



October 15, 2010 Scouting Report – Bone Dry: October has record highs, Rust continues, Drought on our minds, Tim’s new word is Pythium, and Nick says <http://bit.ly/aMupH5>

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

A dry Fall. Labor Day, and we felt the change immediately. Temperatures cooled and humidity dropped. For superintendents it was a welcome sign and rapid turf recovery ensued. During September the dry down was a welcome change from the periodic floods that had devastated some courses this summer. I remember it like yesterday: July 23rd our high temperature was 96 degrees (hottest day of the year recorded on Sunshine Course) and unknowingly, within 24 hours some Chicago suburb golf courses would see 6 to 8 inches of rainfall. The result: flooded golf course fairways could only cook and croak. Fast forward: it’s mid-October. In Chicago (Sunshine Course) we have experienced rain on 3 days. In Lemont our paltry measured total doesn’t go past the tip of my index finger (0.32 inch). In Southern Illinois at Hickory Ridge in Carbondale, Trey Anderson doesn’t even need a gauge. I added it up today – zero, zip, zilch.

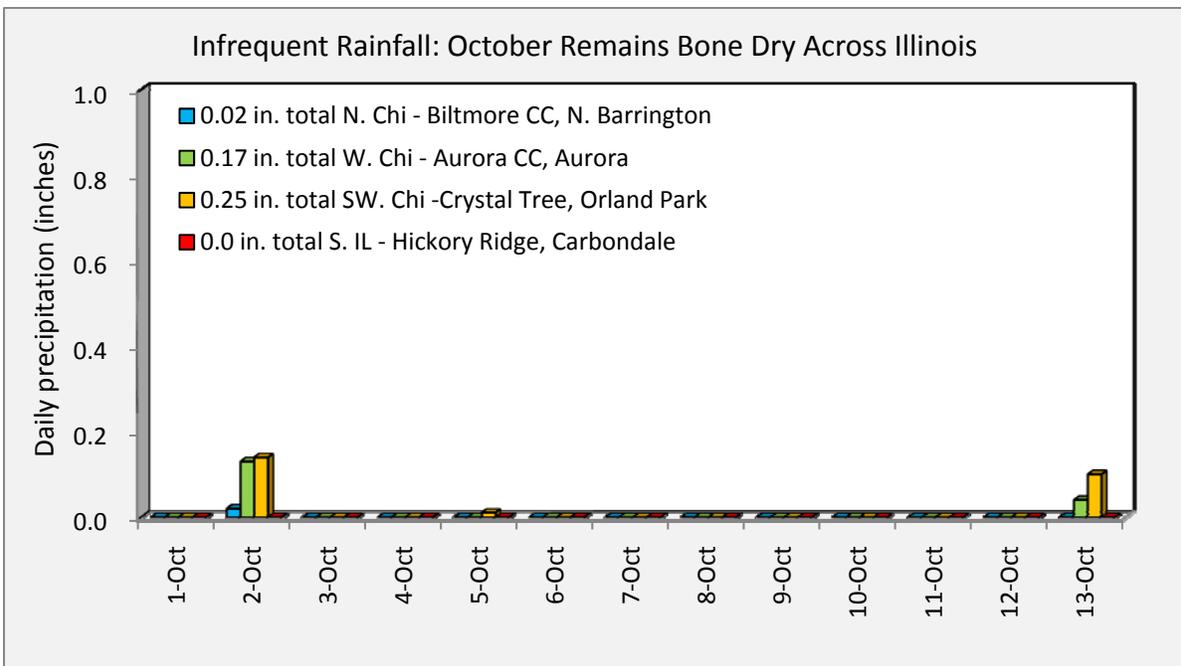
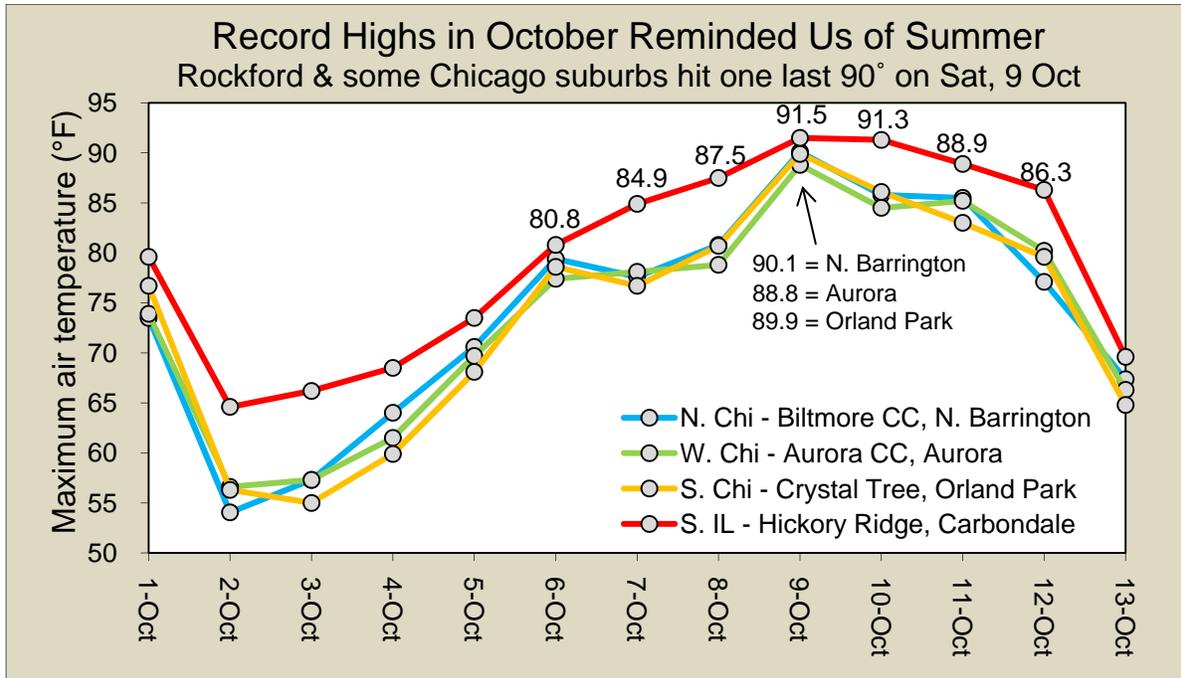


