	MALLET 0.5 G INSECTICIDE	0.00	60.00	1	Imidacloprid	3	NO	NO
73049-501	VBC-60394 FG BIOLOGICAL LARVICIDE FINE GRANULE	0.00	20.00	1	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
73049-57	VECTOLEX WDG BIOLOGICAL LARVICIDE WATER DISPERSIBLE GRANULE	0.00	10.00	1	Bacillus sphaericus 2362, serotype H5a5b, strain ABTS 1743 solids, spores and insecticidal toxins	3	NO	NO
279-3365	F8028-2 AEROSOL	0.00	2.19	1	Bifenthrin; Prallethrin	3	YES	NO
84059-17	GRANDEVO	0.00	1.20	1	Chromobacterium subtsugae strain PRAA4-1 cells and spent fermentation media	3	NO	NO
4822-553	RWH 33	0.00	0.88	1	Cypermethrin, beta; Prallethrin	3	YES	NO
82074-2	BOTANIGARD 22WP	0.00	0.75	1	Beauveria bassiana GHA	3	NO	NO
73079-6	GREEN ZONE GRANULAR BAIT	0.00	0.13	1	Boric acid	3	NO	NO
Herbicides								
524-579	ROUNDUP PROMAX	154.03	18.16	470	Glyphosate, potassium salt	3	NO	NO
62719-527	GARLON 4 ULTRA	45.51	0.00	232	Triclopyr	2	NO	NO
62719-556	ACCORD XRT II	42.62	0.00	120	Glyphosate, dimethylammonium salt	3	NO	NO
62719-324	GLYPRO	32.07	0.00	103	Glyphosate, isopropylamine salt	3	NO	NO
100-937	PRIMO MAXX	24.44	0.00	74	Trinexapac-ethyl	3	NO	NO
524-529	ROUNDUP PRO CONCENTRATE	31.91	0.00	32	Glyphosate, isopropylamine salt	3	NO	NO
89442-7	TRIN-PAC SELECT	12.97	0.00	31	Trinexapac-ethyl	3	NO	NO
62719-445	DIMENSION* ULTRA 40WP	5.63	481.03	31	Dithiopyr	3	NO	NO
228-397	RIVERDALE VANQUISH HERBICIDE	4.42	0.00	24	Dicamba, diglycolamine salt	3	NO	NO
53883-373	QUALI-PRO T-NEX 1 AQ	38.75	0.00	20	Trinexapac-ethyl	3	NO	NO
62719-176	PATHFINDER II	15.09	0.00	20	Triclopyr, butoxyethyl ester	3	NO	NO
82052-1	AVENGER WEED KILLER CONCENTRATE	12.88	0.00	17	Limonene	3	NO	NO
86064-3	ARMOR TECH PGR 113 MC	7.06	0.00	17	Trinexapac-ethyl	3	NO	NO
62719-305	LONTREL TURF AND ORNAMENTAL	2.13	0.00	16	Clopyralid	3	NO	NO
62719-542	DIMENSION 2EW	29.08	6,500.00	15	Dithiopyr	2	NO	NO
100-1267	TENACITY	0.75	0.00	10	Mesotrione	3	NO	NO
10404-43	LESCO THREE-WAY SELECTIVE HERBICIDE	38.02	0.00	9	2,4-D, dimethylamine salt; Dicamba, dimethylamine salt; MCP-P, dimethylamine salt	1	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
62719-566	TURFLON ESTER ULTRA	1.37	0.00	9	Triclopyr, butoxyethyl ester	3	NO	NO
62719-560	EF-1343	0.17	0.00	9	Florasulam	3	NO	NO
279-3419	F7275 70 WG HERBICIDE	0.10	0.57	9	Carfentrazone-ethyl; Quinclorac	3	NO	NO
