



October 21, 2011 Scouting Report – Cold, Windy and Wet: Dollar Spot’s Last Dance, Rust Rages, Yellow Tuft, Earthworm Activity, and Tim’s Nice Summary of Dollar Spot in 2011

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It was Thursday and my daily notes said, "Clouds are above and light rain is falling. It all began Wednesday with 0.75 inch recorded on Sunshine Course." As it turned out, Chicago had been enjoying an Indian Summer the first two weeks of October, but by the 20th our high would not cross 50 degrees. Weathermen would tell us it was our coldest day since 26 May. It got windy too and little Sunshine Course recorded winds at 9-19 mph every hour that same day. Now that's unusual. Closer to Lake Michigan, Soldier Field would clock gusts of 53 mph and north shore places like Highland Park would feel winds of 45 mph. In the landscape the cold, wet, windy weather meant the peak fall color of many trees promptly ended. Within the week, cottonwood leaves would be completely down, though I had to wait to see the change – I was out of town.

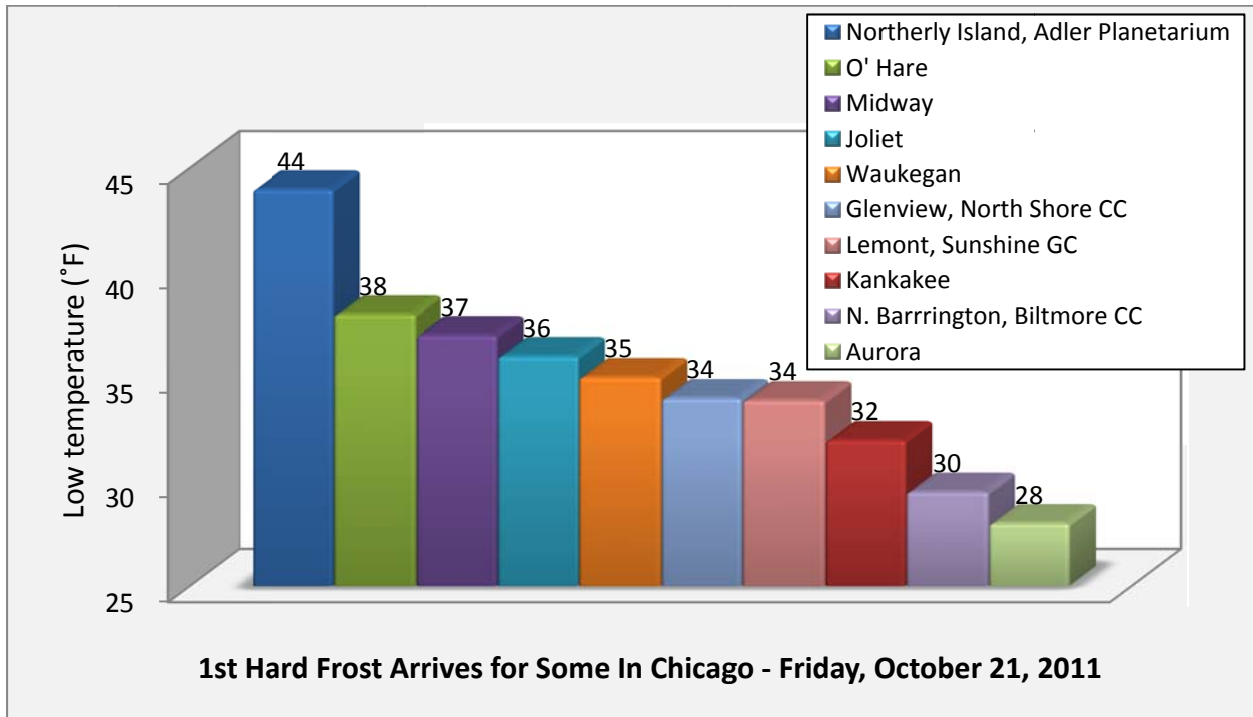
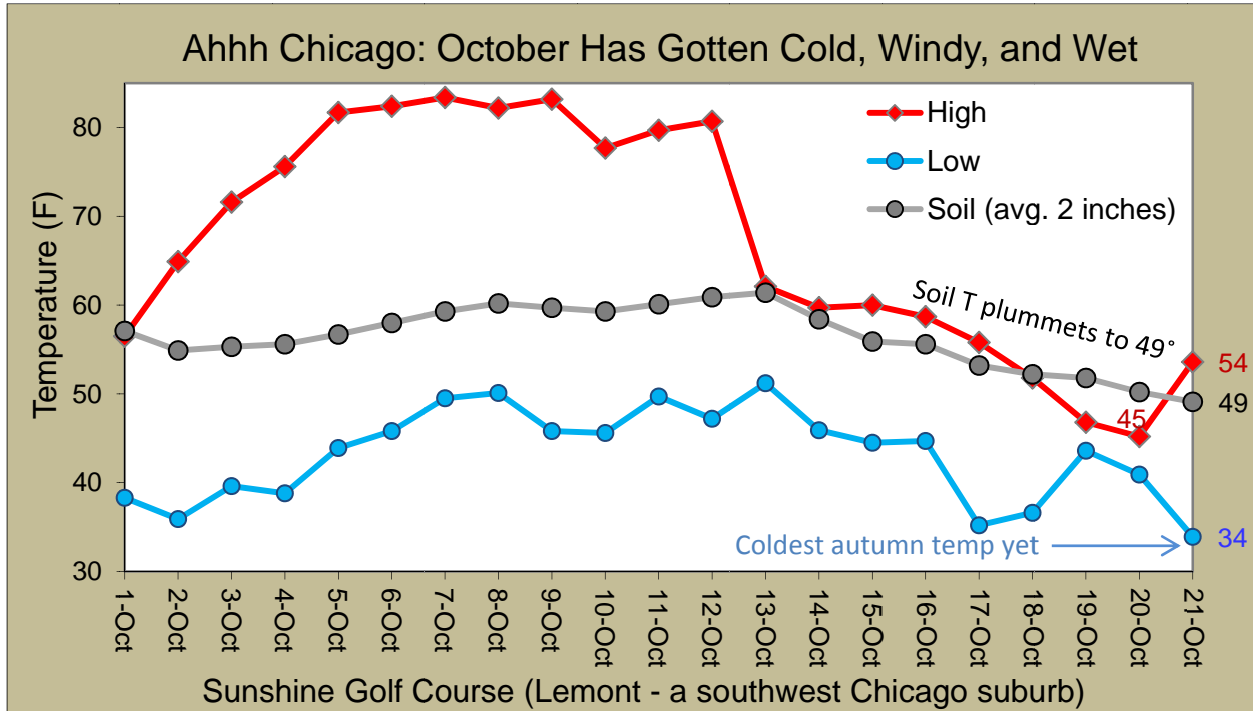


