

Consolidated Clause in Board of Health Report 1, which was considered by City Council on February 16, 2005.

1a

**Further Issues Relating to the Implementation
of the Pesticide By-law**

City Council on February 16, 2005, amended this Clause by:

- (1) *further amending staff Recommendation (3)(d) contained in the Recommendations Section of the report dated January 10, 2005, from the Medical Officer of Health, as amended by the Board of Health, by inserting the word “initial”, after the words “subject to”, so that staff Recommendation (3)(d) now reads as follows:*

“(3)(d) endorse that golf courses, bowling greens, cemeteries, and transportation and utility rights of way be subject to initial proactive inspections on a regular basis, in addition to complaint response inspections by Toronto Public Health;”; and

- (2) *deleting the following staff Recommendation (2)(a) contained in the Recommendations Section of the report dated January 10, 2005, from the Medical Officer of Health, as it is now redundant:*

“(2) the Board of Health and Council endorse that:

- (a) no properties within the municipal boundary of the City of Toronto be exempted from the Pesticide By-law;”.*

This Clause, as amended, was adopted by City Council.

Council also considered additional material, which is noted at the end of this Clause.

City Council on February 1, 2 and 3, 2005, deferred consideration of this Clause to its next regular meeting on February 16, 2005.

Council also considered additional material, which is noted at the end of this Clause.

The Board of Health recommends that City Council:

- (1) **adopt the staff recommendations in the Recommendations Section of the report (January 10, 2005) from the Medical Officer of Health, subject to:**

- (a) **Recommendation 2(b) in the report being amended by replacing the word “preferred” with the word “primary”, so that it reads as follows:**

“(2) (b) the primary means of complying with the Pesticide By-law is through applying the methods of Plant Health Care (PHC);”
- (b) **Recommendation (3)(a) being amended by deleting the word “cemeteries” after the word “lawns” so that it reads as follows:**

“(3)(a) reaffirm the previous recommendation of the Chief Administrative Officer (CAO) that there be no action thresholds established for fungicides or herbicides on residential lawns, and general parkland;”
- (c) **Recommendation (3)(d) being amended by adding the word “cemeteries” after the word “greens” so that it reads as follows:**

“(3)(d) endorse that golf courses, bowling greens, cemeteries, and transportation and utility rights of way be subject to proactive inspections on a regular basis, in addition to complaint response inspections by Toronto Public Health;”
- (d) **Recommendation (3)(e) being amended by adding the word “cemeteries” after the word “greens” so that it reads as follows:**

“(3)(e) direct the Medical Officer of Health to request golf courses, bowling greens, cemeteries, and transportation and utility rights of way to submit an annual report on pesticide use and strategies to reduce pesticide use;”;
- (2) **amend the Pesticide By-law - Inspection Protocol for All Properties (Attachment 1) to explicitly direct inspectors to “Note whether the site personnel have employed horticultural approaches or uses pest control products exempt under the bylaw to address the evidence of pests or conditions for the pests prior to applying a non-exempt pesticide”;**
- (3) **grant the authority to introduce the necessary Bill in Council to amend Section 612-1 B(2) of Toronto Municipal Code Chapter 612, Pesticides, Use of, by amending subsection B(2)(d) by deleting “(d) Bt (Bacillus thuringiensis), nematodes and other biological control organisms” and substituting “(d) biological pesticides, including Bt (Bacillus thuringiensis) and nematodes”;** and
- (4) **receive the confidential report (December 20, 2004) from the City Solicitor, responding to a request on options for requiring those using pesticides restricted by the City’s Pesticide By-law to posts signs and notify the City of impending pesticide use, which was forwarded to all Members of Council under separate cover; and further, that, in accordance with the *Municipal Act*, discussions pertaining to this Clause be held in-camera, because the advice is subject to solicitor-client privilege.**

Action Taken by the Board:

The Board of Health requested the Medical Officer of Health to:

- (a) annually review and report to the Board of Health on bylaw compliance and the use of non-exempt pesticides under the infestation clause on golf courses, bowling greens, cemeteries, transportation and utility rights of way, and Toronto parks;
- (b) closely monitor complaints and issues regarding compliance to the bylaw by cemeteries, golf courses, bowling greens, transportation and utility rights of way and report results to the Board of Health by December 2005; and
- (c) direct Public Health Inspectors to seek ongoing training in plant health care and integrated pest management from organizations and individuals expert in organic lawncare so that public education and bylaw enforcement reflect the latest pesticide free lawn and garden care approaches.

The Board of Health submits the following report (January 10, 2005) from the Medical Officer of Health:

Purpose:

To report further on implementation of the Pesticide By-law including setting action thresholds and implementing inspection guidelines.