9198-213	THE ANDERSONS 0.25% GRANULAR DITHIOPYR HERBICIDE	0.00	1,670.00	9	Dithiopyr	3	NO	NO
53883-374	QUALI-PRO DITHIOPYR 40 WSB	0.00	58.76	7	Dithiopyr	3	NO	NO
81880-1	SEDGEHAMMER	0.00	0.19	6	Halosulfuron-methyl	3	NO	NO
432-1230	PROXY GROWTH REGULATOR	33.23	0.00	5	Ethephon	1	NO	NO
228-453	BATTLESHIP 3	4.90	0.00	5	MCPA, dimethylamine salt; Triclopyr, triethylamine salt; Fluroxypyr 1-methylheptyl ester	1	NO	NO
100-1014	PACLOBUTRAZOL 2SC	3.73	0.00	5	Paclobutrazol	3	NO	NO
66330-421	ARY-0484-101	2.88	0.00	5	Dicamba, dimethylamine salt	3	NO	NO
87373-4	HELENA T-METHYL 4.5 F-T&O	12.36	0.00	4	Thiophanate-methyl	3	YES	YES
80697-4	ARMOR TECH PAC 223	6.78	0.00	4	Paclobutrazol	3	NO	NO
53883-336	QUINCLORAC 1.5 L	1.81	0.00	4	Quinclorac, Dimethylamine Salt	3	NO	NO
86068-3	HDX WEED & GRASS KILLER CONCENTRATE	0.02	0.00	4	Glyphosate, isopropylamine salt	2	NO	NO
66222-151	ETHEPHON 2SL	25.64	0.00	3	Ethephon	1	NO	NO
2217-768	EMBARK E-Z-TU-USE PLANT GROWTH REGULATOR	2.25	0.00	3	Mefluidide, diethanolamine salt	3	NO	NO
241-437	CLEARCAST HERBICIDE	0.50	0.00	3	Imazamox	3	NO	NO
432-950	ACCLAIM EXTRA HERBICIDE	0.40	0.00	3	Fenoxaprop-P (+)	3	NO	NO
352-401	DUPONT OUST HERBICIDE	0.00	0.10	3	Sulfometuron methyl	3	NO	NO
2217-833	SPEED ZONE BROADLEAF HERBICIDE	21.06	0.00	2	2,4-D, 2-ethylhexyl ester; Carfentrazone-ethyl; Dicamba; Mecroprop-p	3	YES	NO
100-1139	BARRICADE 4FL	17.00	0.00	2	Prodiamine	3	YES	NO
66222-151	QUALI-PRO ETHEPHON 2 SL	15.00	0.00	2	Ethephon	1	NO	NO
4-480	BONIDE MMAX LAWN GRANULES	2.56	0.00	2	Ferrous sulfate (monohydrate)	3	NO	NO
53883-311	QUALI-PRO DITHIOPYR 2L	1.84	0.00	2	Dithiopyr	2	NO	NO
2217-759	EMBARK 2-S PLANT GROWTH REGULATOR	0.55	0.00	2	Mefluidide, diethanolamine salt	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
62719-517	ACCORD XRT	0.26	0.00	2	Glyphosate, isopropylamine salt	3	NO	NO
7969-327	PYLEX HERBICIDE	0.07	0.00	2	Topramezone	3	NO	NO
10404-86	LESCO DIMENSION 0.15% PLUS FERTILIZER	0.00	5,800.00	2	Dithiopyr	3	NO	NO
10404-85	0.10% DIMENSION PLUS FERTILIZER	0.00	850.00	2	Dithiopyr	3	NO	NO
81927-36	ALLIGARE PRODIAMINE 65 WG HERBICIDE	0.00	40.00	2	Prodiamine	3	YES	NO
2217-696	BETAMEC 4 PRE-EMERGENCE GRASS KILLER	20.00	0.00	1	Bensulide	3	NO	NO
86064-5	ARMORTECH (R) THREESOME(TM)	17.80	0.00	1	2,4-D, dimethylamine salt; Dicamba, dimethylamine salt; MCP-P, dimethylamine salt	1	NO	NO
