September 3, 2010 Scouting Report – It's September, It's Labor Day Weekend: Dry conditions peak, Roughs go dormant, Mosquito spray, Summer patch, Mystery patch, Type 1 Fairy Ring, Pythium blight, Tim's Poa control data, and Nick says "wordpress"

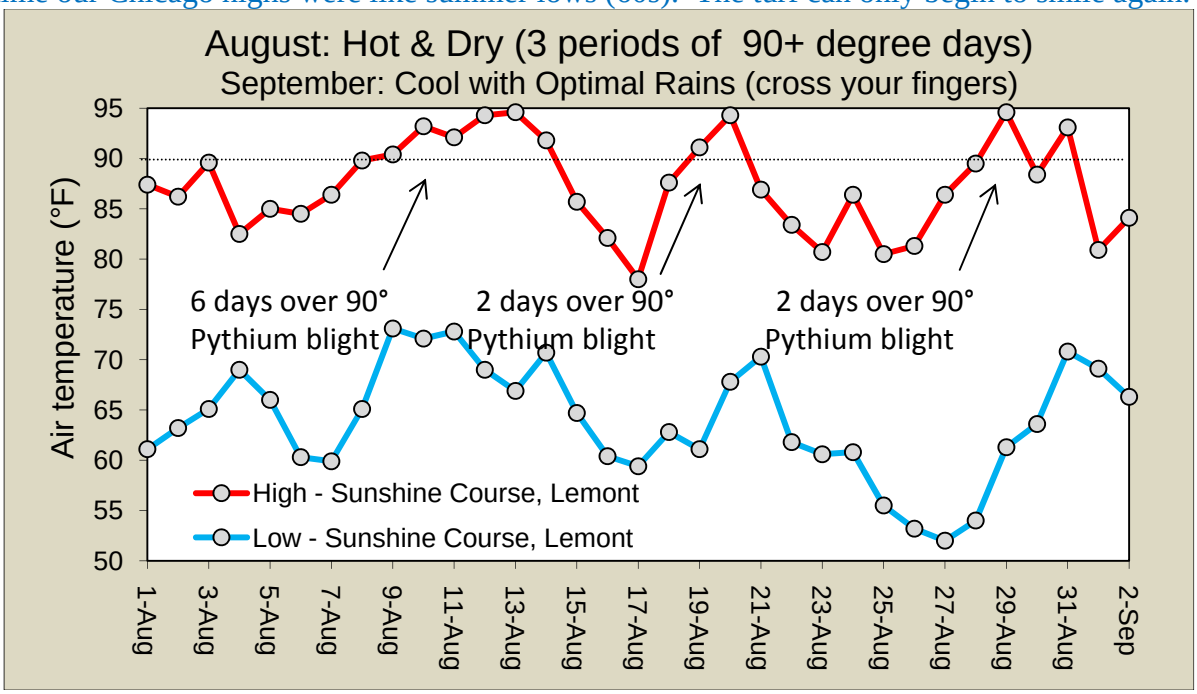
Chicago/Northern Illinois Update: Derek Settle - *DSettle@cdga.org*

Lucky number 18? It turns out weathermen run statistics at the end of each month. We now know Chicago's recent June to August period was the 18th hottest and 18th wettest. Other regions were similar and some even hotter. For example, the Chicago Tribune recently reported on Central Park's temperature in New York City. "For June through August, the historic average for Central Park is 73.9 degrees, and it was 77.8 this year. The previous record high was 77.3 in 1966." Another historic meteorological average blown out of the water. In my mind 2010 comes down to two items. 1) Extreme: Record breaking temperatures and large precipitation totals. 2) Consistent: Weather parameters (e.g., temperature and relative humidity) can be very different week to week. It keeps us on our toes and is why I write weekly reports. However, a big record in Chicago was all about being consistent (i.e., longest stretch of 80+ days ever recorded). Entire swaths of the country also suffered the same persistent heat and humidity as well as flooding. That kind of consistency just devastates plant health. Plants adapted to cool climates need an occasional break in summer heat. It allows recovery and replenish food reserves (root carbohydrate store). Summer 2010 gave few breaks in the heat and our turf still shows it (no roots), increasingly so does the landscape (premature leaf drop). Not-so-lucky number 18!

