Trees Not Leafing Out

We have had numerous reports of trees not leafing out or putting out only a fraction of the leaves normally borne. We believe much of this is due to an abnormally dry fall and early winter accompanied by colder winter temperatures than normal. Also, many areas of the western part of the state have been extremely dry for a very long time making a bad situation worse.

If a tree hasn’t leafed out at all, check the stems. If they are dry and brittle, that part of the tree is dead. However sometimes the tips of the branches are dead but the tree is alive further back. Take a knife and shave off the outer bark on several small-diameter, young branches. If the tissue underneath is water soaked or dark brown to black in color, then it is likely dead. This cambium layer should be a greenish-white color. As long as the twigs remain supple and the tissue under the bark isn’t dark, there is hope.

So what should we do for these trees? Help them avoid stress. This means watering during dry weather so the tree has good sap flow. Trees transplanted within the last couple of years should be watered every week during dry weather. More established trees should be watered every two weeks if there is no rainfall.

On young trees, kill all the grass under the tree and mulch. Reducing root competition makes for a healthier tree that is more likely to recover.

And finally, remove any dead wood so that insects and disease do not have a point of entry. Dead wood can be removed any time of year. (WU)
**Rust on Ash Trees**

We are starting to receive calls on ash leaves developing swollen, bright orange spots. If these spots happen to occur on the petiole (leaf stem) or midvein, distortion and twisting of the leaf can result. Severe infections can result in significant leaf drop. This is a disease known as rust. You may be familiar with cedar-apple rust and this works in much the same way except the alternate host is cordgrass (Spartina). In other words, the disease must go back and forth between ash and cordgrass to survive. Infection of our ash tree actually took place this spring. Spraying now will be ineffective because the spores produced by the ash can only infect cordgrass. Fungicide applications in the spring as new leaves are emerging is effective but is usually not recommended for homeowners because established, healthy trees are rarely harmed. On the other hand, nursery managers may want to protect young, more vulnerable trees each year. Effective products include propiconazole, triadimefon or myclobutanil beginning at leaf emergence. Make a second application after two weeks. (WU)

**TURFGRASS**

**Thatch Control in Warm-Season Lawns**

Thatch control for cool-season lawn grasses such as bluegrass and tall fescue is usually done in the fall but now is the time we should perform this operation for warm-season turfgrasses such as bermudagrass and zoysiagrass. Because these operations thin the lawn, they should be performed when the lawn is in the best position to recover. For warm-season grasses that time is June through July. Buffalograss, our other common warm-season grass, normally does not need to be dethatched. When thatch is less than one-half inch thick, there is little cause for concern; on the contrary, it may provide some protection to the crown (growing point) of the turfgrass. However, when thatch exceeds one-half inch in thickness, the lawn may start to deteriorate. Thatch is best kept in check by power-raking and/or core-aerating. If thatch is more than 3/4 inch thick, the lawn should be power-raked. Set the blades just deep enough to pull out the thatch. The lawn can be severely damaged by power-raking too deeply. In some cases, it may be easier to use a sod cutter to remove the existing sod and start over with seed, sprigs or plugs.
If thatch is between one-half and a 3/4-inch thick, core-aeration is a better choice. The soil-moisture level is important to do a good job of core-aerating. It should be neither too wet nor too dry, and the soil should crumble fairly easily when worked between your fingers. Go over the lawn enough times so that the aeration holes are about 2 inches apart.

Excessive thatch accumulation can be prevented by not over-fertilizing with nitrogen. Frequent, light watering also encourages thatch. Water only when needed, and attempt to wet the entire root zone of the turf with each irrigation.

Finally, where thatch is excessive, control should be viewed as a long-term, integrated process (i.e., to include proper mowing, watering, and fertilizing) rather than a one-shot cure. One power-raking or core-aeration will seldom solve the problem. (WU)

FRUIT

Reducing Fruit Numbers on Apple Trees

Apple trees often produce excess fruit. Removing some of these extra fruits during the next three weeks is important. There can be two major benefits from fruit thinning. The first is to help ensure a return bloom for a good fruit crop next year. Apples produce fruit buds for next year's crop during June; the same time this year's fruit is maturing. Too many fruit this year leads to a lack of fruit bud development and a small crop next year. This leads to biennial bearing in which an apple tree produces a large crop one year and very few fruit the next. Thinning helps ensure that apples are produced each year.

The second benefit of thinning is to promote larger fruit on this year's crop. Generally, an average spacing throughout a tree of about 4 inches per fruit is sufficient for a good return crop next year, as well as a desirable size on the fruits to be harvested this fall. Not all trees need thinning each year. Freezes during the bloom period may damage the fruit flowers and buds, resulting in naturally thinned trees. (WU)
Fireblight

Fireblight is most common on ornamental pears, fruiting pears and apples. Symptoms of fireblight include blackened, blighted shoots scattered throughout the tree crown. The shoots may have the classic Shepherd's crook where the blighted tips bend downward. There may be small amber droplets of bacteria on the stem. This late in the season, antibiotic applications are not effective in controlling the disease. It is important, however, to control insects that may become contaminated with the bacterium and/or create wounds for infection. During the summer, prune out the blighted tips during dry weather. Make your pruning cut 10 to 12 inches below the discolored area of the branch. Disinfect pruning equipment between cuts with a 10 percent bleach solution, rubbing alcohol or some other disinfecting agent. If using bleach, be sure to clean and oil equipment after use because bleach is corrosive. Some people prefer the ugly stub method and snap the branch off below the blighted area. This helps you see at a glance where fireblight occurred in the tree. This may help with follow-up pruning during the winter. (WU)

FLOWERS

Sidedressing Annual Flowers

Modern annual flowers have been bred to flower early and over a long period of time. They are not as easily thrown off flowering by high nitrogen levels as vegetables are. As a matter of fact, providing nitrogen through the growing season (sidedressing) can help maintain an effective flower display for warm-season flowers.

