

prove effective, then biorational products can be used on a larger scale to reduce non-target impacts of landscape pest control.

Arboriculture, by definition, concerns environmental enhancement through professional management of our tree and shrub resources. Surely, arborists agree that this must be done without degrading other components of the environment. Biorational pesticides can help us achieve these goals and are worthy of increased usage by arborists. Their development deserves major effort by agricultural pesticide companies and renewed research efforts by scientists at Land Grant institutions.

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*Department of Entomology  
The Ohio State University-OARDC  
Wooster, OH 44691*

## ABSTRACTS

WEBSTER, A. 1988. **Coming of age**. Am. Nurseryman 168(10):107-109.

Twenty years ago, people only called on consulting arborists when they wanted to know why their trees died. But now, with America's emphasis on preventive tree care, nurserymen and consumers are demanding—and getting—more from specialists. That's where consulting arborists come in. They're the specialists in preventive tree care. This profession has been emerging for more than two decades. Thanks to America's new awareness of trees and nurserymen's increased exposure to liability, it has now reached maturity. Consulting arboriculture requires knowledge beyond that needed by many practicing arborists, getting into physiology, pathology and entomology. As specialists, consulting arborists have expertise in the health requirements and monetary value of trees, as well as species selection for various growing conditions.

GOOD, G.L. 1989. **Fertilizing shade trees**. Landscape Contractors, May, pp. 20-21.

Research during the last 10 to 15 years has resulted in significant modifications or alternatives to traditional approaches that will result in more efficient and effective N-P-K fertilization of shade trees. Most significantly, research has demonstrated the effectiveness of nutrients, particularly nitrogen, applied to the soil surface over the root systems of shade trees. Trials have indicated that surface placement of N-P-K fertilizers is as good as, or better than, subsurface applications. Trees absorb nutrients applied to the soil surface because the nutrients move downward with water that percolates through the soil, and because tree roots near the soil surface can absorb the migrating nutrients.