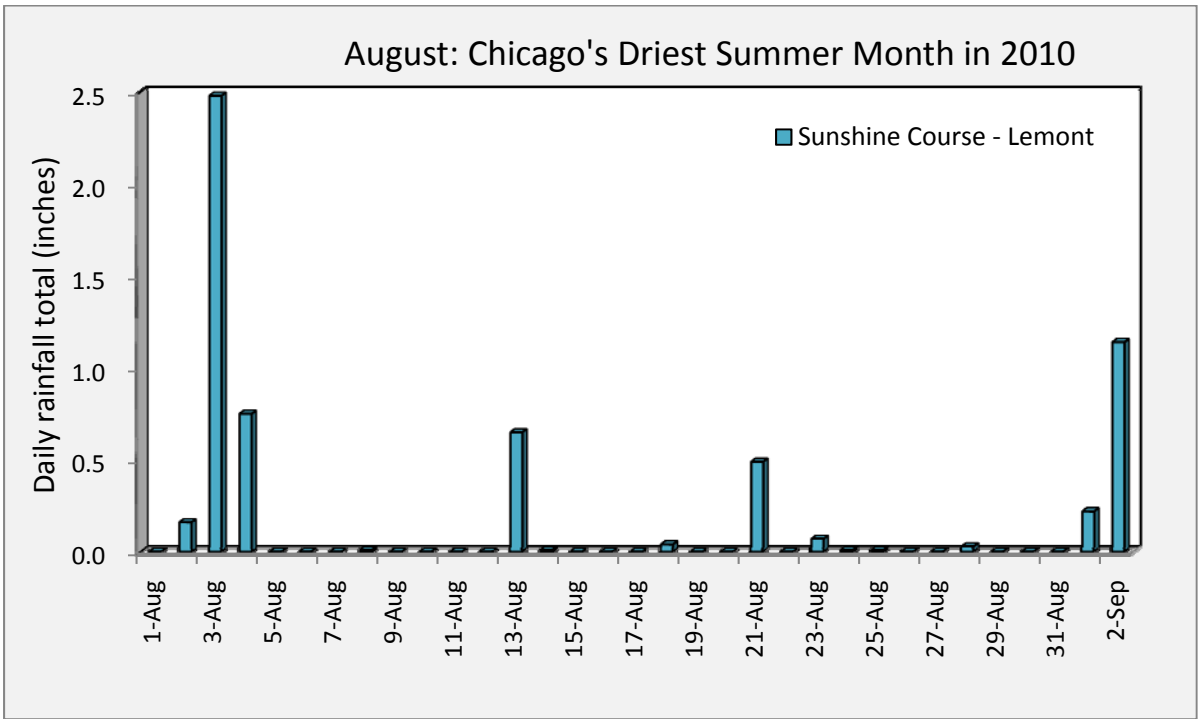
A Rough Life. This dry week in Chicago has ugly roughs. Drought stress cumulated this week and made low maintenance areas of golf courses look as bad as we have seen. *Settle 8-31-10*

Rains Return as well as Cool Daytime Highs – sub-70 degree highs in forecast

A cold front is coming. This is the nicest forecast for Turfdom since we began our hot summer season on July 4th, maybe not-so-nice for Labor Day water sports. Some are saying Friday and Saturday won't make 70 degrees for highs. It means you will be reminded of mid-May, the last time our Chicago highs were like summer lows (60s). The turf can only begin to smile again.



August: Three waves of peak summer temperatures occurred with outbreaks of Pythium blight.



