

**SURVEY OF MUNICIPAL LANDSCAPE  
PEST CONTROL PRACTICES**

**ONTARIO PESTICIDES ADVISORY COMMITTEE**

**JANUARY 2002**

## OPAC Mandate

The Ontario Pesticides Advisory Committee (**OPAC**) was established under the *Pesticides Act*. The committee, through its own experts and through outside consultants, routinely supplies advice to the Minister and the Ministry of the Environment on pesticide-related matters, and provides a forum for bringing forward the views of a multi-stakeholder group. The committee routinely classifies new pesticides for sale and use in Ontario. On occasion, reviews of relevant literature and other pesticide-related matters may be published as reports. The responsibilities of the Committee under the *Pesticides Act* are as follows:

- To review the *Pesticides Act* and Regulation 914, and to recommend changes and amendments to the Act to the Minister of the Environment.
- To advise the Minister of the Environment on matters relating to pesticides and pest control.
- To review Ontario government publications relating to pesticides.

## Membership and Areas of Expertise

C. M. Switzer, Ph.D., Chair	Plant Physiologist
R. Frank, Ph.D., Vice-Chair	Analytical Chemist/Biochemist
J. R. Bend, Ph.D.	Organic Chemist
C. R. Harris, Ph.D.	Entomologist/Toxicologist
C. Hunter, M.Sc.	Agrologist
R. Jin, M.D.	Physician
D. W. Lobb	Agriculturalist
B. H. McGauley, M.Sc.F.	Forest Pathologist/Urban Forester
W. Michalowicz, M.Sc.	Environmental Biologist
G. Rachamin, Ph.D.	Pharmacologist
T. Scarr, Ph.D.	Forest Entomologist
G. Stephenson, Ph.D.	Plant Physiologist
J. Twinn	Pest Control Operator
I. Wile, B.S.A.	Environmental Biologist

## **INTRODUCTION**

Since the 1960's Ontario has worked in conjunction with the Federal authorities to regulate the use of pesticides based on scientific data to ensure public and environmental safety. The issue of pesticide use on municipal and private properties has become more contentious since the Supreme Court of Canada's decision to uphold the banning of landscape pesticide use on private property in Hudson, Quebec. This prompted the Ontario Pesticides Advisory Committee (OPAC) to conduct a survey to determine the extent of landscape pesticide use by Ontario municipalities and their future plans for landscape pest management. A survey questionnaire was mailed to each incorporated municipality in Ontario seeking information on specific pesticides used, areas of use (i.e., parks, sportsfields, cemeteries), trends in amounts used, future directions, and matters dealing with education and licensing of pesticide applicators. The questionnaire (Appendix 1) was mailed to each of the 448 upper- and lower-tier municipalities in Ontario. They were addressed to the Clerk of each municipality, and were sent out in January, 2002. The ten questions were designed to obtain general information on municipal landscape pest control, without being too detailed or time-consuming for the municipality to complete. Space was provided in the questionnaire for written comments.

## **RETURNS**

Fifty-eight percent of questionnaires were returned. Responses were received from most of the larger urban municipalities, together with a good cross-section of smaller urban and rural municipalities.

Questionnaires were completed by a variety of people, ranging from individuals with extensive pesticide training at the post-secondary level, to those with only a passing knowledge of pest control. In small rural municipalities, the information was provided by the municipal clerks. Many larger municipalities sent back questionnaires completed by the public works manager or roads superintendent. Most major urban centres have environmental departments/committees that are responsible for green space maintenance programs. Staff associated with such programs may have specialized post-secondary training in horticulture and/or environmental sciences. Considering the wide range of expertise of the respondents, some of the information derived from the questionnaires may not be comparable.

Some questionnaires were returned but not completed. In municipalities where no pesticides are used, many forms were returned with notations such as "no pesticides used". In a few of the larger municipalities where full-time staff are devoted to pest management issues, detailed reports, memos or council resolutions were submitted in place of the questionnaire. Questions 5, 6, 7 and 10 provided space for comments, which were included in **63%** of the returns. In many respects, the written comments provided as much input to the survey as the "check-off" sections. For this reason, much of the commentary analysis is anecdotal or subjective in nature.

## **PESTICIDE USE**

Thirty-six percent of the respondents indicated that they have never used landscape pesticides, or that their use has been eliminated over the last 10 years. Many of these municipalities are

non-agricultural and rural, such as townships with forest-based economies. In other smaller municipalities with a strong natural resource influence (lakes, rivers, unique land forms, cottage and tourist areas) there is pressure to restrict pesticide use to a minimum. Some respondents indicated that funding cutbacks have curtailed municipal spray programs, and that they have disposed of their application equipment.