Financial Implications and Impact Statement:

There are no financial implications arising from the adoption of this report.

Recommendations:

It is recommended that:

- (1) the Board of Health adopt this report and forward it to City Council;
- (2) the Board of Health and Council endorse that:
 - (a) no properties within the municipal boundary of the City of Toronto be exempted from the Pesticide By-law;
 - (b) the preferred means of complying with the Pesticide By-law is through applying the methods of Plant Health Care (PHC);
 - (c) if the use of non-exempted pesticides is justified, its use should conform to the principles of Integrated Pest Management (IPM);
- (3) with respect to “Action Thresholds”, the Board of Health and Council:

- (a) reaffirm the previous recommendation of the Chief Administrative Officer (CAO) that there be no action thresholds established for fungicides or herbicides on residential lawns, cemeteries and general parkland;
 - (b) request that the Medical Officer of Health adopt the Ontario Ministry of Agriculture and Food (OMAF) action thresholds for chinch bugs and grubs as guidelines in the enforcement of the by-law on residential, commercial and institutional turf;
 - (c) request that the Medical Officer of Health monitor the emergence of new action thresholds on an ongoing basis;
 - (d) endorse that golf courses, bowling greens, and transportation and utility rights of way be subject to proactive inspections on a regular basis, in addition to complaint response inspections by Toronto Public Health;
 - (e) direct the Medical Officer of Health to request golf courses, bowling greens, and transportation and utility rights of way to submit an annual report on pesticide use and strategies to reduce pesticide use;
- (4) with respect to properties managed by Parks and Recreation (in addition to golf courses and bowling greens), the Board of Health and Council:
- (a) direct the General Manager of Parks and Recreation to employ Plant Health Care methods in the management of City-owned turf (including general parkland, sports fields and destination parks), horticultural areas, hard surfaces and natural areas to reduce the likelihood of pest infestations and the need for pesticides to control them;
 - (b) direct that the Parks and Recreation properties listed in recommendation 4(a) be subject to proactive inspections, in addition to complaint response inspections, by Toronto Public Health;
 - (c) direct the General Manager of Parks and Recreation to provide the MOH with annual reports of pesticide use and strategies to reduce pesticide use;
- (5) the Board of Health direct the Medical Officer of Health to include, in his report on the evaluation of the pesticide by-law, options for requiring users of non-exempt pesticides to post signs detailing the use of such pesticides; and options for a notification system requiring owners to notify the City of their intention to apply non-exempt pesticides;
- (6) the Board of Health forward this report to the Ontario Ministry of the Environment, and Health Canada's Pest Management Regulatory Agency for their information; and
- (7) the appropriate City officials be authorized and directed to take the necessary action to give effect thereto.

Background:

At its meeting of May 23, 2003, Toronto City Council passed By-law 456-2003 (Municipal Code, Chapter 612), the pesticides by-law.

At its meeting of May 18, 19 and 20, 2004, Toronto City Council adopted the report of the Chief Administrative Officer entitled “Pesticide By-law Advisory Committee Report to Assist in the Implementation of the City’s Pesticide By-law” and requested the Medical Officer of Health to report to the Board of Health and Council on:

- (a) Specific action thresholds for the most common weeds and insect pests in consultation with the Commissioner of Economic Development, Culture and Tourism; this report to consider seasonal factors and any newly developed amendments to action thresholds; further, that a review of action thresholds proposed or in use in other jurisdictions, including Ontario Ministry of Agriculture and Food (OMAF) be conducted and consolidated into the range of existing action thresholds;
- (b) Options for requiring users of non-exempt pesticides to post signs detailing the use of such pesticides 24 hours prior to, and four (4) days after, application of the pesticide;
- (c) Options for a notification system requiring owners to notify the City of their intention to apply non-exempt pesticides; and
- (d) Whether products to control pests and weeds as they are approved or evaluated by Health Canada would be appropriate for use in the City of Toronto, and on criteria by which “appropriate” pesticides would be determined.

At the same meeting of Council, the Medical Officer of Health was asked to review and report on the following motions:

- (a) to include dandelions in the definition of “infestation” which includes residential lawns, and staff be requested to develop action thresholds;
- (b) to include the statement “except for dandelions” in the guiding principle (3) in the Chief Administrative Officer’s February 10, 2004 report;
- (c) that preventative procedures be established for fruit trees that would include the use of pesticides, where necessary, to ensure the health of the trees;
- (d) that the Federal Government and the Ontario Ministry of Agriculture address the availability of pesticides and the ability of the public to purchase them; the availability of biological or non-chemical weed control products; the use of pesticides by the agricultural industry and the regulations which govern such usage; and the federal regulation of usage of pesticides throughout the Greater Toronto Area;
- (e) to provide that golf courses, lawn bowling greens and cemeteries be exempt from the pesticide by-law, provided that these industries use Integrated Pest Management;

- (f) that a Toronto Weed Pickers for Seniors (TWPS) Program be established in the same manner as the snow-clearing program for seniors.