62719-579	GF-2003	1.50	0.00	1	2,4-D, triisopropanolamine salt; Aminopyralid, triisopropanolamine salt	1	NO	NO
70299-23	AXXE BROAD SPECTRUM HERBICIDE	1.25	0.00	1	Nonanoic acid, ammonium salt	2	NO	NO
2217-543	TRIMEC HERBICIDE	0.39	0.00	1	2,4-D, dimethylamine salt; MCP-P, dimethylamine salt; Dicamba, dimethylamine salt	1	NO	NO
524-535	ROUNDUP QUIKPRO HERBICIDE	0.35	0.00	1	Glyphosate, monoammonium salt; Diquat dibromide	3	NO	NO
239-2587	BRUSH-B-GON POISON IVY & POISON OAK KILLER	0.16	0.00	1	Triclopyr, triethylamine salt	3	NO	NO
10163-213	GORDON'S PROFESSIONAL TURF & ORNAMENTAL PRODUCTS TUPERAN HERBICIDE	0.06	0.00	1	Siduron	3	NO	NO
279-3265	F8426 HERBICIDE	0.06	0.00	1	Carfentrazone-ethyl	3	NO	NO
62719-40	GARLON 4	0.03	0.00	1	Triclopyr, butoxyethyl ester	3	NO	NO
62719-483	CHOICE TURF PREMIUM LAWN CARE FERTILIZER WITH DIMENSION 0.125% HERBICI	0.00	300.00	1	Dithiopyr	3	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
8378-64	SHAW'S TUPERAN 470 GRANULES	0.00	60.00	1	Siduron	3	NO	NO
100-752	PRIMO WSB	0.00	3.00	1	Trinexapac-ethyl	3	NO	NO
66222-160	MANA QUINCLORAC 75	0.00	0.94	1	Quinclorac	3	NO	NO
228-711	NUFARM PROSEGE SELECTIVE HERBICIDE2	0.00	0.04	1	Halosulfuron-methyl	3	NO	NO
Fungicides								
100-1364	DACONIL ACTION	558.62	0.00	100	Acibenzolar-S-methyl; Chlorothalonil	2	YES	NO
71065-3	COMPANION LIQUID BIOLOGICAL FUNGICIDE	312.10	0.00	53	Bacillus subtilis GBO3	3	NO	NO
100-1093	HERITAGE FUNGICIDE	0.00	118.42	53	Azoxystrobin	3	NO	NO
432-942	BANOL TURF AND ORNAMENTAL FUNGICIDE	103.89	0.00	39	Propamocarb hydrochloride	3	NO	NO
53883-353	QUALI-PRO T-NEX	44.59	0.00	39	Trinexapac-ethyl	3	NO	NO
84059-3	REGALIA PTO BIOFUNGICIDE FOR USE ON TURF AND ORNAMENTALS	67.50	0.00	29	Reynoutria sachalinensis	3	NO	NO
70506-272	PEGASUS DFX	0.00	1,269.90	29	Chlorothalonil	1	YES	NO
50534-202	MANICURE ULTREX TURF & ORNAMENTAL	0.34	443.90	25	Chlorothalonil	1	YES	NO
432-890	ALIETTE WDG BRAND FUNGICIDE	0.00	846.34	24	Fosetyl-Al	3	NO	NO
70127-2	NOVOZYMES BIOFUNGICIDE GREEN RELEAF 710-140	101.00	0.00	22	Bacillus licheniformis SB3086; IBA	3	NO	NO
66222-117	ARMOR TECH TEB360 XL	49.12	0.00	22	Tebuconazole	3	YES	NO
432-1446	TARTAN FLO FUNGICIDE	42.04	0.00	22	Triadimefon; Trifloxystrobin	3	YES	YES
432-1445	BAYLETON FLO TURF AND ORNAMENTAL FUNGICIDE	27.61	0.00	21	Triadimefon	3	YES	YES
