disease predisposition. **In**: B. O. Parks (ed.), Urban and Suburban Trees: Pest Problems, Needs, Prospects, and Solutions. Proc. Conf. held April 18-20, 1982. Michigan State Univ. East Lansing.
22. Spirn, A. W. 1984. *Design for survival.* Arnoldia 44:29-36.
23. Staby, G. 1981. *Water stress on plants.* Metro Horticulture 16:1-3.
24. Steiner, K. C. 1980. *Developing tree varieties for urban soil stresses.* Metro. Tree Improvement Alliance (METRIA) Proc. 3:57-69.
25. Tattar, T. A. 1980. *Non-infectious diseases of trees.* J. Arboric. 6:1-4.
26. Turner, N. C. 1986. *Adaptation to water deficits: a changing perspective.* Aust. Jour. Plant Phys. 13:143-160.
27. Vrecenak, A. J. and L. P. Herrington. 1984. *Estimation of water use of landscape trees.* J. Arboric. 10:313-319.
28. Walter, H. 1983. Vegetation of the Earth. Springer-Verlag, Berlin.
29. Wilson, C. L. 1977. *Emerging tree diseases in urban ecosystems.* J. Arboric. 3:69-71.

Department of Floriculture
and Ornamental Horticulture
Cornell University
Ithaca, New York 14853

Abstracts

PETROVIC, A.M. 1986. **Approaches to correcting soil compaction.** Grounds Maintenance 21(1):96,98,100.

Soil compaction comes from three primary sources. On recreational turfs, foot traffic is the primary cause. On many other sites, however, vehicular traffic may be the villain. To a lesser degree, the impact of droplets from rain or irrigation can compact the soil, a fact that can be important during seedling establishment. Compaction can be a problem on newly constructed sites where large, heavy equipment with poor weight distribution has been used during the soil preparation. In most cases, however, compaction is a greater problem after establishment. There are numerous approaches to correcting compacted soil conditions: 1) reduce the amount of traffic, 2) change the traffic pattern, 3) partially modify the soil, 4) completely modify the soil, 5) cultivate, 6) use chemical amendments and 7) use other approaches.

REINERT, J.A. 1986. **How insecticides work.** Grounds Maintenance. 21(1):90-91.

To be effective, insecticides must contact or penetrate the insect's body. Although the exact mechanism of penetration is not completely understood, it is known that most organic insecticides easily pass through the cuticle and body wall of the insects. Other avenues of entry are ingestion or gaseous intake through the spiracles and tracheae of the respiratory system. The most important consideration in understanding the toxicity of a pesticide is the inability of the insect's nervous system to tolerate even the briefest disruption. Tampering with a system that regulates such vital functions as breathing and heartbeat has fatal consequences. Chemicals that act briefly on other tissues have relatively little effect on the insect, unless they directly affect the functioning of the nervous system. Insecticides, depending upon the type, act primarily upon the mechanisms of transmission in the nervous system.