Turfgrass IPM Advisory

Seasonal Turfgrass Pest Update, Utah State University Extension, Summer 2014

Turfgrass Management

Summer weather presents turfgrass management challenges in the form of increased temperatures and decreased soil moisture.

News/What to Watch For

Sod webworm and chinch bug samples have been streaming into the Utah Plant Pest Diagnostic lab this summer, so keep an eye out for these insects in damaging numbers. Other abiotic concerns may include dry spots due to irrigation system maintenance and distribution uniformity issues.

Focus On: Cyanobacteria

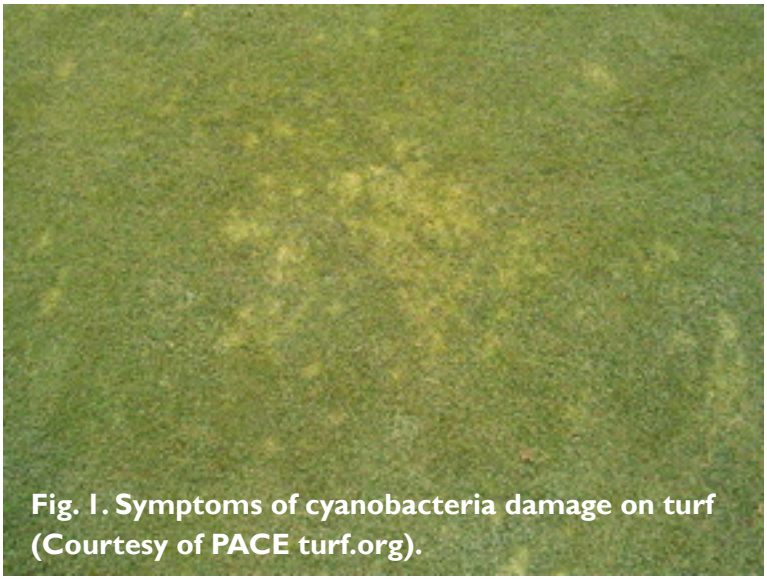

Fig. 1. Symptoms of cyanobacteria damage on turf (Courtesy of PACE turf.org).

Cyanobacteria look similar to algae, but they are not related. They occur frequently in low concentrations in turf without causing problems. In higher concentrations, they can often be seen as a slimy layer on the grass or a hard black crust.

Cyanobacteria stay at the base of the plants during the day and may be overlooked. However, when keeping a turf sample in the dark for twelve hours, the dark slimy bacteria can be seen. Cyanobacteria are mobile and can crawl up on the grass blades in search of light.

Damage

Cyanobacteria can lead to light green or yellow turf and thinning of turf. They are mostly a problem on golf course greens but can occasionally be found in lawns as well. Often they are found on grass in shaded or wet areas.

The cyanobacteria cause damage to turf in two ways. First, they release toxins that are taken up by the grass and cause the grass to turn yellow (the lower the mowing height of the grass the more of a problem the toxin is).

Cyanobacteria (cont'd)

Solutions

Eradication of cyanobacteria is not possible. However, increasing mowing height can reduce the problem. Grass will be less stressed and can tolerate the toxins better and the bacteria will not be able to crawl all the way to the tip of the grass where they cause the most damage.

When cyanobacteria are a severe problem three weekly applications of fungicides containing chlorothalonil can help control the problem. Fungicides with other active ingredients like myclobutanil or azoxystrobin are not effective.

More information can be found http://www.paceturf.org/PTRI/Documents/0008sj.pdf.

-Claudia Nischwitz, USU Extension Pathology Specialist

Chinch bug damage to turf. Image courtesy of Katie Wagner, Uta State University.

Chinch Bugs (*Blissus spp.*)

We're continuing to see chinch bug activity this summer in several Utah counties. Typical chinch bug damage is comprised of patchy dieback that forms larger patches and in severe cases, complete lawn loss. Feeding damage can often mimic drought stress; however, chinch bug damage will not respond to increased watering as a drought-affected lawn would. Feeding damage is often worse on plants that are already affected by drought.

