

IPM & HAZARD TREE LIABILITY¹

by H. Dennis P. Ryan III

Abstract. Arborists engaged in Integrated Pest Management programming of property must include hazard tree detection in their strategy. A failure to identify tree hazards during survey or monitoring practices may lead to personal injury or damage to property. This could be ruled by the courts to be a breach of responsibility on the part of the inspecting arborist. While we cannot prevent all accidents, many can be avoided if we look for tree hazards during IPM visits.

The July 1988 issue of the *NAA Reporter* reported a \$1.8 million award when a death was caused by a tree failure. The federal court jury awarded the money to the estate of a 31-year-old woman who was killed when a tree fell on her car at a Washington D.C. embassy. The jury delivered the verdict against a landscaping firm that had worked on the tree three years earlier and had left it standing despite there being a hazardous condition (1). The above case unfortunately is not unusual and this type of liability in being brought to court more frequently. Federal, state and municipal tree and park agencies, as well as commercial and utility arboricultural firms, can and are being held liable for hazardous trees. In some cases individual arborists are also being sued for damages.

This liability can be expected to increase in the future because of an increased emphasis on IPM programming of parks, street tree populations and client's private property. Commercial and governmental arborists/urban foresters should begin planning and implementing methodologies that will reduce the likelihood of liability.

Integrated pest management (IPM) has several definitions but for the purpose of this paper it is defined as: *the complete integration of all arboricultural management practices necessary to maintain vegetation in a healthy and hazard-free manner at reasonable cost to the client.*

By utilizing this IPM management philosophy the arborist utilizes all of his/her options including pruning, removal, pest management strategies and even new tree planting selections in order to have a healthier and safer property. Most of the

IPM systems now being used by arborists have been established as a substitute for tree spraying. As a result they look only for insects and diseases. Liability wise this could expose the arborist to a suit because they are supposed to be "monitoring" the property for tree problems, including hazards.

IPM programming can be divided into four components:

1. *Arbor Ecosystem.* The arbor ecosystem is the property that the arborist is responsible for. This could be a client's property, a park or street trees. The arborist must become knowledgeable about the site, what is on it and what affects it. This would include the soil, climate, plants and all other factors that are interacting on the site. Probably the best way to scout the site is by doing a formal survey. In many cases this survey is computerized so that it acts as an inventory and is easily updated. A significant component of this inventory process should be checking for hazardous trees.
2. *Monitoring.* Once the initial survey has been completed, the next step is establishing a monitoring and record keeping system for the property. Most arborists will monitor a site once during the dormant season and several times during the growing season. Park and street trees are usually inspected annually. These site visits are used to monitor pest populations and to check on the condition of plants. If necessary, treatments are performed. The monitor must be knowledgeable in all aspects of arboriculture. Record keeping is essential. In case of a legal problem, your records could be subpoenaed. They could also be used to prove your competence.
3. *Work Threshold.* Thresholds or injury levels must be established to determining when or at what point work will be performed on the tree. The easiest threshold to understand is the economic injury level. It is simply the cost of control compared with the cost of damage to the crop. Example: A field of nursery stock is worth \$1000 per

1. Presented at the annual conference of the New York Chapter of ISA in January 1989.

acre. The cost of a spray treatment is \$100 per acre. If a pest is going to damage the nursery crop and cause \$400 worth of damage then it is more economical to spray because the economic threshold is \$100.

Most arborists are not managing a cash crop such as nursery stock, but are responsible for ornamental trees and shrubs which have a personal and monetary value. The threshold then becomes one of aesthetics or at which point the tree will be damaged by the pest. When this threshold is passed, it is often necessary to spend large sums to save or protect the tree. Lastly, we should establish a hazard threshold. At what point does a tree become a hazard to people or property? What is the arborist's responsibility in reference to hazardous trees? These are serious questions that should be addressed by all arborists.

4. *Management Strategies.* Management has to play an important roll with any IPM program. It is more than setting up a pest management program. The managerial strategies should include good public relations, including education of the clients and the public. Lastly, the program should be constantly evaluated in order to improve the process.

