

# URBAN TREE MANAGEMENT: PROBLEM SOLVING IN THE PUBLIC EYE<sup>1</sup>

by Geraldine Weinstein

**Abstract.** Urban forestry programs that recognize the importance of expanding professional skills of managers and arborists while simultaneously establishing an on-going flow of information to the public can more effectively preserve and expand an urban forest.

To citizens and community groups, the nearly 2.6 million street and park trees are an essential element of a livable New York. For the New York City Department of Parks & Recreation (NYCDPR), they are a resource to preserve and expand. However, in the past, mutual concern for New York City's urban forest did not inevitably result in a positive dialogue between the Department of Parks and the public. In 1983, the Department of Parks began a program of public outreach to both explain and gain support for its approach to urban tree management.

The following discussion focuses on three initiatives included in the public outreach program. At first glance, each one seems quite distinct even unconnected to the other. The underlying intent of each, however, is to expand our professional perspective, increase our technical knowledge and provide a basis for positive interaction with a discerning public.

## Integrated Pest Management

In spring of 1985, the NYCDPR initiated an Integrated Pest Management approach to caring for its nearly 600,000 street trees. The need for the program is apparent. Our tree population is larger and growing faster than the resources committed to its care. To be effective in pest management, we need in-depth knowledge of the nature, extent, and effect of pest problems in New York City and the full range of control options available to us. We have to be effective and we have to be safe. In terms of environmental considerations, the public sends a mixed message. There are

many who see pest control as the direct application of toxic chemicals to the environment with potentially dangerous effects on people and wildlife. There are others who, saddened and angered by a skeletonized tree in front of their house or a tussock moth invasion in their home, demand immediate chemical control.

The primary intent of New York City's IPM program is to preserve our urban forest by establishing a flow of information from the tree to the managers and from them to the public.

First we had to become better informed. A training program focused on the principles of IPM and provided practice in their application with emphasis on identifying pests, monitoring their life cycle and effect and evaluating the total biological and structural health of an afflicted tree. Information is then conveyed to the public through bulletins, correspondence, and phone conversations.

Letters responding to citizen complaints, requests, and concerns uniformly describe the following principles of our IPM approach:

1. We intend to apply unified control strategies instead of a single tactic approach.
2. Chemical controls are not forbidden, but they are not to be the first or only control used.
3. All chemicals will be applied only when and where the pest is most vulnerable to control and without adverse effects to beneficial organisms or wildlife.
4. Eradicating the pest is often infeasible or impossible on a long-term basis and therefore will not be our primary objective.
5. A monitoring system is in effect to identify the pest, evaluate the damage inflicted,

1. Presented at the annual conference of the International Society of Arboriculture in Milwaukee in August of 1985.

and to determine the life cycle of a given pest within a specific tree population and environment.

Information bulletins describe the life cycle of a specific pest and the strategy that we and/or the public should adopt. They briefly explain cultural and selected biorational controls. Above all, they stress total tree health care. In line with our emphasis on these control methods, pruning and fertilization programs have been initiated with community groups for horned oak gall and anthracnose. Biorational controls, which are also described include Dipel and insecticidal soaps to reduce populations of tussock moths, mites, and aphids respectively. The citizen groups involved know what the arborist is using, why, and what realistic results they can anticipate. Information bulletins have been developed for horned oak gall, tussock moth, anthracnose, and scale.

We clearly have to be effective and we have to be safe. In terms of environmental considerations, the public sends a mixed message. There are many who see pest control as the direct application of toxic chemicals to the environment with potentially dangerous effects on people and wildlife. There are others who, saddened and angered by a skeletonized tree in front of their house or a tussock moth invasion in their home, demand immediate chemical control.

As indicated, chemical controls are not forbidden but timing and targeting must be accurate. In this regard we are educating concerned citizens and community groups as to a method of elm leaf beetle control that will replace canopy spraying. They can see that trunk banding with a pesticide provides a more targeted and safer means of control. Proper timing has given us good results and the community's trust rather than its skepticism.

The dual focus of New York City's IPM program is people and trees. The program provides information which flows to the public and appropriate care targeted at the trees.

