

July 29, 2019

Volume 20:9



Gazing in the Grass

Frank S. Rossi, Ph.D.

The return to seasonable weather over the weekend allowed for observation on the level of stress tolerance present in a turfgrass stand, or *not*. The image above is a good example of unirrigated lawn conditions in full sun areas without irrigation. Often there is enough moisture for summer annual weed success (crabgrass and goosegrass) and broadleaf plantain, but not enough to sustain active cool season turfgrass growth. Clover populations under these conditions are also starting to decline following a month-long flowering period. At this point in the season regular mowing serves as the best management practice for weed control.

The record heat passing through last week either brought very warm, humid and *dry*, or for many, *wet* conditions. Rainfall amounts

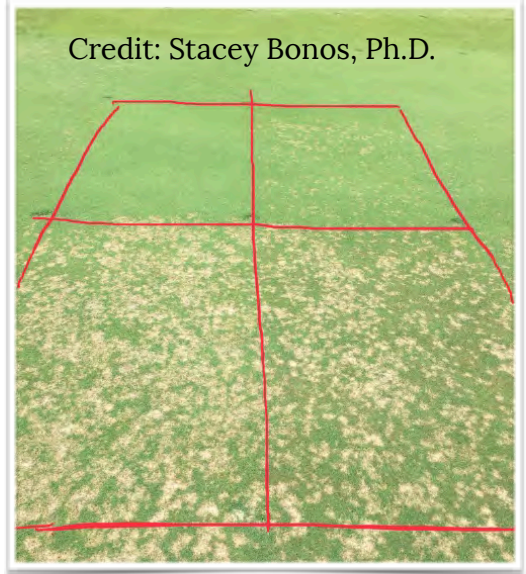
exceeded 4" in some places and <0.75" in others. ET levels are very high with almost 0.20" of water lost per day. GDD accumulations are within 7 days ahead or behind north and south of NYC. Heat stress was widespread last week, reaching high levels in the Adirondack region and now about to return this week. Several days this week expected to be warmer than normal with slight chance of rain.

Soil temperatures continue rise into the mid 70's to low 80's after several warm and steamy evenings from last week. This will place additional pressure on areas with a history of root pathogen problems. Rutgers Diagnostic Director Rich Buckley has indicated the first few samples of summer patch are "trickling" into the lab. Anthracnose samples are arriving to the lab at a regular pace, in spite of spray records that indicate significant fungicide use. *It seems unlikely we can spray our way out of these problems.*

The foliar disease models found on the FORECAST website are indicating high risk mid-week for brown patch, pythium, dollar spot and foliar anthracnose. With several weeks of heat and pest pressure ahead expect a decline in more susceptible plants, in spite of the regular use of fungicides. Fungicide intervals are likely at their tightest these days even when applied at highest label rates.

The benefits of modern turfgrass varieties are clear when bred with increased levels of disease resistance. The adjacent image from Professor Stacey Bonos (@staceybonos) of Rutgers University demonstrates the various levels of resistance in modern creeping bentgrass varieties. Turfgrass managers report significant reductions in fungicide use on large areas when planted to more resistant varieties. Additionally, managers that have allowed some pest damage to occur in their stands of annual bluegrass have also been selecting for more disease resistant “ecotypes”.

Underground, root pathogen pressure is about to peak with increasing amount of heat and drought stress conditions. The persistent wet and warm (>65F) soil conditions leads to more prolonged infection periods. These root infecting fungi live along the root surface, strategically penetrating the root and over time rendering the root non-functional. Failure of preventative controls is likely due to improper timing of fungicide drench, too low rate, or not enough water used to move fungicide down. At this point with soil temperatures above 80F, do not expect much recovery. For curative activity, Professor Lee Miller (@MUTurfPath) states in his monthly Disease Report: *Briskway, a multiple action DMI and QoI fungicide is suggested at the high 0.75 fl oz/M rate. A small dose of ammonium sulfate (~0.15 lb N/M) may also aid recovery, but should be used with some care in summer and properly watered in.*



Finally, high levels of crabgrass are obvious throughout the landscape. Areas treated with preemergence herbicides for crabgrass have been reporting breakthrough. The adjacent image from Professor Shawn Askew (@VTTurfweeds) indicates effectiveness of the correct product applied at the correct time at the correct rate. There could be more rapid breakdown of products under warm and moist soil conditions, or as UMass Weed Specialist Randy Prostack often states, “early down, early gone”. However, additional reasons for failure include poor application coverage, low turf density, and

the emergence of goosegrass, a more difficult to control summer annual weed. At this stage of the season, many will opt to simply mow crabgrass and maintain a uniform stand. However, larger crabgrass plants are not flowering yet, and can be controlled with the active ingredient quinclorac (not available in Drive on LI). Acclaim Extra will not be effective on larger plants. Do not reseed these areas for a few weeks to avoid Pythium and GLS issues if using TF and PR. ▲

