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THE GRAPEVINE

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FLOODING AND TREES

Trees differ markedly in their ability to withstand flooding. Some trees have mechanisms in place to provide oxygen to the roots of plants with water saturated soils and others do not. However, most trees will maintain health if flood waters recede in 7 days or less. It also helps if water is flowing rather than stagnant. If the roots of sensitive trees are flooded for long periods of time, damage will occur including leaf drop, iron chlorosis, leaf curl, branch dieback, and in some cases, tree death. Another danger of flooding is the deposition of sediment. An additional layer of silt 3 inches or more can also restrict oxygen to the roots. If possible, remove deep layers of sediment as soon as conditions permit. This is especially important for small or recently transplanted trees. Try to avoid any additional stress to the trees this growing season. Ironically, one of the most important practices is to water trees if the weather turns dry. Flooding damages roots and therefore the root system is less efficient in making use of available soil water.

Timely waterings are vital to a tree's recovery. Also be diligent in removing dead or dying branches that may serve as an entry point for disease organisms or insect pests. The following information came from the US forest Service.

Trees Tolerant of Flooding: Can survive one growing season under flooded conditions.

Red maple, silver maple, pecan, hackberry, persimmon, white ash, green ash, sweetgum, sycamore, eastern cottonwood, pin oak and bald cypress.

Trees Moderately Tolerant of Flooding: Can survive 30 consecutive days under flooded conditions.

River birch, downy hawthorn, honeylocust, swamp white oak, southern red oak, bur oak, willow oak and American elm.

Trees Sensitive to Flooding: Unable to survive more than a few days of flooding during the growing season. Redbud, flowering dogwood, black walnut, red mulberry, most pines, white oak, blackjack oak, red oak and black oak.

Cucumber Beetles and Bacterial Wilt

If you had cucumbers or muskmelons that suddenly turned brown and died last year, you may have had a disease known as bacterial wilt. The cucumber beetle carries this disease. Once a plant is infected, there is no cure, so prevention is the key. Because cucumber beetles overwinter as adults, early control measures are essential. There are two types of cucumber beetles: striped and spotted. The striped cucumber beetle is the most common. The 1/4-inch-long beetles are conspicuously colored: black head and antennae, straw-yellow thorax, and yellowish wing covers with three distinct parallel and longitudinal black stripes. Young plants can be protected with row covers, cones, or other types of mechanical barriers. Edges must be sealed to ensure that the beetles do not find a place to enter. Plants will eventually outgrow these barriers, or they will need to be removed to allow insect pollination of the flowers. Apply insecticides before beetles are noticed in the planting. Continue to spray weekly throughout the season. Homeowners can use permethrin (Bonide Eight Vegetable, Fruit & Flower Concentrate and Hi Yield Lawn, Garden, Pet and Livestock Insect Control). Once plants have started flowering, spray in the evening after bees have returned to the hive.

Ladybird Beetles

Both the adults and the larvae of the ladybird beetle are beneficial and do not feed on plants but rather on other insects including aphids, mealybugs, whiteflies, scale insects and the eggs of various other insects. So if you see these insects, do not spray. The larval form looks like a very small alligator-shaped insect. Larvae are covered with spines, about 3/8-inch long, and black with orange markings.

Lots of Flowers, Lots of Seeds

I have never seen lilacs bloom like they did this year. Also, elms and maples have produced enormous amounts of seed in our area. In certain cases, this has delayed leaf emergence, especially in the upper portions of the tree. Why did this happen? What triggered it? We know that stress can cause trees and shrubs to put more energy into seed production. The strategy seems to produce lots of seed in case the "mother" plant dies. This large expenditure of energy means that there was less energy left over to push out leaves in the spring resulting in delayed leaf emergence. So, let's look at the likely cause. Remember the flowers and seeds that were produced this year came from buds that were produced last year during the growing season. Therefore, it was a stress that came last year that caused the problem. Actually, I think it was a stress from the Fall of 2017 through much of the Spring of 2018 that triggered the plants. In the Manhattan area, we had adequate rainfall through October of 2017, but then virtually nothing until May of 2018. This drought was severe enough that root systems were likely damaged so that even when rainfall returned, the plant was under moisture stress, especially in the upper portions of the tree. This stress, then, stimulated the plant to set an abnormally high number of fruit buds resulting in tremendous flowering and seed production this year. What do we do about this? First, don't assume a tree is dead if leaves don't appear immediately. Also, don't assume the top portion of the tree is dead if it is slower to leaf out than the lower portions of the tree. Give the tree a few more weeks and see what happens. Next, these trees and shrubs don't have a lot of energy reserves left so they need to be given extra care. Primarily this means watering as needed. Keep in mind that too much water is as bad as too little. Roots need to breathe; they need oxygen. With the excessive rains much of Kansas has received recently, it may be a while before watering needs to be done. Just don't wait too long as the damaged root system will not be as efficient in taking up the water the plant needs. So when do you start watering? Use a screwdriver to try to penetrate the soil under the tree. If it is difficult to push the tang of the screwdriver into the soil, it is time to water. Water enough so that the soil is moist to a depth of one foot. Use a long-tanged screwdriver, a wooden dowel or a metal rod such as a section of rebar or electric fence post to test. It will stop when it hits dry soil.

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