Introduction to Tree Diagnosis

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Avoid problems by keeping trees healthy
Tree Biology

Central Leader*: (one main branch that extends straight up from the trunk)

Crown (branches and leaves)

Note:
Flowers and fruit vary by tree type in shape and color of appearance

Ground Surface

Graft Union* Root Collar

Trunk

Branches

Dripline (line on the ground under the outermost edge of a tree's crown)

Bark

Cambium

Sapwood

Heartwood

Growth Rings

Roots
Steps to diagnosis
Identification

• Most problems affect only one genus or species.
Identification

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• Knowing local species helps recognize patterns.
Identification

- Most problems affect only one genus or species.
- Knowing local species helps recognize patterns.
- Problems often recur annually.
Patterns

• One plant or multiple?
• One species or multiple?
• Isolated or grouped?
• Progression?
Site Conditions

- Soil Characteristics
- Drainage
- Hardscape
- Recent changes
- Irrigation
- Sunlight
- Circulation
Poor Drainage
Hardscape Issues
Roots and Root Crown
Root Crown Issues
Girdling Roots
Fungus
Fungus Identification

- Wood Decay Fungi
- Christopher Luley

- Fungi on Trees
- Watson and Green

- www.isa-arbor.com
Any Questions?
Trunk Symptoms and Signs
Branch symptoms
Leaf Symptoms and Signs
Chewed Leaves
Discolored leaves
Bacterial Leaf Scorch
Spots and Lesions on Leaves
Chemical Damage
Does my PowerPoint suck?
Vascular Disease: Oak Wilt

www.texasoakwilt.org
Borers
Invasive pest: Asian Longhorn Beetle

The adult Asian longhorned beetle (left) looks somewhat like the native cottonwood borer (right). To avoid confusing them, note the differences in color pattern on the main body and the antennae (Photo by H. A. Pase III).
Invasive Pest: Emerald Ash Borers
Scale Insects
Questions?

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