“Put to bed”. Sunshine’s number 1 green has been aerified. In the background irrigation runs (left), trees display fall color (center), and a signed flower trial peaks (right). *Settle 10-11-10*

Week-to-week communications with superintendents remain of a similar theme. “Rust continues to be our biggest “issue”. Large areas of bluegrass are affected – in areas I have never seen it before. Not sure if the dry weather is making it worse or not. We could use some rain. Greens started growing again (with the absence of frosts). Leaves coming down pretty fast.” Still, we cannot complain too much. We are concluding a season many felt would not end. The END.

Record-breaking Late Season Warmth by Meteorologist Steve Kahn, WGN weather staff

“It was more like July than October in the Chicago area Saturday afternoon as record-breaking late-season warmth graced the city. Officially the 86 degree high logged at O’Hare International Airport tied the city’s record high for the date set in 1949, but Midway Airport eclipsed the record with a high of 87. The mercury soared to 90 degrees in many areas including Rockford, Joliet, Kankakee, Morris and Pontiac, virtually uncharted levels for so late in the season. It’s been 35 years since Chicago has experienced a temperature of at least 86 so late in October, dating back to an 88 degree high on Oct. 13, 1975.” <http://blog.chicagoweathercenter.com/>



Can you say Rust on Kentucky Bluegrass? How about *Puccinia*? How about *Uromyces*?



Front and center. You are looking at a Kentucky bluegrass variety named 'Julia'. Julia is susceptible to rust. When rating 50+ newer varieties this week, Julia caught my eye. Why? Well, she was about the only entry with symptoms. It tells us plant breeders are doing a good job to incorporate genes for resistance to rust in newer varieties. Thank you. *Settle 10-15-10*

Drought stress on our minds

Drought has become a major concern as we finish the 2010 growing season. There is good reason. Turf used for golf greens and fairways in the upper Midwest (creeping bentgrass and annual bluegrass) lack are unable to handle drought well. Supplemental irrigation is required. However, other cool-season turf exist that are better adapted. For example, overall resistance is good for Kentucky bluegrass and fescues are very good. Tall fescue relies not on tolerating drought, but on avoiding drought with deep roots. The most drought tolerant tall fescues are the coarser forage types (e.g., 'Kentucky-31'). Research has shown that newer dwarf turf types may come with a cost (e.g., 'Bonsai' tall fescue). A reduced ability to grow deep roots and this means less drought tolerance. (Huang, B., and J. Fry. 1998. Root anatomical, physiological, and morphological responses to drought stress for tall fescue cultivars. *Crop Sci* 38:1017-22.)

