Cornell University
College of Agriculture and Life Sciences

**Plant Disease Diagnostic Clinic**
Plant Pathology and
Plant-Microbe Biology Section
334 Plant Science Building
Ithaca, NY 14853-5904

# Unidentified Stress Problems

When a tree or shrub is diagnosed with a secondary fungal canker/dieback or leaf/needle fungus, this indicates that the plant being colonized is under stress from another cause. These kinds of plant pathogens usually do not attack otherwise healthy plants.

Often, the primary cause of stress cannot be diagnosed just from plant tissue submitted. Improper cultural practices, inadequate drainage, weather extremes, insect problems, mechanical injury, root rots, etc., or a combination of abiotic factors have the potential to cause stress to the plant. When the primary cause of the plant stress is unknown, recommendations include practices aimed at keeping the vigor level of the plant as high as possible.

Manage any obvious insect and disease problems.

Water as needed. Plants in most areas of the Northeastern U.S. need about an inch of water/rain per week during the growing season; if droughty conditions develop, make sure the plant gets at least this amount of water. Use a rain gauge to determine how much water is actually being received by the plant. Excessively wet soil may interfere with root function. Do not over-water!

Fertilize as needed. Use a balanced fertilizer; ideally a soil nutrient analysis should be performed to determine what if any amendments are needed. Fertilize at the proper time of year for the plant being grown. Late summer fertilizer applications to woody plants may encourage a flush of tender growth that cannot harden off before winter.

Avoid soil compaction around the plant (i.e. do not place swing sets, picnic tables, etc. near by). Aerate the soil if compaction is a problem.

Avoid mechanically wounding the plants (such as weed whacker and/or lawn mower damage, swings or dog runs bolted to the tree, etc.). Prune properly to avoid creating branch stubs or other wounds that may not heal.

Conduct a general site assessment to make sure the plant is growing in the proper site (for example, yews do not tolerate wet soil conditions; azaleas and rhododendrons need acid soil conditions to thrive). If the site is not proper for the plant, consider replacing it with a plant better suited to the area. Be sure to check the hardiness of more "exotic" plants to make sure they can survive local conditions.

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READ THE LABEL BEFORE APPLYING ANY PESTICIDE! Changes in pesticide regulations occur constantly. All pesticides distributed, sold, and/or applied in New York State must be registered with the New York State Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide use in New York State should be directed to the appropriate Cornell Cooperative Extension Specialist or your regional DEC office.

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