In Utah, chinch bugs seldom need insecticidal treatment unless the population has exceeded threshold levels and damage is evident. Effective insecticides include bifenthrin and other pyrethroids. Preventive management practices include proper irrigation, regular fertilization, reducing thatch via power raking and core aeration, avoiding the use of broad-spectrum insecticides that can reduce beneficial insects, and over-seeding or replanting a lawn using endophyte-enhanced grass seed (see Spring 2012 Turfgrass IPM Advisory).

-Ryan Davis, USU Arthropod Diagnostician

Sod Webworm (*multiple species*)

Life Cycle: two generations per year for the most part, though one to four are possible depending on species.

Though activity has lessened somewhat, sod webworm (SW) has been identified in several counties this summer. Damage is inflicted by the larvae of the moths which feed on turfgrass blades. General thinning may be followed by brown patches in the area. Heavy infestations can kill grass, with peak damage occurring in summer and early fall.

Cultural Practices

Overly irrigating and/or fertilizing will predispose the grass to insect outbreaks.

Resistant Turfgrass Varieties

Endophtyte enhanced perennial ryegrasses and fescues show some resistance to SW.

*Insecticidal Products**

Spinosad (Conserve), *Bacillus thuringiensis* (Bt, Deliver), *Steinernema carpocapsae* (Biosafe, Biovector, Exhibit), azadirachtin (Ornazin).

Billbug (*Sphenophorus* spp.)

Life Cycle: one generation per year for the most part, overwintering in the adult stage.

Billbug (BB) has been identified in Salt Lake County this summer. Billbug damage is inflicted by the larvae of the bugs which feed on turfgrass stems, crowns and roots. Initial damage resembles drought stress and may include small brown patches. Blades of grass infested with BB can easily be pulled away from the crown.

Cultural Practices

Properly irrigating and fertilizing turfgrass will help the grass to resist and recover from BB damage. Overly irrigating and/or fertilizing will predispose the grass to insect outbreaks.

Resistant Turfgrass Varieties

Endophtyte-enhanced perennial ryegrasses and fescues show some resistance to BB.

*Insecticidal Products**

Imidacloprid (Merit®), *Steinernema carpocapsae* (Biosafe®, Biovector®, Exhibit®), *Beauveria bassiana* (Naturalis®).

Recommended Cultural Practices for Summer

Seeding/Over-seeding

Declining summer temperatures provide the opportunity to seed new turfgrass areas or to over-seed areas that may have been damaged over the summer. The cooler temperatures will promote germination and growth of cool season turf species such as Kentucky bluegrass, tall and fine fescues, and perennial ryegrass. An additional advantage to over-seeding at this time of year is reduced annual weed pressure. Choose pest resistant or recommended turfgrass cultivars when possible.

Fertilization

Nitrogen is of primary concern in turfgrass fertilization. In the late summer, apply 1 pound of slow-release nitrogen (N) fertilizer per one thousand square feet of lawn area. This will help the grass to recover from summer damage and any stress that may have occurred. It will also be especially helpful for areas that have suffered damage due to diseases such as summer patch or necrotic ring spot. In a slow-release form, N fertilizer will provide a consistent source of nutrients as the turf begins actively growing again.

Irrigation Maintenance

Consider performing some routine irrigation system maintenance. Over the course of the growing season, sprinkler heads may have become tilted, sunken or clogged. Do a short test run through each zone on your system and locate those heads that could use some adjustment. Also consider performing a distribution uniformity test to help refine your irrigation schedule.

Relevant USU Extension Fact Sheets

Turfgrass Management

Basic Management

Cultivars for Utah

Fertilization

Insect Pests

Chinch Bugs

Billbugs

Sod Webworm

Irrigation

Irrigation System Maintenance

Sprinkler Performance Testing

***Precautionary Statement**: All pesticides have benefits and risks, however, following the label instructions will minimize the risk and maximize the benefit. Pay attention to the directions for use and follow precautionary statements. Pesticide labels are considered legal documents containing instructions and limitations. Inconsistent use of the product or disregarding the label is a violation of both federal and state laws. The pesticide applicator is legally responsible for proper use.

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