Adapted Table. *Applied Turfgrass Science and Physiology*. 2004. Jack Fry and Bingru Huang.

Turfgrass	Overall resistance¹	Drought avoidance²	Drought tolerance³
Kentucky bluegrass	Good	Fair	Good
Annual bluegrass	Poor	Poor	Poor
Tall fescue	Very good	Excellent	Fair
Fine fescues	Very good	Fair	Excellent
Perennial ryegrass	Fair	Good	Poor
Creeping bentgrass	Fair	Fair	Poor
Zoysiagrass	Very good	Good	Excellent
Bermudagrass	Excellent	Excellent	Very good

¹Resistance is the ability to avoid and tolerate drought.

²Avoidance is the ability to maintain quality during drought stress, primarily by deep rooting.

³Tolerance is the ability to recover after experiencing symptoms of drought stress.

Dealing with Drought – Turf Tips 09/29/2010 by Dr. Aaron Patton, Purdue University

<http://www.agry.purdue.edu/turf/tips/turftips.html>

Many turf professionals in central and southern Indiana are trying to figure out how best to cope with the current drought because it is affecting their normal 1) fall seeding, 2) fertilization, 3) herbicide applications and 4) cultivation. Below are some strategies on how to cope.

Drought Facts

- Though turfgrasses perform best with enough regular irrigation during the summer to keep them green and growing, they are very capable of surviving without rain or irrigation.
- Turfgrasses perform much better under slightly dry conditions than under wet or saturated conditions.
- Turfgrass dormancy (brown turf) is a survival mechanisms allowing survival up to up to 5-8 weeks without irrigation/precipitation without significant thinning upon recovery from dormancy. This would be under ideal conditions of no regular traffic, good soil, moderate temperatures, no shade, minimum thatch, etc. However, survival is affected by species, age, shade, fertilization, mowing, traffic, heat, etc., etc.; so optimum survival may not occur on your particular area.

**Tim Sibicky, M. S. - TSibicky@hotmail.com CDGA Turfgrass Research Manager
2010 in Summary, Did I Say the 'P' word? Pythium...**

November will be here before we know it and the local Chicagoland superintendents are beginning to reminisce what a crazy year it has been when it comes to keeping grass alive. Attending a recent Chicagoland Golf Course Superintendents meeting at the Onwentsia Club in Lake Forest, I was able to see firsthand many superintendents experience. They looked back upon this season and shared what a great challenge/journey it had been. We call it '2010'.



Pythium blight damages a creeping bentgrass teebox one day after a 93° F high. *Settle 9-1-10*

One of the meeting topics for the evening was managing Pythium blight, a disease more or less non-existent in the years 2008-2009. From the discussion at hand, it was clear that there are many different approaches and many superintendents have continued preventative or curative chemical programs at their golf courses. However, some superintendents have begun to explore a newer area within the phosphonate products, specifically the phosphites. The phosphonate group includes a variety of products that range from potassium phosphite (Stress-phiter, K-Phite, Nutri Phite), phosphoric acid (ammonium sulfate), and Fosetyl-Al (Aliete, Chipco Signature). They are all very similar occurring as salts or esters of phosphoric acid. However, they act very differently within the plant or against pathogens. Some are labeled and sold as fungicides, while others as fertilizer products.

A complaint this year when using some of the phosphite products was that there were, in certain cases, *Pythium* breakthroughs. Despite these instances, research shows that outbreaks would have been worse had application of these products not been made.

In a study conducted in 2004-2005 under the direction of Peter Landschoot PhD at Penn State University, researchers were able to compare the efficacy of various phosphonates as fungicides against *Pythium* disease. They constructed a specially designed ‘*Pythium* chamber’ to maintain heat, humidity and provide the necessary environmental conditions for disease development. The April 2006 edition of Golf Course Management magazine (GCM) displayed their results.

In 2004, they were able to get excellent suppression with better than 95% control as seen in **Figure 2**. However, in 2005, warmer environmental temperatures promoted higher levels of disease. During this second year of the study the phosphonate products were still able to provide between 70% and 84% control as seen in **Figure 3**. Among the phosphonates treatments tested, there were no differences. This proved interesting in the ability to get the same level of control when comparing a potassium phosphite product with a Fosetyl-Al.