Rainfall = 4.7 inches. For Chicago's golf courses, August was by far the driest summer month in 2010. In comparison we measured 9.2 inches in June and 8.5 inches in July on Sunshine Course.

Select Issues This DRY Week (abiotic and biotic) – temperatures went from hot to cool

You're Toast – Look out, golfer on the loose with mosquito repellant. *topic idea Matt Bayler* Little to say other than this is not a disease (**abiotic**), but the effect can be as bad if not worse. In an especially warm and humid year resplendent with frequent floods, record Chicago's mosquito populations would make the national news as well as the predacious dragon fly. Our pain (itch) was also felt by turf (ouch). Superintendents would report damage to me. Usually the number 1 teebox was hardest hit. This rapid 'blight' by bug spray was all too common in 2010. In rare instances a golfer might decide to do the deed on a green. Later that day...or for the week...or for the month the entire club membership will evaluate the perpetrator's shoe size. As a police officer might say 'Perp'. Do you want to be the Perp of injury to number 1 green? (**see image**)

Size 9 ½. An error in judgment on this golf green did one good thing. It illustrated good seed germination of bentgrass is now occurring after a midsummer pause in Chicago. *Settle 8-31-10*

You see, a green is especially sensitive to all product applications. For example, when a day reaches 90+ degrees (~10 of those in August, 2010) a superintendent will have to weigh whether the risk of an application is worth the gain. In general, they will likely wait another day. Ultra low mowing heights make for ultra low tolerance to just about everything. Imagine you are a golf green. Your life now depends on living and breathing aboveground with a crown and leaf blade maintained 1/8 inch high. Mosquito repellant on a hot day will mean one thing for you – You're Toast. As a sixteen year old might say 'You're literally Toast'.

Root/Soil Issues: Summer patch *Magnaporthe poae* (biotic), and Mystery patches (abiotic?)

Summer patch. Although uncommon on greens, in this instance summer patch seems to have progressed onto its surface. patches 2-4 inches in diameter affect *Poa annua* only. *Settle 8-30-10*

Mystery patch. Dry means wilted patches of unknown origin began to appear on greens. Whether it's hydrophobic sands, fairy ring, a root dysfunction, or not understood. *Settle 9-1-10*

Type 1 Fairy Ring, various basidiomycete fungi (biotic) and Pythium blight (biotic)

Type 1 fairy ring. Dry means fairy ring can become aggressive. As fungal mycelium grows in radial patterns in the upper thatch layer, hydrophobic rings of soil cause wilt stress. *Settle 9-1-10*

Pythium blight. *Pythium aphanidermatum,* strikes a teebox on Wednesday one day after a 93.1 degree high temperature. This fungus prefers it hot, rapidly blights, and kills turf. *Settle 9-1-10*

