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TURFGRASS

Too Wet to Mow the Lawn

What do you do when the lawn can’t be cut because of constant rain? The best thing to do is to set your mower as high as possible and bring it down in steps. It is always best never to take more than one third of the grass blade off at one time. If more is taken, the plant reacts by using stored energy reserves to quickly send up new growth. This reduces the amount of energy available for the plant to deal with stress or damage done by insects or disease. However, sometimes it is just not possible to keep the “one-third rule.” In such cases, cut as high as possible even though it may mean you are cutting off more than one third of the blade. Bring the height down gradually by cutting more often and at progressively lower heights until you reach the target height. (WU)

Recent Rains Trigger Mushroom Development

The frequent, heavy rains in certain areas of the state have resulted in the appearance of mushrooms in home lawns and landscape beds. Although mushrooms are often spectacular in size and color, most are relatively harmless to plant life. Some of these mushrooms are associated with arc-like or circular patterns in turfgrass called fairy rings. The ring pattern is caused by the outward growth of fungal mycelium. The mycelium forms a dense, mat-like structure in the soil that decomposes organic matter. This decomposition releases nitrate into the soil, which in turn stimulates the growth of the grass at the outer portion of the ring. This results in a dark green appearance of the grass at the margin of the ring. Unfortunately, the thick fungal mat formed by the fungus interferes with water infiltration. The
fungus also may release certain byproducts that are toxic to the turf. This can lead to dieback of the turf close to the ring. Fairy rings are difficult to control. You can sometimes eliminate the ring by digging to a depth of 6 to 12 inches and 12 inches wide on both sides of the ring, refilling the hole with non-infested soil. Or you can try to mask the symptoms by fertilizing the rest of the lawn so that it is as dark green as the ring. This often isn't a good idea because it tends to promote other turf problems. Commercial people can use certain fungicides to control fairy rings but these products are not available to homeowners. See http://www.ksre.ksu.edu/library/plant2/EP155.pdf for more info on these fungicides.

Some mushrooms in lawns are not associated with fairy rings. These may be mycorrhizal (symbiotic association with tree roots) or saprophytic (live on dead organic matter such as wood, etc.) in the soil. Because some of these mushrooms are beneficial, you don't really want to kill them. Besides, a fungicide spray to the mushroom itself does little good. Remember the mushroom is simply the fruiting structure of the organism. Most of the fungus is below ground and inaccessible to the chemical. If mushrooms are a nuisance, pick them and dispose of them as soon as they appear. Also, remove sources of large organic debris from the soil. Also, mushrooms tend to go away as soil dries. Patience may be the best control.

Some of the mushrooms in the lawn are edible, but others are poisonous. Never eat mushrooms unless you are sure of their identity. (WU)

**FRUIT**

**Fruit Sprays and Spray Water pH**

Two of the more traditional pesticides used in fruit tree sprays are malathion (for insects) and captan (for diseases). Unfortunately, both of these products are subject to alkaline hydrolysis. This is a process whereby certain pesticides will break down when mixed with high pH water. So let’s say you mix up your spray mixture by adding malathion and captan to 5 gallons of water. If that water has a pH of 7, the captan will break down so only half of it will still be present in 3 hours. But if the water you use has a pH of 8, half the captan will break down in 10 minutes. Malathion isn’t nearly as sensitive but still will break down under high pH conditions though it is stable at a pH between 5 and 7. Note that alkaline hydrolysis does not affect all pesticides. Captan is the exception, not the rule. For a list of common pesticides and their susceptibility to alkaline hydrolysis, see http://www.nysaes.cornell.edu/pubs/fls/OCRPDF/118.pdf

So how do you bring down the pH of spray water if it is high? Commercial people use buffering agents that may be difficult for homeowners to find. Food grade citric acid can help. If you have a pH of 8.0, add 2 ounces of citric acid per 100 gallons of water (1 and 1/4 teaspoons per 10 gallons) to bring pH down to about 5.5 (WU)
VEGETABLES

'Staggering' Sweetcorn Planting

Sweet corn is one of those crops that is only "good" for a few days. If you want longer periods of production, consider staggering the planting. In other words, plant a small block, wait a period of time, and then plant the next block. Though it is tempting to follow a calendar schedule, such as planting a small block every week, it is better to use crop development as a trigger. If you plant on a calendar schedule, you may have noticed that later plantings often catch up with earlier ones. Instead, plant the next block of sweet corn when the previous one is one-half to one inch tall. (WU)