Apply a high nitrogen sidedressing four to six weeks after flowers have been set out. Additional fertilizations every four to six weeks can be helpful during a rainy summer, or if flower beds are irrigated. Common sources of nitrogen-only fertilizers include nitrate of soda, urea, and ammonium sulfate. Blood meal is an organic fertilizer that contains primarily, but not exclusively, nitrogen. Use only one of the listed fertilizers and apply at the rate given below.

Nitrate of soda (16-0-0): Apply 2/3 pound (1.5 cups) fertilizer per 100 square feet.
Blood Meal (12-1.5-6): Apply 14 ounces (1.75 cups) fertilizer per 100 square feet.
Urea (46-0-0): Apply 4 ounces (½ cup) fertilizer per 100 square feet.
Ammonium Sulfate (21-0-0): Apply 0.5 pounds (1 cup) fertilizer per 100 square feet.
If you cannot find the above materials, you can use a lawn fertilizer that is about 30 percent nitrogen (nitrogen is the first number in the set of three) and apply it at the rate of 1/3 pound (3/4 cup) per 100 square feet. Do not use a fertilizer that contains a weed killer or weed preventer. (WU)

**Iris Bacterial Soft Rot**

Bacterial soft rot of iris causes a smelly and slimy rot of the leaves and rhizomes. Leaves often separate easily from the rhizome. Heavily infested plants may die.

Though most often associated with iris borer, environmental damage such as a hard freeze on succulent tissue can also provide an entry point for this disease.

Rhizomes that show signs of damage due to soft rot should be discarded. If there is a plant that has special value, you may wish to save it. The American Iris Society suggests using a spoon to remove all infected tissue. Then, allow the rhizome to dry in the sun. Finally, use a chlorine based cleanser to powder the wound. Dousing in place with Dial antibacterial soap (with triclosan) can be substituted for the chlorine based cleanser.

When dividing rhizomes from beds that have shown evidence of soft rot, disinfect the knife between cuts of even apparently healthy rhizomes with a 10% bleach solution or rubbing alcohol.

As mentioned previously, iris borer damage can provide a place of entry for this disease. To control iris borers, remove and discard dead leaves in the fall to eliminate a number of the iris borer eggs. Larvae can also be killed by hand in June by squeezing infested leaves in the vicinity of the injury. During division, borers in lightly infested rhizomes can be killed by poking them with a piece of wire.

Borer can also be achieved through the use of imidacloprid (Merit, Bayer All-In-One Rose & Flower Care, Bonide Systemic Granules, Hi-Yield Systemic Insect Granules) or through the use of the parasitic nematodes Steinernema carpocapsae or Heterorhabditis bacteriophora.

Imidacloprid should be used as a drench (directions on label) when the air temperature reaches 70 degrees two days in a row.

The parasitic nematodes must be applied when the soil temperature is above 50 degrees F. Use 1 quart water/nematode mix per square foot to allow the nematodes to swim to the pest. Steinernema carpocapsae gave better control (100%) than Heterorhabditis bacteriophora (87%) in research conducted by the University of Maryland. (WU)
PESTS

Grasshoppers

Not all grasshoppers are of economic concern — only a few species of the approximately 115 species found in Kansas pose a threat to field and garden crops and lawns.

The two most common and recognizable species are the large two-striped and differential grasshoppers, both of which (eventually) measure 1½-inches.

I suspect that the little grasshoppers that are currently present are two-striped nymphs as they reportedly hatch 3 weeks earlier than differential nymphs. Because nymphs are less mobile (thus confined) and highly susceptible to insecticides, now would be an ideal time to initiate treatment applications to manage their populations. Three to four repeated applications will be required (through June into July) to eliminate new hatchlings as they appear. (BB)

Carpenter Bees

This is the time of year when people begin to notice large bumble bee-like insects swarming around outside of homes, barns, and other structures. These are Carpenter bees and resemble bumble bees but have bare abdomens that are a shiny black to iridescent green. In the spring these bees, which overwinter as adults, are emerging and looking for other bees to mate with. The male bees can be rather aggressive and may “dive bomb” people in their vicinity. However, they are harmless as they cannot sting. The females are capable of stinging but generally will not do so unless handled or molested. Males and females can be easily distinguished by looking at the front of their faces. Males will have a bald face, or a patch of gold, while females will have completely dark faces.

After mating in the spring, female carpenter bees tunnel into wood to lay their eggs, producing round
holes about ½ inch wide. These eggs will develop throughout the summer and the young adults will spend the winter in these tunnels. The next spring the cycle begins again. The next generation of carpenter bees may use tunnels that are already there, they may enlarge or extend the current tunnels, or they may excavate new ones.

Carpenter bees prefer to attack wood that is bare, weathered, and unpainted. They prefer softwoods such as redwood, cedar, cypress and pine. Common nesting sites are eaves, window trim, siding, decks, and outdoor furniture. The best way to avoid an infestation is to keep all exposed wood surfaces painted. Stains and varnishes will repel the bees to some degree but are not as effective as paint. Once an infestation has been detected, the tunnel entrances can be treated with an insecticide that has residual activity. Treating at night is most effective while the bees are inactive in the tunnels. The holes should be left open for a few days to allow the bees to come in contact with the insecticide and distribute it throughout the tunnels. Then, the holes can be plugged to prevent further use by carpenter bees and reduce the chances of wood decay.

For more information please visit: http://www.ksre.ksu.edu/library/entml2/mf2946.pdf (JW and HD)

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