

prior to transplanting which will build the stored reserves in the stems and roots. If only a few new roots are initiated rapidly following transplanting, the leaves become stressed for water and nutrients and thus carbohydrate production is greatly restricted. This in turn further restricts root growth which in turn places a greater stress on the leaves and thus the sequence of events that will ultimately lead to the death of the tree (Figure 2). On the other hand, the carbohydrate needs of the living leaf, stem and root tissues remains more or less constant.

This emphasizes the importance of stored carbohydrate reserves in the stems and roots prior to transplanting. This study shows that the larger the tree the more critical the stored reserves and the demand for stored reserves immediately following transplanting.

The work by Preaus and Whitcomb (3) and Bridel and Whitcomb (1) emphasizes the importance of well aerated soil around the root ball following transplant to encourage rapid root

growth. A larger planting hole at time of transplanting will probably not increase the survival of trees with low carbohydrate reserves, however, it should assist new root development of trees with adequate carbohydrate resources and reduce stress.

#### Literature Cited

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## ABSTRACT

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An efficient and accurate street and park tree management plan is composed of several parts, varying in degree of detail and implementation according to the characteristics of the individual municipality or governmental agency being considered. Public policy regarding planting and maintenance must concern itself with both the trees within public lands and rights-of-way, and with trees and planting sites adjacent to or impacting upon public safety and vegetation within public areas. Ideally, performance of planting, maintenance, and removal of public trees, or to public trees within the legal control of the municipality by other than the municipal forestry agency, should be by permit and inspection only. An inventory of existing urban trees and available planting sites is the foundation of an efficient street and park tree management program. A very few species and cultivars, 20 to 30 or so, will actually be well suited to an individual municipality's conditions. Within the limitations of almost universally inadequate budgets, priority maintenance needs must be identified first. Maintenance can be accomplished by staff and/or by contractor. The urban forest manager's most important job is to nourish a close liaison between the public and commercial entities served.