

POLK COUNTY URBAN HORTICULTURER NEWSLETTER

August 2005

Volume 5 Number 6

TURF

I have received many calls this summer from clients about their declining lawns. Many of the problems are fungus related and are a result of the 14 inches of rain most people received in June. July was dryer, but we still received ample rainfall. This set us up for two common fungus problems - grey leaf spot and, of course, take-all root rot. However, just don't assume you have a fungus problem because chinch bugs are always a potential insect problem every summer. Check for chinch bugs with a soap flush in the affected area (1.5 ounces dish soap per 2 gallons water).

These common lawn problems are exacerbated by poor cultural practices, such as over-watering, under watering, mowing too low, over and under fertilizing, and trying to grow turf under oak trees.

Cultural practices which stress your lawn

- Water only when your lawn shows signs of drought symptoms such as curled leaf blades. Apply approximately 3/4 of an inch, which research has shown wets the

soil down 12 inches. Watering with less than 3/4 of an inch does not wet the entire root zone, which encourages the grass to grow in the upper few inches of soil and is more susceptible to drought.



Mowing too low or with a dull blade also causes undue stress to your lawn. A dull blade tears the leaf end making a jagged edge which widens the area of water loss as opposed to a smooth cut. Constant scalping of the leaf blades does not give the plant an opportunity to photosynthesize properly, resulting in poor root growth and less drought tolerance.

Using too much fertilizer at each application and fertilizing too often are additional ways people stress their lawn, as well as, damage the environment. Any more than about a pound of nitrogen fertilizer per 1000 square feet, at one time, may be wasted as it is may leach away into the soil profile before the turf has a chance to absorb it. One pound of nitrogen can be determined by dividing 100 by the percent nitrogen in the bag. The University of Florida recommends no more than 2 to 6 pounds of

nitrogen per year.

Fertilizing too much at each application, and/or too frequently, also causes excessive leaf growth and reduced root growth making the lawn less drought, insect and disease tolerant. Also, if more than 1/3 of the leaf mass is mowed at one time and the leaves are not collected after mowing, they end up creating a layer of thatch above the soil line. This thatch layer harbors both insects and diseases. Floratam is a rapidly growing cultivar of St. Augustinegrass and probably needs more than one cutting per



week, as opposed to a semi-dwarf cultivar like Pursley Seville.

Sod webworm - This is the time of the year when you will start to see the little brown moths flying over your lawn. This is the sod webworm adult which spends the day hiding in the grass and in nearby shrubs. Clients often worry that these moths are laying eggs on their shrubs, but they lay eggs mostly on St. Augustinegrass at night. The eggs hatch in about a week, and the larvae feed on the leaf blades at night and rest on the soil surface during the day. You can often see the webs they make on the grass in the morning dew; however don't confuse sod webworm webs with spider webs.

Sod webworm damaged areas of the lawn may take on a scalped appearance; however their feeding usually does not permanently injure St. Augustinegrass. The larvae are easily controlled with a synthetic pyrethroid insecticide like bifenthrin (Ortho Max). Young larvae may be controlled with a biological insecticide like Thuricide.

Gray leaf spot - Gray leaf spot is the most common fungus disease on St. Augustine in Florida. Warm rainy spells from May through September commonly produce extended periods of leaf wetness (12 hours or greater) which favor the development of gray leaf spot lesions. The most diagnostic disease symptom is an oblong leaf spot on the leaf blade, the center of which may have a felt-like growth of spores after extended periods of warm moist conditions. The leaf spots may appear olive green to brown, with a dark brown border when spores are not present. The disease is most severe in blue-green cultivars like Bitterblue and Floratam and less severe in cultivars such as Pursley Seville and Palmetto.

Gray leaf spot disease is particularly severe when the turf is grown under stressful conditions, such as in the shade under trees with poor air circulation and competition from tree roots. Application of fast release nitrogen fertilizers during active disease periods worsens the infection as the nitrogen lowers the plant's resistance to this fungus. The application of Atrazine herbicide during the summer months when the temperatures are above 85 degrees F. also weakens the turf and renders it more susceptible to infection.

Gray leaf spot is chronic but not typically damaging in established, well-managed home lawns. As I mentioned before, disease symptoms may become severe if the turf is stressed due to poor management or if long periods of wet weather persist. If the disease becomes a serious problem, then we recommend that you call a professional lawn care company to make a fungicide application, possibly with one of the new strobilurin fungicides such as Heritage or Insignia which have shown very good results. Unfortunately, they are priced out of homeowner range and are not available in local

retail garden centers.

Take-all root rot - Nothing much has changed with this fungus disease. It attacks most warm season turf grasses, including St. Augustinegrass, and is primarily a summer and early fall disease when Florida receives most of its rainfall. Again, this is another stress related disease associated with nematode infestations, excessive traffic, short mowing height and/or low fertility.

The disease attacks the roots first, which prevents them from obtaining nutrients and water from the soil, and also prevents them from storing the products of photosynthesis from the leaves. Roots will initially be thin and off-white in color with isolated black lesions. Eventually roots will become very short, black and rotted. Above ground symptoms include yellow (chlorotic) or light green patches, ranging from a few inches to a few feet. In severe conditions the stolons may develop black lesions and begin to rot.