Arborists' liability. A person or agency can be held liable for injury or damages if three conditions are met (2): 1) Responsibility. If an arborist can be shown to have an obligation to a property, tree or client then he/she has the duty to keep that site safe or to inform the proper authority (client-supervisor) of a hazardous condition. 2) Breach of Responsibility. If the arborist fails to perform this obligation or to warn of a potential hazard then he/she has breached his/her responsibility and is negligent. 3) Damages or Injury. There must be an injury or damages to property as a result of the breach of responsibility.

The above conditions must be proven for an arborist to be held liable, but with the new IPM programs proving the responsibility will be easier than it was in the past. Federal, state, and municipal governments can also be held liable under the same conditions. The Federal Tort Claims Act of 1946 holds that the federal government could be liable for any loss of property, injury, or death which was caused by the negligence of any government employee working within the scope of a particular job. Most states now have similar

laws. What this all means is that arborists are accountable not only for what they do, but for what they fail to do.

Potential tree hazards. "A hazard tree contains some form of structural defect, a peculiar location or combination of both, giving it a high possibility of failing and causing personal injury or property damage. For a hazard to exist there must be a valuable target (buildings, cars, or people) within close proximity of the tree. A rotten tree deep in the forest and away from people is not hazard because there is no target. However, a rotten tree near a view point, interpretive sign or campsite is a hazard since people have been invited there."

Obviously a tree in a city park, along a street or in a client's yard has the potential to be labeled a hazard if it has a structural defect. Arborists therefore should re-evaluate their inspection process to see if they are leaving themselves open to a potentially serious liability problems.

The following are some of the more common arboricultural problems that should be considered along with some comments.

- *Dead Trees.* Dead trees, dead limbs, and dieback all must be considered potential problems. The courts have ruled in several cases that if it's been dead for more than a year and there are damages as a result, then there is liability involved.
- *Weak crotches.* Split, tight, and weak crotches or limbs have been recognized as problems. The standard practice has been to brace or cable these weak areas. This is still accepted, but the arborist must realize that by cabling a weak limb he/she is acknowledging that there is a problem. Weak crotches should be removed or, if cabled, inspected frequently.
- *Decay.* Structural weakness due to decay, target cankers or splits must be inspected closely. When in doubt as to the tree's soundness, remove the hazard.
- *Construction Damages.* Site conditions and alterations to the site due to construction create some of the most dangerous trees in the amenity tree environment. Root cuts, high water tables or a ledge all increase the likelihood of wind throw. Wind throw is most likely when surrounding trees have been removed, as on a new house lot.
- *Root Problems.* Root rots, girdling roots and backfilled trees can all create hazardous situa-

tions. Each of these problems exhibits its own symptoms. Arboricultural IPM inspectors should be familiar with each.

- *Lightning.* Trees struck by lightning can be extremely dangerous to people, livestock and property. Eleven percent of house fires are caused by trees being struck by lightning. Each year thousands of trees are hit. Many could be protected with professionally installed lightning protection systems.

Lightning protection codes require the protection of any tree taller than a house and within 10 feet of the house.

Many trees should be protected. Installation and grounding must be correct. Failure to do so may produce a serious condition and the possibility of liability.

- *Storm Injury.* Following storms that have the potential to do injury to trees, all client's property and high-use park areas should be inspected. Check especially for breakage and hangers.

- *Pruning.* Poor pruning practices, especially topping, can lead to potentially dangerous situations. If topping has occurred the tree should be inspected frequently for poor growth and decay patterns.

Several other factors should be considered before making a hazard tree prediction: species, size of tree, location of tree, likelihood of injury or damage, and type of defect or condition

Hazard tree reduction. Hazard identification and reduction programs must be part of all arboricultural services, whether governmental or commercial. Where possible correct hazards by removals, prunings, etc. It's imperative that NAA standards (4) be followed at all times. Failure to follow established standards could place you in a serious liability situation in case of an accident. When the client or agency will not allow a hazardous situation to be corrected, put your recommendations in writing and keep records of your recommendations. While we cannot prevent all accidents, many can be identified, if we look for hazards during IPM visits.

Literature Cited

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Abstract

WATSON, G.W. 1989. **Mulch increases tree root density.** Am. Nurseryman 169(3):99.

How mulch and grass affect the density and surface area of tree roots is not well understood. My study examined whether the long-term use of mulch improves the density and surface area of roots of trees planted in the city. Mulch improves the soil, reduces competition, recycles organic material and enhances root development.