Without meaning to state the obvious for everyone but it’s been a wet one! It is also the end of May and so the ‘honeymoon period’ may be at an end for yours truly!

As you can see in our data accumulated here at Sunshine Course rainfall has been voluminous and prolonged over the last week. It means you may have run into a range of management problems which will have short term and long term effects on your golf course. As courses vary in the amount of rainfall and thus the impact of the rainfall, the damaging effects you may have had will also vary. Drainage, temperature and level of submersion are all issues that will play a role in the health of your turfgrass during periods of high precipitation. Fortunately temperatures have not been excessive recently and this will save any major problems for golf courses in the current period. However if similar conditions arise, combined with increasing water temperatures (50 - 86°F), extended periods of submersion will become a greater problem. Another 2 inches is predicted over the weekend also!

Good aeration practices, drainage and practices aimed at maintaining healthy turf (past, present and future) will help managers get through the periods of extended submersion that some locations may be suffering from. The rainfall we have dealt with over the last week is certainly enough to have clay soils at field capacity (45-50% volumetric water content) and some golf greens have been at 30% volumetric water content (VWC) or higher. We have been able to measure this using the recently purchased TDR device which we wrote about last week.

**Climate:**

As you can see in Figure 1 there was a sudden increase in precipitation this week compared to the rest of the month and this has helped to push the values above 30 year averages (Figure 2). This followed a period of extreme wetness earlier this spring meaning that push up greens have been favoring *Poa annua* growth strongly.
The final total precipitation for the month may end up being substantially higher than what it currently is (Figure 2) and so we will update that going forward.

Average temperatures for the month have been pretty close to normal (Figure 3). However, there have been extremes which may have caused problems for golf courses that were trying to get their irrigation systems up and running following the extended winter of 2012-13.
Figure 3. Average monthly air temperatures for Sunshine Course, Lemont IL, compared to the 30 year average for Chicago.

The daily temperatures recorded are more appropriately described in figure 4, with extremes in heat being the only issue. It has been warmer this past week but a cool down is predicted to occur over the first weekend of June.

Figure 4. Daily temperature values for Sunshine Course, Lemont IL, May 2013.

Daily light has also varied dramatically as cloud cover coincided with rainfall. Rainfall increased towards the end of the month leading to an overall decline in light seen by turf on a daily basis (Figure 5). This lack of sunlight has left grasses somewhat in a deficit situation and would in effect, with temperatures and moisture combined, be ideal growing conditions for *Poa annua*. Thus if you think you have had a
poor spring of Poa control and management – you had limited control of it because it (Poa) was out of control!

![Daily light integral](image)

**Figure 5.** Daily light integrals on Sunshine Course during May 2013, Lemont IL.

**Management:**
Seed head regulation is now done for superintendents both on the north and south side of the city and so now superintendents are just managing the Poa and bentgrass for the rest of the season. The heavy seed head flush period begins right around now for the north side while the late flush is occurring now on the southern part of the city. On both sides of the city crabgrass germination is beginning. For guys in the southern part of the state, applications may already be late for good pre-emergence control of crabgrass germination. Post-emergent applications of quinclorac on turf may provide good control efficacy on young crabgrass, but extreme caution must be used on bentgrass greens. On creeping bentgrass, split applications of half rates are appropriate – do consult the label prior to use. The Japanese beetle, *Popillia japonica*, in the Chicago area is of little consequence right now. However in the southern part of the state warm temperatures so far mean that adult emergence is getting closer. If you have not looked into this already – you should be using the growing degree day tracker at [www.gddtracker.net](http://www.gddtracker.net) to make sure you are gaining appropriate information for your area.

**Disease problems:**
Diseases have been active although the cooling temperatures have reduced overall impact going into the weekend. Dollar spot was seen on untreated creeping bentgrass fairways in certain locations and also on some bent/Poa greens (Picture 1).

![Dollar spot](image)

**Picture 1.** Dollar spot on bentgrass poa greens at a golf course in the Chicago area May 30 2013.
Incidences of brown ring patch have not been reported this week so it seems like most golf courses have had a relatively good week. Minor incidences of leaf spot on tall fescue were recorded in cool shaded and low air movement locations on some tee boxes but not sufficient enough pressure to cause any large scale damage.

**Insects:**
The only other that popped up of note this week was ant mounds (Picture 2), and superintendents were making applications of products impacting the nervous system pathways to reduce the problem. The ants will appear as temperature increases and the soil nesting species being the problem on golf greens.

![Picture 2. Ant mounds on greens and collars with common ants such as silky field ant, *Formica subsericea*, and slender field ant, *Formica pallidefulva*, being a regular visitor to the region.](image)

**Strategies:**
This week I would like to talk about pH and the potential issues we run into here in the Great Lakes region. I have noticed that many superintendents say their pH is 7.5 or higher and that they are using acid injection systems. The reason for the high pH comes down to the presence of bicarbonates which are predominantly sodium bicarbonates (NaHCO₃) due to the limestone / shale bedrock that is found throughout much of Illinois. If there is no shale then the water would have higher concentrations of dissolved calcium bicarbonate (CaHCO₃). The effect of the high pH has been offered as a potential benefit to Poa growth but the argument is not conclusive. However, if you think you would like to try and lower the pH of your soil to between 6-7 to optimize nutrient uptake as well as offer potential suppression of Poa, then using an acidifying nitrogen source like ammonium sulfate is a way to make this happen. Applying the material in small incremental amounts will not ‘shock’ the turf and spoon feeding programs which apply no more than 0.2 lb N / 1000ft² every 14 days are recommended. Care should be taken when temperatures are above 80°F due to potential for high burn potential of the fertilizer salts. Also, avoid mixing ammonium sulfate with wetting agents. A light syringing can be applied immediately after treatment to prevent burn potential also. Its one of many tools that
superintendents have tried to use with some success in the battle against *Poa annua*. If you have questions let me know!

**Finally**
Last week correct answer was….. spring dead spot – on bermudagrass – of course unfair! This week will be somewhat easier!
Identify the structure….

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Dr. Lee Miller’s **bi-weekly** report can be found here:

[http://turfpath.missouri.edu/reports/update05_21_13.cfm](http://turfpath.missouri.edu/reports/update05_21_13.cfm)


As always if you have a question or query please do not hesitate to ask and you can call or email.

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The Sunshine Course would also like to thank Renny Jacobson with Common Sense Turf Management for donating his time and equipment to core aerify Sunshine Golf Course. Thank you again Renny!