### **Branching Out**

In June, 1985, the NYCDPR began publishing and distributing "Branching Out," a technology transfer bulletin for park horticulturists, arborists, landscape architects, and other vegetation managers throughout New York City. In addition,

the bulletin is sent to citizen and community groups and environmental organizations.

The publication of this type of technical newsletter conveys recognition of the following:

1. Professionals in the field of environmental management may have limited access to a wide range of journals, even less time to absorb the information they contain and few opportunities for exchange with their peers in urban forestry, horticulture, and related fields.
2. The public wants to feel that decisions regarding the care of trees and shrubs have sound technical bases and are made by well-informed professionals.

Currently, the bulletin highlights recent findings regarding insects, diseases, new cultivars, and transplanting and maintenance practices. Books and conferences of possible interest are also mentioned. The long range goal is to include a brief description of effective practices and materials used by horticulturists, arborists, urban foresters and park managers, within the Department of Parks, as well as from professionals outside the New York City area. Hopefully, the tendency of vegetation managers to feel isolated in terms of problem solving will be substantially reduced as will public distrust of our decisions.

### **The Great Tree Search**

In September, 1984, New Yorkers were asked to nominate trees that have special significance for them by virtue of their unusual size, age, species, location, or form. In addition, trees could be nominated for their association with notable people or historic landmarks. The 'Search' was a cooperative effort between the New York City Department of Parks and Recreation, Department of Environmental Conservation and the Street Tree Consortium. Brochures describing the categories and including a nomination form were sent to schools, environmental organizations, and community groups throughout New York City. During the six months period of the Search, over 600 nominations were submitted. The winners were announced on Arbor Day, 1985. An illustrated brochure listing the Great Trees and the names of citizens who submitted the nominations has been widely distributed.

An offshoot of the Great Tree Search is the increased pride with which arborists, managers, and citizens view their urban forest. While certain trees were widely known before the Search, others were discoveries which evoked surprise and reverence. A *Prunus serotina* (dbh: 53"), a *Tilia cordata* (dbh: 79") and a *Carya cordiformis* (dbh: 33"), which have been identified as the largest of their species in New York City, have lived their long lives as street trees on busy thoroughfares.

Among the ubiquitous London planes and pin oaks on streets and in parks, other species less expected including *Araucaria araucana*, *Parrotia persica*, and *Castanea dentata* among others have surfaced through the Search.

The Great Tree Search established a dialogue between the Department of Parks and the public. They had the opportunity to bring to our attention trees needing special reverence and care. We then made the commitment to provide the

monitoring and maintenance required.

### Conclusion

Along with the City's bridges and roads, New York's street and park trees are assuming their place as part of an urban infrastructure in need of maintenance and attention. However, unlike the hard surfaces of the city, tree preservation and expansion is taking place with a public informed of its objectives and progress and with a core of urban tree managers expanding their technical knowledge to provide the optimal care within their means.

The Department of Parks and concerned citizens and groups within New York City are seeing the trees from the forest and doing something about them together.

*Central Park Conservancy*

*The Arsenal*

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### ABSTRACT

BACHTELL, KRIS R. and THOMAS L. GREEN. 1985. **Two winters with record cold: why was one a killer and other not so bad?** *Am. Nurseryman* 162(2): 53-56, 58-61.

The winters of 1981-82 and 1983-84 were the coldest ever recorded in the central United States. To determine if there was any consistency in the plant losses noted in our area, we sent a survey to 18 nurseries in northeastern Illinois in July 1984. We asked the nurserymen to list the plants on which they saw injury in either winter and to rate the severity of the damage for each winter. Eleven of the surveys were returned. The plant injury in the winter of 1983-84 and the lack of injury in the winter of 1981-82 were influenced by several interrelated factors. The months leading to winter affected the plants acclimation for winter temperatures. Fall 1981 was drier than average, and the slowly dropping temperatures in late fall and early winter allowed the plants to become fully acclimated. But the summer heat and drought and the poorly distributed moisture of fall 1983 placed the plants in a quiescent state of rest. The moisture and warmth of late fall initiated new growth and did not allow plants to become fully acclimated for the coming record cold. And the unusually warm February that initiated growth was followed by cold in March. Thus winter injury to plants is not simply explained by the plants' exposure to low mid-winter temperatures.