July temperatures are 4-6 degrees below normal around the state, and adding in the forecast for the rest of today and tomorrow, the month should end as the 5th coolest on record. This is pretty impressive considering temperature observations date back 120 years, and other than 2009, is the coolest July in 64 years. July is typically Missouri’s warmest month, (high temperatures average 87 - 90F across the state) so the temperature break is welcome particularly for corn, soybeans, and our cool season turfgrasses. Certainly, all of us will take this over July 2012, which tied with 1980 as the 5th warmest on record. Remember, no matter how cold, no jackets in July! It'll jinx us.

Unfortunately, precipitation has also been well below normal this month. Local areas are averaging 0 - 2.5” below normal in July, with the driest region ranging from St. Louis down through I-44 to SW Missouri. Non-irrigated turfgrasses are dormant or beginning to go dormant in many areas, as a mild drought impacts the state. This trend looks to continue for the next 7 days, as we look to miss most of the precipitation. The extended forecast for next week, however, (shown above) shows a glimmer of precipitation hope as a front is expected to stall over the region and provide steady rainfall chances. We are also expected to continue being blue (colder than normal), which should keep our spirits and turfgrass health feeling otherwise.
No Jacket Necessary for $ Spot

Quick Hits:

**Field Day Recap**

A. Patricia Wallace, Director of the MU Plant Diagnostic Clinic, discusses plant diagnostic techniques & sampling procedures.
B. Dr. Hank Stelzer discusses 1000 cankers diseases, and the recent observation of EAB in STL.
C. Dr. Brad Fresenburg presents information on lawn fertilization practices and new technology.

- **Mizzou Turfgrass & Ornamental Field Day Recap:** Even though it took place on the hottest day of the year, approximately 200 attendees braved the heat and participated in our field day last week on July 22nd. The event is held with administrative and financial support from the Missouri Turfgrass & Ornamental Council ([www.motoc.org](http://www.motoc.org)). Ten sponsors also warranting particular recognition for defraying the costs of the event include Syngenta, Bayer, BASF, Redexim, GR Robinson Seed, Dow, Hummert, John Deere Landscapes, Macro-Sorb, and Erb Turf Equipment. Twenty-three vendors also participated in the event, and we thank them for their support.

So what happened... Where to begin? Faculty programs led by Drs. Bruce Barrett, Brad Fresenburg, Pat Guinan, Hank Stelzer, Dave Trinklein, Xi Xiong, and myself discussed topics ranging from weather patterns and stations, billbug control, tree pest issues, lawn fertilization and management, flower selections, native plant selections, turfgrass herbicide use, current NTEP trials, turfgrass disease control, and disease diagnosis. We’ll have the 2014 field research booklet available shortly, but the [2011-2013 field day booklets are currently available here](http).

- **Regional University Field Days:** With all of this cool weather, why not catch another field day or two this year? Our colleagues at University of Arkansas, Drs. Mike Richardson and Doug Karcher, are holding their biennial field day next Wednesday, August 6th. After being a part of the event in 2012, I can tell you it is an incredibly interesting and informative event, and you won’t be disappointed to drive down. [Information and registration for the U. of Arkansas Field Day can be found here](http).

From there, you can head on over to Manhattan, KS and check out our colleagues at Kansas State University during their Kansas Turfgrass Field Day on Thursday, August 7th. [Registration and the information for the K-State Field Day can be found here](http).
No Jacket Necessary for $ Spot

- **MVGCSA Keep It Green Initiative:** The Mississippi Valley Golf Course Superintendents Association hosted a trivia night at St. Ann Community Center last Friday evening as a fundraiser to support our MU turfgrass research program. This initiative, termed "Keep It Green", has been a great funding source for our programs, and I believe I speak for the whole turfgrass group in saying thank you to the MVGCSA and all of those involved in Keep It Green.

- **Localized Dry Spot on Putting Greens:** With the drier weather of late, we are observing some instances of localized dry spot on putting greens. When surfactants (wetting agents) are being used, the problems are occurring when the re-application interval is close to or has expired. Realize that not all hydrophobicity will occur within the top inch of the soil profile, particularly if a layer of newer topdressing sand is present. The layers of organic matter throughout the rootzone may be the issue, and targeting these areas to increase water infiltration can be critical. These layers can trap water above or below them, and not surprisingly we tend to observe more disease activity such as take-all patch and Pythium root rot along these layers.

  Monitoring volumetric water content with a TDR is a good modern tool for detecting potential problems with water repellency. However, this shouldn’t completely replace the tried, true and very simple water droplet test. Use a soil profiler to take a sample down to 6-8”, lay it open, look for any layering, and use an eye dropper to place water droplets down the profile. If the droplets don’t infiltrate for 30 seconds to a minute, consider aerification and or wetting agent use to aid water movement. The water droplet test can be conducted right on the green and is fairly non-obtrusive, as the sample can be replaced after completion to minimize impact on play. It is also a good method to evaluate the efficacy of a wetting agent application, and make sure you are getting the product down far enough into the root zone with post-application irrigation.
No Jacket Necessary for $ Spot

Dollar Spot Doesn’t Mind a Cool July

Notice it took a while to get to the disease/pest issues in this update? Lows in the high 50s/low 60s and low 80 degree highs will do that, as brown patch and other warmer weather diseases may have occurred sporadically but haven’t ignited in their normal full glory. Dollar spot, however, has pressed on this July and truly appreciates these temperatures along with us. We normally observe dollar spot pressure decline during the heat of summer, but with the cool July, dollar spot has stolen summer’s teeth and is using them to cause considerable damage on untreated turfgrasses. We are observing the disease regularly on zoysiagrass and bermudagrass (a sign that it needs some N), and creeping bentgrass and Kentucky bluegrass plots have been especially damaged this year with new infection centers still popping up. A few additional fungicide applications may need to be targeted toward its control this season, and a solid rotation of fungicide chemistries will be necessary lest resistant strains may be more commonplace this fall.

New fungicides such as Lexicon and Briskway have performed very well in our trials and should be considered in the rotation, but remember that each of these are still within other currently used groups. Both Lexicon (Group 7:SDHIs & Group 11: QoIs) and Briskway (Group 3:DMIs & Group 11:QoIs) are formulations with two active ingredients and therefore two fungicide groups, which can make rotation tricky. Remember to rotate the groups, not just the active ingredients. On newer labels, the groups can be found at the top of the fungicide label as shown above. If not there, you can also find this information at Dr. Paul Vincelli’s great resource, ask me, or ask your fungicide purveyor. Additionally, it’s suggested to add a contact fungicide such as Daconil or Secure into the rotation or tank-mix periodically, as resistant strains of the dollar spot fungus to these multi-site contacts have not been detected. Dr. Paul Koch at University of Wisconsin also recently wrote a great article on this subject in the turf disease blog, with specific emphasis on the SDHI class of chemistry. Check it out here.