





NEWS RELEASE

GYPSY MOTH CONTROL PLAN RECOMMENDED TO MISSISSAUGA CITY COUNCIL

MISSISSAUGA, March 1, 2006 - Today at a meeting of General Committee independent forestry consultant BioForest Technologies Inc. and City staff presented two separate reports recommending a treatment plan for Mississauga's anticipated Gypsy Moth infestation.

The report from BioForest confirms that high egg mass densities are a cause for concern and recommends that the City of Mississauga conduct an aerial spraying program within outbreak areas in order to prevent the loss of trees. They recommend two to three applications of the bacterial insecticide *Bacillus thuringiensis* var. *kustaki* (Btk) in the spring using a twin engine helicopter. In addition to the aerial spray program, BioForest recommends the implementation of an Integrated Pest Management (IPM) program involving residents in order to help mitigate damage on private property.

City staff also submitted a report today endorsing BioForest's recommended treatment plan. In addition, the report asks Council to consider declaring the Gypsy Moth a public nuisance, recommends proceeding with the selection and contracting of an aerial pesticide applicator and obtaining necessary approvals from the Ministry of Transportation.

"We have done a lot of research, carefully considered all of our options, and sought advice from an independent consultant before coming to this recommendation," said Director of Recreation and Parks John Lohuis. "The simple fact is that the Gypsy Moth population levels in some areas of Mississauga have gone beyond the point of normal levels and IPM based management and an aerial spraying of Btk is necessary in order to prevent the loss of thousands of trees."

Pending City Council's approval of the recommended treatment plan, City staff will develop comprehensive implementation and communications plans, which will define the treatment areas and inform residents of all plans moving forward.

"We are committed to openly educating and communicating with the public as we move through this process," said Lohuis. "Residents should know that our top priorities are the health and safety of residents and the protection of the environment - this recommended plan is consistent with our environmental policies and has been deemed the healthiest and most effective method of dealing with the infestation."

The reports will go to the Council for final approval on March 8. For more information and to view the City's and BioForest's reports, please visit www.mississauga.ca/pestmanagement.

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BACKGROUND #1

BACILLUS THURINGIENSIS SUBSPECIES KURSTAKI (Btk)

Bacillus thuringiensis subspecies kurstaki, commonly referred to as Btk, is a rod-shaped bacterium that occurs naturally on dead or decaying matter in the soil. It is grown from soil bacteria that occur naturally worldwide. When Btk is ingested by a susceptible caterpillar, the highly alkaline environment of the caterpillar's gut triggers the Btk bacterium to release a crystalline protein called an "endotoxin" that poisons the insect's digestive system. The caterpillars must ingest the Btk bacterium to be affected.

SAFETY OF Btk

According to Peel Public Health:

Btk (Bacillus thuringiensis subspecies kurstaki) has been extensively studied by the U.S. Environmental Protection Agency, the Health Canada Pesticide Management Regulatory Agency (PMRA), the United Nations Environment Programme and World Health Organization. Btk is approved for use by many countries, including Canada and the United States.

Research shows that Btk poses minimal risk to human health when used as directed and has very low potential for adverse public health impacts.

According to the PMRA, in addition to the active ingredient in Btk, the pesticide's other ingredients, called formulants, have also been studied broadly and found not to pose any significant health risks. These ingredients, including water, are used to make the product stick to the leaves and needles of trees.

While there is a potential in any pesticide spraying program for negative environmental effects, research shows that the proposed Btk aerial spray program is not expected to have any significant negative environmental effects. The benefit of using Btk in a targeted gypsy moth control program outweighs any potential negative environmental outcomes of gypsy moth outbreak. Btk has been applied in Canada and the United States on many occasions over the last 25 years.

Btk AND HUMAN HEALTH

According to PMRA:

Members of the public are unlikely to experience any symptoms if inadvertently exposed to Btk spray, no special precautions are necessary or required. Individuals who have concerns, however, should take reasonable precautions to avoid exposure during a spray program in the same way they would avoid pollen or airborne materials on days when air quality advisories are issued.

GYPSEY MOTH AND HUMAN HEALTH

According to Peel Public Health:

Extreme gypsy moth outbreaks have been associated with skin rashes and upper respiratory tract irritation in some people exposed to airborne gypsy moth hairs, silken threads, and shed skins. It is recommended that residents avoid exposure to gypsy moths. Children should be discouraged from playing with any gypsy moth caterpillars if they find them. The spiny hairs on the caterpillars can cause welts or a patchy rash that can persist for four to five days.

For more information about Btk, precaution measures or specific medical concerns, please call Peel Public Health at 905-799-7700.

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BACKGROUND #2

INTEGRATED PEST MANAGEMENT (IPM)

During the past 20 years, our Forestry Unit has worked closely with residents providing information and advice on various Integrated Pest Management (IPM) measures to control the Gypsy Moth. IPM measures are alternative approaches that don't normally include pesticide or chemical controls.

These measures which include picking caterpillars off foliage and soaking them in soapy water, placing sticky bands and burlap wraps on tree trunks, and scraping off and destroying eggs have not been effective in dealing with the infestation in some of Mississauga's most heavily affected areas. In these 'hot spot' areas the infestation has gone beyond the normal stage of pest management (especially for caterpillars located in upper tree canopies).

