Welcome back! Winter was especially frigid this year throughout the country, and made most of us wonder what warmth felt like. Every month since September 2013 has been below normal, including all of meteorological winter (Dec – Feb) which averaged more than 5 degrees below normal and ended as the coldest winter in 35 years. In particular, February ended with a bang; 9 degrees below normal and the ninth coldest February on record. That bang was unfortunately again on monthly heating bills.

Early March followed the same cold pattern, but now we may be entering the up-and-down temperature pattern typical of Missouri springs. The passing of a cold front and collision of air mass temperatures brought some strong rain events to most of central Missouri yesterday. In Columbia we recorded 0.63” of rain followed by snow, while other areas got up to an inch from the system. This precipitation event was welcome, as most of Missouri ended February with 0.75” below average precipitation and in a moderate drought. This is despite the early February snow, which weighs so prominently on our minds but reflects very little in our overall water budget. Remember, 10” of an “average” snow equals only about 1” of water.
Some Day My Spring Will Come…

Quick Hits:

- **Spring Seeding:** Soil temperatures are finally recovering after an extended frozen period. Many commented this was the deepest frozen soil line they could remember, which led to us finding out something very interesting about one of our research putting greens (see below). If spring seeding cool season lawn turfgrass, you may think about doing so over the next week at or below I-70. Even though the average frost date is April 10-15 throughout the region, most cool season seedlings can take a little frost exposure. Additionally, the more time you give the seedlings to develop before the summer stress/disease season, the better… and starter fertilizer can be applied without as much threat of increasing disease. As a reminder, the best time to maximize seeding of cool season turfgrasses is early – mid September.

- **Summer Disease Prediction:** I was asked to give a disease prognostication for this summer. In particular, would *Pythium* outbreaks be less or more due to the cold winter weather and snow cover? With my purple swami hat on, my reply was a simple “I don’t know.” There is no research on the subject that I am aware of. One of my prominent turfgrass pathology mentors has the opinion that the harshness of a particular winter has very little to do with...
the resultant disease pressure the following spring/summer, and I tend to agree with him. Most pathogens (and other pests) have already evolved the ability to survive in our transition zone and its wild temperature extremes; otherwise they wouldn’t be here. Now, if we were in Key West and had the winter we just experienced, there may be some repercussions on pest outbreaks (and probably the plants as well). To close with a particular note of importance, we pathologists store many of our pathogen isolates in an -80 degree freezer, bring them back out, and they grow and cause disease just fine. That’s -80 degree Celsius, not Fahrenheit.

**Pre-emergence herbicide:** Whoa, not yet. The time will be soon enough.

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**Heave-Ho!!**  
A. 3/12/14: A scouting run on the MU turf farm resulted in a “pimple” on the A4 research green.  
B. The raised turf was approximately 5 ft X 5 ft and 1 ft higher than normal.

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**Rising of the Research Green:** In late February, (on a rare day our noses weren’t freezing off), Daniel Earlywine, John Koehler (future graduate student), and I came upon an interesting phenomenon. A perfect 5 X 5 ft plot was elevated about 1 foot higher than the rest of our approximately 9000 sq ft ‘Penn A4’ research green. None of us could come up with an explanation, so we asked our resident historical expert, Dr. Brad Fresenburg. Brad explained the area was the site of a previous sub-soil experiment, and that plot had calcined clay installed 12” below the surface. As clays will do when frozen, the subsurface expanded and lifted the plot higher than the rest of the green. The area hasn’t fallen yet if any CoMo locals want to come see the weirdness. Makes one wonder if this could be taken advantage of to create “dynamic” greens in which the putting green slopes could be changed by freezing and thawing the subsoil? The heaving may also have the added benefit of aeration and decreased compaction as well...

**Fresenburg Wins Award:** Speaking of Dr. Fresenburg, I would be remiss not to congratulate him on his recent honor of being awarded the Dr. William H. Daniel Founders Award from the Sports Turf Managers Association. This
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highest award is given to recognize those who have made significant contributions to the STMA and their profession. Brad definitely embodies this award with his sustained dedication to the industry, and we here at Mizzou are fortunate to have him as our colleague.

Third Year Anniversary

Yesterday marked the three-year anniversary of this integrated website/listserv and associated pest blog. This is the 61st report over the period, and I’d like to thank you for taking the time to visit the site, and for your patronage. Hopefully, it has opened some dialogue between us or resulted in a benefit to your turfgrass management program.

Now for some of the interesting usage numbers over the three years...
- The email listserve started with 435 members, and through voluntary subscriptions (and withdrawals) has grown to 562 members.
- The website has been visited 16,406 times, with a total of 25,975 page views.
- The US of A accounts for 93% of the visits with Canada a distant second at 1.26%. Users in 18 different countries, and 43 out of the 50 states have visited the site (criteria = more than 10 visits/longer than 30 second stay).
- Missouri accounts for the most visits (47%), followed by Illinois (9%), Kansas (6%), New York (3%) and Texas (2.5%).
- Not surprisingly, the most popular page is the 4/1/11 disease report entitled “Spring Preventive Fungicides – the WHEN” with 597 visits. (Click on it again to really make its head swell).

Overall, I’m very pleased with the response, and again hope we’ve made a positive impact. We are continually developing the website and adding content. We have added (and are still adding content to) “Disease Profiles” this year, which includes management information for the 20 biggest disease or disease-like problems in Missouri. We started publishing “Research Reports” to the site last year, which includes reports, graphs and pictures of the disease control trials we’ve conducted since 2011. We also started a simple survey, which will help serve to drive our research direction, and gauge current management trends. We hope this information can serve as a resource in your management program, and please contact me if there is content you would like to see on the site.

Enjoy March Madness.

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