

August 12, 2019

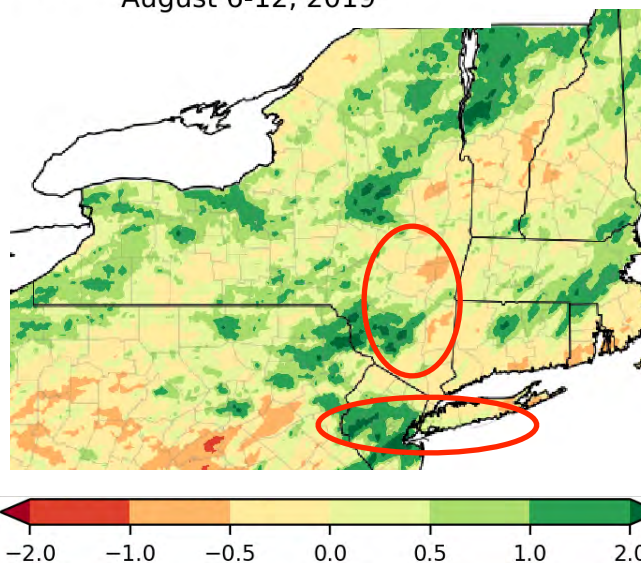
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Gazing in the Grass

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To date the growing season has remained within week of the 30 year average for growing degree days (GDD), suggesting that temperatures have been at or close to normal for much of the season. The last few weeks, except for a short-lived high temperature stretch at the end of July, have been pleasant. Moisture on other hand remains complicated at the extremes. A quick look at our FORECAST maps for Precipitation minus ET (inset image) demonstrates the extreme dry areas East of the Hudson River where a 4"+ difference in moisture exists within 30 miles. The same is true for the NY Metropolitan area where it seems the majority of precipitin is falling on our colleague over at Rutgers!

Precipitation Minus PET (inches)
August 6-12, 2019



These moisture extremes create diverse challenges for maintaining natural grass in poor soils, high levels of surface organic matter that restricts drainage causing roots to boil or become hydrophobic if allowed to dry down too far, and of course safe playing surfaces for our returning student athletes at all levels are more challenging with too much or too little moisture. These conditions highlight drainage issues when wet and irrigation delivery system issues when dry.

The one aspect of this growing season that continues to persist at very high levels is foliar disease pressure, especially in NY Metro area and south. The season began with persistent *Microdochium* Patch then as temperatures increased, widespread high levels of red thread in landscape, sports and golf turf. Starting in late June, and since July 2nd (about 45 days), 55 percent of the days have had high risk of conditions favorable for dollar spot infection, 45 percent for Brown Patch, very low risk of Pythium blight, but amazing Foliar Anthracnose Risk 85 percent of the days since July 2 have been high risk.

About 20 percent of the days in the NY Metro area have been conditions of high heat stress. This is likely why severe Pythium blight outbreaks have not been widespread. However that is expected to change in the next few days as temperature and moisture levels will increase and create high heat stress and high risk for Brown Patch all the way north into the Adirondack region and persist for several days. Be mindful of brown patch susceptible grasses.

High foliar disease pressure is creating a new challenge for lawn, sports and golf turf managers—Gray Leaf Spot. The disease is present and currently on display during the Rutgers Fine Turf Field Day waiting for conditions to become favorable. It appears that even resistant varieties from a few years ago are no longer resistant. Preventative fungicide use might be required on high value ryegrass and tall fescue.

Also, if planning any aggressive ryegrass overseeding in the next few weeks, be sure to select the most GLS resistant seed available (there are many new choices on the market today).

From a distance, initial gray leaf spot outbreaks resemble drought stress. Affected turf often assumes a blue-gray cast and is noticeably thinned by dead and decaying leaf blades. Close inspection reveals blighted leaves, some with distinct lesions. Because the epidemic progresses so rapidly, the leaf spot symptom may be short-lived. When leaf spots are apparent, they may be confused with symptoms caused by the other leaf spot diseases, therefore, accurate identification is critical. The importance of obtaining an accurate identification as soon as possible cannot be over emphasized. The disease spreads so fast and control is so expensive that a delay in identification can be very costly. From a maintenance perspective managing leaf wetness is an effective means for minimizing gray leaf spot in all hosts. Schedule irrigation early in the morning, before sunrise, and never in the late afternoon or evening. Prune or remove trees, shrubs, or other barriers to increase air movement and sunlight penetration.

Consider preventative fungicides labelled for control such as Heritage, Compass, Insignia, Daconil, thiophanate-methyl. On established stands avoid quick release nitrogen sources at this time to ryegrass, avoid prograss or dimension herbicides, increase mowing heights and remove clippings. Many fungicides offer excellent control and unless there is a history of infection than stick to curative control. Best options are strobilurin (QoI) fungicides such as Heritage, Compass, Insignia and Disarm. Resistance has been found with the QoI fungicides and if that is the case then go with 1 oz rate of Banner or Bayleton tank mixed with Daconil and then possibly a follow-up with curative QoI products to reduce the expression of resistance.

Synthetic Turf in Heat.

Several images have been circulated on Twitter showing a handheld infra-red thermometer that reveal the disparity among pavement, natural turf and synthetic infilled turf on an 85 F clear day. The pavement is 115F, the natural turf 98F and the synthetic turf at 158F. Of course this is the kind of information turf managers should be providing the users of the turf, recognizing there are not many options. This recent observation supports much of the research that has been conducted on surface heating. Mitigating these temperatures is not easy nor is it long lasting. Some have suggested a new type of infill “cool fill” as it is often referred to reduce surface heating. Others recommend irrigating the surface to reduce temperatures. The Penn State Center for Sports Surface Research has been evaluating these issues over the last several years and has concluded that there are different infill materials that do heat less but for practical purposes still warm above 135F as compared to 145F without the cool fill. Second, irrigating synthetic turf for cooling provides an immediate and short-lived benefit that mitigates the surface temperature for 15-30 minutes before it returns to its pre-wet state. It is best to offer athletes natural turf in the current warm weather conditions as there remains no solid solution for high heat stress conditions created on synthetic turf fields. ▲