Fall Continues. Cottonwood leaves are now completely down, Sunshine Course. *Settle 10-20-11*

This week saw our first real hard frost as low temps dropped below 30 degrees in places like North Barrington and Aurora. Nevertheless, effects of a warm October are still with us and my weekly scouting would find terrific rust, amazing dollar spot, and that yellow tuft stuff. Superintendents noted earthworms had returned and course projects were in their concluding phases. Next up, irrigation pumps will be off and folks will say two short words – SNOW mold.

Weather Review – We experience our first hard frost on Friday, October 21

It got cold, windy and wet. That little sentence sums up the weather over the past week. The temperature graph shows the rapid decline of temperature in a week. For example, the average soil temperature on Sunshine Course is now below 50 degrees for the first time since 28 April. That means we will now see rapid leaf senescence and onset of turf dormancy from here on out.



Windy, Chilly in Chi versus Warm in San Diego? Thursday, October 13, 2011 Weather Blog

San Antonio National Crop Science Meeting (Oct 16 to 19, 2011). Some 'basic research'

Dollar spot. The big take-home message for me, plant path stuff, was that dollar spot doesn't have the right name and the nearest relatives aren't so near. Rutgers researchers with molecular tools were able to show that Bennett in 1937 named something that now needs a Latin name change - *Sclerotinia homoeocarpa* is no longer adequate given current fungal genetic knowledge. Interestingly, collected isolates of dollar spot group differently based on whether their photosynthetic pathway is C3 (cool-season turf) or C4 (warm-season turf).



I saw a familiar face while in San Antonio. That was Tom Lively (blue shirt) and his ultradwarf 'Champion' bermudagrass greens have few issues, but one can be dollar spot. *Settle 10-16-11*

Many other studies were 'applied research'

Cultural practices versus disease. I think the best was the work from Michigan State that showed am versus pm rolling on golf greens reduced dollar spot. It meant that morning dew/guttation removal could not explain the reduction entirely. Rolling twice in the pm worked well to suppress *S. homoeocarpa* (remember, this name will change). They found rolling increased soil moisture. They found rolling increased microbes and some of those may be providing antagonism towards the dollar spot fungal pathogen (soil microbial activity peaks at 65% water-filled pore space). Specifically both gram positive and gram negative bacteria show increased numbers in response to rolling. It also may be that rolling stimulates natural plant defenses in some way. I would say dollar spot was the star in the realm of turf diseases because we still know so little. What is its real name? What is its biology? What is its epidemiology? How do environmental and cultural practices influence its development?

