

AQUATIC PESTICIDE USE IN NEW JERSEY – 2007

In 1983 the NJDEP Pesticide Control Program (PCP) implemented an Aquatic Pesticide Use Permit Program. The specific purpose of this program was to identify and control what pesticides are being applied to New Jersey's waterbodies. All aquatic applicators are responsible for submitting Records of Actual Treatment (RAT) forms to the department by November 15 of each treatment year. The following analysis is based on these records of treatment submitted for the 2007 season.

The RAT data are initially entered into the PCP's database, and checked for any misapplications or other violations. The PCP then analyzes the treatment data and calculates the total amount of each aquatic pesticide used during the past aquatic permit season, which runs from April through October. In addition, the total pounds of active ingredient (A.I.) used is determined for each treatment record. This data is then transposed to display the different permutations listed below.

Table 1 lists the chemicals and their amounts in pounds of A.I. used during the 2007 Aquatic Pesticide Permit season. The most widely used trade names corresponding with these chemicals are also included.

Table 2 lists the chemicals and their A.I. amounts applied by county for the 2007 season.

Table 3 lists the chemicals and their A.I. amounts applied by Watershed Management Area for the 2007 season. For more information on Watershed Management areas, please visit <http://www.nj.gov/dep/watershedmgt>, or contact the NJDEP Division of Watershed Management.

This information helps PCP address the impacts, if any, of specific aquatic pesticides to the environment in a particular area, as well as track the use of these pesticides. However, aquatic ecosystems are extremely dynamic and may change significantly from year to year, which affects the trend of such pesticide usage over time.

The following data has been gathered and charted to show the trends of aquatic pesticide use for the control of aquatic weeds throughout New Jersey. All information is based on permitted sites only.

Table 1. Compounds used during the 2007 Aquatic Pesticide Permit season and their amounts (pounds of active ingredient). Brand names listed comprise the most widely used products, and are not intended to be a comprehensive list or in any way an endorsement.

Active Ingredient	Brand Name Products	Total
2, 4-D	Navigate	700
Copper	Cutrine Plus, Cutrine Ultra, Captain	6,218
Copper Sulfate	Old Bridge, Phelps-Dodge	81,767
Diquat	Reward	6,032
Endothall	Aquathol-K	2,965
Fluridone	Sonar	1,032
Glyphosate	Glypro, Rodeo	5,060
Imazapyr/Imazamox	Habitat	80
Peroxyhydrate	GreenClean	172
Triclopyr	Renovate 3	227
Grand Total		104,253

Table 2. Pesticide amounts (in pounds of active ingredient) used during the 2007 Aquatic Pesticide Permit season by county. *Note: Some records were omitted from this analysis as they incorporated several counties. This omission represents only 0.06% of the overall dataset.

County	2, 4-D	Copper	Copper Sulfate	Diquat	Endothall	Fluridone	Glyphosate	Imazapyr	Peroxyhydrate	Triclopyr	Pounds of A.I.	Percent of Total Use
Atlantic	241	195	74	203		4	1150				1,866	1.8%
Bergen		350	14,807	133	42	17	177	4			15,530	14.9%
Burlington	13	759	626	505	4	55	41	< 1			2,003	1.9%
Camden		134	54	93	11	9	37				338	0.3%
Cape May		3				3	226				232	0.2%
Cumberland			26	8			17				51	0%
Essex		136	8,234	278		1	3				8,651	8.3%
Gloucester		184	101	499			15	< 1			799	0.8%
Hudson							45	30			75	0.1%
Hunterdon		119	220	25	6	7	< 1	5		15	397	0.4%
Mercer		330	295	70	46	1	20	< 1			762	0.7%
Middlesex		172	234	18	32		192	19			666	0.6%
Monmouth		977	6,089	173	492	8	22	2	35		7,796	7.5%
Morris		1,374	3,378	1,494	177	273	53	5	55	8	6,818	6.5%
Ocean		180	359	142	4	54	597	< 1			1,336	1.3%
Passaic		139	7,436	402	361	115	75				8,529	8.2%
Salem			2,475	20			2,147				4,642	4.5%
Somerset		250	145	102	6	10	1	< 1	83	< 1	597	0.6%
Sussex	198	690	36,862	1,650	1,784	473	134	15		204	42,010	40.3%
Union		34	203	42		1	7	1			288	0.3%
Warren	248	193	149	175		< 1	37	< 1			802	0.8%
Grand Total	700	6,218	81,767	6,032	2,965	1,032	4,996	79	173	227	104,188	100%

Table 3. Pesticide amounts (pounds of active ingredient) used during the 2007 Aquatic Pesticide Permit season by Watershed Management Area (WMA). *Note: Some records were omitted from this analysis as they incorporated several WMA's. This omission represents only 0.06% of the overall dataset.

WMA	2, 4-D	Copper	Copper Sulfate	Diquat	Endothall	Fluridone	Glyphosate	Imazapyr	Peroxyhydrate	Triclopyr	Pounds of A.I.	Percent of Total Use
1	446	680	4758	1687	528	94	159	15		204	8,570	8.2%
2		250	33418	505	1344	390	61				35,968	34.6%
3		157	6874	507	359	108	51				8,057	7.7%
4		346	280	266	30	17	2	1			942	0.9%
5		96	14342	14	6	1	220	33			14,712	14.1%
6		1326	10911	991	96	265	31	4	55	8	13,688	13.1%
7		86	537	159		1	17	19			820	0.8%
8		258	375	153	13	21		6		15	841	0.8%
9		205	113	40			178		83		618	0.6%
10		350	112	63	78	1	3	<1			607	0.6%
11		103	244	15		1	23	<1			385	0.4%
12		858	6074	144	492	10	19	1	35		7,633	7.3%
13		184	195	144	4	48	597	<1			1,172	1.1%
14	241	224	4	133			1164				1,766	1.7%
15		126	81	84	11	4	26				331	0.3%
16		3				3	226				232	0.2%
17		57	2547	448			2165				5,217	5.0%
18		400	147	113	4	11	4	<1			679	0.7%
19	13	416	577	523		54	49	<1			1,633	1.6%
20		91	178	43		3	1	<1			317	0.3%
Grand Total	700	6,218	81,767	6,032	2,965	1,032	4,996	79	173	227	104,188	100.0%