The Stage is Set

Weather

As expected, the first third of May 2015 has been a warm one in Missouri. Much of the region is running 4-8 degrees above normal, forcing Kentucky bluegrass to seed like mad (keep those mower blades sharp!) and warm season turfgrasses to erupt out of dormancy. The temperature spike hasn't sent summer diseases into a tizzy quite yet, but earlier spring problems, such as dollar spot, are now in full swing.

Most of our spring action thresholds for weed and disease control have blown by, and summer is right around the corner. Despite this current short-lived cool down, forecasted temperatures for the second third of May are slated to remain warm. For cool-season lawns and roughs, this should signal the end of any heavy fertilization events, since it may send a spark into a lurking brown patch or Pythium epidemic.

Along with the warmth, weekly events of precipitation are keeping most of the state amply watered. Rainfall events from late last week into the weekend totaled 1.5-2”
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over most portions of the state, with some locally heavy events in the SW and western portions. Conditions have led to out-of-control growth of cool-season turfgrasses, necessitating mowing every 5 – 7 days to keep up. That is when/if one can get a mower across the soggy landscape. The combined warm and wet May has set the stage for many disease problems, of which a few are starting to rear their ugly heads.

Quick Hits:

- A few specks of fairy ring were observed on our ‘Penn A4’ green last Friday after our morning rain event. This is the first we have seen or heard of this disease this year on bentgrass putting greens in the region. In our case, the symptoms were ephemeral and have started to fade. Later in the season,
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the areas may turn hydrophobic, in which case, this was a sign that we had this monster lurking underneath our bed. It also is a sure sign that the first preventive fairy ring application should be down by now on greens that may encounter this issue later on down summer’s road.

- Dollar spot has been steadily occurring on the turfgrass research farm since the last update. Conditions have been near perfect for this disease as the temperature range along with ample rainfall and several early morning dew events have driven severity. Scouting for this disease regularly is important, as curative control and recovery can be particularly difficult.

- On Friday of last week, a sample of an ~ 30 year old ‘Penncross’ putting green from Kansas City was submitted to the Clinic with signs and symptoms of a Pythium root disease. A number of different Pythium spp. may cause root rot or root dysfunction on bentgrass greens. Many believe temperatures need to be scalding hot (> 90 F) for Pythium disease outbreaks, which is true for Pythium foliar blight. Root-infecting Pythium spp., however, only need moderate temperatures and a “pool to swim in” to cause symptoms. May is typically the wettest month in Missouri, and frequent storms have filled the pool. If you have a history of this disease, consider hiring a lifeguard and make a preventive, watered-in fungicide application and/or vent problem areas. Also if you observe distinctly odd, mottled patterns on your greens, perhaps send a sample into your favorite diagnostic lab for a checkup.
Our first major symptoms of spring dead spot occurred on our bermudagrass research blocks at the MU research farm over the past two weeks. This disease is the bane of bermudagrass managers throughout the transition zone, secretly stealing the glory of a perfect spring green-up over the course of the winter dormancy period. Bermudagrass is being used further northward than ever, due to the development of superior cold tolerant cultivars with improved texture and agronomic properties. The susceptibility of these cultivars to spring dead spot, however, is unclear. As shown above, ‘Patriot’ is susceptible to inoculation with *O. herpotricha*, and in many of our research trials we utilize ‘Riviera’ which also demonstrates high susceptibility.

Spring dead spot is a current and future focal point of our research program. The disease, being soil-borne, is particularly difficult to control, and mostly relies on a preventive fungicide program that targets the fall infection period. In our research, Velista, a new SDHI fungicide from Syngenta, has performed very well in reducing SDS symptoms when applied twice in the fall. In 2012, SDS symptoms were reduced by the 0.7 oz/M rate similarly to that of Rubigan applied at the 6 fl oz rate. Rubigan was the standard for SDS control before being voluntarily taken off the market in December 2012. Velista is working well again in our current trial, with treated plots clearly differentiated from our untreated controls.

Even with the best performing fungicides, a multi-year integrated approach is necessary to remediate a widespread existing infection. Previous university research has demonstrated frequent aerification, lowering soil pH, utilizing different nitrogen sources, and applications of manganese may also lower the incidence of
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disease. With our previously inoculated and freshly symptomatic 11,000 sq ft 'Patriot' block, we aim to continue these investigations into IPM approaches that integrate innovative cultural practices.

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