

RIGHT-OF-WAY PESTICIDE USE IN NEW JERSEY: 2000 SURVEY

Introduction

In the last month of 2000 a right-of-way pesticide use survey was initiated by the NJDEP/Pesticide Control Program (PCP). The specific purpose of this project was to identify what chemicals and how much of each were used in 2000 for right-of-way pest control. A more general purpose of the survey was to supplement data gathered from previous pesticide use surveys for addressing the impact of pesticide use statewide.

Regarding survey procedures, three mailings were made over the course of six months to licensed applicators carrying a Category 6 (right-of-way) code on his or her license. Survey forms, along with instructional letters and a return envelope, were mailed to these individuals asking for their 2000 right-of-way pesticide use. A list of applicators carrying a Category 6 on their license was kept in the office. As surveys were received the applicators were marked off the list. Second and third mailings were made to non-respondents indicating that the previously mailed survey had not been received.

Each survey form received by the PCP was logged in and entered into a database. When all responses were received the database was reviewed for any duplication of entries. Subroutines in the database identified active ingredients and calculated pounds of active ingredients from the information supplied by the applicators.

Once all three mailings were completed, 428 out of 449 (95%) surveys were received.

Table 1 lists the pesticides by chemical name and their respective amounts appearing in the survey.

Table 2 lists the most frequently used compounds and their percentages of the total right-of-way use.

Table 3 lists the use of the compounds above by site. Some of the site categories indicated in the figure cover other locations as well. **Roads** includes public roads and airfield runways. **Parking Lots** includes driveways and stone lots. **Powerlines** includes substations. The categories **Pipelines** and **Railways** include no other sites. **Other** includes fencelines, building perimeters, sewers and miscellaneous industrial sites.

In reporting and evaluating pesticide use, it is important to consider the many, diverse influences on pesticide use. No single factor, or even set of factors, can completely account for fluctuations in the amounts of pesticide active ingredients used from survey

to survey. Weather conditions such as temperature and rainfall, in terms of duration, timing and amounts or degrees, influence pest pressure and the associated response. In agricultural settings, issues such as cropping patterns and the associated pest impacts vary from year to year. Economic factors play a significant role, ranging from crop demand to golf course playability to product and/or service cost. The changing face of land use also plays a part. While agricultural acreage has been declining, new home building starts and the associated lawns around those new homes have been increasing. Another factor is the adoption of IPM (Integrated Pest Management). Short term, some pest control situations may require increased pesticide applications beyond the alternative means contained in an IPM program. Long term, however, IPM should result in overall pesticide use reduction. This may be confounded by the increased use of reduced-risk alternatives that may have higher application rates than the materials they replace.

[Curt Brown, RS II]

Table 1. Compounds appearing in the 2000 Right-of-Way survey and their amounts (pounds active ingredient).

2,4-D	1391
2,4-DP	1
Acephate	<1
Benfluralin	<1
Bromacil	2635
BT	1
Carbaryl	6
Chlorothalonil	25
Dicamba	319
Dithiopyr	4
Diuron	8910
Fenoxaprop-ethyl	<1
Fosamine ammonium	638
Glufosinate ammonium	12
Glyphosate	37574
Hexazinone	5154
Imazapyr	2202
Isoxaben	5
MCPP	6
Mefluidide	1
Metolachlor	3
Metsulfuron	17
Norflurazon	3
Oryzalin	3357
Oxyfluorfen	6104
Paraquat	62
Pelargonic Acid	76
Pendimethalin	46
Picloram	296
Prodiamine	18
Prometon	507
Simazine	139
Sulfometuron	1219
Tebuthiuron	508
Triclopyr	8339
Trifluralin	12
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TOTAL:	79591

Table 2. Highest use compounds in 2000. Shown are compounds $\geq 3\%$ of total.

Glyphosate	37574	47.2%
Diuron	8910	11.2%
Triclopyr	8339	10.5%
Oxyfluorfen	6104	7.7%
Hexazinone	5154	6.5%
Oryzalin	3357	4.2%

Table 3. Right-of-Way 2000 pesticide use by site.

Railways	19920	25.0%
Powerlines	19148	24.0%
Roads	10289	12.9%
Parking Lots	948	1.2%
Pipelines	36	0.0%
Other*	29250	36.8%
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Total:	79591	100.0%

*site includes fence lines, building perimeters, sub stations, sewers and miscellaneous industrial sites.