264-1155	RHAPSODY AS0	178.50	0.00	18	QST 713 strain of dried Bacillus subtilis	3	NO	NO
432-888	CHIPCO 26019 FLO BRAND FUNGICIDE	128.47	0.00	17	Iprodione	3	YES	NO
53883-375	QUALI-PRO IPRO 2SE	100.81	0.00	17	Iprodione	3	YES	NO
86064-1	ARMORTECH CLT 825 DF	15.00	600.00	17	Chlorothalonil	2	YES	NO
432-1541	12ESP705 FUNGICIDE	0.00	1,086.75	16	Fosetyl-Al	3	NO	NO
66222-154	QUALI-PRO CHLOROTHALONIL 720 SFT	112.81	0.00	15	Chlorothalonil	2	YES	NO
228-623	PRIMERAONE PROPICONAZOLE 14.3	22.52	0.00	14	Propiconazole	2	YES	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
7969-349	Xzemplar Fungicide	16.03	0.00	14	Fluxapyroxad	3	NO	NO
68539-3	T-22G BIOLOGICAL PLANT PROTECTANT GRANULES	0.00	19.50	14	Trichoderma harzianum rifai strain KRL-AG2	3	NO	NO
59639-144	V-10116 VPP FUNGICIDE	0.00	117.66	13	Metconazole	3	NO	NO
432-1529	TEBUCONAZOLE SC TURF AND ORNAMENTAL FUNGICIDE	19.97	0.00	11	Tebuconazole	3	YES	NO
228-633	NUFARM PROPICONAZOLE SPC EC FUNGICIDE	13.71	0.00	11	Propiconazole	2	YES	NO
228-626	NUFARM T-METHYL PRO 4.5 F FUNGICIDE	97.98	0.00	10	Thiophanate-methyl	3	YES	YES
70299-1	ZEROTOL ALGAECIDE/FUNGICIDE	7.77	0.00	10	Hydrogen peroxide	1	NO	NO
53883-343	AZOXYSTROBIN 50 WG	0.13	13.83	10	Azoxystrobin	3	NO	NO
55260-9	PROPLANT TURF AND ORNAMENTAL FUNGICIDE	26.71	0.00	9	Propamocarb hydrochloride	3	NO	NO
7969-290	INSIGNIA SC INTRINSIC BRAND FUNGICIDE	22.32	0.00	9	Pyraclostrobin	2	NO	NO
7969-350	LEXICON INTRINSIC BRAND FUNGICIDE	6.85	0.00	9	Fluxapyroxad; Pyraclostrobin	3	NO	NO
432-1223	PROSTAR 70 WP	0.00	75.56	9	Flutolanil	3	NO	NO
228-630	LESCO TWOSOME FUNGICIDE	29.75	0.00	8	Iprodione; Thiophanate-methyl	3	YES	YES
70051-107	TRIATHLON BA	12.00	0.00	8	Bacillus subtilis var. amyloliquefaciens strain D747	3	NO	NO
66222-216	QUALI-PRO MEFENOXAM 2AQ	8.38	0.00	8	Mefenoxam	2	NO	NO
100-892	ARBOTECT 20-S FUNGICIDE	3.92	0.00	8	Thiabendazole	3	YES	NO
432-1505	CHIPCO 26019T FUNGICIDE	66.13	0.00	7	Iprodione; Trifloxystrobin	3	YES	NO
432-888	SEXTANT FUNGICIDE	45.82	0.00	7	Iprodione	3	YES	NO
66222-117	ORIOUS 3.6F	28.09	0.00	7	Tebuconazole	3	YES	NO
264-1155	CEASE	10.50	0.00	7	QST 713 strain of dried Bacillus subtilis	3	NO	NO
73512-1	KEYPLEX 350	8.59	0.00	7	Brewer's yeast extract hydrolysate from Saccharomyces cerevisiae	3	NO	NO
71512-13	SEGWAY FUNGICIDE	4.84	0.00	7	Cyazofamid	3	NO	NO
228-737	NUP-15013 Fungicide	4.83	0.00	7	Fluazinam	3	YES	NO
