NJ Pesticide Control Program
Pesticide Control Program
Pesticide Evaluation & Monitoring

# RIGHT-OF-WAY PESTICIDE USE IN NEW JERSEY: 2009 SURVEY

## Introduction

The New Jersey Pesticide Control Program (NJPCP) began a series of pesticide use surveys in 1985. These surveys address pesticide use in the state of New Jersey for agriculture, golf courses, termite control, right-of-way, mosquito control, and lawn care. The lawn care survey is conducted every three years and targets pesticides used for lawn care purposes. This report focuses on the sixth survey completed in the right-of-way series (2009).

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 2009 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, 477 out of 522 (92%) 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 2009 Right-of-Way survey and their amounts (pounds active ingredient).

| | | | |
|---|---|---|---|
| 2,4-D | 1329 | Isoxaben | 2 |
| Aminopyralid | 951 | MCPA | 39 |
| Atrazine | 7 | Mecoprop | 3 |
| Bromacil | 1098 | Mesotrione | 1 |
| Carbaryl | <1 | Metsulfuron-methyl | 328 |
| Carfentrazone-methyl | 1 | Oryzalin | 88 |
| Chlorsulfuron | 7 | Pelargonic acid | 11 |
| Clopyralid | 4 | Pendimethalin | 257 |
| Dicamba | 6800 | Picloram | 1591 |
| Dichlobenil | 20 | Prodiamine | 421 |
| Diflufenzopyr | 110 | Prometon | 38 |
| Diquat | 10 | Pyraflufen ethyl | 2 |
| Dithiopyr | 12 | Rimsulfuron | 1 |
| Diuron | 18043 | S-metolachlor | 19 |
| Fluroxypyr-meptyl | 105 | Simazine | 2 |
| Fosamine ammonium | 422 | Sulfometuron-methyl | 1016 |
| Glyphosate | 37375 | Triclopyr | 1063 |
| Hexazinone | 767 | Trifluralin | 34 |
| Imazapic | 19 | | |
| Imazapyr | 3210 | TOTAL: | 75206 |

**Table 2**. Highest use compounds in 2009. Shown are compounds >=2% of total.

| | | |
|---|---|---|
| Glyphosate | 37375 | 49% |
| Diuron | 18043 | 24% |
| Dicamba | 6800 | 9% |
| Imazapyr | 3210 | 4% |
| Picloram | 1591 | 2% |

**Table 3**. Right-of-Way 2009 pesticide use by site.

| | | |
|---|---|---|
| Roads | 30175 | 40% |
| Railways | 25188 | 34% |
| Building perimeters/ Fencelines | 8488 | 11% |
| Powerlines | 6925 | 9% |
| Substations | 2523 | 3% |
| Pipelines | 1239 | 2% |
| Other* | 665 | 1% |
| Total: | 75206 | 100% |

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