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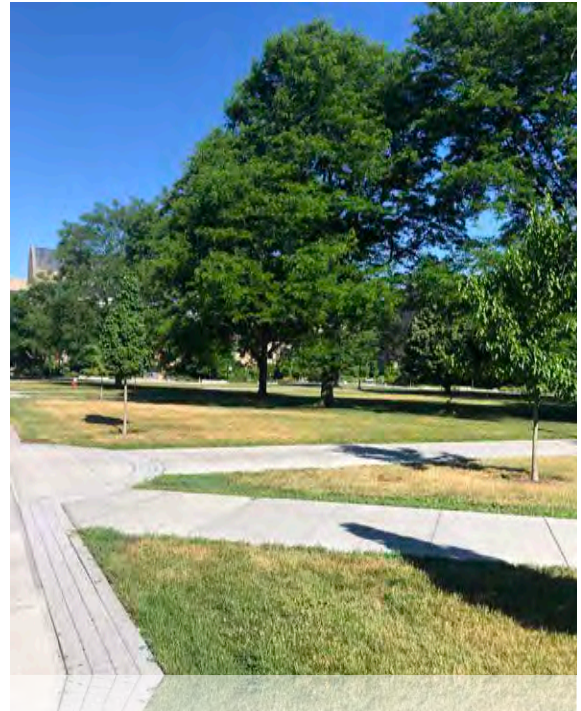
Gazing in the Grass

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“The first widespread dry period in the Northeast US over the last several years is beginning to reveal weaknesses in turfgrass management systems from golf, sports and grounds. Following some scattered intense thunderstorms over the weekend there will be “winners and losers” as dry and warm conditions begin entering early July. The recent rainfall will provide some reprieve but expect root growth to slowly decline as soil temperatures rise into the mid-70’s. It is all down hill from here for most cool season root systems. The bentgrasses and tall fescues may persist with some rooting however this is also the time when we begin to observe our first round of root pathogen problems. Take-all patch of bentgrass has been diagnosed as has some persistent anthracnose

and ABW damage on many annual bluegrass areas under stress. As temperatures have been rising and moisture continues to be limited summer patch samples are flowing into the diagnostic labs as roots that have been infected during the early season infection period will now become a “drag” on the annual bluegrass. The recent periods of high evaporative

demand have revealed significant drought stress issues that could be related to root pathogen infection. Curative fungicides can be effective in further limiting the fungus as are regular applications of MnSO₄ as shown in CT and NJ turf research. There are clear benefits to having dry turf conditions when good irrigation programs are implemented on high value turf. In general turf holds up under wear better when dry than when wet. Dry turf also means effective water management remains the signature practice at this time of year.



Summer Patch on Annual Bluegrass Collar

High ET Stresses Roots, Now Humidity Stresses Leaves!

As soil temperatures begin to reach into the mid 70's, especially in more sandy areas, any further drying will create stress. While generally good to allow for SOME moisture stress and deeper rooting heading into summer, care should be exercised that additional stress from infection of take-all on bentgrass and summer patch of annual bluegrass, as well any heat stress (as indicated by our FORECAST models), can lead to plant injury.

Using stress to aid long term turf performance is an important management strategy but there are limitations of such an approach when there are KNOWN stressors such as heat or moisture, when there could be UNKNOWN stress from root pathogens. Hopefully those who struggle with root diseases have some protection in place and if so have more flexibility. If you have a history of root pathogen problems be careful.

General putting surface decline has begun at many courses that have not been able to properly manage surface organic matter. These conditions create additional stress and often severe drought stress. Research at the University of Kentucky investigated a number of tank mix fungicide programs for bentgrass and annual bluegrass putting green turf through the heat of the summer to prevent drought stress. Sprays were applied every two weeks. Weather was highly favorable for disease development. Factors affecting turf quality in the plots included **brown patch, anthracnose, drought stress due to fairy ring**. Signature + Chipco 26GT alternating with Signature + Daconil Ultrex, Renown, and Tourney provided better control of the complex of anthracnose/brown patch/fairy ring-induced localized dry spot. *At the end of the trial plots treated with products that did not control anthracnose and fairy ring showed more drought stress damage than plots that did control anthracnose and fairy ring.*

The dollar spot models are indicating HIGH risk across the Northeast. Long associated with low nitrogen levels, there are now an array of maintenance practices recommended to reduce the incidence and severity of dollar spot. Often dollar spot is pressure is worse when a dry period is followed by wet conditions including heavy dew. Dew removal and general disruption of leaf wetness through air movement are effective at reducing dollar spot pressure. Furthermore, rolling of turf on a regular basis also has been found to reduce dollar spot. Nitrogen levels have been investigated for their role in dollar spot and it has been shown that rates required to prevent dollar spot are much higher than would be recommended for turf growth but could help recover from breakthrough. In fact, studies have shown Primo can help reduce dollar spot, but if dollar spot infestations breakthrough normal control programs then Primo can extend period when damage will be visible. When chemical control is required, we recommend using a predictive models such as the one we developed for FORECAST website and now a Smith-Kerns Model is available from UW-Madison. Once risk for disease is high selecting reduced risk products using the EIQ can provide effective control and minimize environmental impact. **△**