7969-255	HONOR FUNGICIDE	3.59	54.01	7	Nicobifen; Pyraclostrobin	3	YES	NO
66222-134	THIOPHANATE METHYL 4.5 F	44.50	0.00	6	Thiophanate-methyl	3	YES	YES

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
66222-41	BUMPER 14.3 EC (PROPICONAZOLE) FUNGICIDE	42.53	0.00	6	Propiconazole	2	NO	NO
89442-17	PROPICONAZOLE 14.3 SELECT	15.87	0.00	6	Propiconazole	3	YES	NO
89442-1	TEBUCONAZOLE 3.6 SELECT	14.07	0.00	6	Tebuconazole	3	YES	NO
432-890	LESCO PRODIGY SIGNATURE	0.00	299.50	6	Fosetyl-Al	3	NO	NO
4-62	BONIDE SULPHUR PLANT FUNGICIDE MICRONIZED SPRAY OR DUST	0.00	0.66	6	Sulfur	3	NO	NO
86064-2	ARMOR TECH CLT 720 FL	82.50	0.00	5	Chlorothalonil	2	YES	NO
100-1347	CONCERT II	57.00	240.00	5	Propiconazole	1	YES	NO
42750-292	AZOXY 11% + TEB 26% FL	16.00	0.00	5	Azoxystrobin; Tebuconazole	3	YES	NO
100-1433	BRISKWAY	9.29	0.00	5	Azoxystrobin; Difenconazole	3	YES	NO
70644-1	NUTROL	0.00	288.00	5	Phosphoric acid, monopotassium salt	3	NO	NO
68173-3	AFFIRM WDG	0.00	47.62	5	Polyoxin D zinc salt	3	NO	NO
50534-209	MANICURE 6 FLOWABLE	55.20	0.00	4	Chlorothalonil	3	YES	NO
66222-150	EQUUS 500 ZN	47.00	0.00	4	Chlorothalonil	2	YES	NO
100-1216	BANNER HERITAGE MAXX	21.00	0.00	4	Azoxystrobin; Propiconazole	3	YES	NO
432-1522	ES TC006A	17.00	0.00	4	Mono- and di-potassium salts of phosphorous acid	0	NO	NO
100-1451	APPEAR	16.57	0.00	4	Mono- and di-potassium salts of phosphorous acid	3	NO	NO
53883-380	QUALI-PRO IPRO 2	13.67	0.00	4	Iprodione	3	YES	NO
70506-114	TEBUCONAZOLE 3.6 F FUNGICIDE	11.58	0.00	4	Tebuconazole	3	YES	NO
228-623	LESCO SPECTATOR ULTRA 1.3 FUNGICIDE	11.20	0.00	4	Propiconazole	2	YES	NO
67702-2	CAMELOT O FUNGICIDE/BACTERICIDE	5.90	0.00	4	Copper octanoate	3	NO	NO
87290-44	ARMORTECH ZOXY 2 SC	1.50	64.00	4	Azoxystrobin	3	NO	NO
400-521	TERRAGUARD SC	0.05	0.00	4	Triflumizole	3	NO	NO
10163-274	RUBIGAN A.S. TURF AND ORNAMENTAL	0.03	0.00	4	Fenarimol	3	NO	NO
89442-6	CHLOROTHALONIL 82.5DF SELECT	0.00	249.00	4	Chlorothalonil	2	YES	NO
70299-15	GC PRO	0.00	80.00	4	Sodium percarbonate	1	NO	NO
42750-252	PROPICONAZOLE 1.3 ME	45.16	0.00	3	Propiconazole	2	YES	NO
100-1326	BANNER MAXX II	22.25	0.00	3	Propiconazole	3	YES	NO
71512-20	SECURE	10.59	0.00	3	Fluazinam	2	YES	NO
89442-21	AZOXY 2SC SELECT	3.30	0.00	3	Azoxystrobin	3	NO	NO
7969-224	CURALAN EG	0.00	161.00	3	Vinclozolin	3	YES	YES

