NJ Pesticide Control Program
Pesticide Control Program
Pesticide Evaluation & Monitoring

RIGHT-OF-WAY PESTICIDE USE IN NEW JERSEY: 2006 SURVEY

Introduction

In the first month of 2007 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 2006 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 2006 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, 458 out of 506 (91%) 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.

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. 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.

Table 1. Compounds appearing in the 2006 Right-of-Way survey and their amounts (pounds active ingredient).

2,4-D	3774	Mancozeb	94
2,4-DT	1711	Mecoprop	<1
Aminopyralid	288	Mefluidide	<1
Atrazine	12	Metolachlor	65
Benfluralin	2	Metsulfuron	139
Bifenthrin	98	MSMA	<1
Bromacil	2510	Nicosulfuron	<1
Chlorsulfuron	26	Oryzalin	348
Dicamba	1135	Oxadiazon	1
Dichlobenil	9	Paraquat	2
Diflufenzopyr	<1	Pendimethalin	78
Diquat	1	Picloram	504
Dithiopyr	1	Prometon	494
Diuron	34953	Pyraflufen	<1
DSMA	7	Rimsulfuron	<1
Fenocil	2	S-metolachlor	7
Fluroxypyr	132	Simazine	<1
Fosamine ammonium	547	Spinosad	242
Glufosinate	134	Sulfometuron	1128
Glyphosate	38767	Triclopyr	2211
Hexazinone	4673	Trifluralin	5
Imazapyr	1240		
Imidacloprid	63		
Isoxaben	48	TOTAL:	95453

Table 2. Highest use compounds in 2006. Shown are compounds >=2% of total.

Glyphosate	38767	40%
Diuron	34953	37%
Hexazinone	4673	5%
2,4-D	3774	4%
Bromacil	2510	3%
Triclopyr	2211	2%

Table 3. Right-of-Way 2006 pesticide use by site.

Railways	47133	49%
Roads	11498	12%
Powerlines	11432	12%
Substations	4540	5%
Building perimeters/ Fence lines	7486	2%
Other*	13364	14%
Total:	95453	100%

* site includes pipelines, sewers, air strips, parking lots, trails, and miscellaneous industrial locations.