Many rural municipalities do limited pest control, primarily for poison ivy or other noxious weeds on a spot-treatment basis in response to public complaints. Others restrict herbicide use to cemeteries or to crack-and-crevice treatments in sidewalks or paving-stone walkways. The vast majority of municipalities have reduced pesticide use in recent years, with **116** showing a reduction and only **4** showing an increase.

Pesticide products most commonly used include 2,4-D and 2,4-D mixtures for control of broadleaf weeds in turf, and glyphosate for spot-treatment of weeds. Although 91 municipalities specifically indicated use of 2,4-D mixtures and 81 indicated use of glyphosate, many of the questionnaires were not complete or consistent in this area. Questionnaires completed by operations persons yielded the most complete information on product use.

The most common area for pesticide application was in parks, followed closely by playing fields and roadsides. Cemeteries were common areas of treatment in some smaller municipalities. In all cases except golf courses, cultural control (mowing, fertilization, watering) was the most common alternate means of landscape maintenance. The concept of Integrated Pest Management (IPM)\* was often mentioned in situations where pesticide use is being actively reduced. The responses showed that virtually all municipalities are reducing pesticide use, even in areas where heavy agricultural economies exist.

## **USE RESTRICTIONS ON PUBLIC PROPERTY**

The survey shows that many municipalities have taken steps to reduce landscape pesticide use on public property. This has been accomplished in most cases through internal policy, but in one case with a municipal by-law. Currently there are no municipal restrictions on use on private property.

The one municipality that passed a by-law against pesticide use on public property has had petitions to council by private individuals and licensed contractors to relax the law, however the council refused. Difficulties were experienced by citizens who had hired private contractors to do white grub control on front lawns, in that the contractors refused to treat the portions of the lawns which fell on the municipal road allowance, for fear of prosecution.

\* IPM is a decision-making process for pest management activities which uses a variety of tools, including cultural, mechanical and biological methods, along with chemical methods only when necessary, to manage pest populations.

## **USE RESTRICTIONS ON PRIVATE PROPERTY**

Virtually all the municipalities are aware of the Hudson, Quebec decision and know that it could affect them. Forty-two of the respondents indicated that they are considering restricting the use of lawn care pesticides on private property. In most cases, the issue is still under discussion, and no definite approach has been determined. Some municipalities have set up committees to look into the matter and report to council. Other municipalities are in the midst of public consultation programs, and the results will be considered in policy formulation. One upper-tier municipality (i.e., County or Regional Municipality) is co-ordinating a unified approach with its lower-tier municipalities. Some municipalities have prepared extensive reports with recommendations to council that are under consideration. Many municipalities are adopting a wait-and-see approach.

## **ENFORCEMENT**

The issue of enforcement of is one that has not been resolved. Some feel that pesticide regulation is a Federal/Provincial responsibility and that municipalities do not have the staff or expertise to become involved. Others are awaiting legal opinions to establish municipal rights in the matter.

Most municipalities considering private property restrictions had no response to this question, other than to indicate that methods of enforcement had not been determined. Some stated that by-law enforcement will be used. Others, recognizing the difficulty of enforcing such by-laws, took a more moderate approach, recommending establishing educational programs to help residents with the responsible and minimal use of pesticides on their own properties.

## **EDUCATION**

The responses indicated that educational programs for municipal employees are considered reasonably good, whereas for homeowners, they are inadequate. Recommendations focused mainly on public education through brochures and videos. A few responses suggested provincial training and licensing of homeowners in the safe use of pesticides. A number of others suggested that the products should be made safer, and that only ready-to-use products with clearer labelling be available to homeowners.

## **LICENSED CONTRACTORS**

Most municipalities that apply pesticides do so with their own licensed staff. Smaller municipalities that do only spot treatments or sporadic poison ivy control tend to hire licensed private applicators.

## **DEMONSTRATION PROJECT**

Several municipalities involved in pesticide reduction and IPM programs were very interested in participating in a demonstration project, and wished to be informed of any further developments.

Three municipalities have already taken action related to this area, either through the publication of brochures or by setting aside “pesticide-free” locations.

### **COMMENTS**

Many diverse comments were received. The recurring theme was that the municipalities have been reducing pesticide use for some time in favour of a more comprehensive approach to landscape pest management. Even the very few that are still using full treatment programs are adopting new strategies to reduce their pesticide use substantially.

