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Gazing in the Grass

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A shift in weather pattern is expected this week following a few above normal weeks of temperatures, cooler conditions are expected. The warm soil temperatures are likely to retreat this coming week as well with plentiful moisture expected mid-week region-wide. Over the next few weeks, a strong north to south gradient will establish with cool, wet conditions to the north of NYC and warm and wet to the south NYC to Philly.



Germinating crabgrass seedlings observed in thin turf.

Most soil temperatures will start the week in the upper 40's north to upper 50's to the south. Except for the lack of sunlight due to cloudy weather, these will be excellent growing conditions for most well drained natural turfgrass areas and areas that do not receive regular traffic. However, poorly drained soil will be susceptible to compaction and rutting from maintenance traffic, so use caution when mowing to avoid creating other challenges.

Following the persistent and troublesome weed pressure from 2018, planning for summer weed management is critical. Historically, crabgrass has been the focus of summer weed management programs, primarily through a well-timed application of pre-emergence herbicides. Many crabgrass control programs were suspected of failure last season, and much of that failure is due to applications made too early in the season. These products do not remain active while crabgrass is germinating later into season. Also, failure of the programs could be related to excessive moisture or overall weak cool-season turfgrass.

A dense actively growing turf has been shown to significantly reduce the amount of crabgrass pressure but it will not always eliminate the threat. Studies from the 1980's have found fertilizing a thin turf can provide as much as 70 percent control of crabgrass. This of course is a driving factor behind the efficacy of corn gluten meal, a common organic pre-emergence crabgrass control product. This product supplies very high rates of N that increase turf density, however under normal crabgrass pressure in Northeast CGM often fails.

Crabgrass

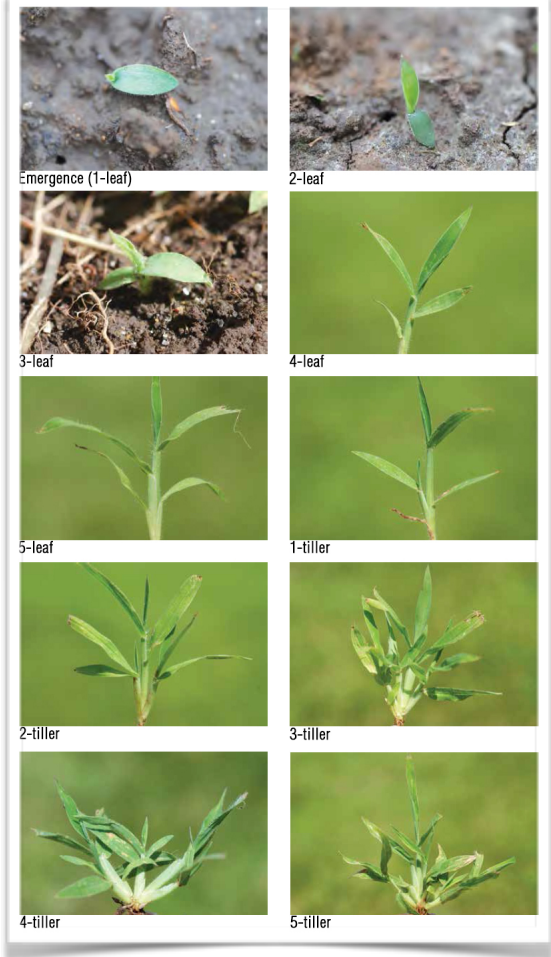
plants begin to germinate when the average daily soil temperatures reach 57 to 64 °F at a one-inch depth although large quantities of crabgrass seedlings will not start germinating until soil temperatures increase to 73 °F or above at a one-inch depth. Phenological indicators suggest active germination will occur at forsythia bush flower FULL bloom. Population studies have found that about 20% of the crabgrass will germinate until mid-June through much of the Northeast, then about between 70% of remaining plants will germinate until mid-July then the last 10%, round out the 12-14 weeks of persistent germination. A single crabgrass plant can grow into a large available bare spot, producing many tillers and seed heads. However, if many crabgrass seedlings were to emerge in that same bare spot, the individual plants would be very crowded by their neighbors, but in total, the same number of seed would still be produced. This allows plants to compensate for variability in germinating seed population and still produce sufficient number of seed to overwinter.

Small plants in dense turf areas develop very slowly and are very susceptible to early post control programs using sprayable Dithiopyr or Tenacity. These products offer excellent early to mid-post control of emerged crabgrass plants but have some caveats. First, delayed dithiopyr applications can persist into September and reduce seeding windows. In contrast, Tenacity offers excellent mid-post and only 6-8 weeks of pre-activity on crabgrass. Additionally, cool season turf can be seeded into the applied herbicide barrier. The Tenacity will “bleach” the existing crabgrass plants, as well as any creeping bent grass in the turf. This might warrant some communication with clientele or the use of triclopyr in a tank mix combination that has been shown to reduce bleaching.



False-Green Kyllinga

broader control. A significant amount of research is underway on both of these weeds at Rutgers University with Professor Matt Elmore. <https://njaes.rutgers.edu/fs1290/>



Crabgrass Growth Stages
Image Courtesy: Aaron Patten

Recently, in addition to intense crabgrass pressure in 2018, two other summer weed issues have emerged, goosegrass and false-green kyllinga (in the same Genus as yellow nutsedge). These plants generally thrive under warmer conditions than crabgrass species and are both becoming harder to control as many of our existing pre-emergence herbicides do not provide control. Additionally, post emergence control of false-green kyllinga has only one option in New York State, Sedgehammer. Other states with Dismiss, or Echelon have a few other options, all in the same herbicide family, sometimes mixed with pre-emergence for