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
60063-3	LESCO MANICURE ULTRA	0.00	90.00	3	Chlorothalonil	2	YES	NO
66222-161	QUALI-PRO FOSETYL -AL 80 WDG	0.00	8.75	3	Fosetyl-AI	3	NO	NO
89442-28	IPRODIONE 2F SELECT	28.75	0.00	2	Iprodione	3	YES	NO
100-741	ALAMO FUNGICIDE	26.13	0.00	2	Propiconazole	2	YES	NO
5481-8992	TURFCIDE 4F	20.00	0.00	2	PCNB	3	YES	NO
53883-309	QUALI-PRO ENCLAVE 5.3F	12.93	0.00	2	Chlorothalonil; Thiophanate-methyl; Iprodione; Tebuconazole	3	YES	YES
228-684	PRIMERA ONE IPRODIONE 25E FUNGICIDE	9.38	0.00	2	Iprodione	3	YES	NO
70506-251	PRIMERAONE T-METHYL 4.5 TURF & ORNAMENTAL FUNGICIDE	5.40	5.00	2	Thiophanate-methyl	3	YES	YES
100-1323	HERITAGE G	0.00	60.00	2	Azoxystrobin	3	NO	NO
100-1434	MEDALLION WDG	0.00	0.13	2	Fludioxonil	3	NO	NO
464-693	CHEMICAR 15	22.00	0.00	1	Glutaraldehyde	1	NO	NO
228-623	NUFARM PROPICONAZOLE SPC 14.3 MEC FUNGICIDE	16.33	0.00	1	Propiconazole	2	YES	NO
53883-363	BUMPER 14.3 EC (PROPICONAZOLE) FUNGICIDE	11.62	0.00	1	Propiconazole	2	YES	NO
62719-396	LESCO 4 FLOWABLE MANCOZEB	10.00	0.00	1	Mancozeb	0	YES	NO
3377-78	STABROM PLUS BIOCID	5.00	0.00	1	Sodium N-bromosulfamate, mixture with sodium N-chlorosulfamate, potassium N-bromosulfamate, and potassium N-chlorosulfamate	1	NO	NO
33753-27	S445L	5.00	0.00	1	Glutaraldehyde	1	NO	NO
50534-211	DACONIL ZN FLOWABLE FUNGICIDE	2.10	0.00	1	Chlorothalonil	2	YES	NO
86064-4	ARMOR TECH PPZ 143 MC	1.72	0.00	1	Propiconazole	2	YES	NO
48234-12	QUALI-PRO TM 4.5	1.22	0.00	1	Thiophanate-methyl	3	YES	YES
400-422	TERRAZOLE L	0.50	0.00	1	Terrazole	1	YES	NO
707-133	A102	0.50	0.00	1	2-methyl-4-isothiazolin-3-one; 5-chloro-2-methyl-4-isothiazolin-3-one	1	NO	NO

EPA Reg. #	EPA Product Name	Volume (Gals)	Weight (Lbs)	No. Appl's.	Active Ingredient(s)	EPA Tox Cat	EPA Carcin	CA Dev. Toxin
3377-55	BIO-99	0.25	0.00	1	Sodium N-bromosulfamate, mixture with sodium N-chlorosulfamate, potassium N-bromosulfamate, and potassium N-chlorosulfamate	1	NO	NO
71962-1	AGRI-FOS SYSTEMIC FUNGICIDE	0.00	0.00	1	Mono- and di-potassium salts of phosphorous acid	3	NO	NO
9198-115	THE ANDERSONS TURF FUNGICIDE WITH 5.0% DACTONIL	0.00	475.00	1	Chlorothalonil	1	YES	NO
100-1550	HERITAGE ACTION	0.00	5.00	1	Acibenzolar-S-methyl; Azoxystrobin	3	NO	NO
400-416	TERRAZOLE 35% WETTABLE POWDER	0.00	2.25	1	Terrazole	3	YES	NO
Other (Repellents, Biochemical Pesticides, Etc.)								
