

Gazing in the Grass

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Widespread heat continues to create intense abiotic stress for much of the Northeast US but especially along the I-95 corridor. Temperatures are expected to be slightly cooler this week, but in practical terms plants will see little relief except inland and higher elevations that will see evening lows into the upper 50s low 60s.

Excess moisture is increasingly adding stress to already stressed turf areas. Recently, short intense

high volume bursts of rainfall that settle and accumulate in low spots, followed by bright sunny skies and warm temperatures invariably has lead to scalding (inset picture). Water creates an anaerobic environment that inhibits normal gas exchange and warms more rapidly due to higher heat capacity than air. Consequently the submerged plants experience **lethal** heat and anoxic (lack of oxygen) stress. Additionally plants adjacent to the scalded area are rooted in warm wet soils that will add enough stress for "secondary" issues such as anthracnose, brown patch, and Pythium to exploit weakened turf. Under excessive moisture conditions, fungal issues are modulated by temperature, not inhibited. Therefore, expect intense pressure from fungal pathogens and expect algae to develop in thin turf areas that will lead to further decline.

Finer textured soils with high percentages of silt and clay particles will be prone to compaction under the excess moisture conditions and will be difficult to manage. Aggressive approaches to restricting and rotating traffic are warranted due to the high risk of turf thinning from wear and confounding soil compaction. Sports turf managers with synthetic turf available for use would be wise to move sports traffic to those surfaces. Maintenance on very wet soils should be restricted to the driest areas to avoid rutting and shearing associated with turning. If mowing is restricted consider raising the height of cut when able to return to mowing to avoid stimulating excessive growth that results from warm wet soils. If Nitrogen fertilizer has been applied recently expect significant release and stimulation of top growth.

Normally this would be an ideal time to begin renovating turf areas in the Northeast. This is still an acceptable practice as it can capitalize on any favorable weather with the the following caveats: if soil is saturated wait until surface 1-2" dry, avoid aggressive soil amending at this time to avoid damaging soil structure, use disease resistant improved turfgrass species and varieties especially for gray leaf spot (GLS), and request fungicide treated seed (Apron-treatment) to reduce risk associated with seed bed Pythium.



Frequently Asked Questions (FAQ):

Last week I received several calls from new customers looking for an estimate for renovating their lawn that has been inundated with crabgrass. Many of these lawns are over 60% crabgrass. What happened and what can I offer clients?

Crabgrass populations have been extremely high throughout the Northeast this season. It is the largest widespread infestation the area has experienced in at least five years (memories are short on these issues). Most unprotected turfgrass areas have significant levels of infestation causing many DIYers to simply “mow what you’ve got” and consequently have predominantly “crabgrass-lawns”. For areas that did receive preemergence herbicides very early in the season, it appears many are breaking down and allowing crabgrass to invade, especially in the recent surge of moisture that did not help already weakened turf. The best protection came from well-timed May applications and in some cases split applications of preemergence products as often recommended under high pressure. Plants are now well beyond effective control with available herbicides in NY and most mowed crabgrass plants are not flowering aggressively at this time. There are options for renovation. There is an argument for **immediately** scalping the lawn to the soil surface, lightly vertical mow (dethatcher) to cut any rooted stolons growing along the surface, remove the debris and seed into exposed soil with a disease resistant perennial ryegrass or tall fescue at seed rates at the high end of the range (6-8 lbs per 1000). If you can purchase the seed treated with Apron for Pythium and other damping off issues that is ideal, otherwise in the current conditions apply a fungicide for protection applied when seedlings begin to emerge and soil can withstand traffic. **Delaying** renovation until some cooler, drier air arrives in the next few weeks consider a selective herbicide before crabgrass flowers, the follow the same guide as above, including some disease control if conditions persist into September.

Is Round-up a Carcinogen Worth \$298 Million?

A California jury recommended awarding a school grounds staff member \$298 million dollars in damages stemming from what was described as “responsible use of the product-Round-up”. This raises some very challenging questions for the green industry around the world. A significant percentage of the industry utilizes Round-up for vegetation control in difficult to maintain areas with few viable alternatives. When reviewing the information available as of this writing, the ruling appeared to rely heavily on a recent International Agency for Research on Cancer of the World Health Organization study that concluded there was “significant evidence of carcinogenicity [of Round-up]”. Interestingly the US EPA concluded in 1991 that there was evidence of non-carcinogenicity in humans reversing a 1985 decision that it was a possible carcinogen. Again court transcripts to date have not revealed the exact nature of the arguments or the prejudicial impact of the cancer-stricken worker testifying on the stand attempting to recall his regular handling of the material. Furthermore, Bayer that recently purchased Monsanto experienced a 10 percent drop in its stock prices the day after the ruling was announced. For an excellent review of the toxicology and epidemiology of the IARC Study that claimed carcinogenicity see <https://plantoutofplace.com/2018/08/glyphosate-and-cancer-revisited/>. You can also find the IARC report at <http://www.iarc.fr/en/media-centre/iarcnews/pdf/MonographVolume112.pdf>

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Bayer Shares Plunge After Monsanto Weed Killer Ruling
Jury in California found products presented a substantial danger to consumers