This report was prepared in consultation with staff from Economic Development, Culture and Tourism, Works and Emergency Services, City Legal and the Office of the Chief Administrative Officer. In developing the recommendations of this report, staff have consulted with the Ontario Ministry of Agriculture and Food (OMAF) as well as stakeholders representing the Partnership for Pesticide By-laws, the Royal Canadian Golf Association, the Central Ontario Chapter of the National Golf Course Owners Association, the Golf Course Superintendents Association, the Ontario Association of Cemetery and Funeral Professionals, the Ontario Cemeteries Association, the Mount Pleasant Group of Cemeteries and Landscape Ontario.

Comments:

Compliance with the Pesticide By-law is best achieved through implementation of Plant Health Care (PHC) methods. PHC focuses on ensuring that plants are provided with what they need to remain healthy and free from damaging pest infestations. PHC includes components such as proper landscape design, site selection and plant selection for new projects. PHC also manages soil health, with emphasis upon the physical, chemical and biological properties of the soil. PHC for turf includes using a proper mowing height and frequency, overseeding and topdressing with high-quality compost.

The Pesticide By-law permits the use of a limited number of “exempted pesticides” such as biological pesticides (e.g. mineral oil, diatomaceous earth, *Bacillus thuringiensis* (Bt)) that are less toxic overall than conventional chemical pesticides. It is recognized, however, that some situations arise when PHC and the use of exempted pesticides are not sufficient to prevent or control pest infestations. The Pesticide By-law defines “infestation” as “the presence of pests in numbers or under conditions which involve an immediate or potential risk of substantial loss or damage.” As such, the by-law is structured to permit the use of conventional chemical pesticides when warranted, such as when not using them would result in substantial loss or damage. Examples of substantial loss or damage include: destruction of rare plants or rare ecosystems; damage to transportation or utility corridors from plant material; and extensive loss of turf such as golf greens from fungal diseases.

In those situations where the use of conventional chemical pesticides (i.e. non-exempted pesticides) is warranted, Integrated Pest Management (IPM) is the industry standard decision making process used to reduce pest populations to acceptable levels. IPM is a process that uses all necessary techniques to control pests effectively, economically and in an environmentally sound manner to sustain healthy landscapes. The principles, rationale and methodologies of IPM are compatible with the “Ten Steps to a Healthy Lawn” in the Chief Administrative Officer’s report adopted by Council at its May 2004 meeting.

It is recommended that Plant Health Care (PHC) be recognised as the preferred means to achieve compliance with the Pesticide By-law, and that any use of pesticides in Toronto as provided by the by-law conform to the principles of Integrated Pest Management (IPM).

Action Thresholds:

“Action threshold” refers to the point at which pests are present in numbers or under conditions which result in an immediate or potential risk of substantial loss or damage, whether to plants and plant ecosystems, or to the proper functioning of the greenspace. Action thresholds will be used by City staff in assessing bylaw compliance with respect to the use of non-exempt pesticides.

Action thresholds are not part of the by-law, but provide direction to Toronto Public Health in investigating compliance with it.

(a) Residential Property and General Parkland

The CAO’s report included the principle that “no thresholds should be set for fungicides or herbicides for home lawn care, cemeteries and general parkland.” This recommendation is consistent with the definition of “infestation.” Fungus infestations are very rare on residential lawns. Neither fungus nor weeds pose an immediate or potential risk of substantial loss or damage to turf lawns on residential, commercial (such as large business campuses), or institutional properties (such as lawns on university or hospital grounds). Lawn care methods (or Plant Health Care methods) such as aeration, top dressing, overseeding, proper watering and mowing will keep a lawn healthy and able to resist disease and fight off encroaching weeds. The few weeds that may start to grow can be removed manually.

Two common insect pests that affect lawns in Toronto are chinch bugs and lawn grubs (beetle larvae). To establish action thresholds for these pests, Toronto Public Health (TPH) consulted both Ontario Ministry of Agriculture and Food (OMAF) action thresholds and action thresholds in other jurisdictions including British Columbia, Nova Scotia, other Ontario cities, Connecticut, Michigan and New York. TPH also consulted directly with OMAF and Parks and Recreation.

Unlike weeds such as dandelions, the presence of lawn grubs and chinch bugs in a residential lawn may “involve an immediate or potential risk of substantial loss or damage” because these pests have the potential to completely destroy a lawn. The OMAF thresholds for these insects are in Table 1 below.