Aerial spraying of Btk is intended to reduce the Gypsy Moth population and is not intended to eradicate it. Btk applications will focus on caterpillars located high in tree canopies located in the most heavily affected areas. In order to help control the population, property owners will have to implement IPM measures such as picking caterpillars off foliage and soaking them in soapy water. Individual property owners should not use pesticides or contract pesticide companies to combat the gypsy moth issue.

BIOFOREST TECHNOLOGIES INC.

In order to assist with the development and implementation of the best possible plan to treat the 2006 infestation, the City hired independent forestry consultant BioForest Technologies Inc.

BioForest specializes in forest surveys and protection, forest certification and management, information and training, and research and development. They have been in operation since 1996 and have completed more than 250 projects for a full range of clients across Canada and the United States.

BioForest Technologies works with clients to manage pests before, during, and after serious attacks, to minimize the effects of pest outbreaks. BioForest Technologies is not a spray company and takes pride in providing clients with an objective assessment of each situation.

The final report submitted by BioForest recommends that the City of Mississauga conduct an aerial spray program within outbreak areas and implements an IPM program to help control the population in other areas.

For more information on BioForest Technologies, visit their website at www.bioforest.ca

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FACT SHEET

- The Gypsy Moth is native to Europe and was first discovered in Mississauga in the early 1980s. There are always low levels of Gypsy Moth in the environment
- It has been conservatively estimated that more than 10,000 trees could be lost translating into more than \$5,000,000 for removal and replanting
- The current outbreak started to build up two years ago: In August 2003, field inspections indicated a high of 14 egg masses per tree. By August 2004, a survey indicated a high of 185 egg masses per tree. In July 2005 staff began detailed Gypsy Moth egg mass surveys and found that in some areas egg masses totalled more than 800 per tree
- It is estimated that the most heavily infested trees could have between 400,000 to 600,000 (or more) caterpillars emerging per tree and surviving to adulthood
- The majority of egg masses are being laid 10+ metres off the ground, thereby limiting the usefulness of most Integrated Pest Management options
- Hatching of the Gypsy Moth typically takes place over a two week period in mid-May but this can be extended for an entire month if temperatures are cooler
- Long range spread of the Gypsy Moth occurs when people inadvertently carry egg masses that are on vehicles, patio furniture or other outdoor items while vacationing or moving
- In order to control the anticipated Gypsy Moth infestation in 2006, City staff is recommending an aerial spraying program in outbreak areas using the biological insecticide Btk
- The spray program would include a minimum of two applications, with a potential of a third, using a twin engine helicopter in the early spring during the hours of 5 a.m. to 7:30 a.m.
- It is estimated that 500 hectares (on private and public property) will be included in the spray program - this is equivalent to 0.57 per cent of Mississauga's total land mass
- All property owners should adopt an Integrated Pest Management Program to help keep the population levels in check, including the removal and destruction of egg masses
- The City of Mississauga is committed to openly educating and communicating with the public as we move through the treatment process - more information will be readily available to residents as it becomes available

More information about Mississauga's Gypsy Moth infestation and recommended treatment plan is available at www.mississauga.ca/pestmanagement

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FREQUENTLY ASKED QUESTIONS

Q Why is the City of Mississauga recommending spraying?

A Without treatment, Gypsy Moth caterpillars would completely strip the leaves off their preferred trees causing severe damage and in many cases the death of the tree. Staff estimate approximately 10,000 trees are impacted by the infestation on City property alone. Public green spaces such as parks and sports fields would be unusable and residents in heavy infested areas would be unable to use their backyards, pools or walk in their neighbourhoods.

Q What is the Gypsy Moth?

A The European Gypsy Moth is a recently introduced defoliating insect that is considered to be a major pest in North America. The caterpillar, or larva stage of the insect, eats the leaves of trees making them more susceptible to disease and damage from other insects.

Q How much damage can the Gypsy Moth cause to trees?

A Tree damage depends on the degree of infestation and can range from light to almost complete defoliation. If the tree has been weakened or stressed by other conditions, the defoliation can result in the death of the tree.

Q What kinds of trees are most affected by the Gypsy Moth caterpillar?

A It prefers the leaves of deciduous hardwood trees like maple, elm and particularly oak. It will also feed on apple, alder, birch, poplar and willow trees. As the caterpillar matures it will also begin to attack evergreens such as pine and spruce. They don't appear to like ashes, sycamores, butternuts, black walnuts, dogwoods and balsams.

Q How severe will the infestation be?

A Inspections in 'hot spot' areas saw trees covered with hundreds of egg masses. In some cases, trees had as many as 800 egg masses, with each egg mass yielding up to 1,000 caterpillars. When the egg masses hatch in these areas, a single tree will be infested with hundreds of thousands of caterpillars.

Q How many trees are expected to die in the most heavily affected areas?

A Many trees in Mississauga are already stressed or weakened and will not survive repeated defoliation by the Gypsy Moth caterpillars. If no action is taken, the result may be the loss of up to 10,000 trees (which does not include the trees on private property.)

Q What are the 'hot spot' areas?

A To date the City has identified the following areas as 'hot spots':

- Mineola East
- Mineola West
- Gordon Woods
- White Oaks/Lorne Park
- Doulton Drive
- Britannia Community Forest Woods
- Erin Woods
- Riverwood Park

Q Should residents living outside of these areas still be concerned about the infestation?

A There are other areas in Mississauga that will experience an increased Gypsy Moth population. Integrated Pest Management (IPM) control measures have proven effective to keep lower population levels of Gypsy Moth in check.

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