2011 Dollar Spot Disease Development – Curative Fungicide Approach

Superintendents are always looking for ways to reduce fungicide inputs needed to control turfgrass diseases for a variety of reasons that include reducing potential for environmental impacts as well as gaining financial savings by using fewer products. Dollar spot, caused by the pathogen *Sclerotinia homoeocarpa*, continues to demand the greatest cost from fungicide budgets in northern Illinois – more so than any other disease. This is attributed to the long duration of disease activity which, in our cool-humid region, spans almost the entire growing season from May through October. By comparison, other diseases like brown patch, caused by the pathogen *Rhizoctonia solani*, only appear during the heat of the summer from late June through mid-September. Research continues to push the envelope in seeking ways to best utilize the tools that superintendents have available (i.e., standard and newer fungicide products).

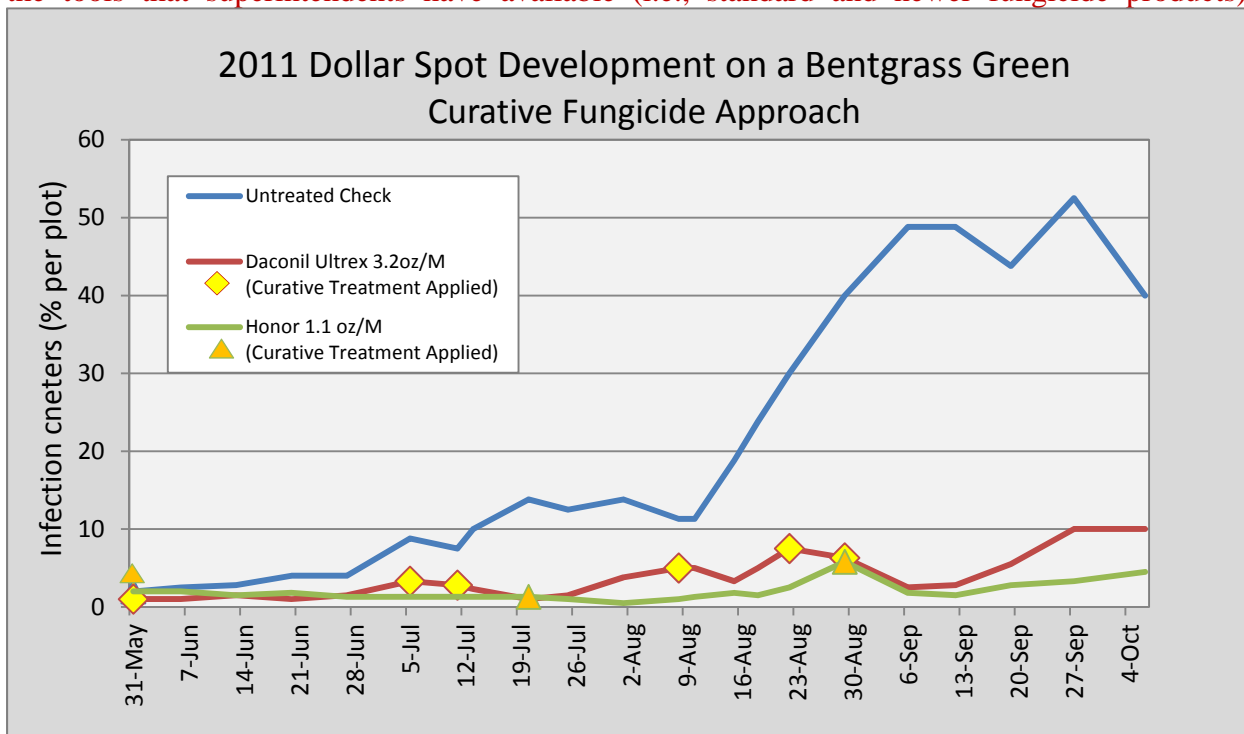


Figure 1. Comparison of 3 trts: 1) Untreated, 2) Chlorothalonil, 3) Pyraclostrobin + Boscalid.

On Sunshine Course, a fungicide study was established on our number 2 golf green beginning in May. The idea was to compare different fungicides and their efficacy on a curative basis. To establish a baseline, treatments were all applied May 31st and included Daconil Ultrex at 3.2 oz, Daconil Ultrex 3.2 oz + Emerald 0.13 oz, Emerald 0.18 oz, Honor 1.1 oz and Insignia SC 0.7 fl oz. Subsequent applications were as needed whenever disease damage levels became objectionable (threshold of 5% dollar spot damage). Between May 31 and September 1 the treatments requiring the most curative applications were Daconil Ultrex and Insignia SC with 6 needed. The Daconil + Emerald and Emerald treatments required a total of 5 applications, but the clear winner was Honor with only 3 applications (May 31, July 19 and August 29). Honor is a combination product with the active ingredients pyraclostrobin (Insignia SC) and boscalid (Emerald) and did not require a second application until brown patch broke through on July 19.