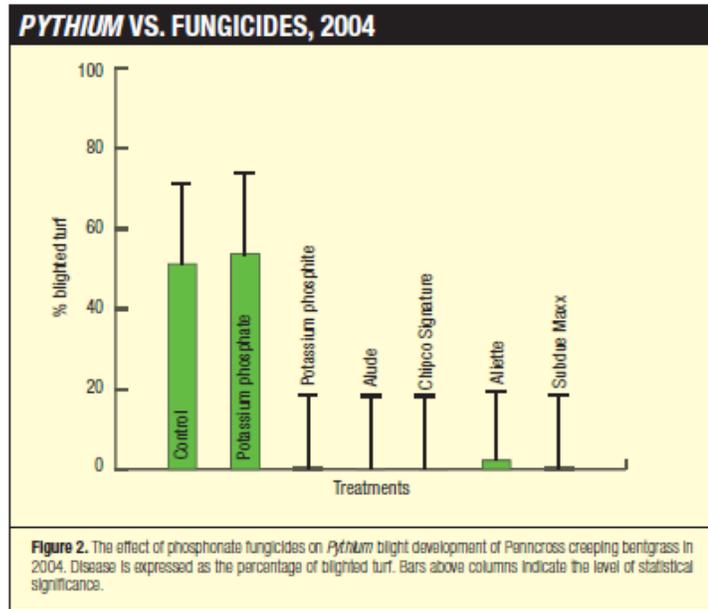


Figure 2. The effect of phosphonate fungicides on *Pythium* blight development of Penncross creeping bentgrass in 2004. Disease is expressed as the percentage of blighted turf. Bars above columns indicate the level of statistical significance.

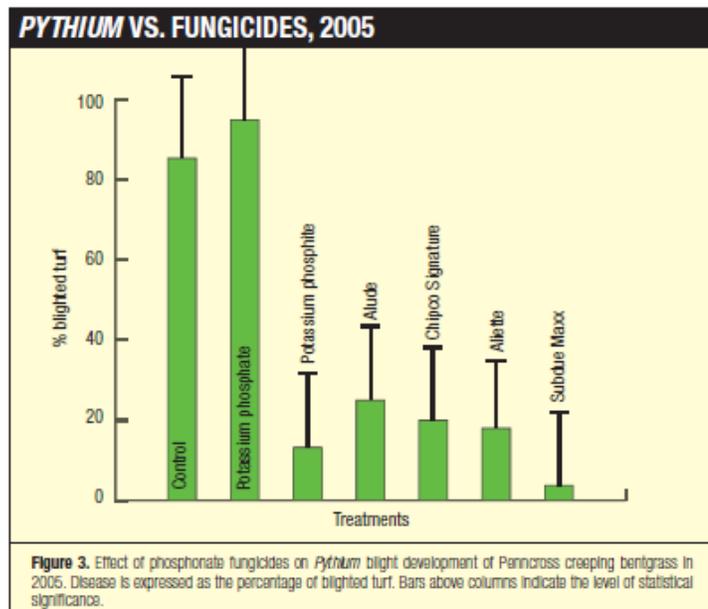


Figure 3. Effect of phosphonate fungicides on *Pythium* blight development of Penncross creeping bentgrass in 2005. Disease is expressed as the percentage of blighted turf. Bars above columns indicate the level of statistical significance.

Future research with phosphonate products is needed in order to fully understand the interactions not only within the plant, but directly against the pathogen themselves. They are good products and the research shows they do work and maybe even do more than we are capable of understanding at this time. Under the highest disease pressures, like we saw in 2010, these products will continue to aid in the reduction of curative applications or spot treatments needed for lowest or wettest turfgrass areas.



Just like fishing... with URL's, size *does* matter!

A URL shortener can make a big fish (www.reallybigwebaddresshere), small (www.littlefish)

My generation of couch potatoes has been shaped by inventions like texting (Vodafone 1992), instant messaging (ICQ 1996), and twitter (2006). If you use any of the previously mentioned forms of instant communication, a URL shortener will be helpful to you.

What is a URL?

An address

A Universal Resource Locator (URL) is the address of a web page on the World Wide Web.

What is URL shortening?

User friendly

URL shortening is a technique on the internet where a provider makes a web page available under a very short url in addition to the original address. (Wikipedia) For example, the address: <http://napervilleccgrounds.blogspot.com>

Can be shortened to: <http://bit.ly/aMupH5>

Both still function as links, but the shorter one is more user friendly.

