

IPED Pest Detection Initiative

Discovering Harmful Insect Pests and Diseases in Community Forests

The Challenge

Exotic pests and diseases frequently arrive in urban areas where goods are imported. These invasives remain undetected until their populations are well established and they have harmed host trees. Many communities routinely complete and update tree inventories, but often overlook pest infestations because pest detection tools are not part of the inventory process.

The Solution

The U. S. Forest Service, Northeastern Area State and Private Forestry worked with Davey Tree Experts, the University of Georgia, and the Society of Municipal Arborists to develop the I-PED—Integrated Pest Detection—data collection system. This tool helps urban foresters, arboriculture professionals, and interested citizens detect potentially harmful pests and diseases in urban trees.

The I-PED Pest Protocol is a set of “rules” for recording pest signs and symptoms in the field, and is the basis for detecting known and unknown pests in the urban forest. It has been tested in six cities throughout the Northeast and South (Tennessee, Illinois, Ohio, and New York). This protocol is part of i-Tree (<http://itreetools.org>), a free inventory and assessment software program. The I-PED data collection system can also be adapted for other types of inventories.

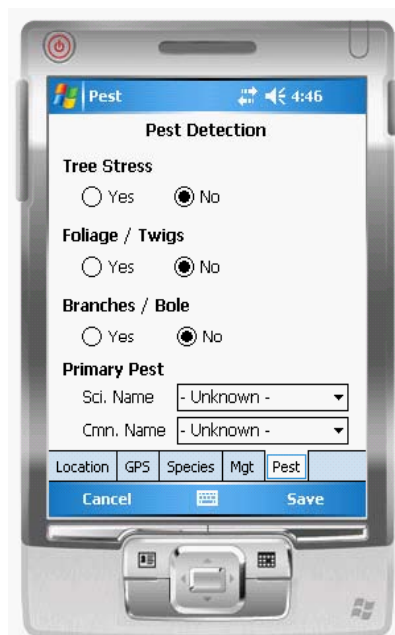
The I-PED protocol provides:

- A standardized way to observe a tree for possible insect or disease problems.
- An easy-to-use pest detection system that can be integrated into a variety of tree inventory methods.
- User support through online resources, training, and integration with established networks for identifying and reporting pests.

Resulting Benefits

The use of I-PED:

- Increases the effectiveness of detecting exotic pests.
- Increases awareness of the need for routine tree health assessments.
- Provides a standardized way to integrate pest detection with urban forest management.



Screen shot of the first pest screen in i-Tree.

- Provides opportunities to control pests while infestations are still manageable.
- Reduces unchecked movement of pests across geographic and political boundaries.
- Reduces costs for long-term tree management, removal, and replacement.
- Provides a way to integrate pest detection with innovative, technologically advanced tree inventory and assessment tools.

Sharing Success

Training—The team is developing a multifaceted approach to training that includes face-to-face classroom sessions; online documents and short, informal videos.

Workshops—In June 2009, the team provided training to three city arborists in New York. Several i-Tree workshops have incorporated training for I-PED.

National Plant Diagnostic Network—In August 2009, the First Detector Network News (Vol. 6, No. 7) featured an article about I-PED. (<http://www.sepdn.org/desktopmodules/viewdocument.aspx?documentid=3199>)



USDA Forest Service
Northeastern Area
 State and Private Forestry

For more information, contact:

Kathryn P. Maloney, Area Director
 11 Campus Blvd., Suite 200
 Newtown Square, PA 19073
 Phone: 610-557-4103
 E-mail: kmaloney@fs.fed.us

Bob Lueckel, Field Representative
 180 Canfield Street
 Morgantown, WV 26505
 Phone: 304-285-1542
 E-mail: rlueckel@fs.fed.us