Horticulture 2011 Newsletter  
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Video of the Week:  Bushy Annuals  
http://www.youtube.com/user/KSREVideos#p/c/54/ErlzhlusQ-M

UPCOMING EVENTS

Kansas Arborists Association Summer Field Day  
June 10, 2011  
Clinton Lake - Overlook Park  
To download a copy of the brochure, go to http://www.hfrr.ksu.edu/doc3156.ashx

NurseryWorks: A Conference for Nursery Growers and Retail Garden Centers  
June 15-16, 2011  
Manhattan, KS  
For more information, go to http://www.dce.k-state.edu/conf/nursery-works/  
http://prezi.com/xmuypi4-s4wn/nurseryworks-2011/  
Twitter: @Nursery_Works  
Facebook: NurseryWorks

TURFGRASS

Time to 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. N 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. 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 N is preferable but quick-release is acceptable.
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 2 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 N 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 insure the nutrients reach the roots. (WU)

**Little Barley in Lawns**

Many people mistake little barley (Hordeum pusillum) for a little foxtail because the foxtail and little barley seedheads are similar. Little barley is a winter annual that thrives in cooler spring temperatures but dies out in the summer. Foxtail, on the other hand, is a summer annual that does well in hot weather. Also, foxtail will not produce seedheads until mid- to late-summer.

At this point there is no control for little barley other than a glyphosate product such as Roundup. Roundup will kill whatever it hits and cannot be used on lawn. The only preemergence herbicide that I know is labeled for lawn situations is Surflan. Monterey Lawn and Garden also sell it under the name of Weed Impede. Surflan can only be used on warm-season grasses (bermudagrass, buffalograss, zoysiagrass) and tall fescue grown in warm-season areas. Because little barley is a winter annual, apply the preemergence herbicide in September. It should not be used on recently seeded or overseeded grass. (WU)

**ORNAMENTALS**

**Anthracnose on Trees**

We are starting to see anthracnose on ash leaves and the young stems of sycamore. Though anthracnose is usually more common on sycamore leaves than the stems, such has not been the case thus far. However, current weather may lead to leaf infections of sycamore and maple.

Anthracnose is a fungal disease favored by cool, wet weather. Young leaves may wither and turn black. On older leaves, look for brown areas that follow the major veins of the leaves. Physiological problems such as scorch or freeze...
damage affect the outer margin of the leaves and/or the interveinal spaces. If the disease is severe, the tree will drop heavily infected leaves. But new leaves will be formed in response to defoliation. Other types of trees that are affected by anthracnose include birch, elm, walnut, and oak.

Anthracnose seldom causes significant damage to trees in Kansas, so chemical controls are usually unnecessary. Also, fungicides do not cure infected leaves. Applying fungicides now is not recommended. (WU)

**PESTS**

**Borer Control in Peaches**

The first defense against borers is to maintain healthy, vigorous growth on peach trees. Do a good job of pruning, keep trees watered as needed, and control peach leaf curl (see http://www.hfrr.ksu.edu/p.aspx?tabid=586). Young trees are more likely to be attacked than older ones if the older trees are healthy.

Sprays should be applied the last week in June and again the last week in July for good control. Thoroughly cover the bottom portion of the trunk to the point that some spray pools at the base of the tree. Peach tree borers lay eggs on the tree trunk. When the larva hatches, it tunnels through the bark into the tree. If an insecticide is present on the trunk, the larva is killed when it tries to tunnel.

Most of the active ingredients that were labeled for peach tree borer and lesser peach tree borer in homeowner packaging are now gone, except for permethrin, which is found in numerous products. Those that have peach tree borer on the label include Hi-Yield Garden, Pet and Livestock Insect Control, Hi-Yield 38, Bonide Borer-Miner Killer and Gordon’s Bug-No-More Yard and Garden Insect Spray. (WU)

**Be on The Lookout for Spruce Spider Mite**

Because of the relatively cool weather lately, watch for spruce spider mite (Oligonychus ununguis), which feeds on conifers including arborvitae, Douglas fir, hemlock, juniper, and spruce, and several species of pines. Spruce spider mite has piercing-sucking mouthparts, which are used to remove plant fluids from the chlorophyll (green pigment), resulting in injured foliage appearing bronze or brown.

