

New Informatic Model for Identifying Urban Plant Problems

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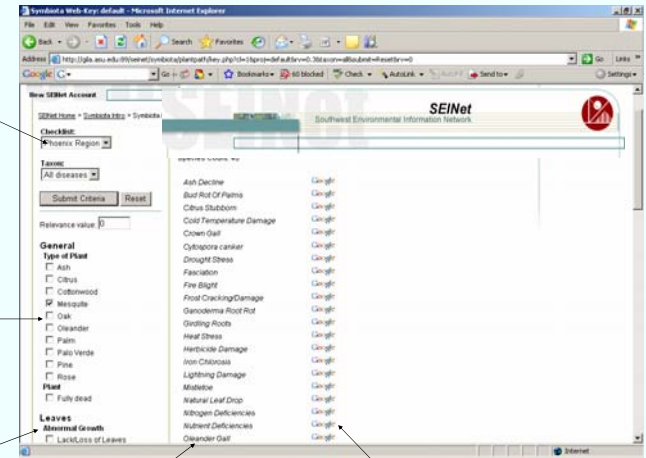
An informatic application is being developed to aid urban field biologists, environmental educators, students and residential homeowners in the identification of common disease, stress and pest problems of landscape trees and shrubs. The application utilizes the Symbiota Identification Key, a PHP/MySQL platform-independent web application that was developed to integrate a number of datasets to aid in plant identification. For this application, the user first views a list of common plant problems based on geographical criteria (in this case the Phoenix, Arizona metropolitan area). Once an initial checklist is assembled, the application allows users to select from a list of common symptoms and signs they may observe on landscape trees and shrubs. The program uses this information to reduce the number of possible identifications. Possible identifications for the user's problem are determined through browsing images and additional descriptive data. Links to other websites will provide additional information about each problem including management options.

- Leaves**
- Wilting**
- Browning**
 - Brown Tips/Edge
 - Entire Leaf Brown
- Fuzzy/Fungal Appearance**
 - White
- Leaf Not Flat**
 - Curling
 - Puckering
- Yellowing**
 - Abnormal Yellow Patterns
 - Entire Leaf Yellow
 - Yellow Tips/Edge
 - Yellowing Between Veins
- Branches and Trunk**
- Abnormal Growth**
 - Flat and Curved Stems
 - Galls (Tumor-Like Structures)
 - Mistletoe
 - Mushroom-Like Growth
 - Witches Brooms
- Dead Bark/Wood**
 - Cankers (Sunken Dead Areas)
 - Cracking/Missing Bark
 - Rotten Wood
- Fuzzy/Fungal Growth**
 - Black
- Holes**
 - Rows of Holes
- Wet/Oozing Appearance**
 - Black/Brown Slime Oozing
 - Orange Slime Oozing
 - Wet Bark Appearance
 - Wet Wood Appearance
- Roots**
- Abnormal Growth**
 - Galls (Tumor-Like Structures)
- Brown Roots**
 - Rotting

Step 1. Select Geographic Area



Step 2. Reduce number of possible identifications by using plant species

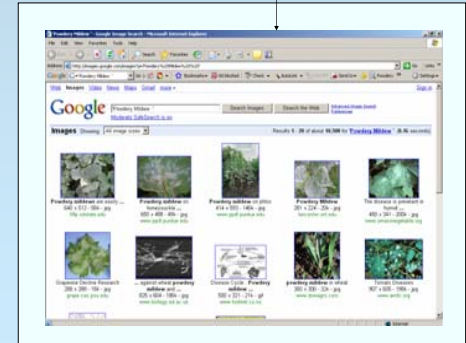
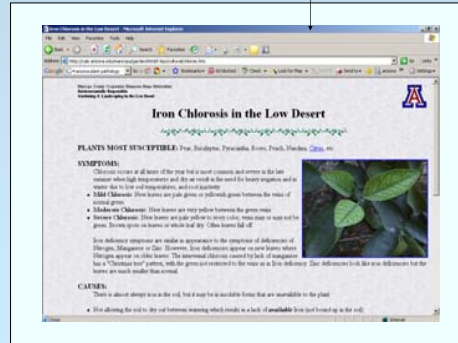


Interactive Plant Problem Key

Step 3. Select from list of possible symptoms and signs to further reduce possible identifications

Step 4. Clicking on a disease or abiotic problem will open a link to existing profile page.

Step 5. Clicking on the Goggle symbol will open a Google image page for the problem



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