

CITY OF BURNABY

ENVIRONMENT AND WASTE MANAGEMENT COMMITTEE

HIS WORSHIP, THE MAYOR
AND COUNCILLORS

Re: Aphid Control on Tulip Trees on East Pender

RECOMMENDATION:

1. **THAT** Council approve the accelerated IPM program for the control of aphids on Pender Street boulevard trees.

REPORT

The Environment and Waste Management Committee, at its meeting held on 1997 February 11, adopted the attached report outlining options to control aphid infestation of trees in the 4500 - 4600 blocks of Pender Street. The Committee supported an accelerated IPM treatment program incorporating the use of insecticidal soaps.

Respectfully submitted,

Mayor D.P. Drummond
Chair

Councillor D. Johnston
Member

Councillor D. Lawson
Member

: COPY - CITY MANAGER
- DIRECTOR ENGINEERING
- DIR. PLNG. & BLDG.
- ACTING DIR. REC. & CULT. SERV.
- ENVIRONMENTAL HEALTH OFFICER

January 31, 1997

TO: Environment and Waste Management Committee
FROM: Acting Director Recreation and Cultural Services
SUBJECT: **APHID CONTROL ON TULIP TREES ON EAST PENDER**
PURPOSE: To seek approval for an accelerated IPM treatment program for the aphid problem on Pender Street.

RECOMMENDATIONS:

1. THAT the Environment and Waste Management Committee approve the accelerated IPM program for the control of aphids on Pender Street boulevard trees.
2. THAT Council be asked to approve the accelerated IPM program for the control of aphids on Pender Street boulevard trees.

REPORT

INTRODUCTION:

Council, during the "Inquiry" portion of the 1996 August 26 meeting, discussed the ongoing concern regarding the aphid infestation on the trees in the 4500- 4600 blocks of Pender Street. Council advised that the "Ladybug solution" did not work as well as originally anticipated and directed that a more aggressive approach to the problem be provided in a report. All possible alternative treatment options are discussed, with a recommendation to proceed with an accelerated IPM program incorporating the use of insecticidal soaps.

BACKGROUND:

For several years, the Park and Recreation Department have received sporadic requests from residents on East Pender requesting assistance to address the nuisance resulting from a sticky substance dropping from the boulevard trees in spring and summer. One petition with 68 signatures has also been received requesting the removal and replacement with an alternate tree species.

The boulevard tree species is Liriodendron tulipifera, commonly known as the Tulip tree. The sticky substance noted as dropping from the trees is a sugary by-product secreted by aphid insects sucking on the leaves.

In addition, the honeydew attracts other insects and offers ideal incubation sites for unsightly sooty mold fungus. There are a total of eighty-three trees on Pender Street planted through a 1986 Local Improvement Project. They represent a monetary resource of approximately \$200,000. Throughout the City there is approximately 1,500 Tulip trees. The Tulip tree has been particularly affected by this problem in recent years. Outbreaks of aphids tend to be rather sporadic both in location and from year to year.

Following receipt of the petition, several alternatives were considered by staff including complete removal, complete removal with replacement planting, removal of trees fronting petition signees and a combination of integrated pest management (IPM) techniques. The IPM approach was adopted by the Environment and Waste Management Committee in 1995 as the best method to alleviate citizen concerns in an environmentally responsible manner while retaining a resource of value to the greater community. The program consisted of three elements including the application of a horticultural dormant oil, the release of biological aphid predators and provision of ongoing explanatory information to all residents. Program assessment indicated a reduction in the aphid population over the course of the first summer. Although generally reduced, the sticky honeydew secretions were still evident.

A similar three year IPM program was approved by the Environment and Waste Management Committee on 1996 January 09 to be undertaken in 1996 through 1998. The program in 1996 indicated superior control of aphid populations over the 1995 program. However, the aphid population in the latter summer still provided enough honeydew secretion to be of nuisance to some residents.

ACCELERATED PROGRAM PROPOSAL:

Three possible alternative options exist for the control of the aphid problem:

Option 1 - Insecticidal Treatment

The aphid infestation could be controlled with applications of an insecticide, such as a systemic which is painted onto the tree and absorbed into the plant tissues, or a foliar spray. Such an option is not considered part of our current IPM policy because it does not correct the problem creating an ongoing need to apply the chemical annually. Such products may also leave residual amounts in the tree and may affect beneficial insects.

Option 2 - Removal and Replacement

Some or all of the trees could be replaced depending on the severity of the problem with individual trees and preference of the homeowners. The total cost to replace all eighty-three trees is \$65,000. Despite the problems these trees present to the residents, they are an economic and aesthetic amenity to the community at large. While this may ultimately be the final solution, it requires extreme intervention and should be considered as a last resort after all other possible options have been ruled

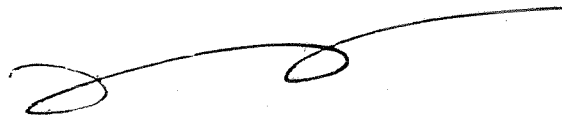
out. Not all residents have signed the petition or requested action.

Option 3 - Accelerated IPM Approach

The current IPM approach has not been effective enough because of the sheer magnitude of the aphid population. The control measures were reducing the population but not below a critical level that brought about relief for the residents. The effectiveness of the IPM approach could be improved with the two applications of insecticidal soap in combination with dormant oil and release of biological predators. Soap products have some insecticidal qualities with very short residual activity making them safe for public use. Such products, however, offer only moderate effectiveness and may not be enough to reduce this population to below critical levels. The annual cost of this IPM program is estimated to be \$14,000. The proposed methodology is compatible with the goals and objectives of the City's Integrated Pest Management Policy.

CONCLUSION:

There is no doubt that the current aphid problem is unpleasant for residents during mid to late mid-summer warranting additional action. An accelerated IPM program incorporating the use of insecticidal soaps is recommended for another year. At the end of the season, a further review and assessment will be undertaken. Ultimately, removal and replacement may be required as a last resort. Public information will continue to be provided to local residents in order to encourage a level of tolerance. Within the urban environment, no boulevard tree is ever totally free of problems. This fact must be considered in relation to the benefits the trees provide to the greater community.



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cc: Environmental Health
Director Engineering
Director Planning