April 1, 2011 Scouting Report – A Cold Week: Growth Temporarily on Hold, 1st Poa Seedhead, and Tim's NCERA Bentgrass Color Report

Chicago/Northern Illinois Update: Derek Settle - *DSettle@cdga.org*

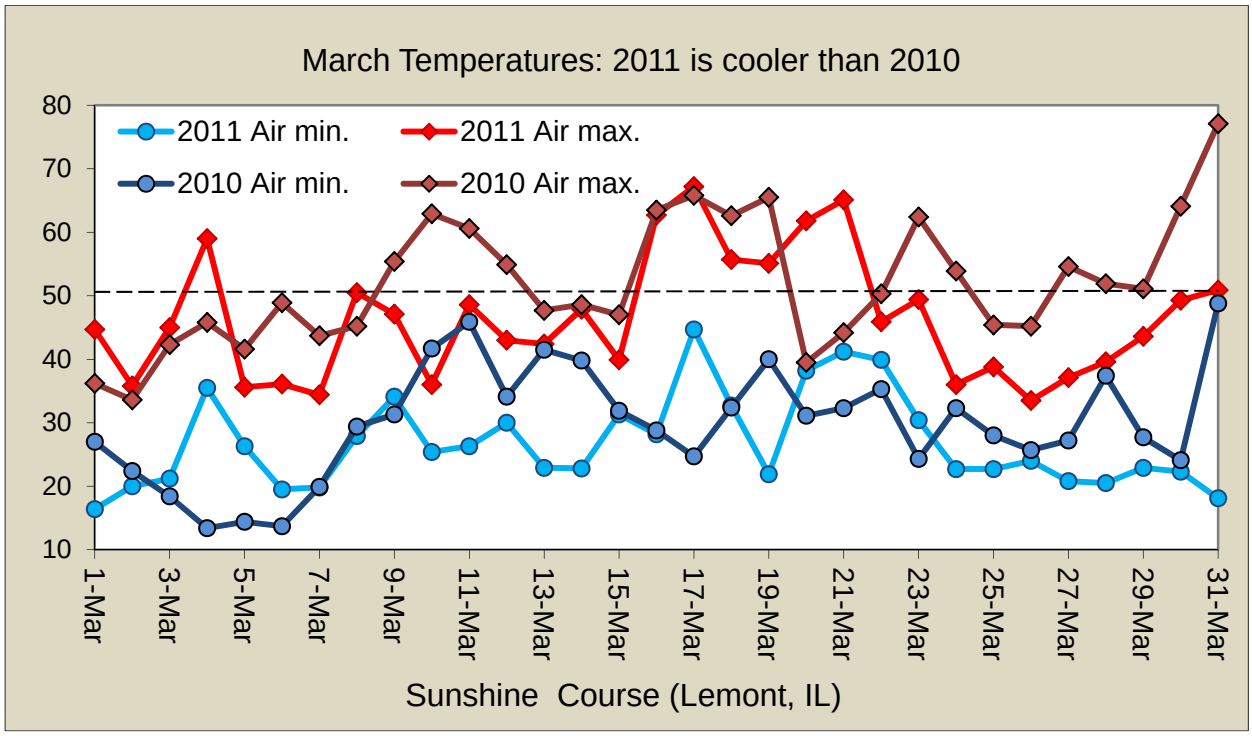
April Fools? Today, weathermen were talking about a significant change in the forecast. It goes something like this. "...it now appears enough cold air will get into the system for a classic late-season heavy snow event…" "I plan to drop temperatures across the board..." Yikes! Compared to a year ago, a very different kind of April Fools was underway. In 2010 on April 1st we began an experience of back-to-back 80° F highs in Illinois. The rapid warmup was unusual and set new records of warmth across much of the country. Degree Days ramped and our yellow flowers responded – daffodil, forsythia, and Poa. Fast forward to 2011. This April Fools' Day is 40 degrees cooler and, if that weren't enough, it also managed to rain with hints of snow. Meanwhile, I continued scouting early spring flowers, but only little *Poa annua* said hello.

A superintendent and Dr. Randy Kane cross dormant Kentucky bluegrass to check on a golf green. In town from Maine, Randy visited a few courses and enjoyed the weather? *Settle 3-31-11*

Nevertheless, this slow-spring has remained on schedule for many golf course superintendents. Semi-dormant fairways received their first mowing and a few golfers even began to play. Some even hosted a plant pathologist from Maine who talked of 100+ inches of snow. No April Fools.