Table 1 – OMAF Action Thresholds

Pest	Turf Conditions	Action Threshold
Grubs	Irrigated turf	15 larvae/0.1 m ² (approx. 1 sq ft)
	Non-irrigated turf	5-10 larvae/0.1 m ² (approx 1 sq ft)
Chinch Bugs	Any Condition	20 chinch bugs per 20 cm to 25 cm (8 inch to 9 inch) diameter can

It is recommended that the thresholds identified in Table 1 be used by Public Health Inspectors as part of the inspection protocol to enforce the by-law on residential property and general parkland. OMAF officials and experts in other jurisdictions advised that it is difficult, if not impossible, to impose a single threshold as a standard. Healthy lawns will sustain significant populations of pests, but there is a considerable variation in the quality of lawns and their capacity to withstand insect infestations across the city.

Residents will be informed of the OMAF insect action thresholds in educational materials and other elements of the Public Health outreach program. Inspectors will take the action thresholds into consideration along with a number of other factors – such as the overall condition of the lawn, shade conditions, areas of heavy foot traffic and other signs of stress – when determining whether the pests were present in numbers or under conditions that involved an immediate or potential risk of substantial loss or damage. Action thresholds from other jurisdictions, while informative of conditions in other areas of Canada and the United States, may not be appropriate because they have not been developed for Toronto’s ecosystem and climate.

An emerging insect pest in Toronto is the larvae (known as leatherjackets) of the European crane fly. Leatherjackets pose a similar risk of substantial loss or damage to turf lawns as posed by grubs and chinch bugs. However, at this time, no “non-exempt” pesticide has been registered for use in Canada to treat this pest on residential lawns. As part of the ongoing implementation of the pesticide by-law, the Medical Officer of Health will monitor both emerging information about action thresholds and new pest control products registered for domestic use against leatherjackets and other common pests. Toronto residents currently have access to educational materials regarding methods that may be used to minimise the damage that may be caused by leatherjackets. Nematodes, a biological pesticide listed as an “exempted pesticide” under the by-law, have been shown to be effective in some instances against leatherjackets.

Toronto Public Health treats every inspection as an opportunity to inform the owner about healthy lawn care. Public education will help people keep their lawn healthy and help them know when they may need to apply a pesticide. Outreach materials recommend that residents should contact a professional lawn care service provider if they think they have an infestation.

(b) Golf Courses, Bowling Greens and Transportation and Utility Rights of Way

The CAO’s report identified a number of specific properties – golf courses, lawn bowling greens, sports fields – to be given careful consideration in terms of how action thresholds were developed for them. In preparing this report TPH staff identified transportation and utility rights of way as additional property types justifying specific attention. As well, the Medical Officer of Health was asked to consider the possibility of exempting golf courses and cemeteries from the by-law if they practiced IPM.

From the perspective of protecting the public’s health, there is no compelling reason to exempt any property in the city from the pesticide by-law. Exposure risk to pesticides can be as high on golf courses and cemeteries – where people spend prolonged periods of time and often stoop and kneel on the grass – as it is in general parkland. In the event that a property faces the immediate or potential risk of substantial loss or damage, the by-law permits the use of non-exempt pesticides. It is the overall objective of the by-law to reduce the use of pesticides, encourage property managers to focus on plant health care and avoid creating situations where infestations may arise.

As noted above, an “action threshold” is that point in green space management decision-making when a non-exempt pesticide may be used to control an “infestation,” – pests that present an “immediate or potential risk of substantial loss or damage.” For golf courses, bowling greens and transportation and utility rights of way there are, overall, greater risks of potential loss or damage from fungal, weed or insect pests than on residential lawns. As a result, the use of non-exempt pesticides may be warranted.

Public health staff have worked with representatives of these property sectors to review action thresholds that are appropriate to their particular function, and that are consistent with the infestation definition in the Pesticide By-law. Rather than develop action thresholds for the full range of diseases, insects, and weeds that pose a potential risk of “substantial loss or damage” to each type of property in the city, guidelines will be used to assess whether or not the use of a non-exempt pesticide conforms to the definition of “infestation.” Attachment 1 provides an overview of the steps undertaken and questions asked by inspectors as they gather evidence regarding compliance with the by-law.

(i) Golf Courses and Bowling Greens

Bentblade grass surfaces on bowling greens, golf course greens and tees are desirable because they provide an optimal playing surface. However, these surfaces are also prone to fungal infestations and can be very severely damaged by them. Because of the function of the bentblade turf surface, the use of a non-exempt pesticide (a fungicide) may be warranted to prevent substantial loss or damage (the loss of the green).