52483-1	HYPOCHLORITE SOLUTION	107.25	0.00	32	Sodium hypochlorite	1	NO	NO
60061-71	PETTIT MARINE PAINT PREMIUM SINGLE SEASON ABLATIVE	18.00	0.00	16	Copper oxide (ous)	2	NO	NO
14802-8	MICROBE LIFE ALGAWAY 5.4 ALGAEICIDE FOR PONDS	2.50	0.00	10	Poly(oxyethylene) (dimethylimino) ethylene (dimethylimino) ethylene dichloride	3	NO	NO
63838-5	CHEM-AQUA 42171	13.25	0.00	9	Sodium bromide; Sodium hypochlorite	1	NO	NO
59807-4	HORMODIN 1	0.00	0.26	6	IBA	3	NO	NO
73049-15	PROGIBB 4% PLANT GROWTH REGULATOR SOLUTION	0.00	0.00	4	Gibberellins	2	NO	NO
58616-1	PCT 3026	36.00	0.00	1	Sodium bromide; Sodium hypochlorite	1	NO	NO
60061-134	PETTIT ULTIMA ECO ABLATIVE ANTIFOULING PAINT	1.00	0.00	1	1H-Pyrrole-3-carbonitrile,4-bromo-2-(4-chlorophenyl)-5-(trifluoromethyl)-; Zinc 2-pyridinethiol-1-oxide	2	NO	NO

APPENDIX 3: Complete Listing of “Best Management Practices” Insecticides Used Citywide in 2017

EPA Reg. #	EPA Prod Name	Volume in Gallons	Weight in Pounds	Total Applications	Active Ingredient Data
432-1257	MAXFORCE ROACH BAIT F.05	0.12	1557.56	23,572	Fipronil
432-1460	MAXFORCE FC ROACH KILLER BAIT GEL F.05	0.00	545.15	15,536	Fipronil
432-1259	PRODUCT: RBF5	0.00	597.82	11,548	Fipronil
100-1484	DUPONT ADVION COCKROACH GEL BAIT	1.64	254.35	6,414	Indoxacarb
73049-429	VECTOMAX FG	0.00	36128.99	3,643	Bacillus sphaericus; Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52
1021-1828	MGK ROACH BAIT 2822	0.00	121.96	2,020	Avermectin
64405-2	REDZONE BAIT	0.27	369.30	1,849	Boric acid
73079-4	BORACTIN INSECTICIDE POWDER	0.03	391.45	1,382	Boric acid
1021-2593	MGK? Formula 2976	8.00	37.32	1,098	Avermectin; Pyriproxyfen
100-1498	DUPONT ADVION ANT GEL	351.00	27.29	1,075	Indoxacarb
62577-12	ECOPCO ACU	64.66	1.43	773	Phenylethyl propionate
73079-14	IMIDACLOPRID GRANULAR BAIT	0.00	59.72	477	Imidacloprid
64405-2	ECOLOGICAL ANT & INSECT BAIT	0.00	41.11	372	Boric acid
73049-20	VECTOLEX CG BIOLOGICAL LARVICIDE	0.00	559.59	314	Bacillus sphaericus
100-1501	DUPONT ARILON INSECTICIDE	254.49	0.00	233	Indoxacarb
432-1506	MAXFORCE QUANTUM ANT BAIT	10.00	4.22	160	Imidacloprid
100-1486	DUPONT ADVION COCKROACH BAIT ARENA	0.00	4.96	158	Indoxacarb
100-1483	ADVION INSECT GRANULE	0.00	29.70	151	Indoxacarb
1021-1603	NYLAR 10EC	151.36	0.00	147	Pyriproxyfen
432-1375	PRE-EMPT FLY BAIT	0.00	43.57	113	Imidacloprid; (Z)-9-Tricosene
64405-8	NIBOR BORATE INSECTICIDE AND FUNGICIDE	130.75	5.32	104	Disodium octaborate tetrahydrate
7173-304	BROMETHALIN SOFT BAIT	0.00	88.41	93	Bromethalin
73049-501	VBC-60394 FG BIOLOGICAL LARVICIDE FINE GRANULE	0.00	431.25	69	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52
73766-1	ADIOS ANT & ROACH KILLER IN A GEL	0.00	1.38	60	Disodium octaborate tetrahydrate
73049-19	VECTOBAC CG BIOLOGICAL LARVICIDE GRANULES	0.00	77.19	54	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52
73766-1	GOURMET ANT BAIT GEL	0.08	2.44	52	Disodium octaborate tetrahydrate

432-1255	MAXFORCE GRANULAR INSECT BAIT	0.38	4.32	48	Hydramethylnon