Why should I use a URL Shortener?

3 reasons

1. From both a design and marketing perspective, short url's are much more desirable.

2. If you use twitter, then you know tweets are limited to 140 characters. A short url allows you to use more characters to express your thought.

3. Some url shorteners give real-time click data. This is beneficial if you are trying to track the effectiveness of your communication through a blog, email, or tweet.



Settle 10-7-10

How Do I Shorten Links?

3 steps

1. Navigate your browser to one of the many url shorteners, I prefer www.bit.ly

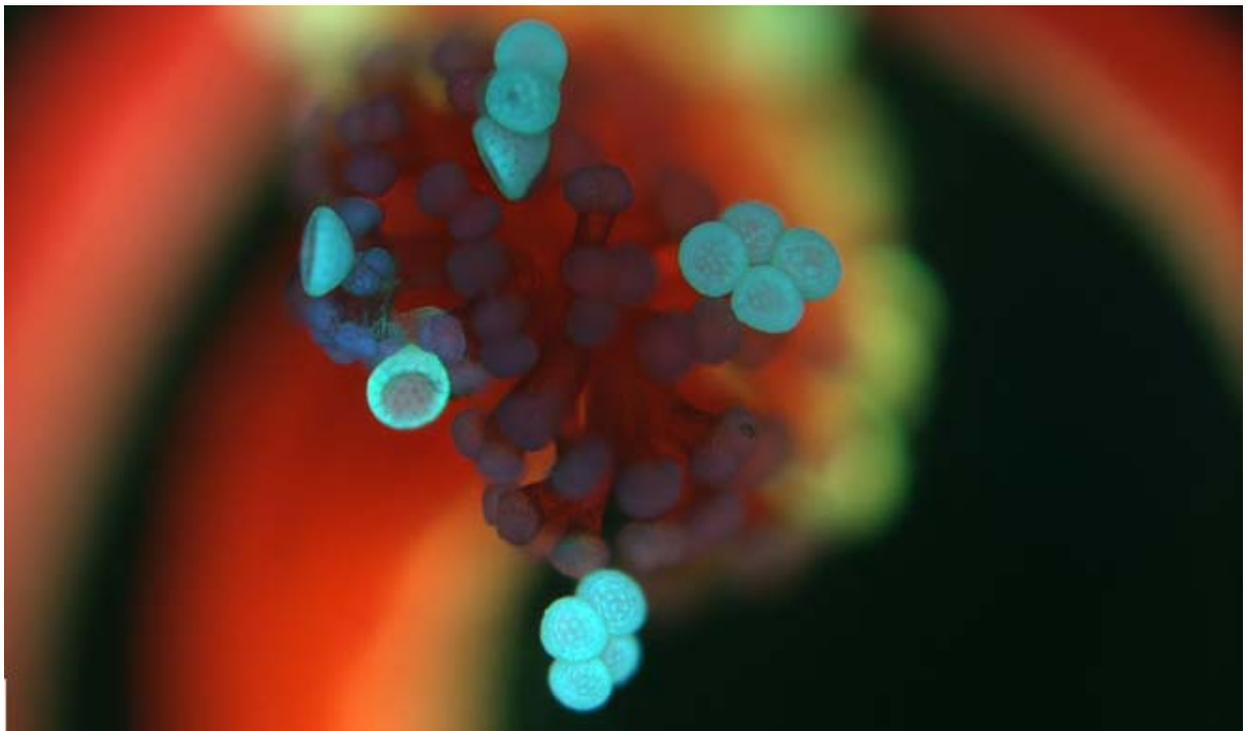
2. Copy and paste a url into the text box that says 'shorten with bit.ly' then press the shorten button.

3. Voila! You now have a shortened link that you can copy and paste anywhere. To get click stats you need to open a free bit.ly account.

Final images – Nature under the microscope *courtesy wired.com Top 20 Microscope Images*
www.wired.com/wiredscience/2010/10/top-20-microscope-photos-2010/?pid=402&viewall=true



Number 17. *Ichneumon* wasp compound eye and antenna base (40X), Reflected (Episcopic) Light Illumination. *Charles Krebs, Issaquah, Washington*



Number 16. *Mirabilis jalapa* (four o'clock flower) stigma with pollen (100X), Epifluorescence and 3D reconstruction. *Robert Markus, Szeged, Hungary*

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