(ii) Transportation and Utility Rights of Way

Transportation and utility rights of way are greenspaces where vegetation can pose a hazard to safety and function. In hydro rights of way, vegetation such as fast-growing trees and bushes may interfere with high-tension wires. On these properties, the treatment of this kind of vegetation with non-exempt pesticides (when other methods such as mowing and physical removal are not possible) is warranted to prevent potential “substantial loss or damage” in the form of a power outage. In transportation rights of way, vegetation may interfere with sight lines or damage infrastructure.

(c) Cemeteries

The CAO’s report recommended that cemeteries be treated the same as residential lawns and general use parks. The CAO’s report, as adopted by Council, specified that no thresholds should be set for fungicides or herbicides for home lawn care, cemeteries and general parkland. During Public Health’s recent consultation with cemetery representatives, this recommendation was explored. Cemetery representatives provided the perspective that they deal with conditions – gravemarkers set above and flush with the ground – and perform functions that are not commonly associated with residential lawns. Cemetery operators noted that they are constrained in how they can apply horticultural methods such as irrigation and aeration, and thereby are less able to maintain a healthy turf free of weeds such as dandelions. Cemetery operators also raised the special concerns of grieving families who expect a well-maintained, weed-free greenspace at the graves.

While acknowledging the special concerns raised by cemetery representatives, it is recommended that cemeteries be treated the same as residential lawns and general parkland. Furthermore, cemeteries should not be exempted from the by-law. The use of pesticides in cemeteries may pose exposure risks because of the proximity of these properties to residential neighbourhoods and due to their dual function as both a place of reverence and a recreational space for walking and jogging. There are sufficient provisions in the by-law to permit the use of pesticides as a last resort if there is a threat of substantial loss or damage to turf.

(d) City-owned Greenspace Including Bowling Greens and Sports Fields

The CAO's report asked for special consideration for lawn bowling greens and sports fields. With very few exceptions, most of these kinds of properties within the City of Toronto are managed by the Parks and Recreation division. These properties – turf (including general parkland, sports fields, destination parks, golf courses and bowling greens), horticultural areas, hard surfaces and natural areas – are all subject to the pesticide by-law. The Parks and Recreation division has prepared a report on Plant Health Care that details its approach in managing city-owned greenspaces. Parks and Recreation recommends that these properties be managed in a manner which emphasizes plant health. The use of pesticides is restricted to treatments of infestations – in the lowest dose possible and as a last resort.

The management of sports fields deserves special mention. During Public Health's recent stakeholder consultation regarding action thresholds, the Partnership for Pesticide By-laws noted that there were numerous examples of sports turf, such as soccer pitches and baseball diamonds, being managed without the use of chemical pesticides. For example, the City of Waterloo has managed its sports fields without pesticides for a number of years, as has Halifax. Toronto Parks and Recreation has virtually eliminated pesticide use on sports fields. From the perspective of best protecting the health of the public, and especially children who are primary users of sports fields, it is important to avoid pesticide use on these properties.

Reducing Pesticide Use on Golf Courses, Bowling Greens and Transportation and Utility Rights of Way:

It is recognized that conditions may arise on golf courses, bowling greens and transportation and utility rights of way that justify the use of non-exempt pesticides to prevent substantial loss or damage to the function of the property. To reduce pesticide use, these properties will be subject to proactive inspections as well as inspections in response to complaints received. In the interest of achieving the larger objective of the by-law, these properties will be asked to report annually on both their pesticide use each year and the strategies they have put in place to reduce their pesticide use overall. This reporting will be voluntary.

During inspections, all of these properties must demonstrate to the satisfaction of Public Health Inspectors (PHIs) that their pesticide use is for the purpose of treating an infestation as defined by the by-law. That is, there must be an immediate or potential risk of substantial loss or damage to warrant the use of a non-exempt pesticide.

The Medical Officer of Health has consulted with associations representing operators of golf courses and lawn bowling greens, with the City of Toronto Parks and Recreation division, with Toronto Works and Emergency Services, and with Hydro One. Those responsible for the management of these properties are prepared to share information with the MOH regarding their annual pesticide use and their pesticide use reduction plans. This information will assist Public Health Inspectors when they undertake proactive inspections and inspections in response to a complaint of pesticide use.

PHI Training in Plant Health Care and Integrated Pest Management:

Inspecting for legal use of pesticides requires specialized knowledge and training. Toronto Public Health inspectors (PHIs) have received training – both in the classroom and in the field – from Landscape Ontario in Integrated Pest Management and turf management. These sessions trained PHIs in common lawn care problems and common turf pests. In January, City of Toronto plant health care experts will provide classroom training on pest issues in parks and golf courses. The Parks and Recreation division will further assist PHIs by developing protocols in Plant Health Care and Integrated Pest Management that will provide valuable direction for inspection procedures. The protocols will include Plant Health Care Checklists, Integrated Pest Management Check Lists and technical fact sheets. The checklists will have a dual purpose in that they will guide and train Parks and Recreation field staff in Integrated Pest Management as well as be used to report pesticide use to the Medical Officer of Health. The Royal Canadian Golf Association has also offered to provide training to TPH inspectors about turf care.