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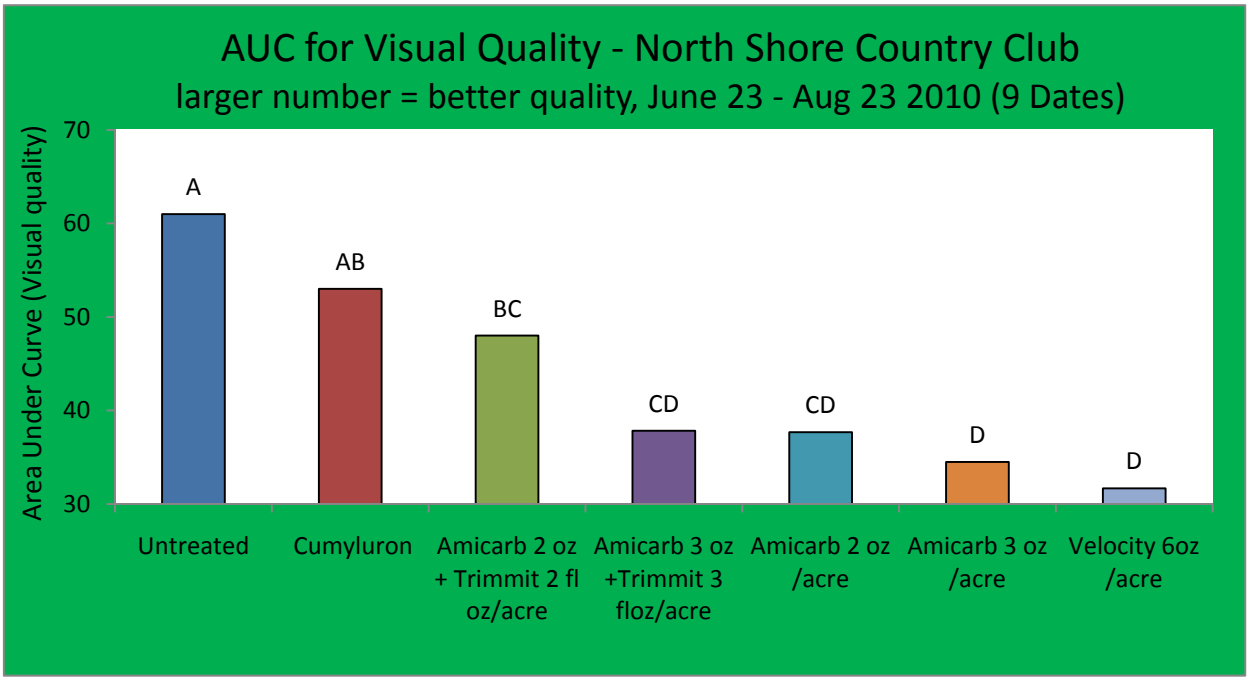
Herbicide Control of Poa annua

Annual bluegrass (*Poa annua*) is a weed that many superintendents often manage instead of making efforts to control. Its persistence, invasiveness and ability to tolerate the closest of mowing heights and reproduce from year to year, make it an excellent 'plant out of place'. Annual bluegrass is a summer annual, with germination from seed and vegetative growth stage occurring in the spring and early summer followed by reproductive growth in the early summer months. Its life cycle tells us that this species should die in the summer time, but with daily and careful management, we are able to manage this grass as a perennial system. Until most recent years, superintendents have had few tools for adequate post emergent control of this weed, but now companies have begun to introduce and test new products to selectively control *Poa annua* from a creeping bentgrass system. Three good prospects now exist 1) Velocity, a product produced by Valent has gained increasing use and popularity. 2) Amicarbazone is a new product by Arysta. 3) Cumyluron (HM993) by Helena Chemical sometimes referred to as 'Japanese buttermilk' (Dernoedon).

