

systematic sampling for the more common species in both Rochester and Syracuse has been found to provide unbiased estimates of the true stem diameter variances of the census populations. How well the variance estimates approximate the true variances for the city-wide populations of older trees in these larger cities, however, has not been determined. Additional analyses of these data are now in progress that should provide information on this point.

Another objective for studying these street tree populations was to determine the distribution of the variation in these populations. Preliminary results indicate that the amount of variation among trees of a given species along a two to three block segment of a street is considerably less than between trees on different streets. Much of these differences, however, are likely due to age differences, since the older trees along a given block were probably planted soon after the area was opened for development. Different streets were most likely developed at different times so that tree age differences of 20 or more years would be expected. Multivariate statistical analyses now in progress should permit comparisons that are independent of age.

The survey sampling procedures used for our street tree studies could be easily adapted for other purposes in the management of urban street trees. They could be used, for example, to

provide an economical method of obtaining realistic estimates of the severity and extent of an urban tree problem so that reasonable plans could be formulated, or to predict an impending problem due to the buildup of insect populations. There are, no doubt, many other examples where survey procedures could be applied to urban tree management. The application of these methods should result in greater efficiency as well as decreased costs for these programs.

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Literature Cited

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ABSTRACT

Hogan, Gail. 1977. **EPA: understanding enforcement.** *Weeds, Trees and Turf* 16(2): 12, 17.

So you think you have problems with the enforcement arm of the EPA? Amendments, signed into law by the President in October of 1972, strengthened the vague FIFRA. The new amendments prohibited any person from using any registered pesticide "in a manner inconsistent with its labeling," provided for classification of pesticides into "general" and "restricted" categories, limited those who could apply "restricted" pesticides, and gave EPA new powers of enforcement such as stop sale and removal orders, the power to initiate seizure actions, the authority to require manufacturers to register pesticide-producing establishments, and the power to initiate civil or criminal proceedings against violators. In the years that followed, EPA's enforcement arm focused its strategy on ensuring compliance of manufacturers and users through producer establishment inspections, pesticide sampling, pesticide analysis, and use surveillance.