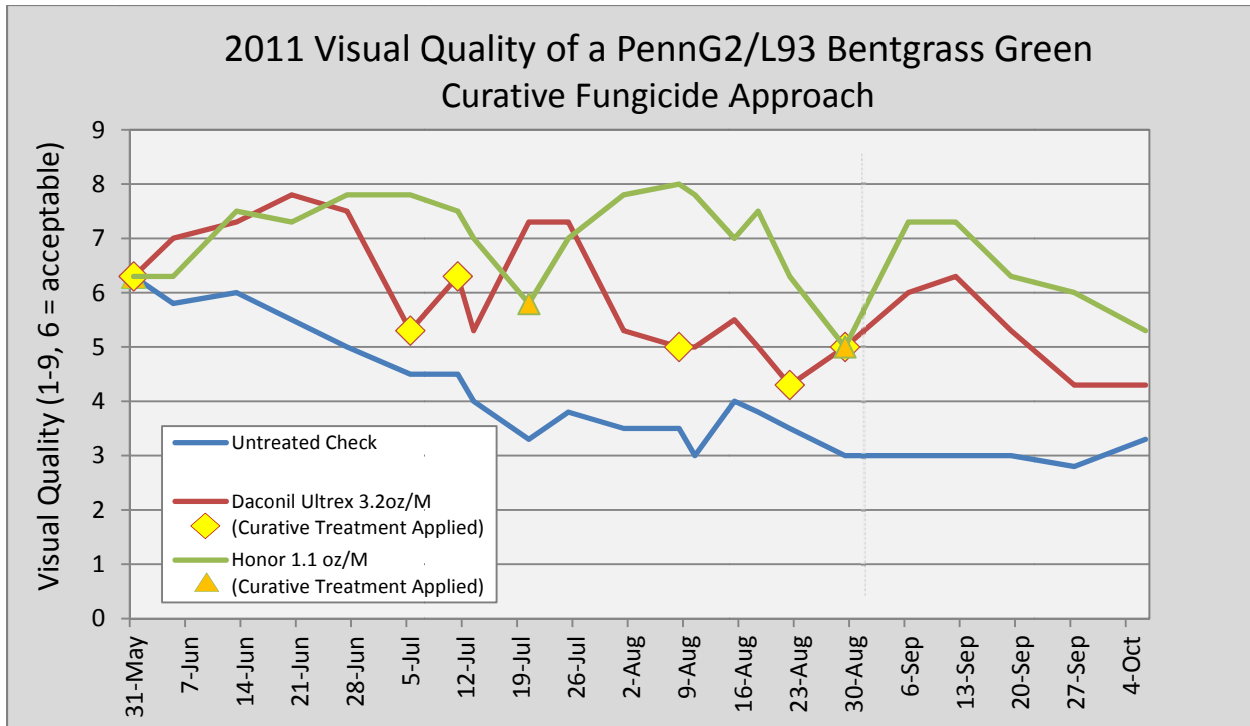


Figure 2. Honor fungicide shows better visual quality ratings due to a longer duration of control for dollar spot and brown patch given the systemic action of its components. In comparison the contact fungicide Daconil Ultrex (chlorothalonil) has a shorter residual.



Dollar spot disease can cause significant levels of damage when left untreated (left). The curative Daconil Ultrex plots (right) begin to show increasing damage 22 days after the final treatments. This makes sense as it is a contact fungicide labeled for 14 days. *Sibicky 9-22-11*

Final Images. I toured San Antonio TPC, Canyons Course, with Jack and Nathalie Fry



The rough is a little different than the Kentucky bluegrass we use in Illinois. This is Tifway 419 (Tif = Tifton, GA). Its growth habit means it won't get near as tall as bluegrass. *Settle 10-16-11*



It was my 1st time to set foot on an ultra-dwarf 'Champion' bermudagrass green. *Settle 10-16-11*



18 Green. Of two courses, Pete Dye's Canyons Course was hosting the AT&T PGA Senior Championship. Tom Lively was kind to give us a tour on the event's last day. *Settle 10-16-11*



I found a discarded ticket and photographed it to tell the story of the event. We saw Nick Price play Fred Couples on hole 18. Jack would say, "Nick has the dark pants Derek." *Settle 10-16-11*

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