Summer – The Boys Are Back in Town

Field Day Reminder: July 26th – Register Now

Admittedly, our field day is less than two weeks away, and the time for subtlety. The real reason behind the strong pitch is that we have so much to offer this year. Our field day research booklet spans 53 pages of great research information, and in my opinion is worth the price of admission alone. We have 12 great field day stops, with topics covering effective turf seeding practices to beat out weed competition, how to conduct an irrigation audit (who couldn’t use that?), disease control in home lawns and golf courses, turf cultivar evaluations, PGR scheduling, etc. etc. Bring your horticulturist, (or the horticulturist in you), to view presentations on rose diseases and new annual flower evaluations in the morning, and have Drs. Trinklein and Starbuck as guides for a tour of beautiful Shelter Gardens in the afternoon. Meet the faculty, graduate students, and support staff, and ask us your burning turfgrass or ornamental related questions.

Management Strategies for Spring Dead Spot Control
A. Assessing soil fertility and pH levels at the beginning of the study.
B. Pythium spp. can also infect crown tissue in severely affected plants.
C. Pythium oospores in root tissue.

My soon-to-be graduate student, Derek Cottrill, is conducting one particular project I’d like to highlight briefly. On sports fields throughout the state and golf courses in southern MO, spring dead spot of bermudagrass is a vexing problem. Fungicides work sporadically, and affected turf can take a long time to recover in the late spring or summer. Derek is evaluating fertilizer, sulfur, and fungicide treatments alone and in combination with each other to control an existing spring dead spot problem. In the picture above, Derek and Daniel Earlywine are capturing images that Derek will digitally analyze to assess the amount of spring dead spot in the plots as a starting point. This objective measure will allow us to accurately determine how much each control practice limits spring dead spot outbreaks in the following years. Derek won’t be officially presenting at field day, but will be on hand to ask questions and introduce himself and his research.

Participant registration is now open – click here to register
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Weather

The beginning of July has been quite the roller coaster of temperatures, with brief reprieves being inserted into a few very hot jail sentences. July 4th was quite the firecracker, and the diagnostic lab has been plenty busy over the last two weeks as this period started off many of our summer diseases in earnest. The typical “boys are back in town” as Thin Lizzy would sing, including brown patch, Pythium root rot, and fairy ring (see Quick Hits below).

You’ll note in the graph above that our low temperatures have been above normal for all of the month. This was the situation last year that led to so much trouble for cool season grasses, only it started in June and no reprieves were given. Luckily for golf superintendents, we have had dry (although humid) weather to go with these heat spells. This recent moisture though, with an impending 99-105+ heat wave over the weekend could really kick some temperature stress and turf disease into high gear. Try to keep the big machines off the greens during this period, do not brush in topdressing, skip clean-ups every other day, use solid rollers, raise the mowing heights, and alternate mow/roll if possible. For lawn care, raise the mowing heights, water only in the early morning if needed (!!), and absolutely no fertilizer applications.

(Not So) Quick Hits

- Brown patch is raging on tall fescue lawns, including our tall fescue (and creeping bentgrass) plots at the turf farm. During the hot spells, this may be mixed in with a bit of Pythium, particularly in shaded areas or those that are
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watered during the heat of the day. I see watering at 2 pm on commercial and residential lawns around town and it drives me crazy. One of the easiest things you can do to limit both of these diseases is to water early in the morning, and keep the leaf blade dry during the middle of the day. I also heard the suggestion earlier this week that the turf can be simply “fertilized out” of these two diseases. NO! NO! NO! This will only increase the severity and spread of these two diseases and ensure the demise of your lawn. No fertilizer on cool-season grass over a ¼ inch tall until September please.

More Examples of Pythium root rot
A. Pythium root rot appears as diffuse areas of turf thinning without a real “patchy” appearance. This symptom can represent a lot of different turf problems though, and shouldn’t be the sole evidence for infection.
B. Pythium spp. can also infect crown tissue in severely affected plants.
C. Pythium oospores in root tissue.

- **Pythium root rot** has been the story on golf putting greens so far this summer. The impending fear among superintendents is Pythium foliar blight, which in fact is very rare on bentgrass putting greens, but can be present on higher cut turf such as collars or fairways. With the lack of rain over the last few weeks, one would think that it would’ve slacked off somewhat, but greens with clogged drainage lines, or that may have been overwatered to compensate for the heat, have had severe infections. As I noted last time, this is a significant hole in most programs because fungicides targeted for this disease are not broad spectrum (don’t cover other pathogens), and most fungicides are not watered-in. A preventive, watered-in application of Banol, Subdue, or Segway may be necessary on wet or heavily shaded greens before this next stress period. If you have the problem diagnosed, a watered-in application of Koban or Terrazole are the most effective knock-down products.

- Where **fairy ring** is apparent now, it has become severe. Hopefully for many superintendents, the preventive DMI applications are working. If fairy ring is occurring now, it is necessary to switch fungicide application strategies quite
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a bit to treat the disease curatively and encourage symptom recovery. If you are in the Type I killing ring phase, treat it like an extremely severe localized dry spot with a fungal pathogen kicker. Aerify the area and punch through the layer. Apply Heritage, Insignia, or ProStar with a wetting agent and thoroughly water the application in.

- Summer patch is making an impact on Kentucky bluegrass lawns and golf surrounds. I also observed the pathogen infecting a creeping bentgrass green from Arkansas earlier this week. Summer patch will be covered detail next week.

Copper Spot

Copper spot was observed last week at the Mizzou Turf Research Farm. This disease is not a biggie as far as actual turf damage is concerned, and often is seen on bentgrass putting greens in combination with dollar spot. It is, however, one of the favorites of this turf pathologist because of the long, wispy needle-like septated conidia the pathogen (Gloeocercospora sorghi) produces.

Epidemiology and management of this disease is nearly identical to that of dollar spot. In the northeastern U.S., the disease is especially prevalent on Agrostis canina (velvet bentgrass), but on creeping bentgrass where dollar spot is being controlled it is seldom a problem.

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