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Westar Energy and Shortstop

Recently Westar Energy began a program to treat trees in the path of utilities with Shortstop, a Tree Growth Regulator. Some of the objectives of the program are: 1) To slow re-growth after a tree has been pruned and thereby lengthen the interval in which that tree will need to be pruned again; 2) To reduce the amount of pruning waste when that tree does need to be pruned again; 3) To improve the overall health and appearance of the tree. So, how does Shortstop help Westar Energy achieve these goals? The active ingredient in Shortstop, paclobutrazol, has widespread use in the greenhouse and ornamental production industries to produce more compact plants using fewer pruning, shearing, or pinching events. The compound works by inhibiting the production of a class of plant hormones called gibberellins. One of the primary roles of the gibberellins is cell elongation. Plants treated with paclobutrazol have a similar number of leaves and internodes, but the internode length is greatly reduced. The result is a more compact plant. Paclobutrazol also increases chlorophyll content yielding a 'greener' plant, and research has shown it may increase stress tolerance in trees by increasing fine root densities.

When utility arborists come through your neighborhood to prune branches away from the power lines, you may receive a door hanger indicating that the tree will soon be treated with a plant growth regulator. The product, Shortstop, is applied to the soil at the base of the tree. It is fairly immobile in the soil, so it will not travel and influence the growth of other plants. The result should be a darker green tree with a more compact habit and potentially improved drought tolerance. Due to the reduced growth rate, the time period before that tree will need to be pruned again is extended, and the amount of pruning debris is reduced when it finally is time to prune again. While there are many benefits to treating street trees with Shortstop, you can say 'No thank you,' and your trees will not be treated.

Fertilize Warm-season Grasses

June is the time to fertilize warm-season lawn grasses such as bermudagrass, buffalograss, and zoysiagrass. These species all thrive in warmer summer weather, so this is the time they respond best to fertilization. The most important nutrient is nitrogen (N), and these three species need it in varying amounts. Bermudagrass requires the most nitrogen. High-quality bermuda stands need about 4 lbs. nitrogen per 1,000 sq. ft. during the season (low maintenance areas can get by on 2 lbs.). Apply this as four separate applications, about 4 weeks apart, of 1 lb. N per 1,000 sq. ft. starting in early May. It is already too late for the May application, but the June application is just around the corner. The nitrogen can come from either a quick- or slow-release source. So any lawn fertilizer will work. Plan the last application for no later than August 15. This helps ensure the bermudagrass is not overstimulated, making it susceptible to winter-kill.

Zoysiagrass grows more slowly than bermudagrass and is prone to develop thatch. Consequently, it does not need as much nitrogen. In fact, too much is worse than too little. One and one-half to 2 pounds N per 1,000 sq. ft. during the season is sufficient. Split the total in two and apply once in early June and again around mid-July. Slow-release nitrogen is preferable but quick-release is acceptable. Slow-release nitrogen is sometimes listed as "slowly available" or "water insoluble." Buffalograss requires the least nitrogen of all lawn species commonly grown in Kansas. It will survive and persist with no supplemental nitrogen, but giving it 1 lb. N per 1,000 sq. ft. will improve color and density. This application should be made in early June. For a little darker color, fertilize it as described for zoysiagrass in the previous paragraph, but do not apply more than a total of 1 lb. N per 1,000 sq. ft. in one season. Buffalograss tends to get weedy when given too much nitrogen. As with zoysia, slow-release nitrogen is preferable, but fast-release is also OK. As for all turfgrasses, phosphorus and potassium are best applied according to soil test results because many soils already have adequate amounts of these nutrients for turfgrass growth. If you need to apply phosphorus or potassium, it is best to core aerate beforehand to ensure the nutrients reach the roots.

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 cyfluthrin or permethrin (numerous trade names). Once plants have started flowering, spray in the evening after bees have returned to the hive. Check labels for waiting periods between when you spray and when the fruit can be picked.

Storm Damage and the Garden

We have had high winds, excessive rainfall and hail, so it has been a fairly normal May in our neck of the woods. This column deals with what can be done to help our gardens recover.

Heavy rain: The force of rainfall pounding on the soil can result in a thick crust that prevents seed emergence and partially blocks oxygen from reaching roots. A light scraping after the soil surface has dried is all that is needed to correct these problems. Be careful of deep tilling as it may damage young, tender roots.

Standing water: Standing water cuts off oxygen to the roots, which can result in plant damage if it doesn't drain quickly enough. Most plants can withstand 24 hours of standing water without harm. Hot, sunny weather can make a bad situation worse by the water becoming hot enough to "cook" the plants. There isn't much that can be done about this unless a channel can be cut to allow the water to drain.

Hail damage: Plants should recover quickly as long as the leaves only were damaged by the hail as leaves regenerate quickly. The situation becomes much more serious if the stems and fruit were damaged. The plant can recover from a few bruises but if it looks like the plants were mowed down by a weed whip, replanting is in order.

Leaning plants: Either wind or water can cause plants to lean. They should start to straighten after a few days. Don't try to bend them back as they often break easily