Spruce spider mite adults are oval-shaped and approximately 1/60th inch long. They may be black, tan, or reddish. Nymphs vary in color from light gray to green. Eggs, which are the overwintering stage, are round and reddish-brown. Eggs are typically laid underneath bud scales or in the axils of needles from September through November. Eggs hatch into nymphs during spring.

Spruce spider mite takes between 3 to 6 days to proceed from egg to nymph. The active nymphs feed primarily on
needles—preferring the older needles. Feeding causes stippling and bleaching of affected needles or foliage. These mites produce only slight webbing among damaged needles. To tell if spider mites are present, knock the mites off branches onto a white sheet of paper, where they will be easy to observe. If you crush spruce spider mites they will leave a greenish streak, in contrast to a red streak, which indicates a predatory mite.

The primary means of managing spruce spider mites is to implement proper irrigation, fertility, and mulching practices. This reduces stress to susceptible host plants and avoids having to deal with excessive populations of spruce spider mite. There are a number of pesticides with miticidal properties that may be used to suppress populations including abamectin (Avid), bifenthrin (Talstar), fenbutatin-oxide, potassium salts of fatty acids (insecticidal soap), petroleum oil (horticultural or summer oil), clarified hydrophobic extract of neem oil, and hexythiazox (Hexygon). These pesticides have contact activity only. Thorough coverage of all plant parts is important in order to sufficiently regulate spruce spider mite populations. Hexythiazox (Hexygon) is active primarily on mite eggs and larvae with minimal effect on nymphs and adults. Feeding injury from spruce spider mite may appear during the summer, but by that time it is too late to substantially reduce spruce spider mite populations with pesticides. Applications will have to be conducted in late fall.

Improper use of above-mentioned pesticides may result in spider mite outbreaks because most of these materials are harmful to the mites’ natural enemies. If feasible, apply a forceful water spray routinely to remove mites from plants and avoid having to apply pesticides. This strategy also may reduce harm to natural enemies. Exercise caution when using horticultural or summer oils on blue-needled conifers because the oil may cause discoloration. As always, read the product label carefully before application. (RC)

**The Unkind Cut Cutworms**

On a recent visit to the Manhattan Community Gardens, I asked one of the gardeners, “How goes the gardening?” He commented that he had to replace a couple of his tomato transplants because they had been cut off at the ground. And one of the replants was also cut off, forcing him to replant a third time. While he was replanting, he found a “big worm,” which he killed. His nemesis was obviously a cutworm.

Cutworms are the larvae of various species of noctuid moths. Generally, cutworms found in spring gardens hatched the previous fall. Having overwintered as small partially grown larvae, they resumed feeding with the return of warmer (yet cool) late winter and early spring temperatures, subsisting on weedy plants. When garden transplants are set in the ground, they are an attractive food source to roaming cutworms, which account for cut plants.

Because cutworms hide during the day and feed at night, their presence first becomes known when cut plants are found lying on the soil surface. Upon close examination, the point of attack is evident.

To find the offending cutworm, closely examine the ground near the plant. Locate the hole where the cutworm burrowed into the soil. Using a knife or other pointed instrument, carefully excavate and follow the tunnel’s path. At the end of the tunnel, the offending cutworm will be found.
Usually cutworms can be quickly unearthed near tunnel entrances. In this case, the hunt to uncover the cutworm was not quite as simple. Just beyond the entrance, the tunnel immediately angled off. The cutworm was found 5 inches deep and on the opposite side of the plant.