Adding New Pest Control Products to Exempted Products List:

In its “Definitions” section, the by-law lists several active ingredients found in pest control products and provides that, for the purposes of the by-law, products containing one (or more) of these substances as their only active ingredients are not subject to the by-law. This is the “exempted products list.”

There is a regulatory framework in place that determines which pesticides are available for use in Ontario. At the federal level, pesticides are assessed and registered for use in Canada under the *Pest Control Products Act*. At the provincial level, the Ontario *Pesticides Act* and Ontario Regulation 914 regulate the licensing and permitting of pesticide applicators. Any product on the City of Toronto Pesticide By-law “exempted products list” must first be classified as a domestic use product by the federal regulator (the Pest Management Regulatory Agency, or PMRA) and classified by the Ontario Pesticide Advisory Committee (OPAC) as a Schedule 4 pesticide (which means it is appropriate for retail sale and homeowner use). The City of Toronto does not need to duplicate this process to expand its exempted products list.

The active ingredients currently on the “exempted products list” share one or more of the following characteristics;

- (a) they are derived from natural materials such as animals, plants and minerals;
- (b) they consist of a microorganism (e.g. a bacterium, fungus, virus or protozoan) as the active ingredient, such as subspecies and strains of *Bacillus thuringiensis*; and
- (c) they are naturally occurring biochemical substances such as insect sex pheromones.

These characteristics conform to the PMRA’s and the United States Environmental Protection Agency’s category of pest control products called “biological pesticides.” Biological pesticides (also known as biopesticides) are usually inherently less toxic than conventional pesticides. They generally affect only the target pest and closely related organisms. Examples of biopesticides are Bt, corn gluten meal, acetic acid and diatomaceous earth.

These characteristics are the most appropriate for products on the “exempt products list” in the Toronto Pesticide By-law. Taking into consideration the federal and provincial regulatory framework described above, in order to be a new “exempted product,” an active ingredient would have to meet the following criteria:

- (a) it shares the characteristics of substances considered to be “biological pesticides” by the United States Environmental Protection Agency,
- (b) it is classified as domestic and registered for lawn or garden use in Canada by the Pest Management Regulatory Agency; and
- (c) it is classified (Schedule 4) for residential use by the Ontario Pesticide Advisory Committee.

Any products containing only active ingredients that meet these criteria can be incorporated into the by-law with the term “biological pesticide.” If this term is included on the “exempt products” list in the by-law, then all such products, as they come on the market, will be able to be used in Toronto without having to further amend the by-law in the future.

The by-law would need to be amended to incorporate these products by amending the definition of pesticide to include biological pesticides, including Bt (*Bacillus thuringiensis*) and nematodes.

With this proposed technical amendment to the by-law, any new product considered to be a biopesticide by the USEPA that is also approved for domestic lawn or garden use in Canada by the PMRA and classified (Schedule 4) for such use in Ontario would be an “exempted” product under the Pesticide By-law. The Medical Officer of Health would provide information on these new products as they become available on the Public Health web site and through other communications.

Council Motions Referred to the Medical Officer of Health for Review and Comment:

With reference to the motion to develop action thresholds for dandelions, the discussion above notes that, as weeds do not involve an actual or potential risk of substantial loss or damage, any action threshold for weeds would be inconsistent with the definition of infestation in the by-law.

Regarding the motion requesting preventative procedures be established for fruit trees that would include the use of pesticides to ensure the health of the trees, the following information is relevant. The by-law currently provides for a variety of exempted pest control products – including dormant oils – that are effective for the preventative treatment of several tree pests. As well, the by-law provides for injectable treatments, many of which are developed specifically for the purpose of preventing infestations in trees. Finally, the definition of infestation permits the use of a non-exempt pesticide when pests pose a potential risk of substantial loss or damage. The by-law provides for a number of preventative treatments to ensure the health of trees.

Further motions requested the Federal Government and the Ontario Ministry of Agriculture to address the availability of pesticides and the ability of the public to purchase them, the availability of biological or non-chemical weed control products, the use of pesticides by the agricultural industry and the regulations which govern such usage and the federal regulation of

usage of pesticides throughout the Greater Toronto Area. Correspondence has been received from both the Ministry of the Environment and the federal Pest Management Regulatory Agency pursuant to these requests (Attachment 2).

