Sleepy Spring Waking Up

Weather

March was the 5th straight month with below average temperatures in Missouri, and April has also started out cool. Despite this, spring is occurring as evidenced by the greening zoysia, bursting Forsythia, and blooming daffodils. Many of our temperature thresholds are being met for weed control measures, and after a forecasted warm-up over the weekend may also be met for preventive disease control (see below for more detail).

Soil temperatures are rising across the area, and early spring 2014 seems to be eerily similar to 2013. As noted in the graphs below, most areas have fairly close soil temperatures between 2013 and 2014 (KC is a bit cooler), and the forecasted temperature spike over the weekend should mirror the spike that we experienced during the same period (4/8-4/11) in 2013. Next week is supposed to cool down, however, which should moderate the jump in soil temperatures.

Precipitation totals during the two-day early April severe weather event varied widely throughout the region. Columbia and St. Louis were caught in a deluge of over 4” of rain during the period (6-8” locally), whereas other areas received from 1.5 – 2” of rain. The Springfield area got another 0.75” or so earlier this week as well. Although it’s been a feast of precipitation for early April, it is definitely welcome. The last 10 months in a row in Columbia, MO) have experienced below average rainfall. As zoysia begins to green though, a sustained saturated soil condition could spell a large spring outbreak of zoysia pressure, like we experienced in 2013 after a deluge of rain in early May.
2013 vs. 2014: 2” soil temperatures in blue boxes indicate soil temperature on April 7 of each year. The black trend line is indicating spring is happening, albeit slowly.
Quick Hits:

- **Spring Thresholds:** Although spring may be lulling us to sleep, it is nigh time to start counting the beans and figuring out what stage of development our pests may be in. About a week earlier last year, I provided some detailed information on several pest thresholds that are commonly monitored for crabgrass, Poa seedhead suppression and fairy ring/dollar spot suppression ([click here to read the report](#)). Prostrate knotweed seedlings are up around campus in compacted areas around sidewalks. Crabgrass will probably soon follow, and we are well in the range for pre-emergent applications based on the base-32 growing degree day model (range = 250-500 DD). If Poa seedheads are an issue, we also are well within the range of both the base-50 (range = 50 – 100 DD) and base-32 (range = 220-501 DD) threshold ranges. For fairy ring disease prevention on putting greens (and perhaps some other disease prevention as well), we are still just a bit early to make the first application. Five-day 2” soil temperature averages are in the high 40’s and low 50’s throughout the area. This weekend’s temperature spike will probably bring it into the 55-60 F threshold briefly, so the application could be made next week, but in reality the next spike of high air temperatures into the 70’s may be a better target.
- **Cool season fairy ring:** With the above mention of fairy ring prevention, I should point out that some fairy ring activity has already been noted in the area. Fairy rings are often very noticeable as areas that green up quicker in dormant cool-season lawn turf. A few newly established greens in Columbia, MO (including one at the MU turf farm) also experienced some early season fairy ring. Clamp connected hyphae was noted throughout the soil profile and a musty smell was detected in a noticeably decomposed thatch layer. As is normally the case, a newly renovated green and soil system is fairly sterile, and “weird” diseases like a fairy ring can be the first invaders and become the first problem. These occurrences on established putting greens are fairly rare, and even on most newly renovated areas are the exception rather than the rule. In these cases, an earlier than normal fairy ring fungicide may be in order.
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- **Large Patch Fungicide Timing:** Last weekend, Dan Earlywine took advantage of a non-windy and non-rainy day (finally!) to apply fungicides targeted at large patch prevention. This dormant spray is a bit unique, but we are investigating the best timing (fall-2 timings and spring 2-timings) of a single fungicide application for control. The current recommendation is to apply 1-2 applications in the fall followed up by a curative clean-up applications in the spring.

- **Spring Fertilization:** A few days ago a blog post on the Mississippi State University Extension site asked *“Where does this guy Scott live?”*. This article brings to light a marketing strategy targeted at homeowners that employs a one size fits all fertilization scheme for home lawns. While spurring and promoting an action aimed at turfgrass health through entertainment, (which may be good), the campaign doesn’t quite do the job on education. Warm-season and cool-season turfgrasses are inherently different in their metabolism and growth habit, and require different N fertilization programs. Zoysiagrass is just now starting to wake up, and a fertilizer application during March Madness may not be used efficiently or may spur a disease problem such as large patch. Similarly, tall fescue can be fertilized now (along with a crabgrass pre-emerge), but in a few weeks an N application can light a brown patch fire and not be beneficial going into the summer stress season. Not a simple message to digest for homeowners, but a necessary one. [A previous report on this subject can be found here.](#)
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