Weather – Colder than we like for March

Interestingly enough, if you stick with something long enough you learn a few things. Work hard AND smart as I like to say. March provides us with a change of seasons – winter ends and spring begins. March is an 'interesting' month. A transitional time on our calendar with temperatures that meander up and down. But overall, we do enjoy March's temperature climb.
Data: on average this March was markedly cooler compareed to a year ago in 2010. Phenology: flower indicators are also telling us its a slow-spring (no daffodil or forsythia bloom in Chicago).



2011 is cooler. A graphical comparison of March 2010 (darker line colors) versus March 2011.

Comparison of March 2010 (warm) versus March 2011 (cool) from Sunshine Course Lemont IL.

Lemont, IL	**March, 2010**	**March, 2011**	**Difference**
Temperature data	**°F**	**°F**	2011 is cooler by
Air low	29.8	26.8	3.0 °F
Air high	52.0	46.4	5.6 °F
Air average	40.7	36.7	4.0 °F
Soil (2 inch depth)	39.9	38.6	1.3 °F
Growing Degree Day	**to March 31**	**to March 31**	2011 is behind by
[1,3]Base 32	290	242	48 GDD
[2]Base 50	21	10	11 GDD

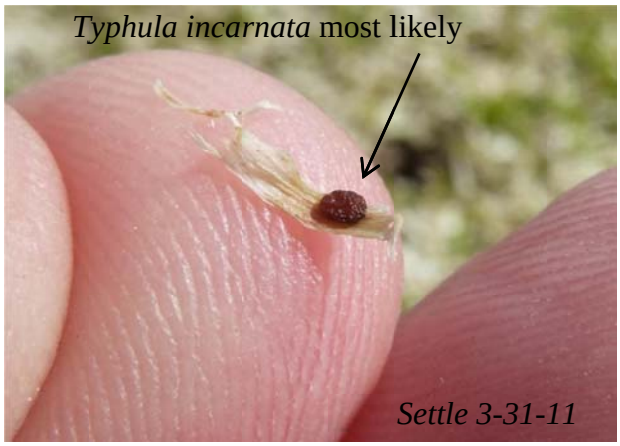
[1]GDD32 calculation = Average air temperature minus 32. Positive values accumulate each day.
[2]GDD50 calculation = Average air temperature minus 50. Positive values accumulate each day.
[3]*Poa annua* Seedhead Suppression with Proxy/Primo (Ron Calhoun, 2004). Base Temperature: 32 degrees F, Target GDD Range: 200-500: Current thinking from MSU, based on recent success and failures, suggests that superintendents wait for two mowings after full green-up or 200-250 growing degree-days on the GDD32 degree-day model. http://www.gddtracker.net/

We continue to deal with few issues. Here's 2 that concern turf health

1st Poa Seedhead. If you scout, eventually you will find issues in the landscape. It's important, since often we need to anticipate pest issues as best as we can. For example, this week I found my first *Poa annua* seedhead on Sunshine Course. It's first appearance was within a few days of April 1st and matched the GDD32 Poa seedhead model developed by Dr. Ron Calhoun, MSU.

Remanants of flood injury from summer 2010 create an open area and *Poa annua* fills in. Since its construction in 2002, a similar level has never existed on Sunshine Course. *Settle 3-29-11*

Gray snow mold (*Typhula* sp.). On a tour of a golf course with Dr. Randy Kane and the superintendent had located a fairway area of snow mold that had apparently gone unnoticed this spring. On my knees I found sclerotia embedded in leaves, this told us it was more than just pink snow mold. The sclerotia were pink to reddish brown in color and were visible to the naked eye (relatively large). A few species of gray snow mold exist. Why do we care? Identification may be useful because one gray snow mold, *T. isikariensis*, is considered more difficult to control.



