

# SPORTS TURF MANAGER

... for safe, natural sports turf

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**AFTER...**  
Lakeview Centre Oct 05

**BEFORE...**  
Lakeview Centre June 05

## Oshawa's Pest Management Plan

DECREASING PESTICIDES AND THE NEED TO PASS RESTRICTIVE BY-LAWS

In January 2003, the City of Oshawa Council approved a Pest Management Plan (PMP) to be phased in over a five year period, 2003-2007. The main goal of the program is to eliminate the use of pesticides within the City of Oshawa while maintaining quality turf.

### Pest Management Plan

The Pest Management Plan was a response to the pressure of other municipalities passing pesticide by-laws and includes both Integrated Pest Management and Plant Health Care. The plan does not ban the use of pesticides; it incorporates the use of all other alternatives first and uses pesticides only if pests surpass a predetermined treatment threshold. It was believed that a ban is a short lived solution which could result in poor quality and unhealthy turf. Pests are defined as a population of species that have a detrimental

effect on the health, productivity and aesthetic characteristics of the landscape. The treatment threshold is the stage when a pest population should be controlled to prevent pest numbers from reaching levels that will cause unacceptable amounts of injury or damage to plant material. Using this method completely eliminates routine spraying of pesticides and decreases the chance of pest populations developing chemical resistance.

### Budget and Advantages

The initial establishment and capital costs associated with developing an integrated pest management system are often high. Pest management programs however, support greater cost efficiency over time through the prevention of future problems. The overall quality of the landscape improves and costs related to pesticide use are reduced. A PMP provides... → page 8

*Merry Christmas*





# City of Oshawa's Pest Management Plan Continued From Front Cover

ESTABLISHED WITH THE LONG TERM GOAL OF REDUCING PESTICIDES & MAINTAINING HIGH QUALITY TURF

... a way to manage pests that have become resistant to pesticides while managing pests in locations where chemical pesticides cannot be used. It also protects the environment and the health of all organisms by reducing the amounts of pesticides used. The budget for the five-year Pest Management Program for the City of Oshawa is over \$1,500,000.

## Alternatives

Alternatives to pesticides include: cultural, physical, mechanical, biological and genetic controls. Cultural control is aimed at producing healthy plants through sanitation, improving soil conditions, correct mowing heights, using a variety of plant species (no monocultures), and proper planting methods, i.e. watering, spacing, pruning and staking. Physical and mechanical controls include removing and or

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This is an ambitious project. The budget for the five-year Pest Management Program for the City of Oshawa is over \$1,500,000.

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killing pests by hand or machine, i.e. hoeing, line trimmers, heat applicators, traps and barriers. Biological control uses living organisms to reduce pest populations. Predators, pathogens or parasites can be introduced or attracted to the desired area. Genetic control uses genetically modified plant material that is resistant to pests.

## The Pest Management Plan's 8 Elements

The combined goal of substantial reduction in pesticide use and continued vegetation quality in public lands necessitates a detailed process. The program is comprised of eight elements to identify and organize strategies to work with and include IPM. The elements are outlined as follows:

1. Integrated Pest Management (IPM) procedures – to guide environmentally sound management of City property.

2. IPM quality standards – detail specific criterion to manage landscape pests.

3. Alternative landscape treatment for specific property classifications – reduce the level of maintenance while still providing a quality landscape.

4. Expanded education and outreach programs – educate the public regarding how to reduce the use of pesticides.

5. Development standards – update standards to include PMP objectives.

6. Parks capital upgrades – improve the quality of turf in high profile areas.

7. Parks facility permitting – help balance use and maintenance of sports fields.

8. Provision of a PMP coordinator – to implement the plan.

## Integrated Pest Management Steps

The PMP incorporates integrated pest management procedures. These procedures include six main steps to address specific pest problems, i.e. planning, identification, monitoring, action decisions, treatments and evaluation.

1. Planning includes proper cultural practices to ensure healthy vigorous plants, but also involves analyzing the effectiveness of the program itself.

2. Identification of both damage and pests is extremely important. Damage on plant material could be caused from the environment, machines or pests. Weeds and diseases are relatively easy to identify, however, insects are more difficult as there are many beneficial insects in lawns and gardens that help keep pest populations under control.