While most garden insecticide products list cutworms on their labels, use is usually unnecessary. Several cut plants may suggest the presence of several cutworms. The hunt-and-collect technique should be sufficient to eliminate them from small garden plots. In large-scale plantings, loss of a few plants may be tolerable. If the number of cut plants is unacceptable, an insecticide application might be practical. (BB)

**Brown Dog Ticks**

The Insect Diagnostic Lab has received several samples of female brown dog tick nymphs this past week (see photo). These small, 1/16th-inch long ticks have been found crawling on dogs and people. The brown dog tick has four life stages, the egg, larva, nymph, and adult and will feed between each stage. These nymphs are commonly picked up in tall grasses and areas with heavy vegetation. The ticks crawl onto plants and wait for a host to brush against it, then climb onto the passerby. Although brown dog tick infestations in dog kennels have been associated with canine ehrlichiosis outbreaks, these ticks do not transmit diseases to humans.

The K-State Insect Diagnostic Lab provides free identification of ticks. Samples should be preserved in vinegar and taken to your local K-State Research and Extension office. They can also be sent directly to the lab. For more information on how to send a sample, e-mail GotBugs@ksu.edu.

For more information on ticks in Kansas, please visit: http://www.vet.ksu.edu/DEPTS/VMTH/PDF/mf2653.pdf  (HD)

**Voles**

Lately, there have been number of inquiries about voles — most likely the prairie vole (Microtus ochrogaster), the common species in Kansas. Voles, often referred to as meadow or field mice, are gray-brown short-tailed rodents, 4 to 8 inches long (including the tail) with blunt noses. Voles commonly inhabit shallow burrows in the soil. They are prolific breeders with a high reproductive capacity. Two voles can multiply into 100 voles within a year. They breed in the spring and summer, with females
typically producing five litters per year. Some females may produce 12 litters per year, but this varies depending on food quantity and environmental conditions.

Voles typically reside in areas with dense vegetation or mulch inside shallow burrows. They are primarily active during the evening although they may be observed during the day. Well-defined tunnels or surface runways created by voles are 3/4 inch to 2 inches wide. Voles travel through these extensive runways during the day and night. They are active throughout the year and move under snow cover during the winter. Voles feed on seeds, grasses, plant roots, bulbs, hostas, live bark, tree roots, fruit, and insects. They burrow into root systems, potentially killing trees and shrubs, and may damage certain plants by feeding on roots and bark, girdling plants. This type of feeding activity usually occurs when dense vegetation cover is removed during fall through winter. Surface runways created by voles also may result in aesthetic damage to lawns.

**Vole management involves habitat** modification, cultural practices, and the use of baited traps. Habitat modification or cultural practices such as removing weeds and low-growing dense vegetation will eliminate covering and expose voles to predators such as birds, large animals, and weather. Mowing frequently around trees and shrubs will reduce potential vole damage. In addition, avoid using fine or small sized mulches because this may serve as a protective cover for voles. It has been reported that plastic and landscape fabric barriers may increase vole populations because they provide a suitable habitat for nesting and breeding.

Tree guards made of 1/4-inch galvanized hardware cloth or mesh may be an option to prevent voles from girdling trees and shrubs. The guard must be buried at least 3 inches below the soil surface to prevent voles from tunneling under the guard. Because pine voles girdle tree roots, this may not be effective against this vole species. Tree guards should be placed to allow for future plant growth.

Baited traps may be used to deal with voles. Snap-back mousetraps may be effective if they are baited with apple slices or peanut butter to lure voles to the traps. Traps can be placed along the surface runways with one on each side of the runway (back-to-back) so voles can be trapped regardless of which direction they are coming. Traps can be reset in the same location. Poisons (toxicants) used for other rodents such as rats and gophers also may be used to deal with voles, including anticoagulants. Rodenticides used for vole control are restricted-use pesticides and must be applied by a licensed pest management professional or applicator. For homeowners, the most appropriate management strategy includes habitat modification, cultural practices, and use of baited traps. (RC)

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