

WEIBRING GOLF CLUB @ISU

Turf Care Update

Pre Conditioning our turf for the stress of the summer

Simulating drought stress early in the growing season

Generally, spring in Central Illinois does not allow us to control moisture (i.e. rain). We experience waves of sporadic rain events that leave us with wet feet. For a turf manager this is not preferred. In an ideal spring (there is not such thing) dry periods allow us to precondition the turf for the inevitable stress of the summer. In a hypothetical spring, our turf is given more than adequate moisture day after day. The physiological responses of the plant are muted. There is no need to grow roots downward in search of moisture, or release any hormones that would trigger the defense mechanisms of the above ground structures of the plant.

If an opportunity presents itself, which was the case for us at the end of last month, a dry period is utilized to trigger the plants physiological responses. We allowed our turf to become drought stressed, which means the amount of moisture in the area of root growth no longer surpasses the needs of the plant. We measure

our rootzones with a device that provides the Volumetric Water Content percentage (VWC%) of the areas. For our greens we maintain at least 10-11% VWC% (this is a site course specific # that varies based on soil, turf, and weather). During the dry period at the end of April, we allowed our VWC% to drop to 5-8% for 1-2 days. This forced the plants to initiate stress defenses such as increasing root depth and triggering hormone proteins for defense.



A picture of drought stress on a putting surface. The lines you see are areas of sod removed at some point for repairs. Changes of the soil profile from this sodding create varying moisture conditions for the turf. Absence of dew caused the lines, indicating a lack of moisture in the plant/soil



**LAWN TURF TIPS:
IRRIGATION**

I arrived early to the course on a Saturday and inspected the playing surfaces closely for moisture. I felt comfortable with the level the turf was stressed and did not make any application of irrigation. I had yet to run irrigation yet this year. I packed up and headed home. As I drove into my neighborhood I counted four yards being watered. Granted one of these yards was just sodded (valid reason to water). The others were all established yards, often the greenest in the neighborhood. In my opinion it is a waste of resources. I had not water my turf at the golf course, which is maintained at a tenth of an inch on sand based soils. There is no need to water a home lawn. Save water, save money. If you choose to water your home lawn, water to the depth of the roots infrequently. Water once a week for a long period versus everyday for a short period. And wait until it actually needs water...like July!

Golf Course Problems

A frost delay is a superintendent's least favorite way to start a morning. Walking, mowing, or driving across frost kills turf. Specifically it kills the individual cells of the plant. Cells are 99% water and during a frost the water in those cells is frozen. By walking, driving, or mowing during frost those cells are crushed and cell walls are broken, causing the cell to perish. The result, once things warm and thaw, is a brown leaf blade.

Simulating drought stress early in the growing season (Continued)

It is believed that once these stress defenses are released they trigger, or respond, more quickly upon any future stress. In other words, once the plants release these stress defenses they are ready for any future tough situation (within limits). For us this is called August! What it means for the golfers is really firm and fast greens. We experienced our fastest green speeds of the season topping out at >12.5 on the stimp meter. I received feedback from some that the greens were way too fast and needed water, while others said they were perfect keep them like this! Welcome to the world of a superintendent and green speed. But Stacey Miller, our Asst. Pro, defended the green speeds to the naysayers pointing out that "fast greens equals more made putts." Thanks Stacey! I think....

“How many trees did you take out?”

We are finally reaching the end of tree removals from Emerald Ash Borer. While it has taken longer than all had hoped, we squeezed in a mass removal just before the rain. I have been asked by many, "how many did you take out?" The answer this time was 49! We contracted Beirbaum Tree service to handle the task. This decision was primarily to reduce the potential for catastrophic injury. Our crew is more than capable of handling tree removals in-house, but with the danger involved, it was best to allow professional to handle the project. We could have saved a significant amount of money by handling it ourselves, but one mistake or one miscalculation of the decay within the middle of the tree, would quickly wipe out any savings due to high cost of potential medical and liability issues.



Tree removal left of 5 fairway.

We have replanted 50 trees in the last two years in anticipation of these mass removals. We will continue this practice for another year or two until the course regains its natural park-style feel. We are implementing high-cut rough hillocks to offset the lose of trees. We will maintain these areas at a height of 5 inches providing a difficult area you will want to avoid, without causing increases in lost balls and slow play. Thanks for your patients through the many years of removals and replacements.

-Travis Williams, Golf Course Supt.