

## City Ordinances Needed For Urban Tree Protection

Urban tree root systems often suffer severe damage during construction and need to be protected. This is the thinking of Dr. Carl E. Whitcomb, ornamental horticulturist at the University of Florida. He is advocating city ordinances to protect trees and the root systems that support them. Otherwise, he believes, they will end up dying.

Despite the fact that many developers and cities proudly proclaim they have "saved the trees", many root systems are severely damaged during construction, he has stated.

Speaking at a shortcourse on urban forest management recently before 48 city planners and other officials, Dr. Whitcomb pointed to the city of Atlanta, Ga., which has a tough new landscape ordinance to protect trees and their root systems. Trees in Atlanta, he said, cannot be removed without city authorization, and root systems must be protected.

He stressed that urban trees must endure more environmental stress. "Once root systems are damaged, trees become more vulnerable to insects, disease, and stress, especially

during drought periods. Such damage usually means the beginning of the end," he said.

Added to the problem of root damage are 90 to 110 degree (Fahrenheit) soil temperatures which can stop root growth and hasten death. Trees growing in narrow areas adjacent to parking lots or between sidewalks and streets are affected by this type of heat stress generated by the paving.

Because as much as 80 percent of a tree's root system is in the upper ten inches of soil, it is particularly susceptible to damage from roto-tilling or soil compaction which cuts off oxygen.

Whitcomb also questioned the widespread practice of building sidewalks in a straight line if tree roots must be cut for the right of way. Instead, he said, sidewalks should be built around trees to protect roots.

He said young trees that have been planted in confined growing areas will usually adjust to these conditions, resulting a healthy but dwarfed plant.

Finally, the ornamental horticulturist warned that too much urban land is being turned into an asphalt jungle which causes flooding and re-

stricts the regeneration of the natural water supply.

Most downtown areas are essentially 100 percent covered with some type of impervious paving, except for a few token plantings. Apartment complexes cover about sixty percent of the soil.

Even suburban sub-divisions, widely touted by developers for their "unspoiled natural beauty," cover 35 to 40 percent of the land with some sort of paving, adding to the water re-charge and runoff problem.

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