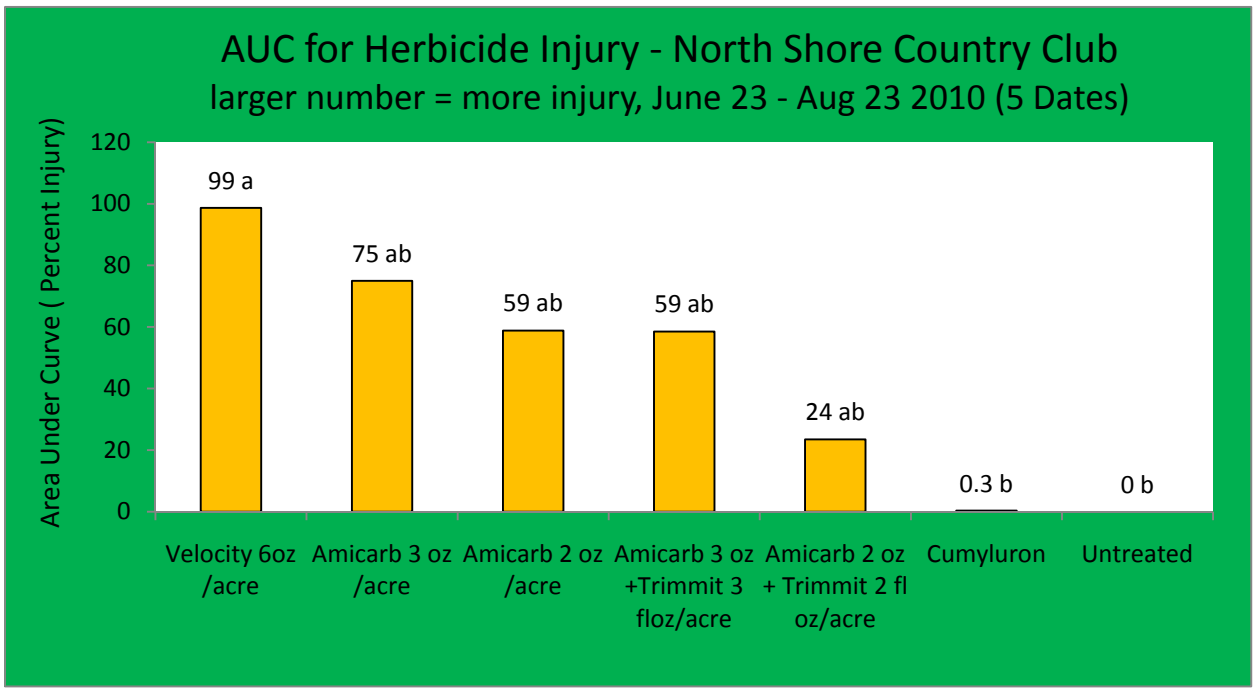
Table 1.
Poa annua Control Treatments
North Shore CC and Sunshine Course

#	Trt	Application Rate	9-Jun	23-Jun
1	Untreated Check			
2	Amicarbazone + Non-Ionic Surfactant	2 oz/acre (0.25% v/v)	X	X
3	Amicarbazone + Trimmit + Non-Ionic Surfactant	2 oz/acre 2 fl oz/ acre (0.25% v/v)	X	X
4	Amicarbazone + Non-Ionic Surfactant	3 oz/acre (0.25% v/v)	X	X
5	Amicarbazone + Trimmit + Non-Ionic Surfactant	3 oz/acre 3 fl oz/ acre (0.25% v/v)	X	X
6	Cumyluron (HM993O)	6 fl oz/1000	X	X
7	Velocity	6 oz /acre	X	X



The study was conducted at two locations on established 'L-93' bentgrass fairways with similar levels of annual bluegrass invasion (range 3 to 10% per plot) at Sunshine Course in Lemont, IL and North Shore Country Club in Glenview, IL. Two applications were made, starting June 9, 2010 at a 14 day interval rate.

Treatments included:
1 & 2) Two rates of Amicarbazone at the 2 oz and 3 oz/acre rate
3 & 4) Two rates of Amicarbazone at the 2 oz and 3 oz/acre rate with growth regulator Trimmit
5) Velocity Herbicide at a 6 oz/acre rate (shown on label for 'rapid conversion')
6) Cumyluron at a 6 oz/acre rate



The results at the two locations were similar and highest rates of creeping bentgrass injury occurred from Velocity herbicide. Despite injury, Velocity effectively and quickly eliminated *Poa annua*. Amicarbazone at the 2 and the 3 oz rates were still too high as levels of injury were far from acceptable. The inclusion of Trimmit with Amicarbazone at the 2 oz/acre was the only Amicarbazone treatment where 30 days following treatments quality levels that had risen back up to borderline acceptable. The Amicarbazone treatments that included Trimmit at both locations suffered lower visual quality ratings immediately following treatments.

More research is needed. More and more, researchers are conducting trials at lower rates with more applications to reduce risk of injury to bentgrass by selective herbicides for *Poa annua* control. Cumyluron proved to be an interesting product and there are still visible differences in color from the other plots nearly two and a half months following its last application! This product seems to work at a slower rate and we will continue to monitor its control of *Poa annua*.