PESTS

Spirea Aphid

Spirea aphid (Aphis spiraecola) is feeding on spirea (Spiraea spp.) shrubs in landscapes. Spirea aphid colonies congregate on the terminal growth and their feeding cause leaf curling and stunted plant growth. The aphids prefer to feed on the stems and leaf undersides of succulent new growth. All mature aphids are parthenogenic (reproduce without mating) giving birth to live nymphs, which themselves are females. Wingless females lay eggs on bark or buds in fall by after mating with males. Eggs hatch in spring, and young nymphs develop into wingless stem mothers. Spirea aphid females are bright green and pear-shaped. Stem mothers reach maturity in approximately 20 days. Each spirea aphid female can produce up to 80 offspring (young females). Although they produce honeydew, continual rainfall will wash it off plants. In summer, both winged and non-winged forms may be present. Winged forms typically appear when infested plants become crowded and aphids migrate to a more suitable food source (another spiraea plant) to start another colony. Heavy rainfall and strong winds will knock spirea aphid colonies onto the ground where they eventually die. Frequent, forceful water sprays will also quickly remove spirea aphid populations without disturbing natural enemies (e.g., parasitoids and predators). There are a number of natural enemies including ladybird beetles, green lacewings, and hover flies that may help regulate or suppress spirea aphid populations.
Since spirea aphids are, in general, exposed, routine applications of insecticidal soaps (active ingredient=potassium salts of fatty acids) and/or horticultural oils including petroleum-based, paraffinic, and neem (active ingredient=clarified hydrophobic extract of neem oil) may be effective in suppressing populations of spirea aphid. These materials only have contact activity, so thorough coverage of all plants parts is important. Also, they are less harmful to natural enemies compared to conventional insecticides. (RC)

**Brown Recluse Spiders**

The brown recluse is probably the most commonly known, greatly feared, often misidentified spider in Kansas. Although homeowners are often upset to discover brown recluse in the home, they are common spider and likely present in most homes throughout Kansas, old and new.

Although these spiders may vary in body and leg color, they do not have spots or differently colored bands on the legs or abdomen. The key identifying feature is the violin-shaped pattern on the front of the body (see photos). Even though they often live indoors where they are protected from harsh weather, they tend to be inactive from September through March. Renewed activity of these spiders this spring is allowing homeowners to find them more readily. These spiders are nocturnal, active hunters, moving throughout the house during the night. During the day, they tend to hide in areas of the home where there is little air movement and reduced light such as in closets, under furniture, and behind boxes. Brown recluse spiders may be detected and monitored by placing glue traps on the floor close to walls, beneath sinks, and behind furniture.

For more information on the brown recluse and other spiders and scorpions in Kansas, please visit: [http://kpbs.konza.ksu.edu/Spiderbites.pdf](http://kpbs.konza.ksu.edu/Spiderbites.pdf) (HD)

**Elm Pocket Gall**

The Elm Pocket Gall is produced by small mites that belong to the genus Eriophyes. The green to reddish, elongated galls are produced on the upper surface of American elm leaves. Gall growth is perpendicular to the surface of the elm leaf.

Mites overwinter in bark crevices of the host as fertilized females. In the spring, females stimulate gall growth by injecting saliva into new elm leaves and mites move into galls through open pores on the underside of the leaf. Several generations are completed during the summer. The last generation of the year is produced when the leaf tissue hardens in the fall. Galls cause little damage to the host plant so control is rarely warranted. (WU)
Lecanium Scale

There are about a dozen different species of soft scales collectively known as lecanium scale. But life histories are similar enough to treat them as a single entity for the purposes of this article. Normally, damage from lecanium scale is slight with "honeydew" raining down on anything under affected trees. Sooty mold, a fungus that feeds on the honeydew, can turn branches and leaves black. Branch dieback is possible with large populations.

Predators and parasites normally keep lecanium scale under control, but there are times when the population of beneficials is too low to provide immediate control. In such cases, the natural inclination is to use pesticides. Unfortunately, later instars and adults are virtually impossible to control with insecticides. Only the crawler stage is susceptible, and the time of crawler emergence varies from year to year. Conventional wisdom is that it is best to allow beneficial populations to rebuild and provide control. As a matter of fact, many times insecticides have been part of the problem because sprays have killed beneficials and allowed lecanium populations to grow unchecked.

If you still feel insecticides are necessary, target the crawler stage as it migrates from the dead mother's body to the leaves. This usually occurs about the time yucca plants flower. Registered products include permethrin (numerous trade names) cyfluthrin (PowerForce Multi-Insect Killer Concentrate), carbaryl (Sevin) and malathion. Though too late to apply now, imidacloprid (Annual Tree and Shrub Insect Control, Max Tree and Shrub Insect Control, Bonide Systemic Granules IC, Bayer Tree and Shrub Insect Control) can be applied in the fall. (WU)

MISCELLANEOUS

Lightning Strikes

At least two trees in Manhattan have been struck by lightning in the last couple of weeks. Damage occurs due to electrical disruption and heat. Injury to such trees can vary tremendously. Some trees literally blow apart due to steam explosions while others show no outward signs of damage. In other cases the bark is loosened but does not separate from the tree. Trees that show no injury may still mysteriously die days, months, or even years later often due to massive root damage which remained unseen. Even if not killed outright, trees may die due to water deprivation caused by a root system no longer able to meet the moisture demands of the tree. Trees under such stress are also a target for borers and other insect pests.
If the tree appears salvageable, remove any loose bark and broken branches as soon as possible. Loose bark should be trimmed away with a sharp knife or chisel rather than pulled off as the latter may cause further injury. Frankly, there isn’t much else that can be done except to reduce other stresses such as moisture stress (water during dry weather) and pests. (WU)

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