Motions were referred to the Medical Officer of Health to consider exempting golf courses, lawn bowling greens and cemeteries from the pesticide by-law, provided that these industries use Integrated Pest Management. It is not recommended that any properties within the City of Toronto be exempted from the pesticide by-law.

The Medical Officer of Health was also asked to consider that a Toronto Weed Pickers for Seniors Program be established in the same manner as the snow clearing program for seniors. Council also requested the Roundtable on Seniors to examine ways to assist seniors with the implementation of natural lawn and garden care. At the November 23, 2004 meeting of the Roundtable on Seniors, this request was referred to the Seniors Forum for discussion. A possible weed pickers program for seniors will be discussed at that meeting, as they plan to address the harmonization of the City's snow clearing and grass cutting policies.

Options for Notification and Signage:

Toronto Public Health staff consulted with the City legal department regarding a range of possible requirements for signage and notification under the by-law. The City Solicitor has prepared a report for the Board of Health and Council regarding these issues.

Public health staff have reviewed various notification methods such as an on-line web-based tool and a permitting system similar to that used in Halifax, Nova Scotia. Toronto Public Health staff currently collect information during pesticide by-law complaint response inspections that will aid in determining possible options for notification and signage. This information will be included in the evaluation of the pesticide by-law that will be reported to the Board of Health at the end of 2006.

Conclusion:

Compliance with the Pesticide By-law is best achieved through Plant Health Care (PHC) because it focuses on ensuring that plants are provided with what they need to remain healthy and free from damaging pest infestations. It is recognized, however, that some situations arise when PHC and the use of exempted pesticides are not sufficient to prevent or control pest infestations. Guidelines have been developed to enable Public Health Inspectors to systematically determine whether the use of non-exempt pesticides is warranted and in conformance with the by-law. The report also identifies action thresholds for two commonly occurring insect pests that have the potential to substantially destroy a lawn. TPH recommends that action thresholds be established for lawn grubs and chinch bugs in residential, commercial, and institutional lawns. The OMAF action thresholds for these pests are the most appropriate for the growing conditions in Southern Ontario. Public Health Inspectors will include consideration of these thresholds along with other factors when they inspect for a legal use of pesticides.

Golf courses, bowling greens, and transportation and utility rights of way will be subject to enhanced scrutiny by Toronto Public Health to ensure that their use of pesticides is minimal and conforms to the by-law definition of infestation. Public Health Inspectors will proactively

inspect these properties as well as respond to complaints received. These properties will be asked to provide annual reports to the Medical Officer of Health detailing their pesticide use and their strategies to reduce their use of pesticides.

Properties managed by Toronto Parks and Recreation – turf (including general parkland, sports fields, destination parks, golf courses and bowling greens), horticultural areas, hard surfaces and natural areas – are all subject to the pesticide by-law and should be managed with the methods of Plant Health Care. Parks properties will also be subject to proactive inspections and will report all pesticide use to the Medical Officer of Health.

Public Health Inspectors are being trained in Integrated Pest Management, as well as turf management on golf courses, in order to be able to inspect for legal use of pesticides. Public Health Inspectors also collect information during complaint response inspections that will aid in determining the options for a notification system and signage detailing pesticide use. This information will be considered in the pesticide evaluation report to be submitted to the Board of Health at the end of 2006.

This report describes a technical amendment to the pesticide by-law to include “biological pesticides” on the “exempt products list,” so that any new product that meets the identified criteria will also be exempted from the by-law. The Medical Officer of Health would provide information to the public of these new products on the Public Health web site and through its educational materials distributed in the community.

Contact:

Dr. Fran Scott, Director, Planning & Policy and Associate Medical Officer of Health
Toronto Public Health
Tel: 416-392-7463; Fax: 416-392-0713; Email: fscott@toronto.ca

List of Attachments:

Attachment 1: Pesticide Bylaw - Inspection Protocol for All Properties

Attachment 2: Correspondence from the Ontario Ministry of the Environment, Standards Development Branch (October 6, 2004) and Health Canada, Pest Management Regulatory Agency (October 28, 2004)

Attachment 1

Pesticide Bylaw

Inspection Protocol for All Properties

Toronto Public Health will initiate an investigation of any complaint of pesticide use within 24 hours (or by the next business day), and if necessary, call the Ministry of the Environment if an infraction against the *Pesticides Act* is suspected.

The Inspector will refer to the Ontario Ministry of Agriculture and Food Publication 162 “Diseases and Insects of Turfgrass in Ontario” for detailed descriptions and photos of common disease and insect problems.