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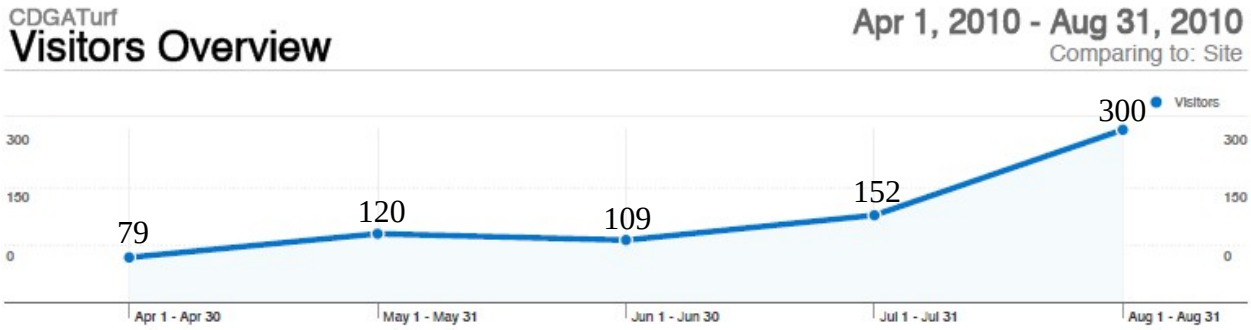
Research Assistant and Internet Communications Manager

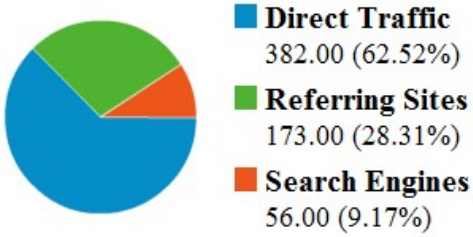
Website Updates and Stats

The guys and I have been busy preparing for the 2010 iTurfExpo on September 22nd. Five months worth of ratings and observations are being condensed into research summaries (13 in total). We are now saying what many golf course superintendents have been saying this summer – Bring on the snow!

For me, September means reviewing the progress of our website and internet communications. Since its rollout in April, our website has had a 250% increase in hits month-to-month. Our twitter account 'TurfResearch' has also had a great response and we are up to 130 followers. This has been a great first year for our web communications.



I have a lot planned this winter for the website, and am looking forward to implementing the skills I have picked up. One major improvement is to add a wordpress blog to the CDGA site. I recently discovered that wordpress is essentially a program, or an app if you will. It can be uploaded/added to any website. Blogs are great for search engine optimization because, "they are spidered so easily due to their structure of categories, tags etc.: all articles are well linked, and usually the markup is nice and clean." (yoast.com)



Currently, only 10% of the visits to the CDGA turf website are from search engines. Direct traffic takes up 62% followed by referral sites at 28%. My goal for next year is to have the traffic from search engines be between 20 and 30%. As always, thank you for your continued support.

Direct traffic – A user visits our website by typing the URL in their browser or by a saved bookmark.
Referring Sites - A user is on www.example.com and clicks on a link that brings them to http://cdgaturf.com. The link could be text or an image (banner ad) etc.
Search Engines – A user performs a search through a search engine and clicks on a link to our site as a result.

Final images – Nature

Domestic honey bees, *Apis mellifera* are of different coloration than feral/wild bees. These domestic bees produce honey and have a good life at Cantigny Golf in Wheaton. *Settle 8-30-10*

Quick facts. No honey bees are native to America. In 1622, Europeans introduced the dark bee (*A. m. mellifera*) then Italian bees (*A. m. ligustica*) and others. Unable to cross the Rocky Mountains, honey bees did not reach California until the 1850s – ship cargo. *Settle 8-30-10*

Thank you for your continued support and communication…
Derek, Tim, and Nick – The CDGA Turfgrass Program