We still do not have a curative fungicide which controls or kills take-all root rot. Products such as Banner Maxx with propoconazole, Bayer Lawn Fungus Control with tridimefon, Ortho Lawn Fungus Control with thiophante methyl and Immunox with myclobutanil will give some preventative control and are available at some retail garden centers. The new strobilurin products, Heritage and Insignia, will also give some preventative control.

Brown patch - Brown patch is another common lawn fungus problem. It usually occurs in the fall and winter, however it

can infect susceptible cultivars any time of the year. It is easy to identify as a soft, dark rot occurs at the base of the leaf, and the leaf blade will easily pull out of the sheath. Brown patch is a leaf and sheath disease and does not attack the roots like take-all root rot. The disease usually begins as small patches (1 foot) that turn yellow and then reddish-brown, brown or straw colored as the leaves start to die. The patches can expand to several feet in diameter. Brown patch can be controlled with common turf fungicides sold at local garden centers.

WATERING WOES

by Anne Yasalonis Florida Yards and
Neighborhoods Program

In these rainy, summer months, most people should not be irrigating lawn and landscape plants unless they show signs of stress. It is often hard to decide whether or not to water if we have been without rain for a few days, but there is new technology being developed to make this task a little easier for all of us.

If you have an automatic sprinkler system, it is required that your system have a rain shutoff device, so that you are not irrigating when we have had sufficient rainfall. Although



these devices work well most of the time, there are many times in which they are installed improperly or they malfunction. New soil moisture monitors are being tested at the University of Florida (UF) that are proving to be much more accurate, and can save home and business owners a lot of money.

These devices monitor moisture in the soil and

prevent irrigation systems from turning on if sufficient moisture is detected. These new devices will not only benefit your bank account, they will also benefit the plant material that is being over-watered. Plants will be less susceptible to disease and pests, and have increased vigor when watered efficiently. In a recent UF study, irrigation systems with soil moisture sensors used 56% less water, on average, than systems with rain sensors and 70% less water than systems without any water saving devices.

If you are interested in more information about soil moisture monitors, contact the Florida Yards and Neighborhoods program at the Polk County Extension Office or visit the Florida Yards and Neighborhoods Demonstration Garden at the Polk County Utilities Office at 1011 Jim Keene Blvd. in Winter Haven. The demonstration gardens are watered with micro-irrigation that is regulated by a soil moisture monitor. The monitor is placed so that visitors may see how it works. More information on the specific monitor can be found at the *Utilities Conservation Corner* inside the building.

MISC. AUGUST GARDENING

Flowers to plant - Angelonia, begonia, blue daze, butterfly weed, bush daisy, cat's whiskers, chrysanthemum, coleus, coreopsis, crossandra, fire spike, gaura, golden globe, heliconia, jacobinia, impatiens, lantana, marigold, melampodium, moon flower, pentas, periwinkle, porter weed, portulaca, purslane, salvia, Stokes aster, sunflower, torenia and zinnia.

Herbs to plant - Anise, basil, bay laurel, chive, dill, ginger, lemon balm, Mexican tarragon, mint, oregano, rosemary, sage, sweet marjoram and thyme.

Vegetables to plant - Cantaloupe, collard, corn, cucumber, eggplant, lima bean, okra, pepper, pumpkin, snap bean, Southern pea, squash, tomato and watermelon.

Pruning - Pruning time is over for azaleas and camellias as they are now producing flower buds for next spring. Now is the time to prune bougainvillea and give a final pruning to poinsettia.



Crape myrtle - Force out another bloom from your crape myrtles by trimming off seed pods that have formed at the end of branches. Prune the seed pods back to a point about the size of your finger. Crape myrtles often respond with a flush of new growth tipped with flowers.

Hedges - In addition to providing privacy needs, hedges conceal fences, soften walls and create view barriers. There are a number of Florida plants that fill the bill, but one has to be careful to choose the plant which will grow to the desired height.

Plants which grow over six feet tall include anise, oleander, ligustrum, sweet viburnum and Walter's viburnum. Those growing about seven feet tall include Sandankwa viburnum, sinense viburnum and thryallis. Those growing under four feet include boxwood, dwarf yaupon holly (Schellings) and natal plum. We have recently planted a hedge of what is called Mrs. Shillers Delight which is a dwarf cultivar of Walter's

viburnum (*Viburnum obovatum*). This shrub is supposed to only reach a height of three to four feet.

Azalea caterpillar - I have received several complaints from clients about caterpillars infesting azalea plants. The mostly likely one is the azalea caterpillar. It has yellow stripes and a brown head. They rear up when disturbed as if they are going to attack. They are harmless to people. The easiest control method is to pick them off or just prune off the infested branch. They can also be sprayed with a biological insecticide like Thuricide with *Bacillus Thuringiensis* (Bt).

Ferns - Don't forget ferns for your shady areas. They compete well with tree roots



and will often grow where most other plants will not. Ferns to consider are Boston, holly, leatherleaf and sword ferns.

Plant in a well-drained soil 10-15 inches apart. Amend the soil with organic matter, if possible. Watch for scales and mealybugs.

Have a good gardening day,

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