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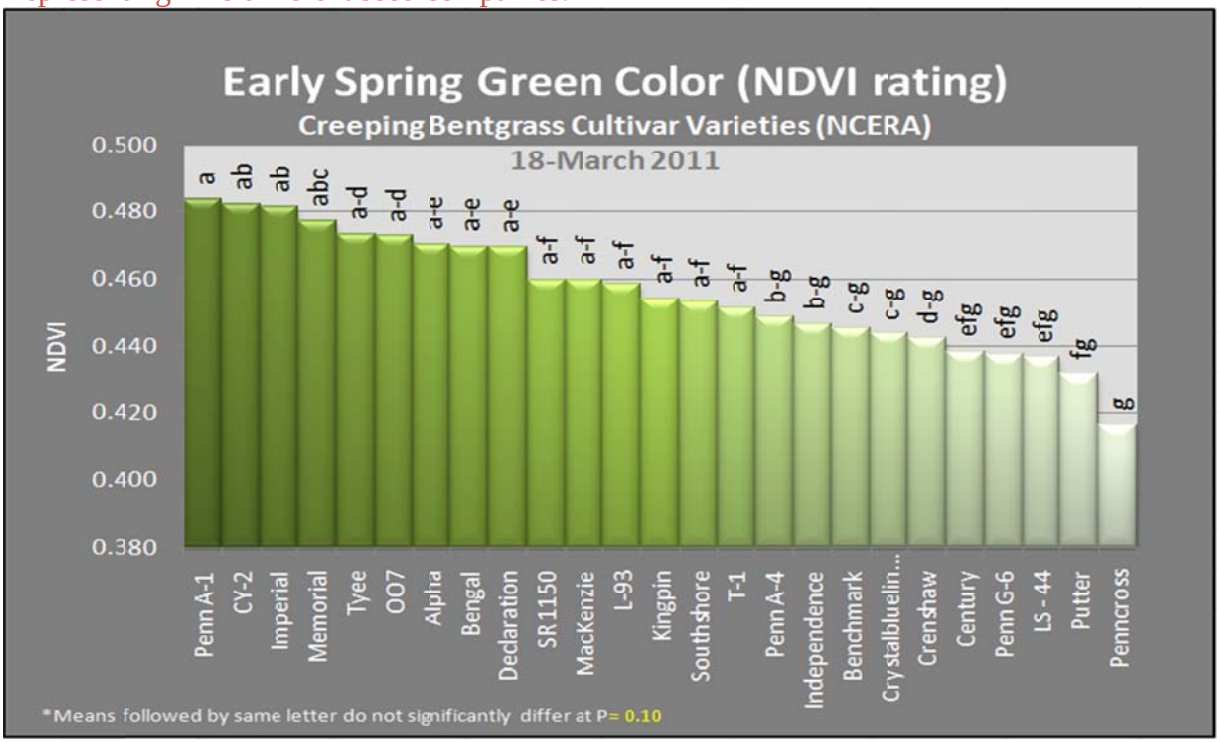
Creeping Bentgrass Cultivars in the Midwest – Spring Colors

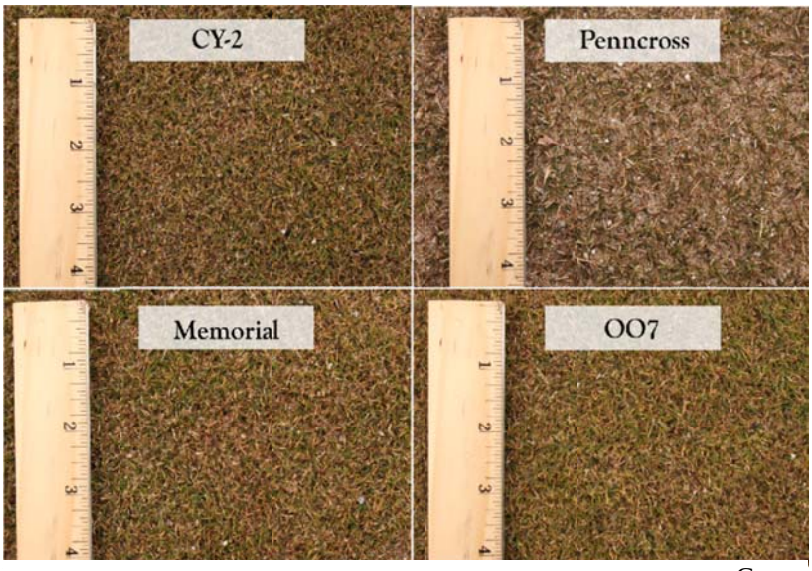
Spring is here, or so at least I thought it was until seeing snowflakes today mixed with falling Chicago rains. Mother Nature must have taken note that it is Friday, April 1st. So far she has spoiled us with a few nice days thus far to let us know that winter is far behind us. In the coming weeks we are looking to forward to the new plant growth that will drastically brighten the landscape. There are buds swelling on the trees, blooms on the earliest of ornamentals, the sprouting of first flower bulbs, and most importantly us signs of green grass ahead!

The CDGA's Sunshine Course, with use of your imagination, seems like a life size game of checkers. Some turf varieties in our trials have a more green color, others remaining yellow, brown or even reddish in appearance due to the genetic traits acquired by plant breeding. Last year was the first full year of growth for the NCERA creeping bentgrass putting green variety trial which was initially seeded back in the fall of 2009. The project is a collaboration of researchers representing 11 universities and the Chicago District Golf Association. It is part of North Central Extension and Research Association (NCERA-192) for turfgrass research. On the new putting green there are 25 commercially available creeping bentgrass varieties being tested representing nine different seed companies.



