

INSIDE GRUNDY COUNTY
By Bill Arndorfer
Grundy County Extension Education Director
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This summer I have had several calls about trees and plants with questions about what is wrong with them. In some cases, after examining the plant samples, it is evident that the problem is not disease or insects. So what is the problem? There is not always an exact or easy answer. Sometimes it is weather related or is a management issue such as planting too deep or in the wrong location or any number of factors. These are some of the questions we must ask as we try to determine what is going on. Christine Engelbrecht, ISU Plant and Insect Diagnostic Clinic Plant Pathologist, addressed this issue in an article she wrote this summer. I am including an edited version of her article in this week's column.

"I'm sometimes surprised at the number of plant samples we receive in the Clinic that have no infectious disease or insect problem (about half our samples). The plants have problems, and may have shown symptoms or declined for several years, but the symptoms are not caused by an infectious disease or an insect. Instead, some "abiotic" (injuries, temperature, moisture, nutrient imbalances, etc.) stress is causing the plant to wilt, turn brown, or decline—or, in many cases, a variety of stresses are accumulating to cause serious problems. So what are the most common stresses to plants?"

"The weather can be one of the major stresses causing plant problems. This year's weather has been especially tough on plants. "Probably the biggest cause of plant stress is humans. We choose improper plants for a given site, we transplant trees when they're big and plant them too deep, often with coiled or J-shaped roots, we plant grass underneath trees and then whack off tree bark with lawn mowers and weed-eaters, we dump herbicides on our lawns and fields, we fail to water recently planted trees and shrubs or we water and fertilize them to death, we pave over tree roots or compact their soil by driving heavy construction equipment over it, we remove most of the topsoil in new housing developments and expect grass to grow on compacted subsoil, and we overwater our houseplants, etc., etc., etc."

"How can we give our plants a little stress relief? We can't control the weather, but we can control where we decide to put plants and how we treat them. Choose an appropriate plant for a site, plant it properly, and protect it from unnecessary injury afterwards. Watering trees and shrubs deeply (throughout the root zone) but infrequently (not more than once a week or so) during very dry periods can help to minimize stress. A three-inch-deep layer of organic mulch over the root zone can also help to buffer the soil moisture and temperature levels, along with keeping away mowers."

If you have plants that are not looking healthy, consider factors other than disease and insects that may be affecting them. For more information, please contact the Grundy Office of ISU Extension at 319-824-6979.