432-1262	MAXFORCE IBH10	0.68	1.69	40	Hydramethylnon
432-1455	BES 0026 FLY SPOT BAIT	0.16	6.46	38	Imidacloprid; (Z)-9-Tricosene
499-370	JOHNSON WAX PROFESSIONAL BRAND GRANULAR ANT BAIT	0.00	5.41	37	Avermectin
62719-291	CONSERVE SC TURF AND ORNAMENTAL	3.02	0.00	30	Spinosad
48813-1	SUFFOIL-X	5.65	0.00	26	Petroleum distillates
70051-2	TRIACT 70	2.92	0.00	24	Neem oil
73049-10	VECTOBAC G BIOLOGICAL LARVICIDE GRANULES	0.00	15600.00	23	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52
432-1256	MAXFORCE FC ANT BAIT STATIONS	0.01	0.31	18	Fipronil
59639-96	DISTANCE INSECT GROWTH REGULATOR	0.55	0.00	14	Pyriproxyfen
100-1485	DUPONT ADVION ANT BAIT ARENA	0.00	0.49	14	Indoxacarb
6218-47	SUMMIT B.T.I. BRIQUETS	0.00	1.48	11	Bacillus thuringiensis subspecies Israelensis strain BMP 144
73079-10	INVICT (TM) COCKROACH GEL	0.01	0.12	10	Imidacloprid
100-1487	PROVAUNT	0.00	57.63	9	Indoxacarb
241-313	SIEGE PBS GEL INSECTICIDE	0.00	9.00	9	Hydramethylnon
62719-523	BLACKHAWK	0.81	45.00	7	Spinosad
524-597	MON 89034 SEED BLEND	0.37	0.00	6	Bacillus thuringiensis Cry1A.105 protein and genetic material necessary (vector PV-ZMIR245) for its production in corn; Bacillus thuringiensis Cry2Ab2 protein and the genetic material necessary (vector PV-ZMIR245) for its production in corn
73049-39	DIPEL DF DRY FLOWABLE BIOLOGICAL INSECTICIDE	0.00	0.58	6	Bacillus thuringiensis, subsp. Kurstaki, strain ABTS-351, fermentation solids and solubles
499-515	MOTHEREARTH GRANULAR SCATTER BAIT	0.14	0.00	5	Boric acid
432-1264	MAXFORCE FC ANT KILLER BAIT GEL	0.03	0.14	5	Fipronil
499-370	PT 370 ASCEND FIRE ANT STOPPER BAIT	0.00	0.99	4	Avermectin
432-1260	MAXFORCE ANT BAIT F3	0.02	0.00	3	Fipronil
42697-60	SAFER BRAND O-INSECTICIDAL SOAP CONCENTRATE	0.02	0.00	3	Potassium laurate
499-527	PRESCRIPTION TREATMENT BRAND ALPINE DUST INSECTICIDE	0.00	0.39	3	Dinotefuran; Diatomaceous earth
432-1251	MAXFORCE ROACH CONTROL SYSTEM	0.00	0.04	3	Hydramethylnon
89459-59	ENVI ACU CONTACT Insecticide	0.13	0.53	2	Phenylethyl propionate
73079-2	INTICE GRANULAR BAIT	0.02	0.00	2	Boric acid

279-3385	BAYER ADVANCED ANT KILLER POWER PEN READYTO-USE BAIT	0.00	0.09	2	Boric acid
73079-9	INTICE SMART ANT GEL	0.00	0.07	2	Borax
73049-38	VECTOBAC 12AS BIOLOGICAL LARVICIDE	0.25	0.00	1	Bacillus thuringiensis, subsp. Israelensis, strain AM 65-52
44757-3	PIC ORTHOBORIC ACID ROACH & ANT KILLER	0.02	0.00	1	Boric acid
73079-2	HASTA LA VISTA, ANT!	0.01	0.00	1	Boric acid
73049-57	VECTOLEX WDG BIOLOGICAL LARVICIDE WATER DISPERSIBLE GRANULE	0.00	10.00	1	Bacillus sphaericus 2362, serotype H5a5b, strain ABTS 1743 solids, spores and insecticidal toxins
100-1481	DUPONT ADVION FIRE ANT BAIT	0.00	0.63	1	Indoxacarb
279-3384	ROACH KIL COMMERCIAL	0.00	0.38	1	Boric acid
73079-6	GREEN ZONE GRANULAR BAIT	0.00	0.13	1	Boric acid
432-1254	MAXFORCE PROFESSIONAL INSECT CONTROL ROACH KILLER	0.00	0.03	1	Hydramethylnon
432-1258	MAXFORCE LARGE ROACH BAIT F.03	0.00	0.03	1	Fipronil
1021- 2563	MGK ROACH BAIT 2958	0.00	0.01	1	Avermectin