

AQUATIC PESTICIDE USE IN NEW JERSEY – 2008

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 2008 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 2008 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 2008 season.

Table 3 lists the chemicals and their A.I. amounts applied by Watershed Management Area for the 2008 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 2008 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	1,559
Copper	Cutrine Plus, Cutrine Ultra, Captain	4,069
Copper Sulfate	Old Bridge, Phelps-Dodge	85,131
Diquat	Reward	5,322
Endothall	Aquathol-K	3,471
Fluridone	Sonar	1,343
Glyphosate	Glypro, Rodeo	8,444
Imazapyr/Imazamox	Habitat, Clearcast	67
Sodium Percarbonate	GreenClean	276
Triclopyr	Renovate	219
Grand Total		109,901

Table 2. Pesticide amounts (in pounds of active ingredient) used during the 2008 Aquatic Pesticide Permit season by county. *Note: Some records were omitted from this analysis as they incorporated several counties.

County	2, 4-D	Copper	Copper Sulfate	Diquat	Endothall	Fluridone	Glyphosate	Imazapyr/Imazamox	Sodium Percarbonate	Triclopyr	Pounds of A.I.	Percent of Total Use
Atlantic	248	116	50	84		1	702				1,201	1.1%
Bergen		138	13,602	161	289	17	225				14,433	13.6%
Burlington		421	374	589		44	45	< 1			1,472	1.4%
Camden		120	148	110		5	23	< 1	70		477	0.4%
Cape May		4		6		2	142	5			158	0.2%
Cumberland							9	< 1			9	0.1%
Essex		289	6,766	202		14	6				7,277	6.8%
Gloucester		176	32	448		7	158	7			828	0.8%
Hudson		40		14	55	1	109	28			247	0.2%
Hunterdon	272	131	172	73		12	2				663	0.6%
Mercer		319	385	82	25		12				823	0.8%
Middlesex		172	121	40	17	2	146	3		62	563	0.5%
Monmouth	396	353	8,390	143	178	8	35	2	102		9,605	9.0%
Morris		977	9,304	1,299	482	326	25			153	12,566	11.8%
Ocean		137	497	121		112	135	1	36		1,038	1.0%
Passaic	231	116	9,359	207	646	177	4				10,740	10.1%
Salem		3	495	4			2,803				3,305	3.1%
Somerset		275	133	168	16	6	60	< 1	68		727	0.7%
Sussex	149	176	34,818	1,248	1,763	606	83	16		4	38,863	36.6%
Union		30	158	155		1	69	5			418	0.4%
Warren	264	77	327	168		3	1				839	0.8%
Grand Total	1,559	4,069	85,131	5,322	3,471	1,343	4,795	67	276	219	106,252	

Table 3. Pesticide amounts (pounds of active ingredient) used during the 2008 Aquatic Pesticide Permit season by Watershed Management Area (WMA). *Note: Some records were omitted from this analysis as they incorporated several WMA's.

WMA	2, 4-D	Copper	Copper Sulfate	Diquat	Endothall	Fluridone	Glyphosate	Imazapyr/l mazamox	Sodium Percarbonate	Triclopyr	Pounds of A.I.	Percent of Total Use
1	413	199	6,598	1,318	1,031	106	71	16		76	9,828	9.2%
2		98	29,964	388	1,167	503	14				32,134	30.2%
3	231	118	12,171	283	703	193	10				13,710	12.9%
4		165	629	157	113	33	6				1,102	1.0%
5		59	12,744	29	44	1	328	28			13,232	12.5%
6		1,052	11,646	934	178	217	26			78	14,130	13.3%
7		117	562	264		1	99	5			1,048	1.0%
8	272	295	374	245	16	107	50	< 1		3	1,363	1.3%
9		168	30	84	17	2	120		68		489	0.5%
10		456	175	101	25	1	9	3		62	833	0.8%
11		63	249	18		1	11	< 1			343	0.3%
12	396	269	8,378	115	178	4	35	1	102		9,479	8.9%
13		138	152	133		93	135	1	36		688	0.6%
14	248	3	47	24			746				1,067	1.0%
15		129	20	85		1	117				353	0.3%
16		4		6		2	142	5			158	0.2%
17		39	512	376			2,852	< 1			3,779	3.6%
18		355	192	130		12	20	7	70		786	0.7%
19		291	212	606		44	5	< 1			1,157	1.1%
20		51	475	26		22					573	0.6%
Grand Total	1,559	4,069	85,131	5,322	3,471	1,343	4,795	67	276	219	106,252	