



Pathology of Trees and Shrubs in Landscapes and Nurseries

Program Leader:

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Program Objectives:

The objectives of the tree and shrub extension program are:

(1) to provide tree care professionals and horticulture educators with up-to-date knowledge about the latest developments in disease occurrence, etiology, and management, (2) test and deploy new management strategies as conditions dictate, and (3) provide CCE educators with new tools for teaching their clientele about disease prevention and management.



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Program Summary:

Faculty, staff and students associated with the tree and shrub disease extension program conduct research to solve problems that have either persisted for long periods of time without adequate resolution or that are newly emergent on the landscape. Issues that have been carried to satisfactory resolution in recent years include:

- Bleeding canker of European beech (pathogens identified, management deployed)
- Tar spot of Norway maple (pathogen identified; management deployed),
- Oak wilt (first-time presence in NY documented; infestation eradicated)
- Ploioderma needlecast on Austrian pine (management deployed)
- Ramorum blight, (assistance with APHIS trace forward survey prevents introduction)
- Dogwood anthracnose (first discovery in the eastern U.S.; notification to colleagues nationwide of pending problem.

Program staff publish Branching Out, an IPM Newsletter for Trees and

Shrubs – bi-weekly during the growing season. The newsletter is received by about 1000 subscribers in NY and adjacent states.

Hudler is the director of the Northeast region of the National Plant Diagnostic Network, coordinating education and detection efforts throughout the region and providing support to the national effort via contributions to inter-regional programs.



Marge Daughtrey and George Hudler, winners of the Gold Medal of Horticulture in 2009, 2010, respectively.

Program Justification:

The “Green Industry” is the only segment of the agribusiness industry that has increased in scope and contribution to the state’s economy, beyond the bounds of inflation. In order to provide services that are economical and effective with least threat to non-target organisms and the environment at large, practitioners need the expertise re. plant disease management that Cornell scientists can and do provide. They get that information via this extension effort.

Impact to Industry:

Some examples:

- Tree care professionals routinely make recommended applications of sodium phosphite, a relatively benign fungicide, directly to trunks of trees either to protect them if they are healthy or to slow pathogen growth if they are diseased. In both cases, success seems to be good and hundreds of trees that might otherwise have died in the past year have survived.
- Oak wilt was found, identified, and eradicated from the only site where it was known to occur in New York state. A tree disease that has killed hundreds of thousands of red oaks in the Upper Midwest and Texas has apparently been eliminated from New York after a chance introduction. However, state and federal inspectors, National Plant Diagnostic Network First Detectors, and tree care professionals throughout the Northeast are now aware of the disease and prepared to sample from suspect trees in the future.
- Twenty-two first reports were reported in six NEPDN member states during this reporting period. All members of the NEPDN enter their samples in the PDIS database system. During this period, our members entered a total of 15,926 samples.

Program Team Members:

Margery Daughtrey, Sr. Extension Assoc.
Karen Snover-Clift, Sr. Extension Assoc.
Shawn Kenaley, Post-Doctoral Assoc.
Dawn Dailey O’Brien, Ext. Support Specialist
Sandra Jensen, Research Support Specialist



Dawn Dailey-O’Brien, Editor in Chief of her favorite project, Branching Out