Concern was expressed by a few municipalities about pesticide contamination of surface and groundwater sources. In general, some municipalities would like to resolve the pesticide issue in a uniform manner, rather than acting individually.

### **FINDINGS AND CONCLUSIONS**

1. More than one-third of the survey respondents do not use landscape pesticides on municipal property. Nearly all respondents have substantially reduced or eliminated pesticide use on public lands in recent years by adopting integrated pest management programs, involving a combination of chemical and non-chemical methods of pest control.
2. Herbicides are the most widely used landscape pesticides. The most commonly used are 2,4-D mixtures and glyphosate. Where pesticides are used, the most commonly treated areas are parks, playing fields and roadsides.
3. Forty-two municipalities, mostly urban and/or resort areas, are studying the restriction of landscape pesticide use on private property. However, there appears to be a great deal of uncertainty about the most effective way to achieve and enforce these restrictions. The survey showed that the majority of municipalities are undecided; eight have stated that they intend to pass by-laws, nine will follow a public education outreach approach to educate homeowners in the safe handling and reduction of pesticide use.
4. The strong response to the survey indicates that many municipalities are concerned and aware of the pesticides issue. Some municipalities were reluctant to become involved in restricting private use, because they realized that it would overlap existing federal and provincial pesticide legislation. Several municipalities would like to see a uniform approach to resolving the issue of pesticide use on private lands.
5. The availability of educational programs for municipal employees was considered reasonably adequate, whereas for homeowners most respondents considered them to be inadequate.

**1. Profile of Municipality**

Name of municipality \_\_\_\_\_

Population \_\_\_\_\_

Contact person, title \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

Phone No. \_\_\_\_\_ E-mail \_\_\_\_\_

**2. Pest Management Programs in Municipal Landscapes**

What type of maintenance programs are being used by your municipality for pest management? (Pesticides include herbicides, insecticides and fungicides) (Other includes mowing, fertilizing, watering, etc.)

Parks  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

Roadsides  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

Rights-of-way  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

Sportsfields  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

Golf Courses  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

Cemeteries  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

Other treated areas (specify)  
G Pesticide treatment                      G Other (Specify) \_\_\_\_\_

**3. If landscape pesticides are used by your municipality, which ones are they?**

**G** Herbicides: Trade names \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**G** Insecticides Trade names \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**G** Fungicides Trade names \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**G** Other Trade names \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**4. Trends in Landscape Pesticide Use over the Last Five Years**

Has pesticide use in your municipality over the past 5 years been:

moderately increased **G** slightly increased **G** about the same **G** reduced **G**

all pesticides **G** or which ones \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Integrated Pest Management (IPM) is defined as the practice of using a variety of managerial techniques to control pests effectively, economically and in an environmentally sound manner.)

Are you presently using IPM programs?

**G** Yes **G** No

Are you moving toward more IPM programs?

**G** Yes **G** No

**5. Restrictions on Landscape Pesticide Use**

A. Are restrictions in place by your municipality that limit or prohibit the use of pesticides?

If yes, do the restrictions apply to:

If no, go to 5B

municipal property

**G** Yes    **G** No

private property

**G** Yes    **G** No

B. Are future restrictions being considered by your municipality?

If yes, will they apply to:

If no, go to 7

municipal property

**G** Yes    **G** No

private property

**G** Yes    **G** No

If yes, what specific measures are being considered?

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**6. Enforcement**

If your municipality is planning to restrict pesticide use on private property, how will the restriction be enforced?

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**7. Education**

To what extent are adequate education programs available in landscape pest management at present?

A. For municipal employees ?

very adequate **G**    moderately adequate **G**    slightly adequate **G**    inadequate **G**

B. For homeowners ?

very adequate **G**    moderately adequate **G**    slightly adequate **G**    inadequate **G**

C. If inadequate, how could they be improved?

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**8. Interaction with Licensed Applicators**

Does your municipality have a licensed person on staff who oversees pesticide application on municipal property?

Yes     No

Does your municipality apply pesticides on municipal property using municipal staff?

Yes     No

Does your municipality hire private sector applicators to apply pesticides on municipal property?

Yes     No

**9. Demonstration Project**

To what extent would your municipality be interested in becoming involved in a demonstration project on IPM to help educate the public on landscape pest management using IPM?

very interested     moderately interested     slightly interested     Not interested

**10. Comments**

We would appreciate receiving your comments on the use or non-use of pesticides in your municipality

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