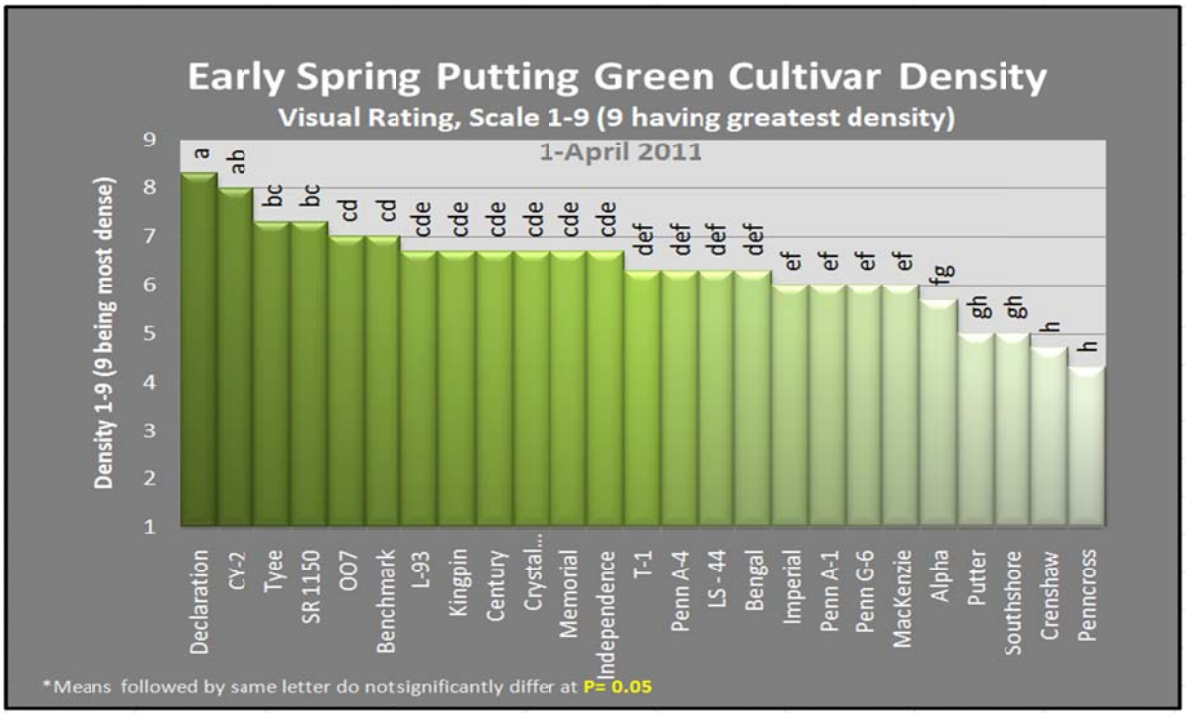
We are determining differences in color using a Spectrum Technologies instrument called the Turf Color Meter (TCM500). This is a great tool that can be used to quantify the visual appearance of turfgrass vegetation without any bias of researcher preference (2 main factors = color and density). The Color Meter can provide a numerical indicator called NDVI or Normalized Difference Vegetation Index. The cultivars with the greenest color in combination with density result in a higher number and the top six rated varieties for NDVI index shown in the figure above include Penn A-1, CY-2, Imperial, Memorial, Tyee and OO7. The poorest

varieties for early spring green-up by NDVI included Penncross, Putter, LS-44, Penn G-6, Century and Crenshaw.



Density also plays a strong role when rating for visual quality in putting greens and varieties with the highest densities include Declaration, CY-2, Tyee, SR1150, OO7 and benchmark. Declaration is a variety by Lebanon that has also been shown to have excellent genetic traits for resistance to dollar spot disease as a way to reduce fungicide inputs. A concern with high density varieties like Declaration is that they need to be more aggressively managed by use of cultural practices to prevent any excessive thatch accumulation or buildup which may cause "puffiness". The variety CY-2 appears similar in density to Declaration this spring, a major difference being a much lighter, lime-green color. The varieties of Tyee, SR1150 and OO7 are also good varieties by Seed Research of Oregon having moderate levels of density, and acceptable NDVI index levels. Varieties that have unacceptable early spring density in the trial include, Penncross, Crenshaw, Southshore, Putter and Alpha and can be easily picked out among the others by the visibility of the sand from the fall topdressing in between the individual bentgrass plants. There are many improvements in creeping bentgrass varieties and tests like the NCERA variety trial allow for managers to make the best selection possible.

-Green,



Final images – birds and colors

Dr. Randy Kane, "Do you hear that? There!" A troop of 6 cedar waxwings were making noise and gulping fruit from the highest branches of a crabapple tree, Oak Brook, IL. *Settle 3-31-11*

Color! Distinctive turf color determined by dormancy, species, and cutting height. *Settle 3-31-11*

We're getting greener and we like it!
Derek, Tim, Nick and Chris The CDGA Turfgrass Program