3. Monitoring involves a routine of regular inspections to determine and record pest levels. These records are used to determine the necessity of treatment strategies.

4. Action decisions include the treatment thresholds and a treatment strategy.

5. Treatment should only be necessary where preventative measures have not successfully kept the pest population below the threshold limit.

6. Evaluation of the results is important to determine if the program is working.

## Implementation of the Plan

The Guelph Turfgrass Institute (GTI) was retained during the first year of the plan to analyze the existing sports fields in order to produce standards for development and maintenance for all sports fields in Oshawa. The PMP was implemented based on the results of the GTI report. A Parks Pest Management Technician was hired to oversee the plan and two skilled labourers were hired as dedicated staff for the PMP.

## Equipment

As a result of increased maintenance on sports fields, additional equipment has been purchased including: 2 John Deere tractors, Vicon fertilizer spreader, 2 AerWay aerators, Ryan core aerator, 2 transportation vehicles, spray boom, soil compaction meter, compost tea brewer, Rotadarian renovator, and a self propelled overseeder.

## Maintenance and Products

All turf within the City of Oshawa is cut at a height of 3" in order to provide greater quality and help smother weed seeds. Sports fields receive core aeration in the spring and fall, and slit aeration throughout the season. Based on soil tests, specific amounts of fertilizer are applied to each field. A variety of products have been used during the last two years including: gypsum, foliar fertilizers, liquid and granular kelp, profile and corn gluten. Horticultural vinegar trials were conducted for weed control on hard surface areas.

Once sports fields are closed for the season, a heavy overseeding (8-10 lbs/1000 ft<sup>2</sup>) program begins with our Land Pride overseeder. Special attention is given to the goalmouth areas: overseeded with Land Pride, soil put down, re-seeded by hand, levelled and fenced off. The seed is a mixture of perennial ryegrass and

fescues. We have had great success this year with the overseeding program.

### Development Standards

It was determined that many problems with the existing sports fields are the result of improper construction. Newer fields have severely compacted sub-grades with insufficient quantities of appropriate soil on the surface. The GTI report indicates that all new developments should have a minimum soil depth of 12" and sod should come from a field with the same soil texture as the area of installation.

### Scheduling of Play

Our Facility Booking Office is responsible for scheduling play on all the fields for the City of Oshawa. For the 2005 season, just under 18,500 hours were booked on the soccer fields. In order for the PMP to succeed, there must be co-operation and communication between the user groups, the Parks Services Branch and the Facility Booking Office.

### Education and Outreach Program

In 2004, a marketing firm was retained to create a plan to help educate the public about the City's PMP. In the spring of 2005, information packages were mailed to every homeowner within the City. Information brochures and posters were created and placed at all City facilities. Three radio ads were played on 1350 CKDO, Oshawa's radio station, and six spots were placed on Rogers TV Cable channel 10. Staff participated in two radio shows "Lets Get Growing" with Marjorie Mason, and a two-page PMP newsletter was sent to the user groups. A website was constructed, [www.oshawa.ca/mun\\_res/pest.asp](http://www.oshawa.ca/mun_res/pest.asp), that has received approximately 1,900 hits since June 2005. In 2006, three newspaper articles will be printed to provide information to the public and techniques to help reduce the use of pesticides.

### Future

Although the pest management team is planning its fourth year, there are still

goals that have not yet been achieved. The PMP has increased the amount of maintenance that the fields receive and therefore the amount of time devoted for field resting must also be increased. A policy is being developed that will help balance field use with required maintenance.

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PMP has increased the amount of maintenance needed for fields; thus closure times must also increase. Policy is needed to balance both.

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### Conclusion

Although a pest management program is expensive to establish, the long term advantages of reducing the use of pesticides while maintaining high quality turf is worth the cost. Please note the pictures included with the article to view the exceptional results that the fields have shown this year. ♦

— Tanya Steffler, Parks Pest Management Technician, City of Oshawa

SEE PP. 14-15 FOR PROFILES OF TANYA STEFFLER AND THE CITY OF OSHAWA



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### Contributions Welcome

Contact Lee Huether at the STA office if you are interested in contributing to the Sports Turf Manager. We appreciate feature-length articles, column ideas and newsworthy items. Updates on innovative research or equipment are also welcomed. This is a great way to both support your professional association and enhance your resume!