During the inspection of the area(s) to which a pesticide has been applied, the Public Health Inspector will consider a number of factors when determining whether or not the application of pesticide was in compliance with the definition of infestation. These details include:

- (a) The type of property and surface to which the pesticide was applied.
- (b) The method of pesticide application (equipment used to apply the pesticide and whether it was a blanket or localized application).
- (c) Verifying whether there are conditions on the property that make it susceptible to pest infestations.
- (d) Determining the process that site personnel went through to determine that there was an infestation. Evidence for an insect infestation on a residential, commercial or institutional property may include the observation of larvae/grubs at the action threshold level, turf that lifted easily, roots/leaves that have been eaten, and/or racoons, skunks, and/or birds that were seen foraging. Evidence for a disease infestation may include patches on turf, discoloured or spotted leaf blades, discoloured roots, and lesions on leaf blades (colour and size depend on disease).
- (e) Confirming that the pest occurrence coincides with seasonal conditions.
- (f) Validating whether the applicator identified a pest prior to the pesticide application.
- (g) Determining whether the applicator observed evidence of pests in the entire area of application.
- (h) Verifying from the interview with site personnel whether or not the pest has been observed in the area of pesticide application in previous years.

Violations of the Pesticide By-law:

For a first offence, a warning will be issued to the property owner and/or pesticide applicator if the inspector concludes that the application of pesticide does not conform to an infestation. Subsequent offences may result in a ticket being issued.

Educational Materials:

During inspections, Toronto Public Health will provide property owners and pesticide applicators with educational materials regarding plant health care and how to comply with the pesticide by-law.

(Attachment 2 appended to the foregoing report was forwarded to all Members of the Board of Health with the agenda for its meeting on January 17, 2005, and copies thereof are on file in the office of the City Clerk)

The Board of Health also submits a confidential report from the City Solicitor, responding to a request on options for requiring those using pesticides restricted by the City's Pesticide By-law to post signs and notify the City of impending pesticide use, which was forwarded to all Members of Council under separate cover; and further, that, in accordance with the *Municipal Act*, discussions pertaining to this Clause be held in-camera, because the advice is subject to solicitor-client privilege.

The Board of Health considered the following communications:

- Communication (January 17, 2005) from Norris P. Zucchet, President and CEO, Mount Pleasant Group of Cemeteries.
- Communication (January 17, 2005) from Teri Yamada, Managing Director, Ontario Allied Golf Associations.

The following persons appeared before the Board of Health:

- Gideon Forman, Executive Director, Canadian Association of Physicians for the Environment;
- Debra Conlon, Urban Pest Management Council;
- Cheryl Shour, Organic Landscape Alliance;
- Teri Yamada, Managing Director, Ontario Allied Golf Associations.
- Katrina Miller, Toronto Environmental Alliance;
- Janet May, Pesticide Free Ontario; and
- Sari Merson, York Region Environmental Alliance.

City Council – February 1, 2 and 3, 2005

Council also considered the following:

Confidential report (December 20, 2004) from the City Solicitor. This report remains confidential, in its entirety, in accordance with the provisions of the Municipal Act, 2001, as it contains information that is subject to solicitor-client privilege.

Communications:

- (1) *(January 17, 2005) from Brad Hunter, President, Ontario Association of Cemetery and Funeral Professionals;*
- (2) *(January 17, 2005) from Gary R. Carmichael, Vice-President, Government and Corporate Affairs, Arbor Memorial Services Inc.;*
- (3) *(January 28, 2005) from Mike Christie;*
- (4) *(January 29, 2005) from K. Jean Cottam;*
- (5) *(January 30, 2005) from Judy Roberts, President, Judy Roberts & Associates/Associates Inc.; and*
- (6) *(January 30, 2005) from Lesley Forrester.*

City Council – February 16, 2005

Council also considered the following:

Communications:

- *(January 17, 2005) from Brad Hunter, President, Ontario Association of Cemetery and Funeral Professionals [Communication 2(a)(1)];*
- *(January 17, 2005) from Gary R. Carmichael, Vice-President, Government and Corporate Affairs, Arbor Memorial Services Inc. [Communication 2(a)(2)];*
- *(January 28, 2005) from Mike Christie [Communication 2(a)(3)];*
- *(January 29, 2005) from K. Jean Cottam [Communication 2(a)(4)];*
- *(January 30, 2005) from Judy Roberts, President, Judy Roberts & Associates/Associates Inc. [Communication 2(a)(5)]; and*
- *(January 30, 2005) from Lesley Forrester [Communication 2(a)(6)].*

Confidential report (December 20, 2004) from the City Solicitor. This report remains confidential, in its entirety, in accordance with the provisions of the Municipal Act, 2001, as it contains information that is subject to solicitor-client privilege. [Confidential Communication C.2(a)]